

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2021

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_ to \_\_\_

Commission File Number 001-36632

**emcore**<sup>®</sup>

**EMCORE Corporation**

(Exact name of registrant as specified in its charter)

New Jersey

(State or other jurisdiction of incorporation or organization)

22-2746503

(I.R.S. Employer Identification No.)

2015 W. Chestnut Street, Alhambra, California, 91803

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **(626) 293-3400**

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common stock, no par value	EMKR	The Nasdaq Stock Market LLC (Nasdaq Global Market)

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act  Yes  **No**

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.  Yes  **No**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.  **Yes**  **No**

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).  **Yes**  **No**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.  Large accelerated filer  **Accelerated filer**  Non-accelerated filer  **Smaller reporting company**  Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  Yes  **No**

The aggregate market value of common stock held by non-affiliates as of March 31, 2021 (the last business day of the most recently completed second fiscal quarter) was approximately \$199.0 million, based on the closing sale price of \$5.46 per share of common stock as reported on the Nasdaq Global Market. For purposes of this disclosure, shares of common stock held by officers and directors and by each person known by us to own 10% or more of outstanding common stock have been excluded. This determination of affiliate status is not necessarily a conclusive determination for any other purpose.

As of November 29, 2021, the number of shares outstanding of no par value common stock totaled 36,990,099.

**DOCUMENTS INCORPORATED BY REFERENCE**

In accordance with General Instruction G(3) of Form 10-K, certain information required by Part III hereof will either be incorporated into this Annual Report on Form 10-K by reference to the Definitive Proxy Statement for the Annual Meeting of Shareholders filed within 120 days of the fiscal year ended September 30, 2021 or will be included in an amendment to this Annual Report on Form 10-K filed within 120 days of September 30, 2021.

**EMCORE Corporation**  
**FORM 10-K**  
**For the Fiscal Year ended September 30, 2021**  
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**CAUTIONARY NOTE  
REGARDING FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current expectations and projections about future events and financial trends affecting the financial condition of our business. Such forward-looking statements include, in particular, projections about future results included in our Exchange Act reports and statements about plans, strategies, business prospects, changes and trends in our business and the markets in which we operate. These forward-looking statements may be identified by the use of terms and phrases such as "anticipates," "believes," "can," "could," "estimates," "expects," "forecasts," "intends," "may," "plans," "projects," "should," "targets," "will," "would," and similar expressions or variations of these terms and similar phrases. Additionally, statements concerning future matters such as expected liquidity, development of new products, enhancements or technologies, sales levels, expense levels, expectations regarding the outcome of legal proceedings, and other statements regarding matters that are not historical are forward-looking statements. Management cautions that these forward-looking statements relate to future events or future financial performance and are subject to business, economic, and other risks and uncertainties, both known and unknown, that may cause actual results, levels of activity, performance, or achievements of our business or the industries in which we operate to be materially different from those expressed or implied by any forward-looking statements. You are urged to carefully review the disclosures we make concerning risks and other factors that may affect our business and future financial performance, including those made below under "Summary Risk Factors" and in [Part I, Item 1A, "Risk Factors"](#) of this Annual Report on Form 10-K, as such risks and other factors may be amended, supplemented, or superseded from time to time by subsequent reports we file with the Securities and Exchange Commission ("SEC"). These cautionary statements apply to all forward-looking statements wherever they appear in this Annual Report.

Forward-looking statements are based on certain assumptions and analysis made in light of experience and perception of historical trends, current conditions, and expected future developments as well as other factors that we believe are appropriate under the circumstances. While these statements represent judgment on what the future may hold, and we believe these judgments are reasonable, these statements are not guarantees of any events or financial results. All forward-looking statements in this Annual Report are made as of the date hereof, based on information available to us as of the date hereof, and subsequent facts or circumstances may contradict, obviate, undermine, or otherwise fail to support or substantiate such statements. We do not intend to update any forward-looking statement to conform such statements to actual results or to changes in expectations, except as required by applicable law or regulation.

**SUMMARY RISK FACTORS**

Our business is subject to varying degrees of risk and uncertainty. Investors should consider the risks and uncertainties summarized below, as well as the risks and uncertainties discussed in [Part I, Item 1A, "Risk Factors"](#) of this Annual Report on Form 10-K. Additional risks not presently known to us or that we currently deem immaterial may also affect us. If any of these risks occur, our business, financial condition or results of operations could be materially and adversely affected.

Our business is subject to the following principal risks and uncertainties:

- the effects of the COVID-19 pandemic and other potential future public health crises, epidemics, pandemics or similar events are uncertain and could have a material and adverse effect on our business, financial condition, operating results and cash flows;
- our small size results in volatility in our cash flow, results of operations and growth prospects, and we could experience revenue fluctuations due to our dependence on a few products for our success;
- we are substantially dependent on revenues from a small number of customers and may experience fluctuations in the mix of products and customers in any period;
- we are subject to the cyclical nature of the markets in which we compete and any future downturn or decline in spending for Cable TV ("CATV") and optical communications networks may reduce demand for our products and revenue;
- customer demand is difficult to forecast and if we are unable to match production with customer demand, our results of operations could be negatively impacted;
- we are subject to risks related to our acquisitions, including that (a) the revenues and net operating results obtained from the Systron Donner Inertial, Inc. ("SDI") business or any other acquired business may not meet our expectations, (b) the costs and cash expenditures for integration of the SDI business operations or any other acquired business may be higher than expected, (c) there could be losses and liabilities arising from the acquisition of SDI or any other acquired business that we will not be able to recover from any source, and (d) we may not realize sufficient scale from

- any acquisition and will need to take additional steps, including making additional acquisitions, to achieve our growth objectives;
- our failure to successfully manage the transition of certain of our manufacturing operations from our Beijing facility to a contract manufacturer's ("CM") facility could harm our business, financial condition or results of operations;
- changes in United States ("U.S.") and international trade policies, particularly with regard to China, may adversely impact our business and operating results;
- our operations in China and significant international sales may expose us to risks inherent in doing business in these geographies;
- we face lengthy sales and qualification cycles for our new products due to the complexity of our products, and, in many cases, must invest a substantial amount of time and money before we receive orders;
- our production could be disrupted and our results of operations and cash flows could suffer if our production yields are low as a result of manufacturing difficulties;
- if we do not keep pace with rapid technological change, our products may not be competitive, and increased spending to develop and improve our technology may adversely impact our financial results;
- pressure from competitors may result in price reductions and periods of reduced demand for our products;
- a failure to attract and retain managerial, technical and other key personnel could reduce our revenue and operational effectiveness;
- our ability to achieve operational and material costs reductions and realize production efficiencies is critical to our ability to achieve long-term profitability;
- our operating results could be harmed if we are unable to obtain timely delivery of sufficient materials or components or if the prices of such materials or components increase;
- the failure of our CM to timely deliver qualified products at reasonable prices could adversely affect our business;
- our vendor-managed inventory programs could result in increased inventory levels and/or decreased visibility into the timing of sales, and shifts in industry demand and inventories could result in significant inventory write-downs;
- any defects in our products may cause us to incur significant costs, divert management's attention or result in a loss of customers or product liability claims;
- our government contracts are subject to risks of budgetary constraints or spending reductions and may subject us to governmental audits, investigations or other scrutiny that could adversely affect our business;
- our business may be materially harmed if we fail to protect our intellectual property and other proprietary rights or are unable to successfully defend against claims of infringement of the rights of others;
- we could be subject to legal consequences if we fail to comply with the Modified Partial Award issued in connection with the proceedings commenced against us by Phoenix Navigation Components, LLC ("Phoenix");
- a cyberattack or other failure or security breach of our information technology infrastructure, or the theft, loss or misuse of personal data, could adversely affect our business and operations;
- our costs of compliance, or failure to comply, with applicable state, federal and international legal and regulatory requirements could increase our operating costs and adversely affect our business;
- we may not be able to obtain capital when desired on favorable terms, if at all, or without dilution to our shareholders; and
- we may undergo an "ownership change" within the meaning of Section 382 of the Internal Revenue Code, which could affect our ability to offset U.S. federal income tax against our net operating losses and certain of our tax credit carryovers.



**PART I.**

**ITEM 1. Business**

**Company Overview**

EMCORE Corporation, together with its subsidiaries (referred to herein as the “Company,” “we,” “our,” or “EMCORE”), was established in 1984 as a New Jersey corporation. We became publicly traded in 1997 and are listed on the Nasdaq Stock Exchange under the ticker symbol EMKR. We are a leading provider of sensors for navigation in the aerospace and defense market as well as a manufacturer of lasers and optical subsystems for use in the Cable TV (“CATV”) industry.

We pioneered the linear fiber optic transmission technology that enabled the world’s first delivery of CATV directly on fiber, and today are a leading provider of advanced mixed-signal products serving the aerospace and defense and broadband communications markets. The mixed-signal technology, at the heart of our broadband communications products, is shared with our fiber optic gyros (“FOGs”) and inertial sensors to provide the aerospace and defense markets with state-of-the-art navigation systems technology. With the acquisition of Systron Donner Inertial, Inc. (“SDI”), a navigation systems provider of scalable, chip-based platforms for higher volume gyro applications utilizing quartz micro-electromechanical system (“QMEMS”) technology, in June 2019, we further expanded our portfolio of gyros and inertial sensors with SDI’s QMEMS gyro and accelerometer technology.

We have fully vertically-integrated manufacturing capability through our indium phosphide (“InP”) compound semiconductor wafer fabrication facility at our headquarters in Alhambra, CA, and through our quartz processing and sensor manufacturing facility in Concord, CA. These facilities support our vertically-integrated manufacturing strategy for quartz and FOG products for navigation systems, and for our chip, laser, transmitter, and receiver products for broadband applications.

We have two reporting segments: (a) Aerospace and Defense and (b) Broadband. Aerospace and Defense is comprised of two product lines: (i) Navigation and Inertial Sensing, and (ii) Defense Optoelectronics. Broadband is comprised of three product lines: (i) CATV Lasers and Transmitters, (ii) Chip Devices, and (iii) Other Optical Products.

Our headquarters and principal executive offices are located at 2015 Chestnut Street, Alhambra, California, 91803 and the main telephone number is (626) 293-3400. For specific information about products or the markets served please visit our website at <https://www.emcore.com>. The information contained in or linked to our website is not a part of, nor incorporated by reference into, this Annual Report on Form 10-K or a part of any other report or filing with the SEC.

**Industries and the Markets We Serve**

We design and manufacture industry-leading QMEMS, lithium niobate and InP chip-level technology to deliver state-of-the-art component and system-level products across our end-market applications. Our best-in-class components and systems support a broad array of applications including navigation and inertial sensing, defense optoelectronics, broadband communications, optical sensing, and specialty chips for telecom and data center applications.

Our Aerospace and Defense products primarily serve the navigation and defense optoelectronics markets. Our Broadband products primarily serve the CATV, optical sensing, telecom and data center markets.

*Aerospace and Defense*

Navigation and Inertial Sensing



Through vertically-integrated infrastructure, we have adapted the same technologies, chip designs, and production assets applicable to our CATV products to state-of-the-art FOG products that have broad application within the aerospace and defense markets for land, sea, air, and space navigation. We leverage our high-volume infrastructure for lower volume, higher value-added product. Our FOG-based product line has been expanded to include inertial measurement units (“IMU”) and inertial navigation systems (“INS”) that provide compelling size, weight, and power (“SWaP”) compared to competing or legacy systems. In June 2019, we expanded our Navigation and Inertial Sensing product portfolio adding the SDI series of QMEMS gyros, accelerometers, IMUs and INS products to target high volume markets and take advantage of our core wafer fabrication and processing capabilities. Sales of Navigation and Inertial Sensing products related to U.S. government contracts or subcontracts may be subject to renegotiation of profits or termination of contracts or subcontracts at the election of the U.S. government or an agency thereof.

- **FOG Gyroscope, IMU, and INS Products** - Our FOG technologies have received multiple U.S. patents and our FOG products have been qualified for several key military programs for applications including unmanned aerial systems, line-of-site stabilization, aviation, and aeronautics. All FOG products feature advanced optics with three components for simplified assembly and higher accuracy, lower noise, and greater efficiency. Our FOG products range from tactical to navigational grade gyros, IMU and INS where specifications for fiber length, angle random walk, and drift rate improve, giving customers flexibility to choose the product and performance level that best meets the customer's application. Our FOG-based IMUs and INS provide compelling SWaP performance compared to competing systems and deliver high-precision with up to ten-times better performance than competing units in compact, portable form-factors.
- **QMEMS Gyroscope, Accelerometer, IMU, and INS Products** - Our QMEMS gyroscopes, accelerometers, IMUs, and INS products deliver SWaP performance and cost advantages over alternative technologies. With SDI's more than 50 years of extensive experience in these technologies, we are developing leading-edge disciplines which are enabling advanced performance capabilities in mission critical applications worldwide.

Our QMEMS products have no moving parts, no friction, no known modes of wear out, and require no recalibration or rebuilding. They deliver industry-leading reliability under demanding conditions through dedicated engineering technology and manufacturing operations excellence, including AS9100 Aerospace Quality System Certification. Our QMEMS products provide precision system solutions and establish high standards for price and/or performance characteristics across guidance, navigation, control, pointing, and stabilization applications in commercial and military aircraft, unmanned autonomous vehicles, land vehicles, precision guided weapons, and industrial and marine platforms.

### Defense Optoelectronics



We have an established history as a pioneer of innovative radio frequency (“RF”) over fiber solutions for high-performance fiber optic links in the terrestrial portion of satellite communications networks. Satellite/microwave band components and complete systems transport an ultra-broadband frequency range including IF, L, S, C, X, DBS, Ku, K, Ka, Q/V and ultra-wideband signal transport. A number of high-dynamic-range applications are supported, including satellite antenna remoting and signal distribution, inter- and intra-facility links, site diversity systems, high-performance supertrunking links, electronic warfare systems, and radar testing. The complete line of satellite and microwave components, subassemblies and systems eliminates the distance limitation of copper-based coaxial systems. The rack-mount Optiva platform RF and microwave fiber optic transport system features a wide range of simple network management protocol managed fiber optic transmitters, receivers, optical amplifiers, RF and optical switches, passive devices, and ethernet products that provide high-performance fiber optic transmission between satellite hub equipment and antenna dishes.

We also offer a series of ruggedized microwave flange-mount transmitters, receivers, and optical delay line products that meet the reliability and durability requirements of the U.S. government and defense markets. These products are tailored to the

requirements of higher frequency applications such as microwave antenna signal distribution, electronic warfare systems, and radar system calibration and testing. They provide customers with high frequency, dynamic range, compact form-factors, and extreme temperature, shock, and vibration tolerance. Sales of Defense Optoelectronics products related to U.S. government contracts or subcontracts may be subject to renegotiation of profits or termination of contracts or subcontracts at the election of the U.S. government or an agency thereof.

*Broadband*

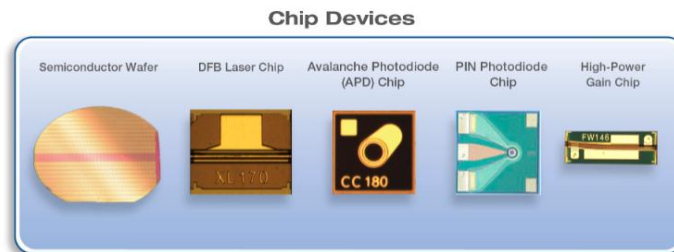
CATV Lasers and Transmitters



We are a leader in providing RF over fiber products for the CATV industry. Our products enable cable systems providers to increase data transmission distance, speed, and bandwidth in hybrid fiber coaxial networks, with less noise and power consumption. This empowers cable service operators to meet the growing demand for high-speed internet, HDTV, ultra HDTV, 4K, video streaming, and other advanced services. Our products include forward and return-path 1310 nm and 1550 nm distributed feedback ("DFB") analog lasers, optical receivers optimized for CATV, data over cable service interface specification ("DOCSIS") 3.1 and wireless, broadband photodiodes used in forward-and return-path broadband, subassembly components, analog fiber-optic transmitters, quadrature amplitude modulation transmitters, and CATV fiber amplifiers.

Our latest series of CATV transmitters feature linear externally modulated laser ("L-EML") technology that enables long distance optical link performance, approaching traditional lithium niobate-based externally-modulated transmitters, and is more cost-effective and far exceeds the performance of DFB laser-based systems. CATV transmitter products are offered on an original equipment manufacturing and original design manufacturing basis for integration into complete CATV transmission systems. We also offer our own branded line of EMCORE Medallion series rack-mount CATV transmitters, optical switches and fiber amplifiers. Our Medallion series products include DOCSIS 3.1, 1550 nm externally-modulated transmitters and 1550 nm directly-modulated transmitters.

Chip Devices

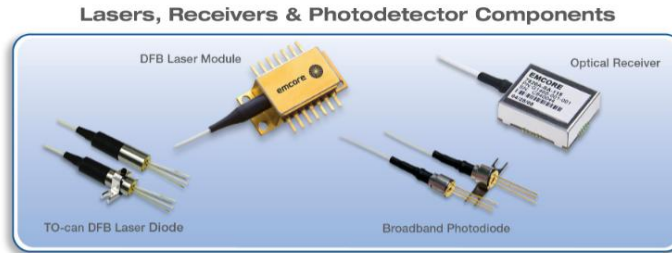


Telecommunications companies throughout the world have been extending their passive optical network ("PON") infrastructure to business, enterprise, and residential customers. We have supported this market through commercialization of products developed in our InP wafer fab to become a merchant supplier of high-performance chip devices to the telecom industry. We also develop other specialty chips for the telecom and data center markets. Our semiconductor wafer fabrication facility features metal-organic chemical vapor deposition ("MOCVD") reactors for 2" or 3" wafer processing for InP-based devices including high-power gain chips, laser chips, avalanche photodiode ("APD") and p-type intrinsic n-type ("PIN") photodetector chips. Our technical team has expertise in device design, epitaxial growth, wafer processing, device characterization, chip-on-block ("COB"), TO-can, and optical sub-assembly from development through manufacturing.

- **High-Power Gain Chips Products** - Through experience in the telecom tunable module market, we have design and engineering expertise in the development and manufacturing of high-power gain chips for tunable lasers and transceivers utilized in coherent DWDM optical transmission systems.
- **Photodiode Products** - In addition to gigabit passive optical network (“GPON”) and gain chip products, we also offer photodiodes for use in telecommunications and data center applications. These products include, but are not limited to, 2.5G and 10G APD top and bottom illuminated chips, 10G PIN photodiode chips, with additional products in development. In addition, we offer receiver arrays for light detecting and ranging (“LiDAR”) applications on a customized basis.
- **GPON FTTP and Data Center Chip Products** - Our chip device's portfolio is continually developing to support the latest advances in PON including GPON, 10G-EPON, XG-PON, XGS-PON, 4G LTE, and data center applications. Our laser chip devices offering includes 2.5G DFB laser chips.

#### Other Optical Products

Lasers and subsystems are sold into a variety of applications including distributed sensing, LiDAR, and wireless.



- **LiDAR and Distributed Sensing Products** - We offer narrow linewidth 1310 and 1550 nm DFB lasers optimized for LiDAR and distributed sensing applications. With the development of autonomous vehicles advancing rapidly, we have designed a continuous wavelength, coherent optical source laser for frequency modulation continuous wavelength (“FMCW”) sensing LiDAR applications that delivers low linewidths and high power, ideal for integrating into autonomous driving applications.
- **Wireless Communications Products** - Wireless systems providers are building high-performance, integrated wireless distributed antenna system (“DAS”) networks in subway tunnels, stadiums, hotels, high-speed trains, and cruise ships. We have developed linear fiber optic products that are optimized for wireless applications, which we believe integrate extremely well into these systems. They enhance bandwidth and linearity to enable the delivery of consistent, reliable signals in areas where interference is high or signals are weak. Our products for wireless applications include DFB lasers and optical receivers specifically designed for wireless networks, 3 GHz and 6.5 GHz fiber optic links for cellular backhaul, 4G LTE and DAS.

#### **Strategic Plan**

Our strategy is to continue pioneering development of sensing and linear optical systems serving aerospace and defense and broadband communications markets. We aim to design and build innovative products that are valued by our customers with the intention to grow our sensing and linear product lines using innovative technology, either organically or through future acquisitions. We seek solutions that maximize performance in transformative aerospace and defense systems and high-speed communications networks. Our manufacturing approach is focused on the highest standards of precision that enable us to deliver leading-edge products.

#### **Customers**

We have an increasingly global customer base that spans applications across telecommunications and CATV network infrastructure, satellite communications, defense, and aerospace. Major customers include: Cisco Systems Inc., Commscope Holding Company, Inc., and Raytheon Company and their respective affiliates, each of whom represented greater than 10% of consolidated revenue in the fiscal year ended September 30, 2021. See [Note 13 – Segment and Revenue Information](#) in the Notes to Consolidated Financial Statements for additional information about significant customers.

## **Sales and Marketing**

We sell products worldwide through multiple channels made up of our direct sales force, application engineers, third party sales representatives, and distributors. Our sales force is aligned according to product line to maximize expertise. We communicate with customers' engineering, manufacturing, and purchasing personnel throughout the sales cycle to provide optimized customer solutions through product design, qualifications, performance, and price. As a result, we develop strategic and long-lasting customer relationships with tailored products and services. Marketing efforts are focused on increasing brand awareness, communicating our technological advantages, and generating leads. We use a variety of marketing methods, including our website, participation at trade shows, and selective advertising to achieve these goals.

## **Manufacturing**

We utilize MOCVD systems capable of processing a wide range of compound semiconductor-based materials. Operations include wafer fabrication, device design and production, fiber optic module, subsystem and system design and manufacture, and QMEMS gyroscope, accelerometer, and IMU and INS design and manufacture. Operations beyond wafer fabrication are already largely and increasingly manufactured with our electronics manufacturing services ("EMS") partners. We are to a large extent vertically integrated in the manufacture of QMEMS gyroscopes, accelerometers, inertial measurement units and inertial navigation systems design and manufacture within our own facilities. Many of our manufacturing operations are computer monitored or controlled to enhance production output and statistical control.

We seek to minimize ongoing capital investments, while maximizing the variable nature of our cost structure. Where cost advantages can be gained, we continue to outsource the production of certain products, subsystems, components, and subassemblies to contract manufacturers ("CMs") located domestically or overseas. For example, we are in the process of transitioning our CATV Lasers and Transmitters product line from in-house manufacturing in Beijing, China, to a variable cost, EMS model as described in [Part II, Item 7 Recent Developments, "Hytera and Fastrain Transactions"](#).

Our manufacturing processes involve extensive quality assurance systems and performance testing. Our CMs also maintain comprehensive quality assurance and delivery systems that are monitored for compliance. Our facilities have achieved and continue to maintain certification status for quality management systems. Manufacturing facilities located in Alhambra, California and Beijing, China are registered to ISO 9001 standards and the Concord, California facility is registered to AS 9100 standards.

## **Research and Development**

Our industry is characterized by rapid changes in process technologies with increasing levels of functional integration. To that end, research and development efforts focus on maintaining our technological competitive edge to improve the quality and features of existing products. We strive to design new proprietary production technologies and products, improving the performance of existing materials, components, and subsystems, and reducing costs in the product manufacturing process.

Many projects have focused on developing lower cost versions of our existing products. In view of the high cost of development, we solicit research contracts that provide opportunities to enhance our core technology base and promote the commercialization of targeted products.

## **Supplier Relationships**

We depend on a limited number of suppliers for certain raw materials, components, and equipment. Supplier relationships are reviewed to mitigate risks and lower costs, especially where we depend on a few suppliers for critical components or raw materials. Communications with suppliers are ongoing to prevent interruptions and our supply-chain management is focused on maintaining quality while lowering purchase prices through standardized purchasing efficiencies and design requirements. We strive to limit inventories to levels sufficient to meet near-term needs.

We are subject to rules promulgated by the SEC pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding the use of "conflict minerals". These rules have imposed and will continue to impose additional costs and may introduce new risks related to the ability to verify the origin of any "conflict minerals" used in our products.

## **Competition**

The markets we serve are extremely competitive, characterized by rapid technological change. Primary competitive factors are product cost, yield, throughput, performance, reliability, breadth of product line, product heritage, customer satisfaction, and customer loyalty to competitors' technologies. Certain product lines are subject to frequent introduction of new products, short product life cycles, and significant price erosion. We face competition from numerous domestic and international companies, who may have significant engineering, manufacturing, marketing, and financial resources. In addition, competitors may develop enhancements to, or future generations of, products that offer superior price and performance characteristics.

Although our markets are competitive, there are substantial barriers to entry. These barriers include significant dependence on existing patents, the time and costs required to develop products, the technical difficulty in manufacturing semiconductor-based products, the lengthy sales and qualification cycles, and the difficulties in hiring and retaining skilled employees with the required scientific and technical backgrounds.

We sell products to current and future potential competitors. As the markets for our products grow, new competitors are likely to emerge and current competitors may increase their market share. In the European Union ("EU") and certain countries throughout the world, political and legal arrangements encourage the purchase of domestically produced goods, which places us at a disadvantage in those regions or countries.

#### **Order Backlog**

Our product sales are made pursuant to purchase orders, in some cases with short lead times. These orders are typically subject to revision or cancellation and can be made without deposits. Historically, for our CATV Lasers and Transmitters product line, products have typically shipped within the same quarter in which a purchase order is received, and therefore order backlog at any particular date is not necessarily indicative of actual revenue or the level of orders for any succeeding period and may not be comparable to prior periods.

#### **Seasonality**

In certain previous fiscal years, we have experienced an increase in revenues in the third and fourth fiscal quarters due to increased sales of our CATV Lasers and Transmitters product line resulting from an increased build of cable networks during seasons with warmer weather.

#### **Intellectual Property and Licensing**

We protect our proprietary technology by applying for patents to preserve the technology, related know-how, and information as trade secrets. The success and competitive advantage of certain product lines depends heavily on the ability to obtain intellectual property protection for proprietary technologies. We also rely on other intellectual property rights such as trademarks and copyrights where appropriate and acquire, through license grants or assignments, the rights to patents on inventions originally developed by others. We do not believe financial obligations under any of these agreements adversely affects our business, financial condition, or results of operations.

As of September 30, 2021, we held approximately 56 U.S. patents and approximately 66 foreign patents and approximately four additional patent applications pending. The issued patents cover various products in the major markets we serve. Our U.S. patents will expire on varying dates between 2021 and 2038. These patents and patent applications claim protection for various aspects of current or planned commercial versions of our materials, components, subsystems, and systems.

#### **Environmental Regulations**

We are subject to U.S. federal, state, and local laws and regulations concerning the use, storage, handling, generation, treatment, emission, release, discharge, and disposal of certain materials used in research and development and production operations, as well as laws and regulations concerning environmental remediation, homeland security, and employee health and safety. The production of wafers and devices involves the use of certain hazardous raw materials, including, but not limited to, ammonia, phosphine, and arsine. We have in-house professionals to address compliance with applicable environmental, homeland security, and health and safety laws and regulations. We believe that we are currently in compliance with all applicable federal, state, and local environmental protection laws and regulations.

#### **Human Capital**

Our ability to attract and retain qualified personnel is essential to continued success. Competition is intense in recruiting personnel within the semiconductor and fiber optics industries. We are focused on retaining key contributors, developing staff,

and cultivating their continued commitment. As of September 30, 2021, we had approximately 365 employees, including approximately 75 international employees that are located primarily in China. This represents a decrease of approximately 22 employees when compared to September 30, 2020. We believe that employee relations are good. Our employees are not covered by a collective bargaining agreement, and we have never experienced any labor-related work stoppage.

#### **Availability of Information**

We are subject to the information requirements of the Exchange Act. We file periodic reports, current reports, proxy statements, and other information with the SEC. The SEC maintains a website at <https://www.sec.gov> that contains all of our information that has been filed or furnished electronically with the SEC. Available free of charge on the website is a link to the Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable, after such material is electronically filed with, or furnished to, the SEC.

#### **ITEM 1A. Risk Factors**

You should carefully consider the risks described below, some of which have manifested and any of which may occur in the future, in addition to the other information contained in this report before making an investment decision with respect to any of our securities. Our business, results of operations, and financial condition could be materially and adversely impacted by any of these risks, which could in turn adversely affect our stock price. Additional risks not currently known to us or other factors not perceived by us as material risks could also present significant risks to our business.

#### **Risks Related to the Effects of COVID-19 and Other Potential Future Public Health Crises, Epidemics, Pandemics or Similar Events.**

*The full effects of COVID-19 and other potential future public health crises, epidemics, pandemics or similar events are uncertain and could have a material and adverse effect on our business, financial condition, operating results, and cash flows.*

The ongoing COVID-19 pandemic has negatively affected the U.S. and global economy, disrupted global supply chains, significantly restricted travel and transportation, resulted in mandated closures and orders to “shelter-in-place,” and created significant disruption of the financial markets. The full extent of the COVID-19 impact on our operational and financial performance will depend on future developments, including the duration and spread of the pandemic, the emergence of new strains of the virus, the impact of vaccination efforts and related actions taken by the U.S. government, state and local government officials, and international governments to prevent disease spread, all of which are uncertain, out of our control and cannot be predicted.

Facility closures or further work slowdowns or temporary stoppages could occur, which could have a longer-term impact and could delay our development efforts and our deliveries to customers, and other countries have different practices and policies that can affect our international operations and the operations of our suppliers and customers. If significant portions of our workforce are unable to work effectively, including because of illness, quarantines, absenteeism, government actions, facility closures, travel restrictions or other restrictions in connection with the COVID-19 pandemic, our operations will be negatively impacted. For example, COVID-19 related staffing shortages at the Thailand facility of our CM have negatively affected production levels of our CATV module and transmitter products by the manufacturer. We may be unable to perform fully on our contracts and our costs may increase as a result of the COVID-19 outbreak. The impact of COVID-19 could worsen if there is an extended duration of any COVID-19 outbreak or a resurgence of COVID-19 infection in affected regions after they have begun to experience improvement.

In addition, the COVID-19 pandemic has negatively affected, and could have further negative effects on, the timing of the sale and transfer of certain CATV module and transmitter manufacturing equipment that we have agreed, as part of our efforts to streamline operations and move to a variable cost model in our CATV Lasers and Transmitters product line, to sell to Shenzhen Fastrain Technology Co., Ltd. and Hong Kong Fastrain Company Limited (collectively, “Fastrain”), for use by Fastrain in connection with the manufacturing of certain CATV module and transmitter products for us from a manufacturing facility located in Thailand. The sale and transfer of the equipment that remains in our possession is now expected to be completed during the quarter ending March 31, 2022. The timing and completion of these transfers may be further disrupted as a result of COVID-19, which could delay our recognition of the anticipated benefits of transferring this equipment and could disrupt our manufacturing activities for these products.

As described elsewhere in Item 1A, Risk Factors of this Annual Report on Form 10-K for the fiscal year ended September 30, 2021, we rely on other companies to provide materials, major components and products, and to perform a portion of the services that are provided to our customers under the terms of most of our contracts where we rely on these third parties. Many of our suppliers have at times temporarily ceased or limited their operations as a result of COVID-19 and failed to deliver parts



or components to us. For example, COVID-19 driven component shortages and delays have required us to spend significant time sourcing critical components from alternative sources and, in some cases, forced us to design in alternative parts and qualify them with customers on short schedules. These or similar actions may continue in the future, and an extended period of global supply chain disruption caused by the response to COVID-19 could impact our ability to perform on our contracts and, if we are not able to implement alternatives or other mitigations, product deliveries could be adversely impacted.

As a result of COVID-19, we could see reduced customer orders in certain of our product lines, which could adversely affect our revenues, financial performance and cash flows, and could result in inventory write-downs and impairment losses. Significant delays in inspection, acceptance and payment by our customers, many of whom are teleworking, could also affect our revenues and cash flows, and current limitations on access to customer facilities could impact orders. For example, qualification testing for certain of our products continues to be delayed due to customer engineering shortages and limitations on their ability to access their facilities. In addition, limitations on government operations can also impact regulatory approvals such as export licenses that are needed for international sales and deliveries for certain of our products. Government funding priorities may change as a result of the costs of COVID-19, which could adversely affect our revenues arising from government contracts or subcontracts, and with respect to such contracts, we could experience delays in new program starts or awards of future work or in timelines for current programs, as well as the uncertain impact of contract modifications to respond to the national emergency.

The continued spread of COVID-19 has also led to disruption and volatility in the global capital markets, which, depending on future developments, could impact our capital resources and liquidity in the future. If we need to raise additional capital to support operations in the future, we may be unable to access capital markets and additional capital may only be available to us on terms that could be significantly detrimental to our existing stockholders and to our business as a result of COVID-19. We are also monitoring the impacts of COVID-19 on the fair value of our assets. While we do not currently anticipate any material impairments on our assets as a result of COVID-19, future changes in expectations for sales, earnings and cash flows related to intangible assets and goodwill below our current projections could cause these assets to be impaired.

### **Risks Related to Demand, Competition, Product Development and Manufacture, and Operations**

*We have incurred losses from continuing operations and our future profitability is not certain.*

While we achieved income from operations of \$25.6 million in the fiscal year ended September 30, 2021, for the fiscal years ended September 30, 2020 and 2019, we incurred a loss from operations of \$7.0 million and \$36.0 million, respectively. Our operating results for future periods are subject to numerous uncertainties and we cannot be certain that we will be profitable or that we will not experience substantial losses in the future. If we are not able to increase revenue and reduce our costs, we may not be able to achieve profitability in future periods and our business, financial condition, results of operations and cash flows may be adversely affected.

*We are a small company and dependent on a few products for success.*

We are a small company with a narrow, focused portfolio of products. Our small size could cause our cash flow, results of operations and growth prospects to be more volatile and makes us more vulnerable to focused competition. As a small company, we will be subject to greater revenue fluctuations if our older product lines' sales were to decline faster than we anticipate. In addition, we may not be able to appropriately restructure or maintain our supporting functions to fit the needs of a small company, which could adversely affect our business, financial condition, results of operations, and cash flows.

*We are substantially dependent on revenues from a small number of customers. The loss of or decrease in sales from any one of these customers could adversely affect our business, financial condition, results of operations, and cash flows.*

A small number of customers account for a significant portion of our revenue, and dependence on orders from a relatively small number of customers makes our relationship with each customer critically important to our business. For example, for the fiscal year ended September 30, 2021, sales to three customers accounted for an aggregate of 70% of total consolidated revenues, for the fiscal year ended September 30, 2020, sales to three customers accounted for an aggregate of 57% of total consolidated revenues, and for the fiscal year ended September 30, 2019, sales to three customers accounted for an aggregate of 55% of total consolidated revenues. Revenue from any major customer may decline or fluctuate significantly in the future. We may not be able to offset any decline in sales from existing major customers with sales from new customers or other existing customers. Because of reliance on a limited number of customers, any decrease in sales from, or loss of, one or more of these customers without a corresponding increase in sales from other customers would harm our business, operating results, financial condition, and cash flows.



In addition, any negative developments in the business of existing significant customers could result in significantly decreased sales to these customers, which could seriously harm our business, operating results, financial condition, and cash flows, and if there is consolidation among our customer base, customers may be able to command increased leverage in negotiating prices and other terms of sale, which could adversely affect profitability. If we are required to reduce pricing, revenue and gross margins would be adversely impacted. Consolidation among our customer base may also lead to reduced demand for our products, replacement of our products by the combined entity with those of competitors, and cancellations of orders, each of which could adversely affect our business, financial condition, results of operations, and cash flows.

Although we are attempting to expand our customer base, the markets in which we sell our products are dominated by a relatively small number of companies, thereby limiting the number of potential customers. Accordingly, success will depend on the continued ability to develop and manage relationships with significant customers, and we expect that the majority of sales will continue to depend on sales of our products to a limited number of customers for the foreseeable future.

*Future revenue is inherently unpredictable. As a result, operating results are likely to fluctuate from period to period, and we may fail to meet the expectations of analysts and/or investors, which may cause volatility in our stock price and may cause the stock price to decline.*

Our quarterly and annual operating results have fluctuated substantially in the past and are likely to fluctuate significantly in the future due to a variety of factors, some of which are outside of our control. Factors that could cause quarterly or annual operating results to fluctuate include:

- increases or decreases in the markets for customers' products;
- discontinuation by vendors of, or unavailability of, components or services used in our products;
- disruptions or delays in our manufacturing processes or in our supply of raw materials or product components;
- a failure to anticipate changing customer product requirements;
- market acceptance of our products;
- cancellations or postponements of previously placed orders;
- increased financing costs or any inability to obtain necessary financing;
- the impact on our business of current or future cost reduction measures;
- a loss of key personnel or the shortage of available skilled workers;
- economic conditions in various geographic areas where we or our customers do business;
- the impact of political uncertainties, such as government sequestration and uncertainties surrounding the federal budget, customer spending, and demand for our products;
- significant warranty claims, including those not covered by suppliers;
- product liability claims;
- other conditions affecting the timing of customer orders;
- reductions in prices for our products or increases in the costs of raw materials;
- effects of competitive pricing pressures, including decreases in average selling prices of our products;
- fluctuations in manufacturing yields;
- obsolescence of products;
- research and development expenses incurred associated with new product introductions;
- natural disasters, such as hurricanes, earthquakes, fires, and floods;
- pandemics, including COVID-19;
- the emergence of new industry standards;
- the loss or gain of significant customers;
- the introduction of new products and manufacturing processes;
- changes in technology;
- intellectual property disputes;
- customs (including tariffs imposed on our products or raw materials, equipment, or components used in the production of our products), import/export, and other regulations of the countries in which we do business;
- the occurrence of merger and acquisition activities; and
- acts of terrorism or violence and international conflicts or crises.

In addition, the limited lead times with which many customers order our products restrict the ability to forecast revenue. We may also experience a delay in generating or recognizing revenue for a number of reasons. For example, in certain of our product lines, orders at the beginning of each quarter typically represent a small percentage of expected revenue for that quarter. We depend on obtaining orders during each quarter for shipment in that quarter to achieve revenue objectives. Failure to ship these products by the end of a quarter may adversely affect results of operations and cash flows.

As a result of the foregoing factors, we believe that period-to-period comparisons of results of operations should not be solely relied upon as indicators of future performance.

*We are subject to the cyclical nature of the markets in which we compete and any future downturn may reduce demand for our products and revenue.*

In the past, the markets in which we compete have experienced significant downturns, often connected with, or in anticipation of, the maturation of product cycles, for both manufacturers' and their customers' products, and declining general economic conditions. These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels, and accelerated erosion of average selling prices. These markets are impacted by the aggregate capital expenditures of service providers and enterprises as they build out and upgrade their network infrastructure. These markets are highly cyclical and characterized by constant and rapid technological change, pricing pressures, evolving standards, and wide fluctuations in product supply and demand.

We may experience substantial period-to-period fluctuations in future results of operations. Any future downturn in the markets in which we compete, or changes in demand for our products from customers, could result in a significant reduction in revenue and may also increase the volatility of the price of our common stock.

In addition, the communication networks industry from time to time has experienced and may again experience a pronounced downturn. To respond to a downturn, many service providers and enterprises may slow their capital expenditures, cancel or delay new developments, reduce their workforce and inventories, and take a cautious approach to acquiring new equipment and technologies, any of which could cause results of operations to fluctuate from period to period and harm our business.

*Customer demand is difficult to forecast and, as a result, we may be unable to optimally match production with customer demand.*

We make planning and spending decisions, including determining the levels of business that we will seek and accept, production schedules, component procurement commitments, personnel needs and other resource requirements, based on estimates of customer demand. While customers generally provide us with their demand forecasts, they are typically not contractually committed to buy any quantity of products beyond firm purchase orders. The short-term nature of customer commitments and the possibility of unexpected changes in demand for their products limit the ability to accurately predict future customer demand. On occasion, customers have required rapid increases in production, which has strained resources. We may not have sufficient capacity at any given time to meet the volume demands of customers, or one or more suppliers may not have sufficient capacity at any given time to meet our volume demands. Conversely, a downturn in the markets in which our customers compete can cause, and in the past has caused, customers to significantly reduce the amount of products ordered from us or to cancel existing orders, leading to lower utilization of our facilities. Because many of our costs and operating expenses are relatively fixed, reduction in customer demand would have an adverse effect on gross margin, results of operations, and cash flow. During an industry downturn, there is also a higher risk that a larger portion of trade receivables would be uncollectible. In addition, certain arrangements with component vendors require us to purchase minimum quantities of components within specific time periods, which could cause us to hold excess inventories of these components during periods concurrent with a decrease in customer demand for our products.

*The acquisition of SDI and acquisitions of other companies or investments in joint ventures with other companies could adversely affect operating results, dilute shareholders' equity, or cause us to incur additional debt or assume contingent liabilities.*

To increase business, maintain competitive position, or for other business or strategic reasons, we may acquire other companies or engage in joint ventures or similar transactions in the future. For example, in June 2019, we acquired SDI, a navigation systems provider with a scalable, chip-based platform for higher volume gyro applications utilizing QMEMS technology. The acquisition of SDI, and any other acquisitions, joint ventures and similar transactions that we may enter into from time to time, involve a number of risks that could harm our business and result in SDI or any other acquired business or joint venture not performing as expected, including:

- problems integrating the acquired operations, personnel, technologies, or products with the existing business and products;
- failure to achieve cost savings or other financial or operating objectives with respect to an acquisition;

- possible adverse short-term effects on cash flows or operating results, and the use of cash and other resources for the acquisition that might affect liquidity, and that could have been used for other purposes;
- diversion of management's time and attention from our core business to the acquired business or joint venture;
- potential failure to retain key technical, management, sales, and other personnel of the acquired business or joint venture;
- difficulties in retaining relationships with suppliers and customers of the acquired business, particularly where such customers or suppliers compete with us;
- difficulties in the integration of financial reporting systems, which could cause a delay in the issuance of, or impact the reliability of the consolidated financial statements;
- failure to comply with Section 404 of the Sarbanes-Oxley Act of 2002, including a delay in or failure to successfully integrate these businesses into our internal control over financial reporting;
- insufficient experience with technologies and markets in which the acquired business is involved, which may be necessary to successfully operate and integrate the business;
- reliance upon joint ventures which we do not control;
- subsequent impairment of goodwill and acquired long-lived assets, including intangible assets; and
- assumption of liabilities including, but not limited to, lawsuits, environmental liabilities, regulatory liabilities, tax examinations, and warranty issues.

We may decide that it is in our best interests to enter into acquisitions, joint ventures or similar transactions that are dilutive to earnings per share ("EPS") or that adversely impact margins as a whole. In addition, acquisitions or joint ventures could require investment of significant financial resources and require us to obtain additional equity financing, which may dilute shareholders' equity, or require us to incur indebtedness.

*We expect to consider from time to time further strategic opportunities that may involve acquisitions, dispositions, investments in joint ventures, partnerships, and other strategic alternatives that may enhance shareholder value, any of which may result in the use of a significant amount of management resources or significant costs, and we may not be able to fully realize the potential benefit of such transactions.*

We expect to continue to consider acquisitions, dispositions, investments in joint ventures, partnerships, and other strategic alternatives that may enhance shareholder value. The Strategy Committee of the Board of Directors and management may from time to time be engaged in evaluating potential transactions and other strategic alternatives. In addition, from time to time, we may engage financial advisors, enter into non-disclosure agreements, conduct discussions, and undertake other actions that may result in one or more transactions. Although there would be uncertainty that any of these activities or discussions would result in definitive agreements or the completion of any transaction, we may devote a significant amount of management resources to analyzing and pursuing such a transaction, which could negatively impact operations. In addition, we may incur significant costs in connection with seeking such transactions or other strategic alternatives regardless of whether the transaction is completed. In the event that we consummate an acquisition, disposition, partnership, or other or strategic alternative in the future, we cannot be certain that we would fully realize the potential benefit of such a transaction and cannot predict the impact that such strategic transaction might have on operations or stock price. We do not intend to provide updates or make further comments regarding the evaluation of strategic alternatives, unless otherwise required by law.

*If we are unable to successfully manage the transition of certain manufacturing operations from our Beijing facility to a CM's facility, our business, financial condition, results of operations, and cash flows could be harmed.*

In October 2019, we entered into (a) an agreement with Hytera Communications (Hong Kong) Company Limited and Shenzhen Hytera Communications Co., Ltd. (collectively, "Hytera") to transfer and sell to Hytera the equipment that was being used by us to manufacture certain of our CATV modules and transmitters (the "Hytera Asset Purchase Agreement") and (b) an agreement pursuant to which Hytera agreed to manufacture such CATV modules and transmitters for sale to us, and in August 2021, we entered into agreements with Fastrain pursuant to which (a) we and Hytera agreed to terminate the existing agreements described above, (b) Hytera agreed to transfer to Fastrain the equipment previously sold by us to Hytera, (c) we agreed to transfer and sell to Fastrain the equipment that remained to be transferred pursuant to the Hytera Asset Purchase Agreement along with additional manufacturing equipment owned by us and not covered by the Hytera Asset Purchase Agreement (d) Fastrain agreed to manufacture such CATV modules and transmitters for sale to us. In connection with these agreements, the manufacture of our product lines and sub-assemblies previously manufactured at our Beijing facility is in the process of being relocated to a facility located in Thailand.

This transition has involved and could continue to involve the re-acceptance and requalification of certain of our products by customers, potentially creating a competitive disadvantage for our products. These initiatives can be time-consuming, disruptive to our operations, and costly in the short-term. In addition, restrictions related to the COVID-19 pandemic have negatively

affected the timing of the sale and transfer of certain CATV module and transmitter manufacturing equipment to Hytera and Fastrain, as applicable. Travel into Thailand by our manufacturing engineers to support the transfer has at times been difficult, and customer product qualification processes for products being manufactured in Thailand have been delayed at times due to our customers' inability to access their facilities to perform testing. The timing and completion of these transfers may be further disrupted as a result of COVID-19, which could delay our recognition of the anticipated benefits of transferring this equipment and could disrupt our manufacturing activities for these products. This transition has also and will continue to cause us to incur costs associated with the shipment of complex manufacturing equipment. If we are unable to manage this transfer smoothly and comprehensively, we could suffer delays, resulting in harm to our reputation with our customers and potentially loss of customers. If we are unable to successfully manage the relocation or initiation of the manufacture of these products by our CM, our business, financial condition, results of operations and cash flows could be harmed.

*Our products are complex and may take longer to develop and qualify than anticipated and we face lengthy sales and qualification cycles for our new products and, in many cases, must invest a substantial amount of time and money before we receive orders.*

We are constantly developing new products and using new technologies in these products. These products often take substantial time to develop because of the complexity, rigorous testing, and qualification requirements and because customer and market requirements can change during the product development or qualification process. Most of our products are tested by current and potential customers to determine whether they meet customer or industry specifications. The length of the qualification process, which can span a year or more, varies substantially by product and customer and, thus, can cause results of operations and cash flows to be unpredictable. During a given qualification period, we invest significant resources and allocate substantial production capacity to manufacture these new products prior to any commitment to purchase by customers. In addition, it is difficult to obtain new customers during the qualification period as customers are reluctant to expend the resources necessary to qualify a new supplier if they have one or more existing qualified sources. If we are unable to meet applicable specifications or do not receive sufficient orders to profitably use allocated production capacity, our business, financial condition, results of operations, and cash flows may be adversely affected.

Historical and future budgets for operating expenses, capital expenditures, operating leases, and service contracts are based upon assumptions as to the future market acceptance of our products. Because of the lengthy lead times required for product development and the changes in technology that typically occur while a product is being developed, it is difficult to accurately estimate customer demand for any given product. If our products do not achieve an adequate level of customer demand, our business, financial condition, results of operations, and cash flows may be adversely affected.

*Our products are difficult to manufacture. Production could be disrupted and results of operations and cash flows could suffer if production yields are low as a result of manufacturing difficulties.*

We manufacture many of our wafers and products in our own production facilities. Difficulties in the production process, such as contamination, raw material quality issues, human error, or equipment failure, could cause a substantial percentage of wafers and devices to be nonfunctional. These problems may be difficult to detect at an early stage of the manufacturing process and are often time-consuming and expensive to correct. Lower-than-expected production yields may delay shipments or result in unexpected levels of warranty claims, either of which could adversely affect results of operations and cash flows. We have experienced difficulties in achieving planned yields in the past, particularly in pre-production and upon initial commencement of full production volumes, which have adversely affected gross margins. Because the majority of our manufacturing costs are fixed, achieving planned production yields is critical to results of operations and cash flows. Changes in manufacturing processes required as a result of changes in product specifications, changing customer needs, and the introduction of new product lines could significantly reduce manufacturing yields, resulting in low or negative margins on those products. In addition, transitioning to automation in certain manufacturing processes could result in manufacturing delays or significantly reduce manufacturing yields.

Manufacturing yields depend on a number of factors, including the stability and manufacturability of the product design, manufacturing improvements gained over cumulative production volumes, the quality and consistency of component parts, and the nature and extent of customization requirements by customers. Higher volume demand for more mature designs requiring less customization generally results in higher manufacturing yields than products with lower volumes, less mature designs and requiring extensive customization. Capacity constraints, raw materials shortages, logistics issues, the introduction of new product lines and changes in customer requirements, manufacturing facilities, or processes or those of third-party CMs and component suppliers have historically caused, and may in the future cause, significantly reduced manufacturing yields, negatively impacting the gross margins on, and production capacity for, those products. Ability to maintain sufficient manufacturing yields is particularly important with respect to certain products we manufacture, as a result of the long manufacturing process. Moreover, an increase in the rejection and rework rate of products during the quality control process

before, during, or after manufacture would result in lower yields, gross margins, and production capacity. Finally, manufacturing yields and margins can also be lower if we receive and inadvertently use defective or contaminated materials from suppliers.

We also have substantial risk of interruption in manufacturing resulting from fire, natural disaster, equipment failures, acts of government, or similar events, because we manufacture most of our products using few facilities, and do not have back-up facilities available for manufacturing these products. We could also incur significant costs to repair or replace products that are defective and, in some cases, costly product redesigns and/or rework may be required to correct a defect. Additionally, any defect could adversely affect our reputation and result in the loss of future orders.

Some of the capital equipment used in the manufacture of our products have been developed and made specifically for us, may not be readily available from multiple vendors, and would be difficult to repair or replace if they were to become damaged or stop working. If any of these suppliers were to experience financial difficulties or go out of business, or if there were any damage to, or a breakdown of manufacturing equipment at a time when we are manufacturing commercial quantities of our products, our business, financial condition, results of operations, and cash flows could be adversely affected.

*If we do not keep pace with rapid technological change, our products may not be competitive.*

We compete in markets that are characterized by rapid technological change, frequent new product introductions, changes in customer requirements, evolving industry standards, continuous improvement in products, and the use of our existing products in new applications. We may not be able to develop the underlying core technologies necessary to create new products and enhancements to our existing products at the same rate as or faster than competitors, to develop products that effectively compete with competitors' products used in new applications, such as remote physical layer, or to license the technology from third parties that is necessary for our products. Product development delays may result from numerous factors, including:

- changing product specifications and customer requirements;
- unanticipated engineering complexities;
- expense reduction measures we have implemented and others we may implement;
- difficulties in hiring and retaining necessary technical personnel; and
- difficulties in allocating engineering resources and overcoming resource limitations.

We cannot be certain that we will be able to identify, develop, manufacture, market, or support new or enhanced products successfully, if at all, or on a timely, cost effective, or repeatable basis. Future performance will depend on successful development and introduction of, as well as market acceptance of, new and enhanced products that address market changes, as well as current and potential customer requirements and ability to respond effectively to product announcements by competitors, technological changes, or emerging industry standards. Because it is generally not possible to predict the amount of time required and the costs involved in achieving certain research, development, and engineering objectives, actual development costs may exceed budgeted amounts and estimated product development schedules may be extended. If we are unable to develop, manufacture, market, or support new or enhanced products successfully, or incur budget overruns or delays in research and development efforts, our business, financial condition, results of operations, and cash flows may be adversely affected.

*Spending to develop and improve technology may adversely impact financial results.*

We intend to increase our capital expenditures compared to recent periods, subject to generation of sufficient cash from operations. In addition, we may need to increase research and development expenses in order to attempt to improve existing technology and develop new technology. Increasing capital expenditures or investments in research and development of technology could cause our cost structure to fall out of alignment with demand for our products, which would have a negative impact on financial results. If we are unable to fund these types of expenditures, we may be unable to improve technology or develop new technologies, which may adversely affect our business, financial condition, results of operations, and cash flows. Further, our research and development programs may not produce successful results, and our new products and services may not achieve market acceptance, create additional revenue, or become profitable, which could materially harm our business, prospects, financial results, and liquidity.

*The competitive and rapidly evolving nature of our industries and pressure from competitors with greater resources has in the past resulted in and is likely in the future to result in reductions in our product prices and periods of reduced demand for our products.*

We face substantial competition from a number of companies, many of which have greater financial, marketing, manufacturing, and technical resources than we do. Larger-sized competitors often spend more on research and development, which could give those competitors an advantage in meeting customer demands and introducing technologically innovative products before we do. We expect that existing and new competitors will continue to improve the design of their existing products and will introduce new products with enhanced performance characteristics.

The introduction of new products and more efficient production of existing products by competitors have resulted, and are likely in the future to result in, price reductions, increases in expenses, and reduced demand for our products. In addition, competitors may be willing to provide their products at lower prices, accept a lower profit margin, or spend more capital in order to obtain or retain business. Competitive pressures have required us to reduce the prices of some of our products. These competitive forces could diminish our market share and gross margins, resulting in an adverse effect on our business, financial condition, results of operations, and cash flows.

New competitors may also enter our markets, including some current and potential customers who may attempt to integrate their operations by producing their own components and subsystems or acquiring a competitor, thereby reducing demand for our products. In addition, rapid product development cycles, increasing price competition due to maturation of technologies, the emergence of new competitors with lower cost structures, and industry consolidation resulting in competitors with greater financial, marketing and technical resources could result in lower prices or reduced demand for our products, which could have an adverse effect on our business, financial condition, results of operations, and cash flows.

Expected and actual introductions of new and enhanced products may cause customers to defer or cancel orders for existing products and may cause our products to become obsolete. A slowdown in demand for existing products ahead of a new product introduction could result in a write-down in the value of inventory on hand related to existing products. We have in the past experienced a slowdown in demand for existing products and delays in new product development and such delays may occur in the future. To the extent customers defer or cancel orders for existing products due to a slowdown in demand or in anticipation of a new product release, or if there is any delay in development or introduction of our new products or enhancements of our products, our business, financial condition, results of operations, and cash flows could be adversely affected.

*A failure to attract and retain managerial, technical, and other key personnel could reduce revenue and operational effectiveness.*

Future success depends, in part, on the ability to attract and retain certain key personnel, including scientific, operational, financial, and managerial personnel. In addition, technical personnel represent a significant asset and serve as the source of our technological and product innovations. The competition for attracting and retaining key employees (especially scientists, technical personnel, senior managers, and executives) is intense. Because of this competition for skilled employees, we may be unable to retain existing personnel or attract additional qualified employees in the future to keep up with business demands and changes, and our business, financial condition, results of operations, and cash flows could be adversely affected. The risks involved in recruiting and retaining these key personnel may be increased by our historical lack of profitability, the volatility of our stock price, and the perceived effect of previously implemented reductions in workforce and other cost reduction efforts.

*If spending for CATV and optical communications networks declines, revenues and financial performance may decline.*

A material portion of revenues depend on continued capital investment in CATV and global communications networks infrastructure and on continued demand for high-bandwidth, high-speed communications networks, and the ability of original equipment manufacturers to meet this demand. Spending on CATV and communications networks is limited by several factors, including limited investment resources, uncertainty regarding the long-term evolution and sustainability of service provider business models, and a changing regulatory environment. We cannot be certain that demand for bandwidth-intensive content will continue to grow at the same pace in the future or that communications service providers will continue to increase spending to meet such demand. If expectations for growth of CATV and communications networks and bandwidth consumption are not realized and investment in CATV and communications networks does not grow as anticipated, revenues, results of operations, and gross margins could be harmed.

*Ability to achieve operational and material cost reductions and to realize production efficiencies for operations is critical to long-term profitability.*

We have implemented a number of operational and material cost reductions and productivity improvement initiatives, which are intended to reduce our cost structure at both the cost of revenue and the operating expense levels. Cost reduction initiatives often involve the re-design of our products, which requires customers to accept and qualify the new designs, potentially creating

a competitive disadvantage for our products. These initiatives can be time-consuming, disruptive to operations, and costly in the short-term. Successfully implementing these and other cost-reduction initiatives throughout operations is critical to future competitiveness and ability to achieve long-term profitability. However, we cannot be certain that these initiatives will be successful in creating profit margins sufficient to sustain our current operating structure and business.

*Operating results could be harmed if we are unable to obtain timely deliveries of sufficient materials, components, or services of acceptable quality from sole or limited sources, or if the prices of materials, components, or services for which we do not have alternative sources increase.*

We currently obtain materials, components, and services used in our products from limited or sole sources. We generally do not carry significant inventories of any raw materials. The reliance on a sole supplier, single qualified vendor, or limited number of suppliers could result in delivery or quality problems or reduced control over product pricing, reliability, and performance. For example, during the fiscal year ended September 30, 2021, COVID-19 driven component shortages and delays required us to source critical components from alternative sources and, in some cases, to design in alternative parts and qualify them with customers on short schedules, and COVID-19 related staffing shortages at the Thailand facility of our CM negatively affected production levels of our CATV Laser and Transmitter products by the manufacturer. Because we often do not account for a significant part of our suppliers' businesses, we may not have access to sufficient capacity from these suppliers in periods of high demand. In addition, since we generally do not have guaranteed supply arrangements with suppliers, we risk serious disruption to operations if an important supplier terminates product lines, changes business focus, or goes out of business, and we may need large end of life purchases when a sole source supplier is ceasing manufacturing of required components. Because some of these suppliers are located overseas, we may be faced with higher costs of purchasing these materials if the U.S. dollar weakens against other currencies, or if import tariffs are imposed on these materials. If we were to change any of our limited or sole source suppliers, we would be required to re-qualify each new supplier. Re-qualification could prevent or delay product shipments that could adversely affect results of operations and cash flows. In addition, reliance on these suppliers may adversely affect production if the components vary in quality or quantity. If we are unable to obtain timely deliveries of sufficient components of acceptable quality or if the prices of components for which we do not have alternative sources increase, our business, financial condition, results of operations, and cash flows could be materially adversely affected.

*If CMs fail to deliver qualified products at reasonable prices and on a timely basis, our business, financial condition, results of operations, and cash flows could be adversely affected.*

We use CMs as a less-expensive alternative to manufacture certain products. CMs in Asia currently manufacture a significant portion of our CATV Laser and Transmitter products and components and a CM in the U.S. currently manufactures a significant portion of our Defense Optoelectronics products. In some cases, we supply inventory to CMs, and we bear the risk of loss, theft, or damage to inventory while it is held in their facilities.

If these CMs do not fulfill their obligations to us, or if we do not properly manage these relationships and the transition of production to these CMs, existing customer relationships may suffer. In addition, by undertaking these activities, we run the risk that the reputation and competitiveness of our products and services may deteriorate as a result of the reduction of our ability to oversee and control the assembly process, quality, and delivery schedules. If we fail to manage our relationship with CMs, or if any of the CMs experience financial difficulty, delays, disruptions, capacity constraints, or quality control problems in their operations, the ability to ship products to customers could be impaired and our competitive position and reputation could be harmed.

The use of CMs located outside of the U.S. also subjects us to the following additional risks that could significantly impair the ability to source contract manufacturing requirements internationally, including:

- unexpected changes in regulatory requirements;
- legal uncertainties regarding liability, tariffs, and other trade barriers;
- inadequate protection of intellectual property in some countries;
- greater incidence of shipping delays;
- greater difficulty in overseeing manufacturing operations;
- greater difficulty in hiring talent needed to oversee manufacturing operations;
- potential political and economic instability and natural disasters;
- potential adverse actions by the U.S. government pursuant to its stated intention to reduce the loss of U.S. jobs;
- trade and travel restrictions; and
- the outbreak of infectious diseases which could result in travel restrictions or the closure of the facilities of our CMs.

Any of these factors could significantly impair the ability to source contract manufacturing requirements internationally. In some cases, prior to customers accepting products manufactured at CMs, they must qualify the product and manufacturing processes. The qualification process determines whether the product manufactured at our CM achieves our customers' quality,



performance, and reliability standards. The qualification process can be lengthy and expensive, with no guarantee that any particular product qualification process will lead to profitable product sales, and expectations as to the time periods required to qualify a product line and ship products in volumes to customers may be erroneous. Delays in qualification can impair expected timing of the transfer of a product line to our CM and may impair expected amount of sales of the effected products. Any of these uncertainties or delays could adversely affect operating results and customer relationships. For example, during the fiscal year ended September 30, 2020, customer product qualification processes for our CATV Laser and Transmitter products that were beginning to be manufactured at a CM's facility in Thailand were delayed due to our customers' inability to access their facilities to perform testing due to COVID-19, causing delays in the ability to have such products manufactured from this location and increasing costs to produce these products.

In addition, certain CMs may terminate our agreements with them upon prior notice to us or immediately for reasons such as if we become insolvent or if we fail to perform a material obligation under the agreements. If we are required to change CMs or assume internal manufacturing operations for any reason, including the termination of one of our contracts, we will likely suffer manufacturing and shipping delays, lost revenue, increased costs, and damage to customer relationships, any of which could harm our business, financial condition, results of operations, and cash flows.

*We participate in VMI programs for the benefit of certain customers, which could result in increased inventory levels and/or decreased visibility into the timing of sales.*

Certain significant customers have implemented a supply chain management tool called vendor managed inventory ("VMI") that requires us to assume responsibility for maintaining an agreed upon level of consigned inventory at the customer's location or at a third-party logistics provider, based on the customer's demand forecast. Notwithstanding the fact that we or our CM builds and ships the inventory, the customer does not purchase the consigned inventory until the inventory is drawn or pulled from the customer or third-party location to be used in the manufacture of the customer's product. Though the consigned inventory may be at the customer's or third-party logistics provider's physical location, it remains inventory owned by us until the inventory is drawn or pulled, which is the time at which the sale takes place. In addition, certain customers require us to maintain agreed levels of product inventory at our own locations. Participation in VMI programs and commitment to other product inventory requirements at our own locations has resulted in experiencing higher levels of inventory than we might otherwise and has decreased visibility into the timing of when finished goods will ultimately result in revenue-generating sales.

Such VMI programs and other inventory requirements increase the likelihood that estimates of customers' requirements that prove to be greater than customers' actual purchases could result in surplus inventory, and we could be required to record charges for obsolete or excess inventories. If we are unable to effectively manage customers' VMI programs or other inventory requirements, our business, financial condition, results of operations, and cash flows may be adversely affected.

*It could be discovered that our products contain defects that may cause us to incur significant costs, divert management's attention, result in a loss of customers, and result in product liability claims.*

Our products are complex and undergo quality testing and formal qualification by customers and us. However, defects may occur from time to time. Customers' testing procedures involve evaluating our products under likely and foreseeable failure scenarios and over varying amounts of time. For various reasons, such as the occurrence of performance problems that are unforeseeable in testing or that are detected only when products age or are operated under peak stress conditions, our products may fail to perform as expected long after customer acceptance. Failures could result from faulty components or design, problems in manufacturing, or other unforeseen reasons. For the majority of our products, we provide a product warranty of one year or less from date of shipment. For select customers, we provide extended warranties beyond our normal product warranty period for specified failures on a case-by-case basis. As a result, we could incur significant costs to repair or replace defective products under warranty, particularly when such failures occur in installed systems. We have experienced failures in the past and will continue to face this risk going forward, as our products are widely deployed throughout the world in multiple demanding environments and applications. In addition, we may in certain circumstances, honor warranty claims after the warranty has expired or for problems not covered by warranty in order to maintain customer relationships. Any significant product failure could result in product recalls, product liability claims, lost future sales of the affected product, and other products, as well as customer relations problems, litigation, and damage to our reputation.

In addition, our products are typically embedded in, or deployed in conjunction with, customers' products, which incorporate a variety of components, modules, and subsystems and may be expected to interpolate with modules and subsystems produced by third parties. As a result, not all defects are immediately detectable and when problems occur, it may be difficult to identify the source of the problem. These problems may cause us to incur significant damages or warranty and repair costs, divert the attention of engineering personnel from product development efforts, and cause significant customer relations problems or loss



of customers, all of which would harm our business. The occurrence of any defects in products could also give rise to liability for damages caused by such defects. Although we carry product liability insurance to mitigate this risk, insurance may not adequately or entirely cover costs that may arise from defects in products or otherwise, nor will it protect us from reputational harm that may result from such defects. Costs incurred in connection with product recalls or warranty or product liability claims may adversely affect our business, financial condition, results of operations, and cash flows.

*Shifts in industry-wide demands and inventories could result in significant inventory write-downs.*

The life cycles of some products depend heavily upon the life cycles of the end products into which our products are designed. Products with short life cycles require us to manage production and inventory levels closely. We evaluate ending inventories on a quarterly basis for excess quantities, impairment of value, and obsolescence. This evaluation includes analysis of sales levels by product and projections of future demand based upon input received from customers, sales team, and management. If inventories on hand are in excess of demand, or if they are generally greater than 12-months old, appropriate write-downs may be recorded. In addition, we write off inventories that are considered obsolete based upon changes in customer demand, manufacturing process changes that result in existing inventory obsolescence, or new product introductions which eliminate demand for existing products. Remaining inventory balances are adjusted to approximate the lower of manufacturing cost or net realizable market value.

If future demand or market conditions are less favorable than estimates, inventory write-downs may be required. We cannot be certain that obsolete or excess inventories, which may result from unanticipated changes in the estimated total demand for our products and/or the estimated life cycles of the end products into which our products are designed, will not affect us beyond the inventory charges that we have already taken.

*The types of sales contracts we use in the markets we serve subject us to unique risks in each of those markets.*

We generally do not have long-term supply contracts with customers, we typically sell our products pursuant to purchase orders with short lead times, and even where we do have long-term supply contracts, customers are typically not obligated to purchase any minimum amount of our products. As a result, in most cases customers could stop purchasing our products at any time, and we must fulfill orders in a timely manner to keep them satisfied.

Risks associated with an absence of long-term purchase commitments with customers include the following:

- customers can stop purchasing our products at any time without penalty;
- customers may purchase products from competitors; and
- customers are not required to make minimum purchases.

These risks are increased by the fact that our customers include large, sophisticated companies that have considerable purchasing power and control over their suppliers. If we are unable to fulfill these orders in a timely manner, it is likely that we will lose sales and customers.

The majority of development contracts are for a fixed price, and fixed-price development work inherently has more uncertainty than production contracts and, therefore, entails more variability in estimates of the cost to complete the work. Many of these development programs have very complex designs. As technical or quality issues arise, we may experience schedule delays and adverse cost impacts, which could increase estimated cost to perform the work, either of which could adversely affect results of operations. Some fixed-price development contracts include initial production units in their scope of work. Successful performance of these contracts depends on the ability to meet production specifications and delivery rates. If we are unable to meet these contract requirements, revenue from these contracts could be reduced through the incorporation of liquidated damages, the contract could be terminated for default, and we could be subject to other financially significant consequences. We use our best judgment to estimate the cost to perform the work and the price we will eventually be paid on fixed-price development programs. While we believe the cost and price estimates used to prepare the consolidated financial statements are appropriate, future events could result in unfavorable adjustments to those estimates which in turn would adversely affect results of operations.

*We are subject to risks associated with the availability and coverage of insurance.*

For certain risks, we do not maintain insurance coverage because of cost or availability. Because we retain some portion of our insurable risks, and in some cases self-insure completely, unforeseen or catastrophic losses in excess of insured limits may have an adverse effect on our business, financial condition, results of operations, and cash flows.

## Risks Related to International Sales and Operations

*Changes in U.S. and international trade policies, particularly with regard to China, may adversely impact our business and operating results.*

The U.S. government has recently taken certain actions with respect to its trade policies, including recently imposed tariffs affecting certain products manufactured in China, and may take further actions with respect to these policies in the future. For example, the U.S. and China have applied tariffs to certain of each other's exports. Certain of our Broadband products manufactured by our Chinese subsidiary have been included in the tariffs imposed on imports into the U.S. from China, and these products manufactured by our Chinese subsidiary may be subject to tariff increases that may be implemented in the future. China has imposed retaliatory tariffs affecting certain products manufactured in the U.S. and imported into China, including our chip products manufactured in the U.S., and other products manufactured by us in the U.S. may be included on lists of products to be targeted by proposed tariff increases that may be implemented by China in the future. The implementation of these tariffs could result in decreased sales of our products manufactured in China and shipped to the U.S. and sales of our products manufactured in the U.S. and shipped to China, which would negatively impact our business.

In addition, it is unknown whether and to what extent new tariffs (or other new laws or regulations) will be adopted that increase the cost of importing products into the U.S., or that might trigger retaliatory action by U.S. trading partners. Further, it is unknown what effect any such new tariffs or retaliatory actions would have on us or our industries and customers. For example, there are risks that the Chinese government may, among other things, require the use of local suppliers, compel companies that do business in China to partner with local companies to conduct business and provide incentives to government-backed local customers to buy from local suppliers. If any new tariffs, legislation, and/or regulations are implemented, or if existing trade agreements are renegotiated or if China or other effected countries take retaliatory trade actions, such changes could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

*We currently have substantial operations in China, which exposes us to risks inherent in doing business in China.*

In an effort to keep manufacturing costs down, we currently operate a manufacturing facility and certain operations logistics functions in China. Our China-based activities are subject to greater political, legal, and economic risks than those faced by our other operations. In particular, the political, legal, and economic climate in China (both at the national and regional levels) is extremely volatile and unpredictable. Our ability to operate in China may be adversely affected by changes in, or failure to comply with, Chinese laws and regulations, such as those relating to taxation, import and export tariffs, environmental regulations, land use rights, intellectual property, labor and employment laws, and other matters, which laws and regulations remain underdeveloped and subject to change for political or other reasons, with little or no prior notice. Moreover, the enforceability of applicable existing Chinese laws and regulations is uncertain. For example, since Chinese administrative and court authorities have significant discretion in interpreting and implementing statutory and contract terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we would receive. These uncertainties may impede the ability to enforce the contracts we have entered into with distributors, business partners, customers, and suppliers. In addition, protections of intellectual property rights and confidentiality in China may not be as effective as in the U.S. or other countries or regions. All of these uncertainties could limit the legal protections available to us and could materially and adversely affect our business, financial condition, cash flows, and results of operations.

Also, if we are found to be, or to have been, in violation of Chinese laws or regulations governing technology import and export, the relevant regulatory authorities have broad discretion in dealing with such violations, including, but not limited to, issuing a warning, levying fines, restricting us from benefiting from these technologies inside or outside of China, confiscating our earnings generated from the import or export of such technology or even restricting our future import and export of any technology.

In addition, we may not obtain the requisite legal permits to continue to operate in China and costs or operational limitations may be imposed in connection with obtaining and complying with such permits. Our business could be adversely harmed by any changes in the political, legal, or economic climate in China, failure to comply with applicable laws and regulations or inability to enforce applicable Chinese laws and regulations.

While under certain circumstances we previously were not subject to certain Chinese taxes and were exempt from customs duty assessment on imported components or materials when our finished products were exported from China, we are no longer eligible for such exemptions due to our current Beijing facility being located in a non-economic zone. In addition, we are required to pay income taxes in China subject to certain tax relief. We may become subject to other forms of taxation and duty

assessments in China, including import tariffs as described in more detail above, or may be required to pay for export license fees in the future. In the event that we become subject to any increased taxes or new forms of taxation imposed by authorities in China, results of operations and cash flows could be adversely affected.

Retention of employees in China is a challenge as compared to companies headquartered in China. If our China employee turnover rates are higher than we expect, or we otherwise fail to adequately manage these rates, then our business and results of operations could be adversely affected.

*We may have difficulty maintaining adequate management and financial controls over our China operations.*

Businesses in China have historically not adopted a western style of management and financial reporting concepts and practices, which includes strong corporate governance, internal controls, and computer, financial, and other control systems. Moreover, familiarity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and reporting procedures is less common in China. As a consequence, and due to our current operations in China, we may have difficulty employing accounting personnel experienced with U.S. GAAP, and we may have difficulty integrating our China-based accounting staff with our U.S.-based finance organization. As a result of these factors, we may experience difficulty in maintaining adequate management and financial controls over our China operations. These difficulties include collecting financial data and preparing financial statements, books of account, and corporate records and instituting business practices that meet U.S. public-company reporting requirements. We may, in turn, experience difficulties in implementing and maintaining adequate internal controls as required under Section 404 of the Sarbanes-Oxley Act. If we cannot provide reliable and timely financial reports, our brand, operating results, and the market value of our equity securities could be harmed.

*We have a large amount of intercompany balances with our China entities, which may be subject to taxes and penalties when we try to pay them down or collect them.*

Payments for goods and services into and out of China are subject to numerous and over-lapping government regulation with respect to foreign exchange controls, banking controls, import and export controls, and taxes. We have been operating in China for an extended period of time and have accumulated significant intercompany balances with related entities. Ability to repay or collect these balances may be restricted by Chinese laws and, as a result, we may be unable to successfully pay down or collect on these balances. As a consequence, we may be assessed additional taxes in China if we are unable to claim bad debt deductions or incur debt forgiveness income from the cancellation of these intercompany balances. Additionally, if we are found not to have complied with the various local laws surrounding cross border payments, we may incur penalties and fines for non-compliance. Any such taxes, penalties, and/or fines could be significant in amount and, as a result, could have an adverse effect on our financial condition and results of operations, including cash and cash equivalent balances.

*We have significant international sales, which expose us to additional risks and uncertainties.*

For the fiscal years ended September 30, 2021, 2020 and 2019, sales to customers located outside the U.S. accounted for approximately 12%, 17%, and 21%, respectively, of consolidated revenue, with revenue assigned to geographic regions based on customers’ billing address. Sales to customers in Asia represent the majority of international sales. We believe that international sales will continue to account for a significant percentage of revenue as we seek international expansion opportunities. In addition, certain sales to customers with a U.S. billing address may be physically shipped to a location outside of the U.S. International sales and operations are subject to a number of material risks, including, but not limited to:

- political and economic instability or changes in U.S. government policy with respect to the foreign countries where customers are located may inhibit export of products and limit potential customers’ access to U.S. dollars in a country or region in which those potential customers are located;
- we may experience difficulties in enforcing legal contracts or the collecting of foreign accounts receivable in a timely manner and we may be forced to write off these receivables;
- tariffs and other barriers may make our products less cost competitive or may reduce gross margin on these products;
- the laws of certain foreign countries may not adequately protect our trade secrets and intellectual property or may be burdensome to comply with;
- potentially adverse tax consequences to customers may damage cost competitiveness;
- customs, import/export, and other regulations of the countries in which we do business may adversely affect our business;
- different technical standards or requirements, such as country or region-specific requirements to eliminate the use of lead, which we may incorporate into certain products, could prevent us from selling these products in these regions;

- currency fluctuations may make our products less cost competitive, affecting overseas demand for our products or otherwise adversely affecting our business; and
- language and other cultural barriers may require us to expend additional resources competing in foreign markets or hinder the ability to effectively compete.

Negative developments in one or more countries or regions in which we operate or sell our products could result in a reduction in demand for our products, the cancellation or delay of orders already placed, difficulties in producing and delivering our products, threats to our intellectual property, difficulty in collecting receivables, or a higher cost of doing business, any of which could negatively impact our business, financial condition, cash flows, and results of operations. In addition, we may be exposed to legal risks under the laws of the countries outside the U.S. in which we do business, as well as the laws of the U.S. governing our business activities in those other countries, such as the U.S. Foreign Corrupt Practices Act ("FCPA").

#### **Risks Related to Intellectual Property Rights, Litigation, and Cybersecurity**

*Failure to obtain or maintain the right to use certain intellectual property may adversely affect our business, financial condition, results of operations, and cash flows.*

Our industries are characterized by frequent litigation regarding patent and other intellectual property rights. From time to time we have received, and may receive in the future, notice of claims of infringement of other parties' proprietary rights and licensing offers to commercialize third party patent rights. Numerous patents in our industries are held by others, including competitors and certain academic institutions. Competitors may seek to gain a competitive advantage, or other third parties may seek an economic return on their intellectual property portfolios, by making infringement claims against us. We cannot be certain that:

- infringement claims (or claims for indemnification resulting from infringement claims) will not be asserted against us or that such claims will not be successful;
- future assertions will not result in an injunction against the sale of infringing products, which could require us to cease the manufacture, use or sale of the infringing products, processes, or technology and expend significant resources to develop non-infringing technology, adversely affecting our business, results of operations, and cash flows;
- any patent owned or licensed by us will not be invalidated, circumvented, or challenged; or
- we will not be required to obtain licenses or pay substantial damages for past, present, and future use of the infringing technology, the expense of which may adversely affect results of operations and cash flows.

For example, in June 2018, Phoenix commenced an arbitration against us with the American Arbitration Association ("AAA") in New York and a special proceeding against us in the New York Supreme Court, Commercial Division. Please see the disclosures in [Note 11 - Commitments and Contingencies](#) in the Notes to Consolidated Financial Statements for additional information regarding these proceedings.

In addition, effective copyright and trade secret protection may be unavailable or limited in certain foreign jurisdictions. Litigation, which could result in substantial cost and diversion of resources, may be necessary to defend our rights or defend us against claimed infringement of the rights of others. In certain circumstances, our intellectual property rights associated with government contracts may be limited.

*If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, our business and results of operations could be materially harmed.*

Success depends to a significant degree on the ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, trade secret, and unfair competition laws, as well as license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent registrations in the U.S. and selected international jurisdictions, most of which have been issued. We cannot guarantee that pending applications will be approved by the applicable governmental authorities. Moreover, existing and future patents and trademarks may not be sufficiently broad to protect our proprietary rights or may be held invalid or unenforceable in court. Failure to obtain patent registrations or a successful challenge to our registrations in the U.S. or other foreign countries may limit the ability to protect the intellectual property rights that these applications and registrations are intended to cover.

We also attempt to protect our intellectual property, including our trade secrets and know-how, through the use of trade secret and other intellectual property laws, as well as contractual provisions. We enter into confidentiality and invention assignment agreements with employees and independent consultants. We also use non-disclosure agreements with other third parties who

may have access to our proprietary technologies and information. Such measures, however, provide only limited protection, and we cannot be certain that our confidentiality and non-disclosure agreements will not be breached, especially after employees or those of our CMs end their employment or engagement with us or with them, and that our trade secrets will not otherwise become known by competitors or that we will have adequate remedies in the event of unauthorized use or disclosure of proprietary information. Unauthorized third parties may try to copy or reverse engineer our products or portions of our products, otherwise obtain and use our intellectual property, or may independently develop similar or equivalent trade secrets or know-how. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed or misappropriated, we could lose our competitive advantage and our business, results of operations, financial condition, and cash flows could be materially harmed.

Policing unauthorized use of our technology is difficult, and we cannot be certain that the steps we have taken will prevent the misappropriation, unauthorized use, or other infringement of our intellectual property rights. Further, we may not be able to effectively protect our intellectual property rights from misappropriation or other infringement in foreign countries where we have not applied for patent protections, and where effective patent, trademark, trade secret, and other intellectual property laws may be unavailable, or may not protect our proprietary rights as fully as U.S. law.

In the future, we may need to take legal actions to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel, which could significantly harm our business. The availability of financial resources may limit the ability to commence or defend such litigation. In addition, we may not prevail in such proceedings. An adverse outcome of such proceedings may reduce our competitive advantage or otherwise harm our business, financial condition, results of operations, and cash flows.

*We may be obligated to indemnify customers and vendors for claims that our intellectual property infringes the rights of others, which may result in substantial expense to us.*

We may be required to indemnify customers or vendors for intellectual property claims made against them for products incorporating our technology. As such, claims against customers and vendors may require us to incur substantial expenses, such as legal expenses, damages for past infringement, or royalties for future use. Future indemnity claims could adversely affect business relationships and result in substantial costs to us.

*We face certain litigation risks that could harm our business.*

We may become subject to various legal proceedings and claims that arise in or outside the ordinary course of business. The results of legal proceedings are difficult to predict. Moreover, complaints that may be filed against us may not specify the amount of damages that plaintiffs seek, and we therefore may be unable to estimate the possible range of damages that might be incurred should these lawsuits be resolved against us. If any litigation is resolved against us, we could be subject to substantial damages. Thus, an unfavorable outcome or settlement of one or more lawsuits may have an adverse effect on our business, financial condition, results of operations, and cash flows. Even if litigation is not resolved against us, the uncertainty and expense associated with unresolved lawsuits could seriously harm our business, financial condition, and reputation. Litigation is costly, time-consuming and disruptive to normal business operations.

Costs of defending litigation have been significant in the past, may continue, and may not be covered by our insurance policies. The defense of litigation could also result in diversion of management's time and attention away from business operations, which could harm our business.

*We could be subject to legal consequences if we fail to comply with the Modified Partial Final Award issued in connection with the Phoenix legal proceedings.*

In the Interim Award incorporated by reference into the Modified Partial Final Award (in each case as defined in the disclosures in [Note 11 – Commitments and Contingencies](#) in the Notes to Consolidated Financial Statements), the arbitrator determined and ordered that we are required to pay Phoenix a royalty of 7.5% of the sale price on (a) future customer payments for certain of our product contracts previously entered into at the time the Interim Award was issued and (b) customer payments for future sales of any product using any Deemed Trade Secret (as defined in the disclosures in [Note 11 – Commitments and Contingencies](#) in the Notes to Consolidated Financial Statements), in each case payable in a single lump sum within one month of completion of the calendar quarter in which payment has been received from the customer, and we are required to concurrently submit to Phoenix a written report that sets forth the calculation of the amount of the royalty payment in a form

similar to previous royalty reports, provided that following the first \$1.0 million of royalty payments on our EMP-1 product only, inclusive of payments made to date, we are required to pay to Phoenix a royalty of 2.25% of the sale price (net of any warranty work, returns, rebates, discounts, or credits) with respect to subsequent sales of our EMP-1 product. We are required to continue to make royalty payments in this manner until such time as we have in good faith determined, and can so document, that we have completely ceased use of the Deemed Trade Secrets, and must provide notice of this determination to Phoenix. It is possible that additional legal proceedings will follow if we attempt to provide this notice to Phoenix, which would require us to incur additional costs and divert management's attention. If we fail to comply with these obligations, we could be subject to additional claims, penalties, or judgments, which could harm our business, financial condition, results of operations, and cash flows. In addition, we could be subject to significant legal costs and expenses in connection with the interpretation of certain of the obligations pursuant to the Interim Award, which could harm our business, financial condition, results of operations, and cash flows.

*Our business and operations could be adversely impacted in the event of a failure or security breach of our information technology infrastructure.*

We rely upon the capacity, reliability, and security of our information technology hardware and software infrastructure and the ability to expand and update this infrastructure in response to changing needs. We are constantly updating our information technology infrastructure. Although we have a disaster recovery plan, any failure to manage, expand, and update our information technology infrastructure or any failure in the operation of this infrastructure could harm our business.

The secure maintenance of this information is critical to our business and reputation. Despite implementation of security measures, systems are vulnerable to damages from computer viruses, computer denial-of-service attacks, worms, and other malicious software programs or other attacks, covert introduction of malware to computers and networks, unauthorized access, including impersonation of unauthorized users, efforts to discover and exploit any security vulnerabilities or securities weaknesses, and other similar disruptions. These types of attacks have increased, in general, as more businesses implement remote working environments. Our business is also subject to break-ins, sabotage, and intentional acts of vandalism by third parties as well as intentional and unintentional acts by employees or other insiders with access privileges. Customers' network and storage applications may be subject to similar disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. Data breaches and any unauthorized access or disclosure of information, employee information, or intellectual property could compromise our intellectual property, trade secrets, and other sensitive business information, any of which could result in legal action against us, exposure of our intellectual property to competitors, damages, fines, and other adverse effects. A data security breach could also lead to public exposure of personal information of employees, customers, and others. Any such theft, loss, or misuse of personal data collected, used, stored, or transferred by us to run our business could result in significantly increased security costs or costs related to defending legal claims.

Cyber-attacks, such as computer viruses, or other forms of cyber terrorism, may disrupt access to our network or storage applications. Such disruptions could result in delays or cancellations of customer orders or delays or interruptions in the production or shipment of products. Data security breaches involving data center customers could affect their financial condition and ability to continue to purchase our products. In addition, cyber-attacks may cause us to incur significant remediation costs, result in product development delays, disrupt key business operations, and divert attention of management and key information technology resources. These incidents could also subject us to liability, expose us to significant expense, and cause significant harm to our reputation and our business.

In addition, our technology infrastructure and systems are vulnerable to damage or interruption from natural disasters, power loss, and telecommunications failures. Our products contain sophisticated hardware and operating system software and applications that may contain security problems, security vulnerabilities, or defects in design or manufacture, including "bugs" and other problems that could interfere with the intended operation of our products. To the extent that any disruption or security breach results in a loss or damage to our technology infrastructure, systems, or data or inappropriate disclosure of confidential information or sensitive or personal information, it could harm relationships with customers and other third parties and damage our brand and reputation and our business. In addition, we may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future.

*We may be subject to theft, loss, or misuse of personal data about employees, customers, or other third parties, which could increase expenses, damage our reputation, or result in legal or regulatory proceedings.*

The theft, loss, or misuse of personal data collected, used, stored, or transferred by us to run our business could result in significantly increased security costs or costs related to defending legal claims. Global privacy legislation, enforcement, and policy activity in this area are rapidly expanding and creating a complex compliance regulatory environment. Costs to comply

with and implement these privacy-related and data protection measures could be significant. In addition, inadvertent failure to comply with federal, state, or international privacy-related or data protection laws and regulations could result in proceedings against us by governmental entities or others or cause us to incur penalties or other significant legal liability or change business practices.

### **Risks Related to Governmental Regulation**

*We could be subject to legal and regulatory consequences if we fail to comply with applicable export control laws and regulations.*

Exports of certain products are subject to export controls imposed by the U.S. government and administered by the U.S. Departments of State and Commerce. In certain instances, these regulations may require pre-shipment authorization from the administering department. For products subject to the Export Administration Regulations ("EAR") administered by the Department of Commerce's Bureau of Industry and Security, the requirement for a license is dependent on the type and end use of the product, the final destination, the identity of the end user, and whether a license exception might apply. Virtually all exports of products subject to the International Traffic in Arms Regulations ("ITAR") administered by the Department of State's Directorate of Defense Trade Controls, require a license.

Obtaining necessary export licenses can be difficult and time-consuming. Failure to obtain necessary export licenses could significantly reduce revenue and adversely affect our business, financial condition, results of operations, and cash flows. We could be subject to investigation and potential regulatory consequences, including, but not limited to, a no-action letter, monetary penalties, debarment from government contracting, or denial of export privileges and criminal sanctions, any of which would adversely affect our business, financial condition, results of operations, and cash flows. Compliance with U.S. government regulations may also subject us to significant fees and expenses, including legal expenses, and require us to expend significant time and resources. Finally, the absence of comparable restrictions on competitors in other countries may adversely affect our competitive position.

*For a portion of our business, we are subject to extensive government regulation, and failure to comply with applicable regulations could subject us to penalties that may restrict the ability to conduct business.*

As a contractor and/or subcontractor to the U.S. government, we are subject to and must comply with various government regulations that impact revenue, operating costs, profit margins, and the internal organization and operation of our business. The most significant regulations and regulatory authorities affecting the portion of our business related to U.S. government contracts include the following:

- the Federal Acquisition Regulations, Defense Federal Acquisition Regulation Supplement and other supplemental agency regulations, which comprehensively regulate the formation and administration of, and performance under, U.S. government contracts;
- the Truth in Negotiations Act, which requires certification and disclosure of all factual cost and pricing data in connection with contract negotiations;
- the False Claims Act and the False Statements Act, which impose penalties for payments made on the basis of false facts provided to the government and on the basis of false statements made to the government, respectively; and
- the FCPA, which prohibits U.S. companies from providing anything of value to a foreign official to help obtain, retain, or direct business, or obtain any unfair advantage.

Failure to comply with applicable regulations, rules and approvals, or misconduct by any employee, could result in the imposition of fines and penalties, the loss of government contracts, or suspension or debarment from contracting with the U.S. government generally, any of which could harm our business, financial condition, results of operations, and cash flows. We are also subject to certain regulations of comparable government agencies in other countries, and failure to comply with these non-U.S. regulations could also harm our business, financial condition, results of operations, and cash flows.

*Our business related to government contracts subjects us to additional risks.*

We believe that for the foreseeable future the growth of our Navigation and Inertial Sensing product line will depend, to a certain degree, on the ability to win government contracts and subcontracts, in particular from the Department of Defense. Many government customers are subject to budgetary constraints and our continued performance under these contracts or subcontracts, or award of additional contracts or subcontracts from these agencies, could be jeopardized by spending reductions, including constraints on government spending imposed by the Budget Control Act of 2011 and its subsequent



amendments, budget cutbacks at these agencies, or government shutdowns. The funding of U.S. government programs is uncertain and dependent on continued congressional appropriations and administrative allotment of funds based on an annual budgeting process. We cannot be certain that current levels of congressional funding for our products and services will continue and that our business related to these products will not decline or increase at currently anticipated levels, or that we will not be subject to delays in the negotiation of contracts or increased costs due to changes in the funding of U.S. government programs or government shutdowns. A significant decline in government expenditures generally, or with respect to programs for which we provide products, could adversely affect our business and prospects.

In addition, our business could be adversely affected by a negative audit or investigation by the U.S. government. U.S. government agencies, primarily the Defense Contract Audit Agency and the Defense Contract Management Agency, routinely audit and investigate government contractors. These agencies review a contractor's performance under its contracts, cost structure, and compliance with applicable laws, regulations, and standards. These agencies also may review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, quality, accounting, property, estimating, compensation, and management information systems. Any costs found to be improperly allocated to a specific cost reimbursement contract will not be reimbursed, while such costs already reimbursed must be refunded. If an audit or investigation of our business were to uncover improper or illegal activities, then we could be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, suspension of payments, fines, and suspension or debarment from doing business with the U.S. government. We could experience serious harm to our reputation if allegations of impropriety or illegal acts were made against us, even if the allegations were inaccurate. In addition, responding to governmental audits or investigations may involve significant expense and divert management attention. Moreover, if any administrative processes and business systems are found not to comply with the applicable requirements, we may be subjected to increased government scrutiny or required to obtain additional governmental approvals that could delay or otherwise adversely affect the ability to compete for or perform contracts. If any of the foregoing were to occur, our business, financial condition, operating results, and cash flows may be adversely affected.

*The costs of compliance with state, federal, and international legal and regulatory requirements, such as environmental, labor, trade, and tax regulations, and customers' standards of corporate citizenship could increase operating costs.*

We are subject to environmental and health and safety laws and regulations and must obtain certain permits and licenses relating to the use of hazardous materials in production activities. If control systems are unsuccessful in preventing a release of these materials into the environment or other adverse environmental conditions or human exposure occurs, we could experience interruptions in operations and incur substantial remediation and other costs or liabilities. We are also subject to a number of federal and state laws and regulations related to safety, including the Occupational Safety and Health Administration ("OSHA") and comparable state statutes, the purpose of which are to protect the health and safety of workers. Failure to comply with OSHA requirements and other related state regulations, including general industry standards, record keeping requirements, and monitoring and control of occupational exposure to regulated substances, could have a material adverse effect on results of operations and financial condition if we are subjected to significant penalties, fines, or compliance costs. In addition, certain foreign laws and regulations place restrictions on the concentration of certain hazardous materials, including, but not limited to, lead, mercury, and cadmium, in our products. Failure to comply with such laws and regulations could subject us to future liabilities or result in the limitation or suspension of the sale or production of our products. These regulations include the EU's Restrictions on Hazardous Substances and Directive on Waste Electrical and Electronic Equipment. Failure to comply with environmental and health and safety laws and regulations may limit the ability to export products to the EU and could adversely affect our business, financial condition, results of operations, and cash flows. In addition, we purchase certain chemicals from Europe and Asia that are unique, nearing the end of life, and could be subject to future changes to environmental regulations in the country of origin and/or the U.S. In the event new restrictions are placed on any such chemicals, they may be difficult to replace, and may require us to re-design or re-validate existing products that use such chemicals in their production.

In connection with compliance with such environmental laws and regulations, as well as compliance with industry environmental initiatives, the standards of business conduct required by some customers, and commitment to sound corporate citizenship in all aspects of our business, we could incur substantial compliance and operating costs and be subject to disruptions to operations. In addition, in recent years, there has been increased media scrutiny and associated reports focusing on a potential link between working in semiconductor manufacturing clean room environments and certain illnesses, primarily different types of cancers. Regulatory agencies and industry associations have begun to study the issue to see if any actual correlation exists. Because we utilize clean rooms, we may become subject to liability claims. These reports may also affect the ability to recruit and retain employees. If we were found to be in violation of environmental and safety regulations laws or noncompliance with industry initiatives or standards of conduct, we could be subject to government fines or liabilities owed to customers, which could have an adverse effect on our business, financial condition, results of operations, and cash flows.



In addition, climate change is a significant topic of discussion and potential regulatory activity and has generated and may continue to generate federal or other regulatory responses in the near future. If we or component suppliers fail to timely comply with applicable legislation, customers may refuse to purchase products or we may face increased operating costs as a result of taxes, fines, or penalties, which may have an adverse effect on our business, financial condition, results of operations, and cash flows.

The Department of Homeland Security has commenced a program to evaluate the security of certain chemicals which may be of interest to terrorists, including chemicals utilized by us. This evaluation may lead to regulations or restrictions affecting the ability to utilize these chemicals or the costs of doing so.

*We are subject to anti-corruption laws in the jurisdictions in which we operate, including the FCPA. Failure to comply with these laws could result in penalties which could harm our reputation and have an adverse effect on our business, results of operations, and financial condition.*

We are subject to the FCPA, which generally prohibits companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or keeping business and/or other benefits, along with various other anti-corruption laws. Although we have implemented policies and procedures designed to ensure that we, our employees, and other intermediaries comply with the FCPA and other anti-corruption laws to which we are subject, we cannot be certain that such policies or procedures will work effectively all of the time or protect us against liability under the FCPA or other laws for actions taken by employees and other intermediaries with respect to our business or any businesses that we may acquire.

We have manufacturing operations in China and other jurisdictions, many of which pose elevated risks of anti-corruption violations, and we export products for sale internationally. This puts us in frequent contact with persons who may be considered “foreign officials” under the FCPA, resulting in an elevated risk of potential FCPA violations. If we are not in compliance with the FCPA and other laws governing the conduct of business with government entities (including local laws), we may be subject to criminal and civil penalties and other remedial measures, which could have an adverse impact on our business, financial condition, results of operations, and cash flows. Any investigation of any potential violations of the FCPA or other anti-corruption laws by U.S. or foreign authorities could harm our reputation and have an adverse impact on our business, financial condition, results of operations, and cash flows.

*If we identify deficiencies in our current system of internal controls or fail to remediate them, we may not be able to accurately report financial results or prevent fraud. As a result, our business could be harmed and current and potential investors could lose confidence in our financial reporting, which could have an adverse effect on the trading price of our equity securities.*

We are subject to the ongoing internal control provisions of Section 404 of the Sarbanes-Oxley Act of 2002. These provisions provide for the identification of material weaknesses or other lesser deficiencies in internal control over financial reporting, which is a process to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with U.S. GAAP. If we cannot provide reliable and timely financial reports, our brand, operating results, and the market value of our equity securities could be harmed. We have in the past discovered, and may in the future discover, areas of internal controls that need improvement.

We have devoted significant resources to remediate and improve internal controls. We have also been monitoring the effectiveness of these remediated measures. We cannot be certain that these measures will ensure adequate controls over financial processes and reporting in the future. Any failure to implement required, new, or improved controls, or difficulties encountered in their implementation, could harm operating results or cause us to fail to meet reporting obligations.

Inadequate internal controls could also cause investors to lose confidence in our reported financial information, which could have an adverse effect on the trading price of our equity securities. Further, the impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on the Board of Directors or as executive officers, which could harm our business.

*We could be required to record an impairment charge as a result of changes to assumptions used in our impairment testing.*

We have substantial long-lived assets recorded on the balance sheet. As of September 30, 2021, we had \$22.5 million of property, plant and equipment, net, on the consolidated balance sheet. If we make changes in our business strategy or if market or other conditions adversely affect business operations, we may be forced to record an impairment charge related to these assets, which would adversely impact results of operations. Impairment assessment inherently involves judgment as to assumptions about expected future cash flows and the impact of market conditions on those assumptions. Future events and

changes in market conditions, underlying business operations, competition, or technologies may impact assumptions as to prices, costs, holding periods, or other factors that may result in changes in estimates of future cash flows. Although we believe the assumptions we used in testing for impairment are reasonable, we will continue to evaluate the recoverability of the carrying amount of property, plant and equipment on an ongoing basis, and significant changes in any one assumption could produce a significantly different result. In such a circumstance, we may incur substantial impairment charges, which would adversely affect financial results. In any period where our stock price, as determined by market capitalization, is less than book value, this too could indicate a potential impairment and we may be required to record an impairment charge in that period.

*Compliance with regulations related to conflict minerals and other regulations with respect to our supply chains could increase costs and affect the manufacturing and sale of our products.*

Public companies are required to disclose the use of tin, tantalum, tungsten and gold (collectively, “conflict minerals”) mined from the Democratic Republic of the Congo and adjoining countries (the “covered countries”) if a conflict mineral(s) is necessary to the functionality of a product manufactured, or contracted to be manufactured, by us. We may determine, as part of compliance efforts, that certain products or components we obtain from suppliers contain conflict minerals. If we are unable to conclude that all products are free from conflict minerals originating from covered countries, this could have a negative impact on our business, reputation and/or results of operations. We may also encounter challenges to satisfy customers who require that products be certified as conflict free, which could place us at a competitive disadvantage. Compliance with these rules could also affect the sourcing and availability of some of the minerals used in the manufacture of products or components we obtain from suppliers, including the ability to obtain products or components in sufficient quantities and/or at competitive prices. Certain customers are requiring additional information from us regarding the origin of raw materials and complying with these customer requirements may cause us to incur additional costs. Our supply chain is complex and we may be unable to verify the origins for all metals used in products.

In addition, the U.S. federal government has issued policies for federal procurement focused on eradicating the practice of forced labor and human trafficking, and the United Kingdom and the State of California have issued laws that require us to disclose our policy and practices for identifying and eliminating forced labor and human trafficking in our supply chain. Several customers, as well as the Electronic Industry Citizenship Coalition, have also issued expectations to eliminate these practices that may impact us. While we have a policy and management systems to identify and avoid these practices in our supply chain, we cannot guarantee that suppliers will always be in conformance to these laws and expectations. We may face enforcement liability and reputational challenges if we are unable to sufficiently meet these expectations. Moreover, we are likely to encounter challenges with customers if we cannot satisfy their forced and trafficked labor policies and they may choose a competitor’s product.

*We may undergo an "ownership change" within the meaning of Section 382 of the Code, which could affect our ability to offset U.S. federal income tax against our net operating losses and certain of our tax credit carryovers.*

Section 382 of the Code, as amended contains rules that limit the ability of a company that undergoes an ownership change to utilize its net operating losses and tax credits (the “Tax Benefits”) existing as of the date of such ownership change. Under the rules, such an ownership change is generally any change in ownership of more than 50% of a company’s stock within a rolling three-year period. The rules generally operate by focusing on changes in ownership among shareholders considered by the rules as owning, directly or indirectly, 5% or more of the stock of a company and any change in ownership arising from new issuances of stock by the Company.

If we were to undergo one or more "ownership changes" within the meaning of Section 382 of the Code, our net operating losses and certain of our tax credits existing as of the date of each ownership change may be unavailable, in whole or in part, to offset U.S. federal income tax resulting from our operations or any gains from the disposition of any of our assets and/or business, which could result in increased U.S. federal income tax liability.

*Certain provisions of New Jersey law and our governing documents may make a takeover of our Company difficult even if such takeover could be beneficial to shareholders.*

Certain provisions of our organizational documents and New Jersey law could discourage potential acquisition proposals, delay, or prevent a change in control of the Company, or limit the price that investors may be willing to pay in the future for shares of common stock. For example, our amended and restated certificate of incorporation and amended and restated bylaws:

- provide that directors may be removed at any time, but only for cause and only by the affirmative vote of the holders of at least a majority of outstanding shares of capital stock entitled to vote generally in the election of directors cast at a meeting of shareholders called for that purpose;
- provide that a super majority vote of shareholders is required to amend some portions of our amended and restated certificate of incorporation and amended and restated bylaws, including requiring approval by the holders of 80% or more of the outstanding shares of capital stock entitled to vote generally in the election of directors for certain business combinations unless these transactions meet certain fair price criteria and procedural requirements or are approved by two-thirds of continuing directors;
- authorize the issuance of preferred stock, without any requirement of vote or class vote of shareholders, commonly referred to as “blank check” preferred stock, which shares of preferred stock may have rights senior to those of common stock;
- limit the persons who can call special shareholder meetings; shareholders do not have authority to call a special meeting of shareholders;
- establish advance notice requirements that must be complied with by shareholders to nominate persons for election to the Board of Directors or to propose matters that can be acted on by shareholders at shareholder meetings;
- do not provide for cumulative voting in the election of directors; and
- provide for the filling of vacancies on the Board of Directors by action of 66 2/3% of the directors and not by the shareholders.

These and other provisions in our organizational documents could allow the Board of Directors to affect the rights of shareholders in a number of ways, including making it difficult for shareholders to replace members of the Board of Directors. Because the Board of Directors is responsible for approving the appointment of members of the management team, these provisions could in turn affect any attempt to replace the current management team. These provisions could also limit the price that investors would be willing to pay in the future for shares of common stock. We may in the future adopt other measures that may have the effect of delaying or discouraging an unsolicited takeover, even if the takeover were at a premium price or favored by a majority of unaffiliated shareholders. Certain of these measures may be adopted without any further vote or action by shareholders and this could depress the price of our common stock.

### **General Risk Factors**

*Our business and results of operations may continue to be negatively impacted by general economic and financial market conditions and market conditions in the industries in which we operate, and such conditions may increase the other risks that affect our business.*

In recent years, and particularly in 2020 and 2021 with the impact of the COVID-19 pandemic, the world’s financial markets have experienced significant turmoil, resulting in reductions in available credit, increased costs of credit, extreme volatility in security prices, potential changes to existing credit terms, and rating downgrades of investments. These conditions materially and adversely affected the market conditions in the industries in which we operate and caused many customers to reduce their spending plans, leading them to draw down their existing inventory, and reduce orders for our products, which, in turn, had an adverse impact on revenues. We cannot predict the timing, strength, or duration of any economic slowdown or subsequent economic recovery, worldwide or within our industries. It is possible that economic conditions could result in further setbacks, and that these customers, or others, could as a result, significantly reduce their capital expenditures, draw down their inventories, reduce production levels of existing products, defer introduction of new products, or place orders and accept delivery for products for which they do not pay us due to their economic difficulties or other reasons. If any of these events occur, our business, financial condition, results of operations, and cash flows may be adversely affected.

*Natural disasters or other catastrophic events could have an adverse effect on our business.*

Natural disasters, such as hurricanes, earthquakes, fires, and floods, could adversely affect operations and financial performance. Such events could result in physical damage to one or more facilities, the temporary closure of one or more facilities or those of our suppliers, a temporary lack of an adequate work force in a market, a temporary or long-term disruption in the supply of products from some local and overseas suppliers, a temporary disruption in the transport of goods from overseas, and delays in the delivery of goods. Public health issues, such as the COVID-19 pandemic, whether occurring in the U.S. or abroad, could disrupt our operations, disrupt the operations of suppliers or customers, or have an adverse impact on customer demand. As a result of any of these events, we may be required to suspend operations in some or all locations, which could have an adverse effect on our business, financial condition, results of operations, and cash flows. These events could also reduce demand for our products or make it difficult or impossible to receive products from suppliers. Although we maintain business interruption insurance and other insurance intended to cover some of these risks, such insurance may be inadequate,

whether because of coverage amount, policy limitations, the financial viability of the insurance companies issuing such policies, or other reasons.

*We may not be able to obtain capital when desired on favorable terms, if at all, or without dilution to shareholders.*

We believe that our existing cash and cash equivalents, and cash flows from our operating activities and funds available under our credit facilities, will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, we operate in industries that makes our prospects difficult to evaluate. It is possible that we may not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs. If this occurs, we may need additional financing to continue operations or execute on our current or future business strategies, including to:

- invest in research and development efforts, including by hiring additional technical and other personnel;
- maintain and expand operating or manufacturing infrastructure;
- acquire complementary businesses, products, services or technologies; or
- otherwise pursue strategic plans and respond to competitive pressures.

If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our shareholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing shareholders. We cannot be certain that additional financing will be available on terms favorable to us, or at all. If adequate funds are not available or are not available on acceptable terms, if and when needed, our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our products, or otherwise respond to competitive pressures could be significantly limited. Furthermore, in the event adequate capital is not available to us as required, or is not available on favorable terms, our business, financial condition, results of operations, and cash flows may be adversely affected.

*The market price for our common stock has experienced significant price and volume volatility and is likely to continue to experience significant volatility in the future. This volatility may impair the ability to finance strategic transactions with our stock and otherwise harm our business.*

Our stock price has experienced significant price and volume volatility for the past several years, and our stock price is likely to experience significant volatility in the future. The trading price of our common stock may be influenced by factors beyond our control, such as the volatility of the financial markets, uncertainty surrounding domestic and foreign economies, conditions and trends in the markets we serve, changes in the estimation of the future size and growth rate of our markets, publication of research reports, and recommendations by financial analysts relating to our business, the business of competitors, or the industries in which we operate and compete, changes in market valuation or earnings of competitors, legislation or regulatory policies, practices, or actions, sales of our common stock by principal shareholders, and the trading volume of our common stock. The historical market prices of our common stock may not be indicative of future market prices and we may be unable to sustain or increase the value of our common stock. We have historically used equity incentive compensation as part of our overall compensation arrangements. The effectiveness of equity incentive compensation in retaining key employees may be adversely impacted by volatility in our stock price. Significant declines in our stock price may also interfere with the ability, if needed, to raise additional funds through equity financing or to finance strategic transactions with our stock. In addition, there may be increased risk of securities litigation following periods of fluctuations in our stock price. Securities class action lawsuits are often brought against companies after periods of volatility in the market price of their securities. These and other consequences of volatility in our stock price which could be exacerbated by macroeconomic conditions that affect the market generally, or our industries in particular, could have the effect of diverting management's attention and could materially harm our business.

*We may not pay additional dividends on our common stock and, consequently, the only opportunity to achieve a return on an investment in our common stock may be an increase in the price of our common stock.*

Although we paid a special dividend in 2016, we may not pay additional dividends in the future. The terms of our loan and security agreement with our financial institution restrict our ability to pay dividends. Consequently, the only opportunity to achieve a return on an investment in our common stock may be through an increase in the market price of our common stock over the price paid, of which there is no guarantee.

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The risks above are not the only risks we face. If any of the events described in our risk factors actually occur, or if additional risks and uncertainties not presently known to us or that we currently deem immaterial, materialize, then our business, financial condition, results of operations, and cash flows could be materially affected.

**ITEM 1B. Unresolved Staff Comments**

Not applicable.

**ITEM 2. Properties**

We lease building space consisting of corporate, manufacturing, research and development, and other facilities. We lease principal facilities in Alhambra and Concord, California, and Beijing, China. The facility in Alhambra, California, with approximately 66,000 square feet, is leased through 2031 with respect to four of the five buildings (totaling 50,000 square feet) with an option to extend, and is utilized as the corporate headquarters as well as for manufacturing and research and development for our Aerospace and Defense and Broadband segments. The facility in Concord, California, with approximately 110,000 square feet, is leased through 2035 with an option to extend and is utilized as manufacturing and research and development for our Aerospace and Defense segment. One facility in Beijing, China, with approximately 23,000 square feet, is leased through April 2022 and is utilized for manufacturing for our Broadband segment and another facility in Beijing, China with approximately 5,000 square feet, is leased through January 2025 and is utilized for research and development for our Broadband segment.

**ITEM 3. Legal Proceedings**

See [Note 11 - Commitments and Contingencies](#) in the Notes to Consolidated Financial Statements for disclosures related to legal proceedings, which disclosures are incorporated herein by reference.

**ITEM 4. Mine Safety Disclosures**

Not applicable.

## **PART II.**

### **ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities**

#### **Market Information**

Our common stock is traded on the Nasdaq Global Market and is quoted under the symbol "EMKR". As of November 29, 2021, we had approximately 60 shareholders of record. Many of our shares of common stock are held by brokers and other institutions on behalf of shareholders, and we are unable to estimate the number of these shareholders.

#### **Dividend Policy**

We expect to retain all earnings to finance the expansion and development of our business, and we do not currently intend to pay any cash dividends on capital stock in the foreseeable future.

### **ITEM 6. Selected Financial Data**

Part II, Item 6 is no longer required as the Company has adopted certain provisions within the amendments to Regulation S-K that eliminate Item 301.

### **ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

The following discussion of financial condition and results of operations should be read in conjunction with the financial statements and the notes thereto included in [Financial Statements and Supplementary Data under Item 8](#) within this Annual Report. The following discussion contains forward-looking statements that reflect plans, estimates, and beliefs. Actual results could differ materially from those discussed in the forward-looking statements. See [Cautionary Note Regarding Forward-Looking Statements](#).

#### **Business Overview**

EMCORE Corporation (referred to herein, together with its subsidiaries, as the "Company," "we," "our," or "EMCORE") is a leading provider of sensors for navigation in the aerospace and defense market as well as a manufacturer of lasers and optical subsystems for use in the Cable TV ("CATV") industry.

We pioneered the linear fiber optic transmission technology that enabled the world's first delivery of CATV directly on fiber, and today is a leading provider of advanced mixed-signal products serving the aerospace and defense and broadband communications markets. The mixed-signal technology, at the heart of our broadband communications products, is shared with our fiber optic gyroscopes ("FOG") and inertial sensors to provide the aerospace and defense markets with state-of-the-art navigation systems technology. We have fully vertically-integrated manufacturing capability through our indium phosphide ("InP") compound semiconductor wafer fabrication facility at our headquarters in Alhambra, CA, and through our quartz processing and sensor manufacturing facility in Concord, CA. These facilities support our vertically-integrated manufacturing strategy for quartz and FOG products for navigation systems, and for our chip, laser, transmitter, and receiver products for broadband applications.

We have two reporting segments: (a) Aerospace and Defense and (b) Broadband. Aerospace and Defense is comprised of two product lines: (i) Navigation and Inertial Sensing, and (ii) Defense Optoelectronics. Broadband is comprised of three product lines: (i) CATV Lasers and Transmitters, (ii) Chip Devices, and (iii) Other Optical Products.

#### **Recent Developments**

##### *COVID-19*

We are subject to ongoing risks and uncertainties as a result of the COVID-19 pandemic. The full extent of the COVID-19 impact on operational and financial performance is highly uncertain, out of our control, and cannot be predicted.

Each region we and our supply chain partners operate in has been affected by COVID-19 at varying times and magnitudes, often creating unforeseen challenges associated with logistics, raw material supply and labor shortages. Many of our suppliers have at times temporarily ceased or limited operations as a result of COVID-19 and failed to deliver parts or components to us.

For example, at various times during the fiscal year ended September 30, 2021, unexpected delays and cancellations of key component deliveries required us to source critical components from alternative sources and, in some cases, forced us to design in alternative parts and qualify them with customers on short schedules, and COVID-19 transmission in Thailand negatively affected production levels of our CATV Lasers and Transmitters products by our contract manufacturer located there. These and other actions resulting from the effects of COVID-19 may continue in the future and cause additional challenges to and disruptions of our business, inventory levels, operating results, and cash flows.

In addition, restrictions related to the COVID-19 pandemic have negatively affected the timing of the sale and transfer of certain CATV module and transmitter manufacturing equipment to Hytera and Fastrain (each as defined below), as described in more detail below under “Hytera and Fastrain Transactions”. Travel into Thailand by manufacturing engineers to support the transfer has at times been difficult. While we are taking actions within our supply chain and manufacturing operations to mitigate the effects of these delays and now expect the transfer to be completed during the quarter ending March 31, 2022, the timing and completion of these transfers may be further disrupted as a result of COVID-19, which could delay recognition of the anticipated benefits of transferring this equipment and could disrupt manufacturing activities for these products.

Our customer orders to date have generally remained stable with our pre-COVID-19 outlook, except with respect to customer orders related to the CATV Lasers and Transmitters product line, which have increased compared to our pre-COVID-19 outlook. However, qualification testing for certain of our products has been delayed due to customer engineering shortages and limitations on their ability to access their facilities, and development timelines for certain programs have been extended. We continue to analyze on an ongoing basis how COVID-19 related actions could affect our product development efforts, future customer demand, timing of orders, recognized revenues, and cash flows.

#### *Equity Offering*

On February 16, 2021, we closed an offering of 6,655,093 shares of our common stock, which included the full exercise of the underwriters’ option to purchase 868,056 additional shares of common stock, at a price to the public of \$5.40 per share, resulting in net proceeds to us from the offering, after deducting the underwriting discounts and commissions and other offering expenses, of approximately \$33.1 million. The shares were sold by us pursuant to an underwriting agreement with Cowen and Company, LLC, dated February 10, 2021.

#### *Hytera and Fastrain Transactions*

As part of the effort to streamline operations and move to a variable cost model in our CATV Lasers and Transmitters product line, on October 25, 2019, we entered into an Asset Purchase Agreement (the “Hytera Asset Purchase Agreement”) with Hytera Communications (Hong Kong) Company Limited, a limited liability company incorporated in Hong Kong (“Hytera HK”), and Shenzhen Hytera Communications Co., Ltd., a corporation formed under the laws of the P.R.C. (“Shenzhen Hytera”, and together with Hytera HK, “Hytera”), pursuant to which Hytera agreed to purchase from us certain CATV module and transmitter manufacturing equipment (the “Equipment”) that we owned and that was located at the manufacturing facility of our wholly-owned subsidiary, EMCORE Optoelectronics (Beijing) Co, Ltd., a corporation formed under the laws of the P.R.C..

On August 9, 2021, we entered into an Asset Purchase Agreement (the “Fastrain Asset Purchase Agreement”) with each of Shenzhen Fastrain Technology Co., Ltd., a corporation formed under the laws of the P.R.C. (“Shenzhen Fastrain”), and Hong Kong Fastrain Company Limited, a limited liability company incorporated in Hong Kong (“HK Fastrain”, and together with Shenzhen Fastrain, collectively, “Fastrain”), pursuant to which, among other items, Fastrain agreed to purchase all of the Equipment subject to the Hytera Asset Purchase Agreement, along with certain other equipment owned by us, for an aggregate price of \$6.2 million, of which (a) \$3.8 million had been paid to us as of September 30, 2021 and (b) \$2.4 million remains to be paid to us in connection with Equipment currently located at our Beijing facility and to be transferred pursuant to one or more closings on dates mutually agreed between us and Fastrain.

Concurrently with the execution of the Fastrain Asset Purchase Agreement, we and Fastrain entered into a Manufacturing Supply Agreement, dated August 9, 2021 (the “Fastrain Manufacturing Agreement”), pursuant to which Fastrain agreed to manufacture for us, from a manufacturing facility located in Thailand and for an initial term ending on December 31, 2025, the CATV Laser and Transmitter products set forth in the Fastrain Manufacturing Agreement. In the Fastrain Manufacturing Agreement, (a) we agreed to pay certain shortfall penalties in the event that orders for manufactured products are below certain thresholds beginning in calendar year 2021 and continuing through calendar year 2025, and (b) Fastrain agreed to pay certain surplus bonuses to EMCORE in the event that deliveries for manufactured products in either of the 24 month periods beginning on January 1, 2021 and ending on December 31, 2022 or beginning on January 1, 2023 and ending on December 31, 2024 exceed certain thresholds.

As described under “COVID-19” above, travel restrictions related to the COVID-19 pandemic have negatively affected the timing of the sale and transfer of some of the Equipment to Hytera and Fastrain. The transfer of the Equipment currently remaining at our Beijing facility is now expected to occur during the fiscal year ending September 30, 2022, with corresponding payments totaling \$2.4 million expected to be received during the fiscal year ending September 30, 2022.

#### *PPP Loan*

In May 3, 2020, we entered into a Paycheck Protection Program Promissory Note and Agreement (the “PPP Loan Agreement”) with Wells Fargo Bank, N.A. (“Wells Fargo”) under the Paycheck Protection Program established under the Coronavirus Aid, Relief and Economic Security Act and administered by the U.S. Small Business Administration (the “SBA”) to receive loan proceeds of approximately \$6.5 million (the “PPP Loan”), which we received on May 6, 2020. On July 12, 2021, we received a notification from Wells Fargo that the SBA approved our PPP Loan forgiveness application for the entire PPP Loan balance of approximately \$6.5 million, including all accrued interest thereon, and that the remaining PPP Loan balance is zero. The forgiveness of the PPP Loan was recognized during our fiscal quarter ended June 30, 2021.

#### **Other Significant Actions that Affect the Comparability of Our Operating Results and Financial Condition**

##### *Customer Settlement Agreement*

On November 17, 2020, we entered into an agreement with a customer to resolve certain potential product claims (the “Customer Settlement Agreement”). In exchange for a release of any and all potential claims the customer may have related to the applicable product, we have agreed to provide up to \$1.5 million of product discounts on future purchases from us by the customer. We recorded the full potential expense of \$1.5 million in the fiscal year ended September 30, 2020 within Research and Development expense.

##### *Systron Donner Inertial, Inc. Acquisition*

On June 7, 2019, we completed the acquisition of Systron Donner Inertial, Inc. (“SDI”), a navigation systems provider with a scalable, chip-based platform for higher volume gyro applications utilizing QMEMS technology. Following the closing, we began integrating SDI into our current Navigation and Inertial Sensing product line and have included the financial results of SDI in the consolidated financial statements beginning on the acquisition date. We incurred approximately \$0.8 million of merger and acquisition costs in the fiscal year ended September 30, 2019 in conjunction with the acquisition of SDI.

##### *Concord Sale/Leaseback Transaction*

In February 2020, SDI sold its property located in Concord, California (the “Concord Real Property”) to Eagle Rock Holdings, LP (“Eagle Rock”), an affiliate of Parkview Management Group, Inc. for a total purchase price of \$13.2 million pursuant to a Standard Offer, Agreement and Escrow Instructions for Purchase of Real Estate (Non-Residential), dated December 31, 2019, by and between SDI and Eagle Rock, as amended by that certain First Amendment to Standard Offer, Agreement and Escrow Instructions for Purchase of Real Estate (Non-Residential), dated January 13, 2020, by and between SDI and Eagle Rock (as amended, the “Concord Purchase Agreement”). SDI received net proceeds of \$12.8 million after transaction commissions and expenses incurred in connection with the sale of the Concord real Property.

At the consummation of the sale of the Concord Real Property, SDI entered into a Single-Tenant Triple Net Lease (the “Concord Lease Agreement”) with Eagle Rock pursuant to which SDI leased back from Eagle Rock the Concord Real Property for a term commencing in February 2020 and ending in February 2035, unless earlier terminated or extended in accordance with the terms of the Concord Lease Agreement. Under the Concord Lease Agreement, SDI’s financial obligations include base monthly rent of \$0.75 per square foot, or approximately \$77,500 per month, during the initial 12 month period of February 2020 through February 2021, which increases on an annual basis at 3.0% over the life of the lease. SDI is also responsible for all monthly expenses related to the Concord Real Property, including insurance premiums, taxes and other expenses, such as utilities. In connection with the execution of the Concord Lease Agreement, we executed a Lease Guaranty with Eagle Rock under which we guaranteed the payment when due of the monthly rent, and all other additional rent, interest and charges to be paid by SDI under the Concord Lease Agreement.

##### *Other Actions Related to CATV Lasers and Transmitters Business*

We recorded a \$4.7 million inventory write-down on CATV Lasers and Transmitters products and a \$1.3 million write-down on non-current inventory in the fiscal year ended September 30, 2019 due to the decline, at such time, in sales and future demand of the inventory. In the quarter ended September 30, 2019, we also reduced the size of our CATV Lasers and Transmitters -related employee headcount and reduced the capacity of our wafer fab to one shift, and in January 2020, we further reduced the



size of our employee headcount. These actions incurred costs of \$0.4 million in the quarter ended September 30, 2019 and \$0.4 million in the quarter ended March 31, 2020 and, together with previously-disclosed headcount reductions at our Beijing, China facility and the continuing shift to a variable cost model in our CATV Lasers and Transmitters product line as described under “Hytera and Fastrain Transactions” above, fulfill a strategic objective of better positioning the CATV Lasers and Transmitters product line to generate positive cash flow to help fund growth areas including Aerospace and Defense Chip Devices, and Other Optical Products.

#### *Phoenix Litigation*

During the fiscal year ended September 30, 2019, we recorded an award to Phoenix of attorneys’ fees and costs in the amount of approximately \$3.8 million. In connection with the litigation proceedings involving Phoenix, we incurred approximately \$5.7 million of legal expenses in aggregate during the fiscal years ended September 30, 2018 and 2019.

#### **Critical Accounting Policies**

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements require us to make estimates and judgements in applying our most critical accounting policies that can have a significant impact on the results we report in our financial statements. We develop estimates based on historical experience and on various assumptions about the future that are believed to be reasonable based on the best information available to us. The reported financial position or results of operations may be materially different under changed conditions or when using different estimates and assumptions, particularly with respect to significant accounting policies. In the event that estimates or assumptions prove to differ from actual results, adjustments are made in subsequent periods to reflect more current information.

The SEC has defined critical accounting policies as those that are most important to the portrayal of our financial condition and results and which require our most difficult, complex, or subjective judgments or estimates. Based on this definition, our most critical accounting policies include revenue recognition, which impacts the recording of revenue; inventory valuation, which impacts the cost of goods sold and gross margin; assessment of goodwill and long-lived assets, which impacts the impairment of the respective assets; share-based compensation, which impacts costs of goods sold and operating expenses; loss contingencies, which impacts operating expenses; and income taxes, which impacts the income tax provision. These policies and significant judgments involved are discussed further below. We have other significant accounting policies that do not generally require subjective estimates or judgments or would not have a material impact on our results of operations. Our significant accounting policies are described in [Item 8, Note 2 - Summary of Significant Accounting Policies](#).

#### *Revenue Recognition*

We recognize revenue in accordance with the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 606 Revenue from Contracts with Customers. The majority of our products have shipping terms that are free on board or free carrier alongside shipping point, which means that we fulfill our delivery obligation and control has transferred to the customer when the goods are handed over to the freight carrier at our shipping dock. In those instances where inventory is maintained at a consigned location, revenue is recognized only when our customer pulls product for use and control has transferred to the customer. Any warranty cost and remaining obligations that are inconsequential or perfunctory are accrued when the corresponding revenue is recognized.

#### *Income Taxes*

In accordance with the authoritative guidance on accounting for income taxes, we recognize income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the consolidated financial statements or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law. The effects of future changes in tax laws or rates are not anticipated.

The authoritative guidance provides for recognition of deferred tax assets if the realization of such deferred tax assets is more likely than not to occur based on an evaluation of all available evidence, both positive and negative, and the relative weight of the evidence. We have determined that at this time it is more likely than not that deferred tax assets attributable to all other items will not be realized, primarily due to uncertainties related to the ability to utilize net operating loss carryforwards before they expire. Accordingly, we have established a valuation allowance for such deferred tax assets which we do not expect to realize. If there is a change in the ability to realize deferred tax assets for which a valuation allowance has been established, then the tax valuation allowance may decrease in the period in which we determine that realization is more likely than not.

Likewise, if we determine that it is not more likely than not that deferred tax assets will be realized, then a valuation allowance may be established for such deferred tax assets and the tax provision may increase in the period in which we make the determination. See [Note 10 - Income and Other Taxes](#) in the Notes to Consolidated Financial Statements for additional information related to income taxes.

*Inventory*

Inventory is stated at the lower of cost or net realizable value (first-in, first-out). Inventory that is expected to be used within the next twelve months is classified as current inventory. We write-down inventory once it has been determined that conditions exist that may not allow the inventory to be sold for its intended purpose or the inventory is determined to be excess or obsolete based on assumptions about future demand and market conditions. The charge related to inventory write-downs is recorded as a cost of revenue. We evaluate inventory levels at least quarterly against sales forecasts on a significant part-by-part basis, in addition to determining its overall inventory risk. We have incurred, and may in the future incur, charges to write-down inventory. See [Note 6 - Inventory](#) in the Notes to Consolidated Financial Statements for additional information related to inventory.

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The above listing is not intended to be a comprehensive list of all our accounting policies. In many cases, U.S. GAAP specifically dictates the accounting treatment of a particular transaction. There are also areas in which management's judgment in selecting any available alternative would not produce a materially different result. For a complete discussion of our accounting policies, recently adopted accounting pronouncements, and other required U.S. GAAP disclosures, we refer you to the accompanying [Notes to Consolidated Financial Statements](#) in this Annual Report.

**Results of Operations**

The following table sets forth Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) as a percentage of revenue:

	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
Revenue	100.0 %	100.0 %	100.0 %
Cost of revenue	61.2	67.7	82.7
Gross profit	38.8	32.3	17.3
<b>Operating expense:</b>			
Selling, general, and administrative	15.5	22.4	36.8
Research and development	11.0	18.4	22.3
Loss (gain) on sale of assets	0.3	(2.1)	(0.3)
Total operating expense	26.8	38.7	58.8
Operating income (loss)	12.0	(6.4)	(41.5)
<b>Other income:</b>			
Gain on extinguishment of debt	4.1	—	—
Interest income (expense), net	0.3	(0.1)	0.7
Foreign exchange gain (loss)	0.1	0.2	(0.5)
Total other income	4.6	0.1	0.2
Income (loss) before income tax expense	16.5	(6.3)	(41.3)
Income tax expense	(0.4)	(0.1)	(0.1)
Net income (loss)	16.2 %	(6.4) %	(41.2) %
Foreign exchange translation adjustment	(0.1)	—	—
Comprehensive income (loss)	16.0 %	(6.4) %	(41.2) %

**Comparison of Results of Operations**

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>			
	<b>2021</b>	<b>2020</b>	<b>Change</b>	
Revenue	\$ 158,444	\$ 110,128	\$ 48,316	43.9 %
Cost of revenue	96,956	74,546	22,410	30.1
Gross profit	61,488	35,582	25,906	72.8
<b>Operating expense:</b>				
Selling, general, and administrative	24,544	24,631	(87)	(0.4)
Research and development	17,448	20,269	(2,821)	(13.9)
Loss (gain) on sale of assets	515	(2,284)	2,799	122.5
Total operating expense	42,507	42,616	(109)	(0.3)
Operating income (loss)	18,981	(7,034)	26,015	369.8
<b>Other income:</b>				
Gain on extinguishment of debt	6,561	—	6,561	100.0
Interest income (expense), net	466	(104)	570	548.1
Foreign exchange gain	207	198	9	4.5
Total other income	7,234	94	7,140	7595.7
Income (loss) before income tax expense	26,215	(6,940)	33,155	477.7
Income tax expense	(572)	(60)	(512)	(853.3)
Net income (loss)	\$ 25,643	\$ (7,000)	\$ 32,643	466.3 %
Foreign exchange translation adjustment	(231)	(32)	(199)	(621.9)
Comprehensive income (loss)	\$ 25,412	\$ (7,032)	\$ 32,444	461.4 %

**Comparison of Revenue**

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>			
	<b>2021</b>	<b>2020</b>	<b>Change</b>	
Aerospace and Defense	\$ 50,838	\$ 55,240	\$ (4,402)	(8.0) %
Broadband	107,606	54,888	52,718	96.0
Total revenue	\$ 158,444	\$ 110,128	\$ 48,316	43.9 %

*Aerospace and Defense*

For the fiscal year ended September 30, 2021, revenue decreased \$4.4 million, or 8.0%, compared to the same period in the prior year, due to lower Navigation and Inertial Sensing and Defense Optoelectronics revenue. The Navigation and Inertial Sensing revenue decrease was due primarily to lower FOG revenue, where customer demand under a large single-axis gyro program fluctuated down during the first half of fiscal 2021 and where non-recurring engineering contract revenue decreased. Lower QMEMS revenue, due primarily to a decline in revenue from pandemic-impacted commercial aviation programs, also contributed to the decrease in Navigation and Inertial Sensing revenue. The Defense Optoelectronics revenue decrease was caused by a drop in product shipments during the second half of fiscal 2021 due primarily to the delay in orders on one large program as well as supply chain interruptions associated with a contract manufacturer transition.

*Broadband*

For the fiscal year ended September 30, 2021, revenue increased \$52.7 million, or 96.0%, compared to the same period in the prior year, driven by increased customer demand. Increased customer demand arose in part from an increase in investment by CATV multiple-system operators (“MSO”) in their networks to address the bottlenecks created by bandwidth demands from both work-from-home initiatives and “stay at home” entertainment.

**Gross Profit**

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>			
	<b>2021</b>	<b>2020</b>	<b>Change</b>	
Aerospace and Defense	\$ 13,705	\$ 16,729	\$ (3,024)	(18.1) %
Broadband	47,783	18,853	28,930	153.5
<b>Total gross profit</b>	<b>\$ 61,488</b>	<b>\$ 35,582</b>	<b>\$ 25,906</b>	<b>72.8 %</b>

Cost of revenue consists of raw materials, compensation expense including non-cash stock-based compensation expense, depreciation expense and other manufacturing overhead costs, expenses associated with excess and obsolete inventories, and product warranty costs. Historically, cost of revenue as a percentage of revenue, which we refer to as gross margin, has fluctuated significantly due to product mix, manufacturing yields, sales volumes, inventory and specific product warranty charges, as well as the amount of our revenue relative to fixed manufacturing costs.

Consolidated gross margins were 38.8% and 32.3% for the fiscal years ended September 30, 2021 and 2020, respectively. Stock-based compensation expense within cost of revenue totaled approximately \$0.8 million and \$0.7 million for the fiscal years ended September 30, 2021 and 2020, respectively.

*Aerospace and Defense*

For the fiscal year ended September 30, 2021, Aerospace and Defense gross profit decreased \$3.0 million, or 18.1%, compared to the same period in the prior year, primarily due to lower revenue. For the fiscal years ended September 30, 2021 and 2020, Aerospace and Defense gross margin was 27.0% and 30.3%, respectively. Gross margin in the fiscal year ended September 30, 2021 decreased due to lower product sales resulting from decreased customer program demand, which resulted in lower absorption of fixed costs. During the fiscal year ended September 30, 2021, there was a shift of product mix to products requiring a higher level of technical performance, which resulted in lower yields and higher costs.

*Broadband*

For the fiscal year ended September 30, 2021, Broadband gross profit increased \$28.9 million, or 153.5%, compared to the same period in the prior year, primarily driven by higher product revenue. For the fiscal years ended fiscal years ended September 30, 2021 and 2020, Broadband gross margin was 44.4% and 34.3%, respectively. The gross margin in the fiscal year ended September 30, 2021 increased driven by higher levels of product revenue and factory utilization.

**Selling, General and Administrative**

Selling, general, and administrative ("SG&A") consists primarily of compensation expense including non-cash stock-based compensation expense related to executive, finance, and human resources personnel, as well as sales and marketing expenses, professional fees, legal and patent-related costs, and other corporate-related expenses.

Stock-based compensation expense within SG&A totaled \$2.6 million and \$2.1 million for the fiscal years ended September 30, 2021 and 2020, respectively. SG&A expense for the fiscal year ended September 30, 2021 decreased from the amount reported in the same period in the prior year, due to lower consulting fees, facility and travel expenses, and partially offset by an increase in compensation and insurance expenses. As a percentage of revenue, SG&A expenses were 15.5% and 22.4% for the fiscal years ended September 30, 2021 and 2020, respectively.

**Research and Development**

Research and development ("R&D") consists primarily of compensation expense including non-cash stock-based compensation expense, as well as engineering and prototype costs, depreciation expense, and other overhead expenses, as they relate to the design, development, and testing of our products. R&D costs are expensed as incurred. We believe that in order to remain competitive, we must invest significant financial resources in developing new product features and enhancements and in maintaining customer satisfaction worldwide.

Stock-based compensation expense within R&D totaled approximately \$0.8 million and \$0.7 million for the fiscal years ended September 30, 2021 and 2020, respectively. For the fiscal years ended September 30, 2021 and 2020, Aerospace and Defense R&D expense was \$14.6 million and \$17.5 million, respectively. For each of the fiscal years ended September 30, 2021 and

2020, Broadband R&D expense was \$2.8 million. R&D expense for the fiscal year ended September 30, 2021 decreased from the amounts reported in the same period in the prior year primarily due to the expense incurred in the fiscal year ended September 30, 2020 from the Customer Settlement Agreement of \$1.5 million and a decrease in compensation, supplies, and consulting costs. As a percentage of revenue, R&D expenses were 11.0% and 18.4% for the fiscal years ended September 30, 2021 and 2020, respectively.

### **Operating Income (Loss)**

Operating income (loss) represents revenue less the cost of revenue and direct operating expenses incurred. Operating income (loss) is a measure that executive management uses to assess performance and make decisions.

As a percentage of revenue, operating income (loss) was 12.0% and (6.4)% for the fiscal years ended September 30, 2021 and 2020, respectively. Operating income increased by \$26.0 million in the fiscal year ended September 30, 2021 compared to the same period in the prior year driven by the increase in revenue which resulted in higher gross profit while operating expenses remained flat.

### **Other Income**

#### *Gain on Extinguishment of Debt*

Gain on extinguishment of debt is related to the forgiveness in full of our PPP Loan, including accrued interest. During the fiscal year ended September 30, 2021, we recorded a gain on extinguishment of debt of \$6.6 million.

#### *Interest Income (Expense), net*

Interest expense is related to our Credit Facility and interest income is earned on cash and cash equivalent balances. During the fiscal years ended September 30, 2021 and 2020, we recorded \$0.5 million and \$(0.1) million of interest income (expense), respectively. The interest income earned on cash and cash equivalents balances, which was partially offset by interest expense and letter of credit fees related to our Credit Facility. Interest income was lower than the amount reported in the same period in the prior year due to the impact of COVID-19 on U.S. financial markets. Lower interest expense was the result of the reversal of previously recorded sales tax interest expense.

#### *Foreign Exchange Gain*

Gains or losses from foreign currency transactions denominated in currencies other than the U.S. dollar, both realized and unrealized, are recorded as foreign exchange gain (loss) on the consolidated statements of operations and comprehensive loss. The gain recorded relate to the change in value of the Yuan Renminbi relative to the U.S. dollar. For each of the fiscal years ended September 30, 2021 and 2020, we recorded foreign exchange gain of approximately \$0.2 million.

### **Income Tax Expense**

For the fiscal years ended September 30, 2021 and 2020, we recorded income tax expense of approximately \$0.6 million and \$0.1 million. Income tax expense for the fiscal years ended September 30, 2021 and 2020 is composed primarily of state minimum tax expense.

## Comparison of Financial Results

(in thousands, except percentages)

	For the Fiscal Year Ended September 30,			
	2020	2019	Change	
Revenue	\$ 110,128	\$ 87,265	\$ 22,863	26.2 %
Cost of revenue	74,546	72,176	2,370	3.3
Gross profit	35,582	15,089	20,493	135.8
Operating expense:				
Selling, general, and administrative	24,631	32,080	(7,449)	(23.2)
Research and development	20,269	19,443	826	4.2
Gain on sale of assets	(2,284)	(302)	(1,982)	(656.3)
Total operating expense	42,616	51,221	(8,605)	(16.8)
Operating loss	(7,034)	(36,132)	29,098	80.5
Other income:				
Interest (expense) income, net	(104)	629	(733)	(116.5)
Foreign exchange gain (loss)	198	(427)	625	146.4
Total other income	94	202	(108)	(53.5)
Loss before income tax expense	(6,940)	(35,930)	28,990	80.7
Income tax expense	(60)	(54)	(6)	(11.1)
Net loss	\$ (7,000)	\$ (35,984)	\$ 28,984	80.5 %
Foreign exchange translation adjustment	(32)	65	(97)	(149.2)
Comprehensive loss	\$ (7,032)	\$ (35,919)	\$ 28,887	80.4 %

## Revenue

	For the Fiscal Year Ended September 30,			
	2020	2019	Change	
Aerospace and Defense	\$ 55,240	\$ 33,086	\$ 22,154	67.0 %
Broadband	54,888	54,179	709	1.3
Total revenue	\$ 110,128	\$ 87,265	\$ 22,863	26.2 %

### Aerospace and Defense

For the fiscal year ended September 30, 2020, Aerospace and Defense revenue increased \$22.2 million, or 67.0%, compared to the same period in the prior year. Included in Aerospace and Defense revenue is \$30.3 million and \$9.8 million of revenue from SDI for the fiscal years ended September 30, 2020 and 2019, respectively partially offset by a decrease in our other Aerospace and Defense revenue of \$4.7 million. For the fiscal year ended September 30, 2020, Navigation and Inertial Sensing product line revenue increased \$15.8 million compared to the same period in the prior year, driven by inclusion of SDI revenue, of \$20.5 million, for the full 2020 fiscal year, and an increase in revenue from our Defense Optoelectronics product line of \$6.4 million compared to the same period in the prior year partially offset by a decrease in our other Aerospace and Defense revenue of \$4.7 million. For the fiscal year ended September 30, 2020, our Defense Optoelectronics product line revenue increase was primarily due to an increase in products sold arising from increased customer demand.

### Broadband

For the fiscal year ended September 30, 2020, Broadband revenue increased \$0.7 million or 1.3%, compared to the same period in the prior year driven by higher customer demand in the CATV Lasers and Transmitters and Sensing product lines partially offset by a decrease in demand of the Chips product line.

**Gross Profit**

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>			
	<b>2020</b>	<b>2019</b>	<b>Change</b>	
Aerospace and Defense	\$ 16,729	\$ 9,207	\$ 7,522	81.7 %
Broadband	18,853	5,882	12,971	220.5
Total gross profit	\$ 35,582	\$ 15,089	\$ 20,493	135.8 %

Consolidated gross margins were 32.3% and 17.3% for the fiscal years ended September 30, 2020 and 2019, respectively. Stock-based compensation expense within cost of revenue totaled approximately \$0.7 million and \$0.5 million during each of the fiscal years ended September 30, 2020 and 2019, respectively.

*Aerospace and Defense*

For the fiscal year ended September 30, 2020, Aerospace and Defense gross profit increased \$7.5 million, or 81.7%, compared to the same period in the prior year, driven by higher revenue, of which \$9.3 million results from the inclusion of SDI gross profit in the fiscal year ended September 30, 2020, compared to a \$2.6 million inclusion of SDI gross profit in the fiscal year ended September 30, 2019. For the fiscal years ended September 30, 2020 and 2019, Aerospace and Defense gross margin was 30.3% and 27.8%, respectively. The increased gross margin in the fiscal year ended September 30, 2020 was driven by improved product mix.

*Broadband*

For the fiscal year ended September 30, 2020, Broadband gross profit increased \$13.0 million, or 220.5%, compared to the same period in the prior year, driven by improved product mix in the fiscal year ended September 30, 2020 and product costs and inventory charges related to excess and obsolete inventory in the fiscal year ended September 30, 2019. For the fiscal years ended September 30, 2020 and 2019, Broadband gross margin was 34.3% and 10.9%, respectively. The increased gross margin in the fiscal year ended September 30, 2020 was driven by improved product mix and lower product costs and inventory related charges.

**Selling, General and Administrative**

Stock-based compensation expense within SG&A totaled approximately \$2.2 million and \$1.5 million for the fiscal years ended September 30, 2020 and 2019. SG&A expense for the fiscal year ended September 30, 2020 decreased from the amount reported in the prior year by \$7.4 million due to lower attorneys' fees and costs arising from litigation proceedings, partially offset by an increase in compensation, insurance and bad debt expenses. As a percentage of revenue, SG&A expenses were 22.4% and 36.8% for the fiscal years ended September 30, 2020 and 2019, respectively.

**Research and Development**

Stock-based compensation expense within R&D totaled approximately \$0.6 million for each of the fiscal years ended September 30, 2020 and 2019. For the fiscal years ended September 30, 2020 and 2019, Aerospace and Defense R&D expense was \$17.5 million and \$10.4 million, respectively. For the fiscal years ended September 30, 2020 and 2019, Broadband R&D expense was \$2.8 million and \$9.0 million, respectively. Total R&D expense for the fiscal year ended September 30, 2020 increased from the amounts reported in the same period in the prior year by \$0.8 million driven by the expense arising from the Customer Settlement Agreement of \$1.5 million partially offset by lower project spending. As a percentage of revenue, R&D expenses were 18.4% and 22.3% for the fiscal years ended September 30, 2020 and 2019, respectively.

**Operating Loss**

As a percentage of revenue, operating loss was 6.4% and 41.5% for the fiscal years ended September 30, 2020 and 2019, respectively. Operating loss improved by \$29.1 million in the fiscal year ended September 30, 2020 compared to the same period in the prior year primarily due to the increased gross profit of \$20.5 million, the decreased SG&A expense of \$7.4 million, the gain on sale of assets of \$2.0 million, offset by increased R&D expense of \$0.8 million.

**Other Income**

*Interest (Expense) Income, net*

During the fiscal years ended September 30, 2020 and 2019, we recorded \$(0.1) million and \$0.6 million, respectively. Interest expense was due to letter of credit fees related to our Credit Facility. Interest income for the fiscal year ended September 30, 2020 was lower than the amount reported in the same period in the prior year due to the impact of COVID-19 on U.S. financial markets and lower cash and cash equivalents balances.

*Foreign Exchange Gain (Loss)*

During the fiscal years ended September 30, 2020 and 2019, we recorded foreign exchange gain (loss) of \$0.2 million and a \$(0.4) million, respectively.

**Income Tax Expense**

During each of the fiscal years ended September 30, 2020 and 2019, we recorded income tax expense of approximately \$0.1 million. Income tax expense for the fiscal year ended September 30, 2020 is composed primarily of state minimum tax expense partially offset by the reversal of a deferred tax liability related to the Concord Real Property. Income tax expense for the fiscal year ended September 30, 2019 is primarily comprised of state minimum tax expense.

**Liquidity and Capital Resources**

We have historically consumed cash from operations, and in most periods, have incurred operating losses from continuing operations. We have managed our liquidity position through the sale of assets and cost reduction initiatives, as well as borrowings from our Credit Facility and capital markets transactions. As of September 30, 2021, cash and cash equivalents totaled \$71.7 million and net working capital totaled \$116.5 million. Net working capital, calculated as current assets (including inventory) minus current liabilities, is a financial metric we use which represents available operating liquidity.

We have taken a number of actions to continue to support our operations and meet our obligations:

- We maintain a credit facility with Wells Fargo that provides us with a revolving credit line of up to \$15.0 million that can be used as required for operations, subject to certain liquidity and availability requirements (the "Credit Facility"). The Credit Facility had \$13.4 million available for borrowing as of September 30, 2021. See [Note 9 - Credit Facility and Debt](#) in the Notes to Consolidated Financial Statements for additional information regarding the Credit Facility.
- In October 2019, we entered into the Hytera Asset Purchase Agreement pursuant to which we agreed to sell certain of our CATV Lasers and Transmitters manufacturing equipment for purposes of outsourcing manufacturing of our CATV Lasers and Transmitters product lines to Hytera. In August 2021, we entered into the Fastrain Asset Purchase Agreement, pursuant to which, among other items, Fastrain agreed to purchase the same equipment subject to the Hytera Asset Purchase Agreement, along with additional equipment, for aggregate consideration of \$6.2 million. See Management's Discussion and Analysis of Financial Condition and Results of Operations Recent Developments under the heading "Hytera and Fastrain Transactions" for additional information regarding the transactions with Hytera and Fastrain.
- In May 2020, we received PPP Loan proceeds of approximately \$6.5 million under the PPP Loan Agreement. In July 2021, we received a notification from Wells Fargo that the SBA approved our PPP Loan forgiveness application for the entire PPP Loan balance of approximately \$6.5 million, including all accrued interest thereon, and that the remaining PPP Loan balance is zero. The forgiveness of the PPP Loan was recognized during our fiscal quarter ended June 30, 2021.
- In February 2020, SDI sold the Concord Real Property to Eagle Rock for a total purchase price of \$13.2 million, netting proceeds of \$12.8 million after transaction commissions and expenses incurred in connection with the sale. See Management's Discussion and Analysis of Financial Condition and Results of Operations Recent Developments for additional information regarding the sale of the Concord Real Property and Concord Lease Agreement.
- On February 16, 2021, we closed our offering of 6,655,093 shares of our common stock at a price of \$5.40 per share, resulting in net proceeds to us from the offering of \$33.1 million. See Management's Discussion and Analysis of Financial Condition and Results of Operations Recent Developments under the heading "Equity Offering" for additional information regarding the equity offering.

We believe that our existing balances of cash and cash equivalents, cash flows from operations and amounts expected to be available under our Credit Facility (or a replacement facility, to the extent the expiration of the Credit Facility occurs in February 2022) will provide us with sufficient financial resources to meet cash requirements for operations, working capital, and capital expenditures for at least the next twelve months from the issuance date of these financial statements.



Should we require more capital than what is generated by operations, we could engage in additional sales or other monetization of certain fixed assets and real estate, additional cost reductions, or elect to raise capital in the U.S. through debt or additional equity issuances. These alternatives may not be available to us on reasonable terms or at all, and could result in higher effective tax rates, increased interest expense, and/or dilution of earnings.

The continued spread of COVID-19 has led to disruption and volatility in the global capital markets, which, depending on future developments, could impact our capital resources in the future. If we need to raise additional capital to support operations, we may be unable to access capital markets and additional capital may only be available to us on terms that could be significantly detrimental to our existing stockholders and to our business.

**Cash Flow**

*Operating Activities*

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>						
	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>Change 2021 vs 2020</b>	<b>Change 2020 vs 2019</b>		
Net cash provided by (used in) operating activities (net of acquired assets and assumed liabilities)	\$ 11,153	\$ (3,892)	\$ (15,151)	\$ 15,045	386.6 %	\$ 11,259	74.3 %

For the fiscal year ended September 30, 2021, operating activities provided cash of \$11.2 million, primarily due to net income of \$25.6 million and adjustments for non-cash charges, including depreciation and amortization expense of \$4.1 million and stock-based compensation expense of \$4.2 million, offset by changes in operating assets and liabilities (or working capital components), of \$22.9 million. The change in operating assets and liabilities was primarily the result of an increase in accounts receivable and contract assets of \$5.3 million, inventory of \$6.3 million and other assets of \$1.5 million, and a decrease in accounts payable of \$0.4 million and accrued expenses and other liabilities of \$9.3 million.

For the fiscal year ended September 30, 2020, operating activities used cash of \$3.9 million, primarily due to net loss of \$7.0 million, changes in operating assets and liabilities (or working capital components) of \$3.8 million and gain on disposal of assets of \$2.3 million, partially offset by adjustments for non-cash charges, including depreciation and amortization expense of \$5.5 million, stock-based compensation expense of \$3.5 million, issuance of restricted stock units of \$0.4 million, product warranty provision of \$0.4 million and bad debt provision of \$0.2 million. The change in operating assets and liabilities was primarily the result of an increase in accounts receivable and contract assets of \$7.5 million, inventory of \$1.2 million and other assets of \$13.5 million, partially offset by an increase in accounts payable of \$6.1 million and accrued expenses and other liabilities of \$12.2 million.

*Working Capital Components*

Accounts Receivable We generally expect the level of accounts receivable at any given quarter end to reflect the level of sales in that quarter. Accounts receivable balances have fluctuated historically due to the timing of account collections, timing of product shipments, and/or change in customer credit terms.

Inventory We generally expect the level of inventory at any given quarter end to reflect the change in expectations of forecasted sales during the quarter. Inventory balances have fluctuated historically due to the timing of customer orders and product shipments, changes in internal forecasts related to customer demand, as well as adjustments related to excess and obsolete inventory.

Accounts Payable The fluctuation of accounts payable balances is primarily driven by changes in inventory purchases as well as changes related to the timing of actual payments to vendors.

Accrued Expenses The largest accrued expense typically relates to compensation. Historically, fluctuations of accrued expense accounts have primarily related to changes in the timing of actual compensation payments, receipt or application of advanced payments, adjustments to warranty accrual, and accruals related to professional fees.

*Investing Activities*

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>						
	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>Change 2021 vs 2020</b>		<b>Change 2020 vs 2019</b>	
Net cash (used) in provided by investing activities	\$ (3,837)	\$ 10,887	\$ (31,803)	\$ (14,724)	(135.2) %	\$ 42,690	134.2 %

For the fiscal year ended September 30, 2021, investing activities used cash of \$3.8 million primarily from capital-related expenditures of \$5.4 million partially offset by cash proceeds from the future sale of assets of \$0.8 million and cash proceeds from the disposal of property, plant and equipment of \$0.7 million.

For the fiscal year ended September 30, 2020, investing activities provided cash of \$10.9 million primarily from cash proceeds from the disposal of property, plant and equipment of \$15.4 million partially offset by capital-related expenditures of \$4.5 million. The \$15.4 million of cash proceeds from the disposal of property, plant and equipment primarily consisted of net proceeds of \$12.8 million in connection with the sale and leaseback of the Concord Real Property.

#### *Financing Activities*

<i>(in thousands, except percentages)</i>	<b>For the Fiscal Year Ended September 30,</b>						
	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>Change 2021 vs 2020</b>		<b>Change 2020 vs 2019</b>	
Net cash provided by financing activities	33,725	1,499	5,799	\$ 32,226	2,149.8 %	\$ (4,300)	(74.2) %

For the fiscal year ended September 30, 2021, financing activities provided cash of \$33.7 million, primarily due to proceeds from issuance of employee stock purchase plan and equity awards of \$0.8 million, proceeds from sale of common stock of \$35.9 million offset by issuance costs of \$2.8 million.

For the fiscal year ended September 30, 2020, financing activities provided cash of \$1.5 million, primarily due to \$6.5 million of borrowings from the PPP Loan and proceeds from stock plan transactions of \$0.6 million, partially offset by net payments related to borrowings from our bank Credit Facility of \$5.5 million and tax withholding paid on behalf of employees for stock-based awards of \$0.1 million.

#### **Contractual Obligations and Commitments**

Contractual obligations and commitments over the next five fiscal years are summarized in the table below and are presented as of September 30, 2021:

<i>(in thousands)</i>	<b>Total</b>	<b>Less Than a Year</b>	<b>1 to 3 Years</b>	<b>4 to 5 Years</b>	<b>Over 5 Years</b>
Purchase obligations	\$ 21,536	\$ 20,715	\$ 821	\$ —	\$ —
Asset retirement obligations	2,262	58	—	2,066	138
Operating lease obligations	19,594	1,955	3,542	3,505	10,592
Total contractual obligations and commitments	\$ 43,392	\$ 22,728	\$ 4,363	\$ 5,571	\$ 10,730

Interest payments are not included in the contractual obligations and commitments table above since they are insignificant to consolidated results of operations. The contractual obligations and commitments table above also excludes unrecognized tax benefits, because we are unable to reasonably estimate the period during which this obligation may be incurred, if at all. As of September 30, 2021, we had no unrecognized tax benefits.

#### *Purchase Obligations*

Purchase obligations represent an estimate of all open purchase orders and contractual obligations in the ordinary course of business for which we have not received the goods or services as of September 30, 2021. Although open purchase orders are considered enforceable and legally binding, the terms generally allow us the option to cancel, reschedule and adjust requirements based on business needs prior to the delivery of goods or performance of services. The purchase obligations of

\$21.5 million as of September 30, 2021, set forth above primarily relates to open purchase orders to our contract manufacturers, component suppliers, service partners, and other vendors, including capital expenditures related to facility renovations.

#### *Asset Retirement Obligations*

We have known conditional Asset Retirement Obligation ("ARO") conditions, such as certain asset decommissioning and restoration of rented facilities to be performed in the future. ARO includes assumptions related to renewal option periods where we expect to extend facility lease terms. Revisions in estimated liabilities can result from revisions of estimated inflation rates, escalating retirement costs, and changes in the estimated timing of settling the ARO. See [Note 11 - Commitments and Contingencies](#) in the Notes to Consolidated Financial Statements for additional information related to AROs.

#### *Operating Lease Obligations*

Operating leases include non-cancelable terms and exclude renewal option periods, property taxes, insurance and maintenance expenses on leased properties. See [Note 11 - Commitments and Contingencies](#) in the Notes to Consolidated Financial Statements for additional information related to operating lease obligations.

#### **Off-Balance Sheet Arrangements**

We do not have any off-balance sheet arrangements other than operating leases described above that have or are reasonably likely to have a current or future material effect on consolidated financial condition, results of operations, liquidity, capital expenditures or capital resources.

#### **ITEM 7A. Quantitative and Qualitative Disclosures About Market Risks**

We are exposed to financial market risks, including changes in currency exchange rates and interest rates. We do not use derivative financial instruments for speculative purposes.

#### **Foreign Currency Exchange Risks**

The United States dollar is the reporting currency for the consolidated financial statements. The functional currency for our China subsidiary is the Yuan Renminbi.

We recognize translation adjustments due to the effect of changes in the value of the Yuan Renminbi relative to the U.S. dollar associated with our operations in China. The assets and liabilities of our foreign operations are translated from their functional currency into U.S. dollars at the rates in effect at the consolidated balance sheet dates, and the revenue and expense amounts are translated at the average rate during the applicable periods reflected on the consolidated statements of operations and comprehensive income (loss). Foreign currency translation adjustments are recorded as accumulated other comprehensive income.

Gains and losses from foreign currency transactions denominated in currencies other than the U.S. dollar, both realized and unrealized, are recorded as foreign exchange gain (loss) on the consolidated statements of operations and comprehensive income (loss).

During the normal course of business, we are exposed to market risks associated with fluctuations in foreign currency exchange rates due to the Yuan Renminbi. To reduce the impact of these risks on earnings and to increase the predictability of cash flows, we use natural offsets in receipts and disbursements within the applicable currency as the primary means of reducing the risk.

Some foreign suppliers may adjust their prices (in U.S. dollars) from time to time to reflect currency exchange fluctuations. Such price changes could impact future financial condition or results of operations. We do not currently hedge foreign currency exposure.

#### **Interest Rate Risks**

We monitor interest rate risk on cash balances primarily through cash flow forecasting. Cash that is surplus to immediate requirements is invested in short-term deposits with banks accessible with short notice and invested in money market accounts. We believe our current interest rate risk is immaterial. A hypothetical reduction in the interest rates on our cash and cash equivalents to zero would result in an immaterial reduction of interest income with a de minimis impact on income before taxes.

Based on the LIBOR rate loans outstanding under our Credit Facility a hypothetical 50 basis points increase in interest rates would have resulted in an insignificant amount of additional interest expense.

Given the low interest rate environment, the relatively low interest income generated from our cash and cash equivalents, and interest expense incurred related to our unused line of credit, we do not believe that interest rate risks currently pose material exposures to our business or results of operations.

#### **Inflation Risks**

Inflationary factors, such as increases in material costs and operating expenses, may adversely affect results of operations and cash flows. Although we do not believe that inflation has had a material impact on our financial position or results of operations to date, an increase in the rate of inflation in the future may have an adverse effect on the levels of gross profit and operating expenses as a percentage of revenue if the sales prices for our products do not proportionately increase with these increases in expenses.

#### **Credit Market Conditions**

The U.S. and global capital markets periodically experience turbulent conditions, particularly in the credit markets, which can result in tightening of lending standards, reduced availability of credit, and reductions in certain asset values. This could impact the ability to obtain additional funding through financing or asset sales.

**ITEM 8. Financial Statements and Supplementary Data**

**EMCORE CORPORATION**  
**Consolidated Statements of Operations and Comprehensive Income (Loss)**  
**For the Fiscal Years Ended September 30, 2021, 2020 and 2019**  
(in thousands, except per share data)

	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Revenue	\$ 158,444	\$ 110,128	\$ 87,265
Cost of revenue	96,956	74,546	72,176
Gross profit	61,488	35,582	15,089
<b>Operating expense:</b>			
Selling, general, and administrative	24,544	24,631	32,080
Research and development	17,448	20,269	19,443
Loss (gain) on sale of assets	515	(2,284)	(302)
Total operating expense	42,507	42,616	51,221
Operating income (loss)	18,981	(7,034)	(36,132)
<b>Other income:</b>			
Gain on extinguishment of debt	6,561	—	—
Interest income (expense), net	466	(104)	629
Foreign exchange gain (loss)	207	198	(427)
Total other income	7,234	94	202
Income (loss) before income tax expense	26,215	(6,940)	(35,930)
Income tax expense	(572)	(60)	(54)
Net income (loss)	\$ 25,643	\$ (7,000)	\$ (35,984)
Foreign exchange translation adjustment	(231)	(32)	65
Comprehensive income (loss)	\$ 25,412	\$ (7,032)	\$ (35,919)
<b>Per share data:</b>			
Net income (loss) income per basic share:	\$ 0.75	\$ (0.24)	\$ (1.29)
Weighted-average number of basic shares outstanding	34,020	29,136	27,983
Net income (loss) per basic and diluted share	\$ 0.72	\$ (0.24)	\$ (1.29)
Weighted-average number of diluted shares outstanding	35,789	29,136	27,983

**The accompanying notes are an integral part of these consolidated financial statements.**

**EMCORE CORPORATION**  
**Consolidated Balance Sheets**  
**As of September 30, 2021 and 2020**  
(in thousands)

	As of September 30,	
	2021	2020
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 71,621	\$ 30,390
Restricted cash	61	148
Accounts receivable, net of allowance of \$260 and \$227, respectively	31,849	25,324
Contract assets	361	1,566
Inventory	32,309	25,525
Prepaid expenses and other current assets	6,877	5,589
Assets held for sale	1,241	1,568
<b>Total current assets</b>	<b>144,319</b>	<b>90,110</b>
Property, plant, and equipment, net	22,544	21,052
Goodwill	69	69
Operating lease right-of-use assets	13,489	14,566
Other intangible assets, net	167	202
Other non-current assets	225	242
<b>Total assets</b>	<b>\$ 180,813</b>	<b>\$ 126,241</b>
<b>LIABILITIES and SHAREHOLDERS' EQUITY</b>		
<b>Current liabilities:</b>		
Accounts payable	\$ 16,686	\$ 16,484
Accrued expenses and other current liabilities	9,936	11,577
Operating lease liabilities - current	1,198	992
<b>Total current liabilities</b>	<b>27,820</b>	<b>29,053</b>
PPP Loan liability - non-current	—	6,488
Operating lease liabilities - non-current	12,684	13,735
Asset retirement obligations	2,049	2,022
Other long-term liabilities	794	794
<b>Total liabilities</b>	<b>43,347</b>	<b>52,092</b>
Commitments and contingencies (Note 11)		
<b>Shareholders' equity:</b>		
Common stock, no par value, 50,000 shares authorized; 43,890 shares issued and 36,984 shares outstanding as of September 30, 2021; 36,461 shares issued and 29,551 shares outstanding as of September 30, 2020	782,266	744,361
Treasury stock at cost; 6,906 shares	(47,721)	(47,721)
Accumulated other comprehensive income	687	918
Accumulated deficit	(597,766)	(623,409)
<b>Total shareholders' equity</b>	<b>137,466</b>	<b>74,149</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 180,813</b>	<b>\$ 126,241</b>

The accompanying notes are an integral part of these consolidated financial statements.

**EMCORE CORPORATION**  
**Consolidated Statements of Shareholders' Equity**  
**For the Fiscal Years Ended September 30, 2021, 2020 and 2019**  
(in thousands)

	For the Fiscal Year Ended September 30,		
	2021	2020	2019
<b>Shares of common stock</b>			
Balance, beginning of period	29,550	28,893	27,577
Stock-based compensation	572	309	307
Stock option exercises	15	1	1
Issuance of common stock for acquisition	—	—	811
Issuance of restricted stock units	—	116	—
Issuance of common stock - ESPP	192	231	197
Sale of common stock	6,655	—	—
Balance, end of period	<u>36,984</u>	<u>29,550</u>	<u>28,893</u>
<b>Value of common stock</b>			
Balance, beginning of period	\$ 744,361	\$ 739,926	\$ 734,066
Stock-based compensation	4,180	3,517	2,607
Stock option exercises	77	2	1
Tax withholding paid on behalf of employees for stock-based awards	(260)	(111)	(203)
Issuance of common stock for acquisition	—	—	2,951
Issuance of restricted stock units	—	410	—
Issuance of common stock - ESPP	767	617	504
Sale of common stock, net of offering costs	33,141	—	—
Balance, end of period	<u>782,266</u>	<u>744,361</u>	<u>739,926</u>
<b>Treasury stock, beginning and ending of period</b>	<u>(47,721)</u>	<u>(47,721)</u>	<u>(47,721)</u>
<b>Accumulated other comprehensive income</b>			
Balance, beginning of period	918	950	885
Translation adjustment	(231)	(32)	65
Balance, end of period	<u>687</u>	<u>918</u>	<u>950</u>
<b>Accumulated deficit</b>			
Balance, beginning of period	(623,409)	(616,409)	(580,425)
Net income (loss)	25,643	(7,000)	(35,984)
Balance, end of period	<u>(597,766)</u>	<u>(623,409)</u>	<u>(616,409)</u>
<b>Total shareholders' equity</b>	<u>\$ 137,466</u>	<u>\$ 74,149</u>	<u>\$ 76,746</u>

The accompanying notes are an integral part of these consolidated financial statements.

**EMCORE CORPORATION**  
**Consolidated Statements of Cash Flows**  
**For the Fiscal Years Ended September 30, 2021, 2020 and 2019**  
(in thousands)

	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
<b>Cash flows from operating activities:</b>			
Net income (loss)	\$ 25,643	\$ (7,000)	\$ (35,984)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization expense	4,061	5,484	7,142
Stock-based compensation expense	4,180	3,517	2,607
Provision adjustments related to doubtful accounts	33	188	62
Provision adjustments related to product warranty	322	373	186
Loss (gain) on disposal of property, plant and equipment	515	(2,284)	(302)
Other	(658)	(342)	464
Total non-cash adjustments	8,453	6,936	10,159
Changes in operating assets and liabilities:			
Accounts receivable and contract assets	(5,348)	(7,518)	3,980
Inventory	(6,326)	(1,226)	6,486
Other assets	(1,500)	(13,465)	(238)
Accounts payable	(420)	6,171	(4,539)
Accrued expenses and other current liabilities	(9,349)	12,210	4,985
Total change in operating assets and liabilities	(22,943)	(3,828)	10,674
Net cash provided by (used) in operating activities	11,153	(3,892)	(15,151)
<b>Cash flows from investing activities:</b>			
Purchase of equipment	(5,358)	(4,516)	(10,790)
Acquisition of business, net of cash acquired	—	—	(21,483)
Proceeds from future sale of assets	834	—	—
Proceeds from disposal of property, plant and equipment	687	15,403	470
Net cash (used in) provided by investing activities	(3,837)	10,887	(31,803)
<b>Cash flows from financing activities:</b>			
Proceeds from PPP Loan	—	6,488	—
Net (payments) proceeds from borrowings of credit facilities	—	(5,497)	5,497
Proceeds from employee stock purchase plans and exercise of equity awards	844	619	505
Proceeds from sale of common stock	35,937	—	—
Issuance cost associated with sale of common stock	(2,796)	—	—
Taxes paid related to net share settlement of equity awards	(260)	(111)	(203)
Net cash provided by financing activities	33,725	1,499	5,799
Effect of exchange rate changes provided by foreign currency	103	67	(63)
Net increase (decrease) in cash, cash equivalents and restricted cash	41,144	8,561	(41,218)
Cash, cash equivalents and restricted cash at beginning of period	30,538	21,977	63,195
Cash, cash equivalents and restricted cash at end of period	\$ 71,682	\$ 30,538	\$ 21,977
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION</b>			
Cash paid during the period for interest	\$ 61	\$ 113	\$ 126
Cash paid during the period for income taxes	\$ 975	\$ 63	\$ 68
<b>NON-CASH INVESTING AND FINANCING ACTIVITIES</b>			
Changes in accounts payable related to purchases of equipment	\$ 360	\$ (520)	\$ (180)
Restricted stock units issued in settlement of bonus	\$ —	\$ 410	\$ —

The accompanying notes are an integral part of these consolidated financial statements.



**EMCORE Corporation**  
**Notes to Consolidated Financial Statements**

**NOTE 1. Description of Business**

EMCORE Corporation (referred to herein, together with its subsidiaries, as the “Company,” “we,” “our,” or “EMCORE”) is a leading provider of sensors for navigation in the aerospace and defense market as well as a manufacturer of lasers and optical subsystems for use in the Cable TV (“CATV”) industry. EMCORE pioneered the linear fiber optic transmission technology that enabled the world’s first delivery of CATV directly on fiber, and today is a leading provider of advanced products that enable communications systems and service providers to meet growing demand for increased bandwidth and connectivity. The technology at the heart of our broadband communications products is shared with our fiber optic gyroscope (“FOG”) and inertial sensors to provide the aerospace and defense markets with state-of-the-art navigation systems technology. With the acquisition of Systron Donner Inertial, Inc. (“SDI”), a navigation systems provider with a scalable, chip-based platform for higher volume gyro applications utilizing quartz micro-electromechanical system (“QMEMS”) technology, in June 2019, EMCORE further expanded its portfolio of gyros and inertial sensors with SDI’s QMEMS gyro and accelerometer technology. EMCORE has fully vertically-integrated manufacturing capability through our indium phosphide (“InP”) compound semiconductor wafer fabrication facility at our headquarters in Alhambra, CA, and through our quartz processing and sensor manufacturing facility in Concord, CA. These facilities support EMCORE’s vertically-integrated manufacturing strategy for quartz and FOG products, for navigation systems, and for our chip, laser, transmitter, and receiver products for broadband applications. With both analog and digital circuits on multiple chips, or even a single chip, the value of Mixed-Signal device solutions is often substantially greater than traditional digital applications and requires a specialized expertise held by EMCORE which is unique in the optics industry.

**NOTE 2. Summary of Significant Accounting Policies**

**Principles of Consolidation**

The consolidated financial statements have been prepared in accordance with U.S. GAAP and include the assets, liabilities, shareholders’ equity, and operating results of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The Company is not the primary beneficiary of, nor do we hold a significant variable interest in, any variable interest entity.

**Going Concern Basis**

The consolidated financial statements included herein have been prepared on a going concern basis, which contemplates continuity of operations and the realization of assets and the repayment of liabilities in the ordinary course of business. Management evaluated the significance of the Company’s recent operating losses and determined that the Company’s current cash on hand, operating plan, and sources of capital will be sufficient for the Company to continue as a going concern. The Company has taken a number of actions to continue to support its operations and meet its obligations, including headcount and cost reductions, monetization of certain fixed assets and real estate, and entering into financing activities. The Company believes that its existing liquidity will be sufficient to meet anticipated cash needs for at least the next 12 months from the issuance date of these financial statements.

**Use of Estimates**

The preparation of consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities, as of the date of the financial statements, and the reported amounts of revenue and expenses during the reported period. Such estimates include accounts receivable; inventories; goodwill; long-lived assets; product warranty liabilities; legal contingencies; and income taxes.

We develop estimates based on historical experience and on various assumptions about the future that are believed to be reasonable based on the best information available to us. Our reported financial position or results of operations may be materially different under changed conditions or when using different estimates and assumptions, particularly with respect to significant accounting policies. In the event that estimates or assumptions prove to differ from actual results, adjustments are made in subsequent periods to reflect more current information.

**Concentration of Credit Risk**

Financial instruments that may subject us to concentrations of credit risk consist primarily of accounts receivable. When necessary, we perform credit evaluations on customers' financial condition and occasionally we request deposits in advance of shipping product to customers. These financial evaluations require significant judgment and are based on a variety of factors including, but not limited to, current economic trends, historical payment patterns, bad debt write-off experience, and financial review of the particular customer.

#### **Cash and Cash Equivalents**

Cash and cash equivalents consists primarily of bank deposits and highly liquid short-term investments with a maturity of three months or less at the time of purchase.

#### **Restricted Cash**

Restricted cash represents recently deposited cash that is temporarily restricted by our bank in accordance with the terms of the outstanding credit facility.

#### **Accounts Receivable**

We regularly evaluate the collectability of accounts receivable and maintain allowances for doubtful accounts for estimated losses resulting from the inability of customers to meet their financial obligations to us. The allowance is based on the age of receivables and a specific identification of receivables considered at risk of collection. We classify charges associated with the allowance for doubtful accounts as selling, general, and administrative expense.

#### **Inventory**

Inventory is stated at the lower of cost or net realizable value (first-in, first-out). Inventory that is expected to be used within the next 12 months is classified as current inventory. We write-down inventory once it has been determined that conditions exist that may not allow the inventory to be sold for its intended purpose or the inventory is determined to be excess or obsolete based on assumptions about future demand and market conditions. The charge related to inventory write-downs is recorded as cost of revenue. We evaluate inventory levels at least quarterly against an estimate of future demand on a significant part-by-part basis, in addition to determining its overall inventory risk. We have incurred, and may in the future incur, charges to write-down inventory. See [Note 6 - Inventory](#) in the Notes to Consolidated Financial Statements for additional information related to inventory.

#### **Property, Plant, and Equipment**

Property, plant, and equipment are recorded at cost. Plant and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets. We depreciate equipment over three to ten years, furniture and fixtures over five years, computer hardware and software over five to seven years. Leasehold improvements are amortized over the lesser of the asset life or the lease term. Expenditures for repairs and maintenance are charged to expense as incurred. The costs for major renewals and improvements are capitalized and depreciated over their estimated useful lives of the related asset. The cost and related accumulated depreciation of the assets are removed from the accounts upon disposition and any resulting gain or loss is reflected in the consolidated statement of operations and comprehensive income (loss).

#### **Valuation of Long-lived Assets**

Long-lived assets consist primarily of property, plant, and equipment, net. Since long-lived assets are subject to depreciation, we review these assets for impairment in accordance with the provisions of ASC 360, *Property, Plant, and Equipment*. We review long-lived assets for impairment whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. Impairment testing of long-lived assets consists of determining whether the carrying amount of the long-lived asset (asset group) is recoverable, in other words, whether the sum of the future undiscounted cash flows expected to result from the use and eventual disposition of the asset (asset group) exceeds its carrying amount. The determination of the existence of impairment involves judgments that are subjective in nature and may require the use of estimates in forecasting future results and cash flows related to an asset or group of assets. In making this determination, we use certain assumptions, including estimates of future cash flows expected to be generated by these assets, which are based on additional assumptions such as asset utilization, the length of service that assets will be used in operations, and estimated salvage values.

#### **Asset Retirement and Environmental Obligations**

Pursuant to ASC 410, *Asset Retirement and Environmental Obligations*, an ARO is recorded when there is a legal obligation associated with the retirement of a tangible long-lived asset and the fair value of the liability can reasonably be estimated. Upon initial recognition of an ARO, a company increases the carrying amount of the long-lived asset by the same amount as the liability. Over time, the liabilities are accreted for the change in their present value through charges to operations costs. The initial capitalized costs are depleted over the useful lives of the related assets through charges to depreciation, and/or amortization. If the fair value of the estimated ARO changes, an adjustment is recorded to both the ARO and the asset retirement cost. Revisions in estimated liabilities can result from revisions of estimated inflation rates, escalating retirement costs, and changes in the estimated timing of settling ARO liabilities.

### **Fair Value of Financial Instruments**

We determine the fair value of financial instruments in accordance with ASC 820, *Fair Value Measurements and Disclosures*. ASC Topic 820 ("ASC 820"), *Fair Value Measurements*, establishes a valuation hierarchy for disclosure of the inputs to valuation techniques used to measure fair value. This standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1 inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the assets or liabilities, either directly or indirectly, through market corroboration, for substantially the full term of the financial instrument.
- Level 3 inputs are unobservable inputs based on assumptions used to measure assets or liabilities at fair value.

Classification of an asset or liability within this hierarchy is determined based on the lowest level input that is significant to the fair value measurement. Valuation techniques used to measure fair value under ASC 820 must maximize the use of observable inputs and minimize the use of unobservable inputs.

Cash and cash equivalents consists primarily of bank deposits or highly liquid short-term investments with a maturity of three months or less at the time of purchase. Restricted cash represents temporarily restricted deposits held as compensating balances against short-term borrowing arrangements. Cash, cash equivalents and restricted cash are based on Level 1 measurements. The carrying amounts of cash and cash equivalents, restricted cash, accounts receivable, other current assets, and accounts payable approximate fair value because of the short maturity of these instruments.

### **Revenue Recognition**

To determine the proper revenue recognition, we perform the following five steps: (a) identify the contract(s) with a customer; (b) identify the performance obligations in the contract; (c) determine the transaction price; (d) allocate the transaction price to the performance obligations in the contract; and (e) recognize revenue when (or as) we satisfy a performance obligation. We only apply the five-step model to contracts when it is probable that we will collect the consideration we are entitled to in exchange for the goods or services we transfer to the customer.

The vast majority of revenues are from product sales to customers, pursuant to purchase orders with short lead times. Revenues from product sales are recognized when the customer obtains control of our product, which occurs at a point in time. The Company has elected to account for shipping and handling activities as a fulfillment cost as permitted by the standard. When we perform shipping and handling activities after the transfer of control to the customer (e.g. when control transfers prior to delivery), they are considered fulfillment activities, and accordingly, the costs are accrued when the related revenue is recognized. We expense incremental costs of obtaining a contract as and when incurred if the expected amortization period of the asset that we would have recognized is one year or less.

In certain instances, inventory is maintained by customers at consigned locations. Revenues from consigned sales are recognized when the customer obtains control of our product, which occurs at a point in time. This is typically when the customer pulls product for use.

We use a number of wholesale distributors around the world and recognize revenue when the wholesale distributor obtains control of our product, which occurs at a point in time, typically upon shipment. Wholesale distributors are contractually obligated to pay us on standard commercial terms, consistent with our end-use customers. We do not sell to wholesale distributors on consignment and do not give wholesale distributors a right of return.

In certain instances, prior to customers accepting product that is manufactured at one of our CMs, these customers require that they first qualify the product and manufacturing processes at our CM (e.g. customer acceptance clause). The customers' qualification process determines whether the product manufactured at our CM achieves their quality, performance, and reliability standards. After a customer completes the initial qualification process, we receive approval to ship qualified product to that customer. Revenues are recognized when the customer obtains control of the qualified product, which occurs at a point in time, typically upon shipment.

To a lesser extent, we enter into other types of contracts including non-recurring engineering contracts. We recognize revenue for these arrangements over time or at a point in time depending on our evaluation of when the customer obtains control of the promised goods or services. For contracts that include multiple performance obligations, we allocate revenue to each performance obligation based on estimates of the relative standalone selling price that we would charge the customer for each promised product or service. Revenue from products and services transferred to customers over time accounted for 1%, 5%, and 4% of the Company's revenue for the years ended September 30, 2021, 2020, and 2019, respectively.

#### *Receivables, Net*

Receivables, net, include amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. Payments are generally due within 90 days or less of invoicing and do not include a significant financing component. We maintain an allowance for credit loss to provide for the estimated amount of receivables that will not be collected. The allowance is based upon an assessment of customer creditworthiness, historical payment experience, the age of outstanding receivables and collateral to the extent applicable.

A contract asset is recognized when the Company has recognized revenue, but not issued an invoice for payment. Contract assets are classified as current assets and transferred to receivables when the entitlement to payment becomes unconditional. The Company's contract assets are generally converted to trade account receivables within 90 days, at which time the Company is entitled to payment of the fixed price upon delivery of the finished product subject to customer payment terms.

#### *Remaining Performance Obligations*

Remaining performance obligations represent the transaction price of firm orders for long-term contracts which control has not transferred to the customer. As of September 30, 2021, the aggregate amount of the transaction price allocated to remaining performance obligations was \$1.2 million. The Company expects to recognize revenue on approximately 100% of the remaining performance obligations over the next 12 months.

#### *Product Warranty Reserves*

We provide customers with warranty claims for certain products and warranty-related services are not considered a separate performance obligation. Pursuant to ASC 450, *Contingencies*, we make estimates of product warranty expense using historical experience rates and accrue estimated warranty expense as a cost of revenue. We estimate the costs of warranty obligations based on historical experience of known product failure rates and anticipated rates of warranty claims, use of materials to repair or replace defective products, and service delivery costs incurred in correcting the product issues. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise.

#### *Disaggregation of Revenue*

Revenue is classified within the Company's segments. For additional information on the disaggregated revenues by geographical region and major product category, see [Note 13 – Segment Data and Revenue Information](#) in the Notes to Consolidated Financial Statements.

#### **Leases**

The Company adopted the new lease standard as of October 1, 2019 under the modified retrospective approach. Therefore, the consolidated financial statements for the year ended September 30, 2019 have not been adjusted and continued to be reported under previous U.S. GAAP guidance. Under the new lease standard, the Company determines if an arrangement is a lease at its inception. Right of use (ROU) assets and operating lease liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. The Company uses its estimated incremental borrowing rate in determining the present value of lease payments considering the term of the lease, which is derived from information available at the lease commencement date. The lease term includes renewal options when it is reasonably certain that the option will be exercised.

and excludes termination options. To the extent that the Company's agreements have variable lease payments, the Company includes variable lease payments that depend on an index or a rate and excludes those that depend on facts or circumstances occurring after the commencement date, other than the passage of time. Lease expense for these leases is recognized on a straight-line basis over the lease term. The Company has elected not to recognize ROU assets and lease liabilities that arise from short-term (12 months or less) leases for any class of underlying asset. Operating leases are included in operating lease ROU assets, current operating lease liabilities, and non-current operating lease liabilities in the Company's consolidated balance sheet.

**NOTE 3. Recent Accounting Pronouncements**

**Recent Accounting Standards or Updates Not Yet Effective**

In December 2019, the FASB issued Accounting Standards Update ("ASU") 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes, which simplifies the accounting for income taxes by removing various exceptions, such as the exception to the incremental approach for intra-period tax allocation when there is a loss from continuing operations and income or a gain from other items. The amendments in this update also simplify the accounting for income taxes related to income-based franchise taxes and require that an entity reflect enacted tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date. The new standard is effective for annual periods beginning after December 15, 2020, including interim periods within those annual periods. This accounting standard is effective in the first quarter of the Company's fiscal year ended September 30, 2022. The Company does not expect the adoption of this new guidance to have a material impact on the condensed consolidated financial statements.

**Recently Adopted Accounting Pronouncements**

In June 2016, the FASB issued ASU 2016-13 Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which changes the way entities measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net earnings. The new standard was effective for our fiscal year beginning October 1, 2020. The adoption of this standard did not have a material impact on the condensed consolidated financial statements.

**NOTE 4. Cash, Cash Equivalents, and Restricted Cash**

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total of the same amounts shown in the consolidated statements of cash flows:

<i>(in thousands)</i>	<b>As of September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
Cash	\$ 16,547	\$ 11,325	\$ 4,338
Cash equivalents	55,074	19,065	17,236
Restricted cash	61	148	403
Total cash, cash equivalents and restricted cash	<u>\$ 71,682</u>	<u>\$ 30,538</u>	<u>\$ 21,977</u>

**NOTE 5. Accounts Receivable**

The components of accounts receivable consisted of the following:

<i>(in thousands)</i>	<b>As of September 30,</b>	
	<b>2021</b>	<b>2020</b>
Accounts receivable, gross	\$ 32,109	\$ 25,551
Allowance for credit loss	(260)	(227)
Accounts receivable, net	<u>\$ 31,849</u>	<u>\$ 25,324</u>

The following table summarizes changes in the allowance for credit loss:

<i>(in thousands)</i>	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
Balance at beginning of period	\$ 227	\$ 148	\$ 548
Provision adjustment - expense, net of recoveries	90	188	62
Write-offs and other deductions	(57)	(109)	(462)
Balance at end of period	<u>\$ 260</u>	<u>\$ 227</u>	<u>\$ 148</u>

#### **NOTE 6. Inventory**

The components of inventory consisted of the following:

<i>(in thousands)</i>	<b>As of September 30,</b>	
	<b>2021</b>	<b>2020</b>
Raw materials	\$ 16,146	\$ 13,354
Work in-process	11,410	8,381
Finished goods	4,753	3,790
Inventory balance at end of period	<u>\$ 32,309</u>	<u>\$ 25,525</u>

#### **NOTE 7. Property, Plant, and Equipment, net**

The components of property, plant, and equipment, net consisted of the following:

<i>(in thousands)</i>	<b>As of September 30,</b>	
	<b>2021</b>	<b>2020</b>
Equipment	\$ 37,985	\$ 35,218
Furniture and fixtures	1,125	1,125
Computer hardware and software	3,575	3,473
Leasehold improvements	6,663	3,169
Construction in progress	9,247	10,301
Property, plant, and equipment, gross	\$ 58,595	\$ 53,286
Accumulated depreciation	(36,051)	(32,234)
Property, plant, and equipment, net	<u>\$ 22,544</u>	<u>\$ 21,052</u>

Depreciation expense totaled \$4.0 million, \$5.5 million and \$7.1 million during the fiscal years ended September 30, 2021, 2020 and 2019, respectively. During the fiscal year ended September 30, 2021 and 2020 the Company sold certain equipment and recognized a (loss) gain on sale of assets of \$(0.5) million and \$2.3 million, respectively. In addition, in the fiscal year ended September 30, 2020, the Company entered into agreements to sell additional equipment and these assets were reclassified to assets held for sale. The balance as of September 30, 2021 and 2020 was \$1.2 million and \$1.6 million, respectively.

In February 2020, SDI sold its property located in Concord, California (the "Concord Real Property") to Eagle Rock Holdings, LP ("Eagle Rock"), an affiliate of Parkview Management Group, Inc., for a total purchase price of \$13.2 million. The Company received net proceeds of \$12.8 million after reducing for transaction commissions and expenses incurred in connection with the sale. The Company recorded a gain on the sale of assets of approximately \$0.3 million in the fiscal year ended September 30, 2020 related to this transaction. At the consummation of the sale of the Concord Real Property, SDI entered into a Single-Tenant Triple Net Lease (the "Concord Lease Agreement") pursuant to which SDI leased back from Eagle Rock the Concord Real Property for a term commencing in February 2020 and ending February 2035, unless earlier terminated or extended in accordance with the terms of the Lease Agreement. As a result of the Concord Lease Agreement, the Company recorded net operating lease ROU assets and operating lease liabilities of \$10.8 million during the fiscal year ended September 30, 2020.

#### **Geographical Concentrations**

Long-lived assets consist of land, building, and property, plant, and equipment. As of September 30, 2021 and 2020, approximately 96% and 97%, respectively, of long-lived assets were located in the United States. The remaining long-lived assets are primarily located in China.

#### **NOTE 8. Accrued Expenses and Other Current Liabilities**

The components of accrued expenses and other current liabilities consisted of the following:

<i>(in thousands)</i>	As of September 30,	
	2021	2020
Compensation	\$ 7,192	\$ 6,916
Warranty	1,125	803
Legal expenses and other professional fees	152	211
Contract liabilities	364	502
Income and other taxes	104	1,265
Severance and restructuring accruals	—	17
Other	999	1,863
Accrued expenses and other current liabilities	<u>\$ 9,936</u>	<u>\$ 11,577</u>

Severance and restructuring-related accruals specifically relate to the reductions in force. Expense related to severance and restructuring accruals is included in SG&A expense on the consolidated statements of operations and comprehensive income (loss). In an effort to better align current and future business operations related to CATV product lines, in August 2019 the Company reduced its workforce and recorded \$0.5 million in severance expense in the fiscal year ended September 30, 2019. In January 2020, we further reduced our workforce and recorded \$0.6 million in severance expense in the fiscal year ended September 30, 2020. There was \$0.1 million in severance expense recorded in the fiscal year ended September 30, 2021. As of September 30, 2021 and 2020 there was \$0 and \$17.0 thousand accrued.

The following table summarizes the changes in product warranty accrual accounts:

<i>(in thousands)</i>	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Balance at beginning of period	\$ 803	\$ 654	\$ 642
Provision for product warranty expense	505	626	186
Warranty liability assumed in acquisition liability	—	—	80
Adjustments and utilization of warranty accrual	(183)	(477)	(254)
Balance at end of period	<u>\$ 1,125</u>	<u>\$ 803</u>	<u>\$ 654</u>

## NOTE 9. Credit Facility and Debt

### Credit Facility

On November 11, 2010, we entered into a Credit and Security Agreement (as amended to date, the “Credit Facility”) with Wells Fargo Bank, N.A. (“Wells Fargo”). The Credit Facility is secured by the Company’s assets and is subject to a borrowing base formula based on the Company’s eligible accounts receivable, inventory, and machinery and equipment accounts. The Credit Facility matures in February 2022 and currently provides us with a revolving credit line of up to \$15.0 million at an interest rate equal to LIBOR plus 1.75%, subject to a borrowing base formula, that can be used for working capital requirements, letters of credit, acquisitions, and other general corporate purpose subject to a requirement, for certain specific uses, that the Company have liquidity of at least \$25.0 million after such use. The Credit Facility requires us to maintain (a) liquidity of at least \$10.0 million and (b) excess availability of at least \$1.0 million.

As of September 30, 2021, there were no amounts outstanding under this Credit Facility and the Company was in compliance with all financial covenants. Also, as of September 30, 2021, the Credit Facility had approximately \$0.5 million reserved for one outstanding stand-by letter of credit and approximately \$13.4 million available for borrowing.

### Debt

On May 3, 2020, the Company entered into a Paycheck Protection Program Promissory Note and Agreement (the “PPP Loan Agreement”) with Wells Fargo under the Paycheck Protection Program established under the Coronavirus Aid, Relief and Economic Security Act and administered by the U.S. Small Business Administration (the “SBA”) to receive loan proceeds of approximately \$6.5 million, which the Company received on May 6, 2020.

During 2021 the Company received a notification from Wells Fargo that the SBA approved the Company’s PPP Loan forgiveness application for the entire PPP Loan balance of approximately \$6.5 million, including all accrued interest thereon, and that the remaining PPP Loan balance is zero. The forgiveness of the PPP Loan was recognized during the Company’s fiscal

quarter ended June 30, 2021. The Company recorded the gain on debt extinguishment in other income (expense) in the statements of operations and comprehensive income (loss).

#### NOTE 10. Income and Other Taxes

The Company's income (loss) from operations before income taxes consisted of the following:

<i>(in thousands)</i>	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Domestic	\$ 25,744	\$ (7,159)	\$ (35,100)
Foreign	471	219	(830)
Loss before income taxes	\$ 26,215	\$ (6,940)	\$ (35,930)

The Company's income tax expense consisted of the following:

<i>(in thousands)</i>	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Federal:			
Current	\$ —	\$ 30	\$ —
Deferred	—	(43)	—
	—	(13)	—
State:			
Current	990	98	54
Deferred	—	(25)	—
	990	73	54
Foreign:			
Current	(418)	—	—
Deferred	—	—	—
	(418)	—	—
Total income tax expense	\$ 572	\$ 60	\$ 54

A reconciliation of the provision for income taxes, with the amount computed by applying the statutory U.S. federal and state income tax rates to continuing operations income before provision for income taxes is as follows:

<i>(in thousands)</i>	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Income tax expense (benefit) computed at U.S. federal statutory rate	\$ 5,506	\$ (1,457)	\$ (7,540)
State tax expense (benefit), net of U.S. federal effect	990	(156)	(906)
Foreign tax rate differential	24	13	(28)
Effect due to change in tax rate	—	(137)	(183)
Shortfall from stock based compensation	(122)	432	248
Other	103	94	223
Federal benefit on PPP loan forgiveness	(1,363)	—	—
Change in uncertain tax positions	(419)	—	—
State net operating loss carryforward adjustment	454	533	139
Change in valuation allowance	(4,601)	738	8,101
Income tax expense	\$ 572	\$ 60	\$ 54
Effective tax rate	2.2 %	0.9 %	0.2 %

Significant components of deferred tax assets are as follows:



<i>(in thousands)</i>	As of September 30,	
	2021	2020
Federal net operating loss carryforwards	\$ 96,289	\$ 100,363
Foreign net operating loss carryforwards	1,372	1,680
Income tax credit carryforwards	2,510	2,671
Inventory reserves	2,229	2,320
Accounts receivable reserves	62	55
Accrued warranty reserve	269	193
State net operating loss carryforwards	6,356	5,970
Stock compensation	979	806
Deferred compensation	476	443
Fixed assets and intangibles	(497)	(348)
ROU lease liability	3,289	3,529
ROU lease assets	(3,195)	(3,467)
Other	1,372	1,322
Total deferred tax assets	111,511	115,537
Valuation allowance	(111,511)	(115,537)
Net deferred tax liabilities	\$ —	\$ —

For the fiscal years ended September 30, 2021, 2020 and 2019, the Company recorded income tax expense of approximately \$0.6 million, \$0.1 million and \$0.1 million, respectively. Income tax expense for the fiscal year ended September 30, 2021 is comprised primarily of California state income tax due to temporary suspension of net operating loss credits and other state minimum tax expense, partially offset by the release of a reserve on uncertain tax benefits due to statutory limitation expiration. Income tax expense for the fiscal year ended September 30, 2020 is comprised primarily of state minimum tax expense partially offset by the reversal of a deferred tax liability related to the Concord Real Property. Income tax expense for the fiscal year ended September 30, 2019 is primarily comprised of state minimum tax expense.

For the fiscal years ended September 30, 2021, 2020 and 2019, the effective tax rate on operations was 2.2%, 0.9% and 0.2%, respectively. The higher tax rate for the fiscal year ended September 30, 2021 is primarily due to the higher California state income tax due to temporary suspension of net operating loss credits. The lower tax rate for the fiscal year ended September 30, 2020 was primarily due to the operating loss and state minimum tax expense. The lower tax rate for the fiscal year ended September 30, 2019 was primarily due to the effect of the Tax Cuts and Jobs Act of 2017, which resulted in a credit to the Company on future tax payments for past AMT amounts paid and the current period operating loss. The Company uses some estimates to forecast permanent differences between book and tax accounting.

We have not provided for income taxes on non-U.S. subsidiaries' undistributed earnings as of September 30, 2021 because we plan to indefinitely reinvest the unremitted earnings of the non-U.S. subsidiaries and all of the non-U.S. subsidiaries historically have negative earnings and profits.

All deferred tax assets have a full valuation allowance at September 30, 2021. On a quarterly basis, the Company evaluates the positive and negative evidence to assess whether the more likely than not criteria, has been satisfied in determining whether there will be further adjustments to the valuation allowance.

During the fiscal years ended September 30, 2021, the Company released the ASC 740-10 reserve on uncertain tax benefits due to statutory limitation expiration. During the fiscal year ended September 30, 2020, there were no material increases or decreases in unrecognized tax benefits.

As of September 30, 2021, the Company had net operating loss carryforwards for U.S. federal income tax purposes of approximately \$458.5 million which begin to expire in 2022. As of September 30, 2021, the Company had foreign net operating loss carryforwards of \$5.5 million which begin to expire in 2022 as well as state net operating loss carryforwards of approximately \$72.8 million which begin to expire in 2022. As of September 30, 2021, the Company also had tax credits (primarily foreign income and U.S. research and development tax credits) of approximately \$2.5 million. The research credits begin to expire in 2022. Utilization of net operating loss and tax credit carryforwards are subject to a substantial annual limitation due to the ownership change limitations set forth in Section 382 of the Code and similar state provisions. The Company prepared an Internal Revenue Code 382 analysis to determine the annual limitations on the Company's consolidated net operating loss carryforwards. As a result of the \$458.5 million of U.S. net operating loss carryforwards, approximately

\$230.2 million is subject to an annual limitation and \$228.3 million of the net operating losses are not subject to an annual limitation. Such annual limitations could result in the expiration of the net operating loss and tax credit carryforwards before utilization.

A reconciliation of the beginning and ending amount of unrecognized gross tax benefits is as follows:

<i>(in thousands)</i>	<b>Amount</b>
Balance as of September 30, 2019	\$ 419
Adjustments based on tax positions related to the current year	—
Adjustments based on tax positions of prior years	—
Balance as of September 30, 2020	419
Adjustments based on tax positions related to the current year	—
Adjustments based on tax positions of prior years	(419)
Balance as of September 30, 2021	\$ —

As of September 30, 2021 and 2020, we had approximately \$0 million and \$0.6 million, respectively, of interest and penalties accrued as tax liabilities on the balance sheet. As we released the entire unrecognized tax benefits, as well as the associated interest and penalties as of September 30, 2021, there is no uncertain tax positions that will be paid or settled within the next 12 months. Interest that is accrued on tax liabilities is recorded within interest expense on the consolidated statements of operations.

**NOTE 11. Commitments and Contingencies**

**Leases**

We lease certain facilities and equipment under non-cancelable operating leases. Operating lease amounts exclude property taxes, insurance, and maintenance expenses on leased properties. As of September 30, 2021, our operating leases had remaining lease terms of 0.6 years to 13.4 years, some of which included options to extend 5 additional years. During the fiscal years ended September 30, 2021 and 2020, the Company recorded \$2.2 million and \$1.8 million of operating lease expense, respectively. The Company's finance leases and short term leases are immaterial.

Maturities of operating lease liabilities as of September 30, 2021 were as follows:

<i>(in thousands)</i>	<b>Amount</b>
2022	\$ 1,955
2023	1,856
2024	1,686
2025	1,730
2026	1,775
Thereafter	10,592
Total lease payments	\$ 19,594
Less imputed interest	(5,712)
Total	\$ 13,882

Weighted-average remaining lease term and discount rate related to operating leases are as follows:

	<b>As of September 30,</b>	
	<b>2021</b>	<b>2020</b>
Weighted average remaining lease term (years)	11.9	14.4
Weighted average discount rate	6.1 %	6.1 %

Supplemental cash information and non-cash activities related to operating leases are as follows:

<i>(in thousands)</i>	<b>As of September 30,</b>			
	<b>2021</b>		<b>2020</b>	
Operating cash outflows from operating leases	\$	1,975	\$	1,592
Right-of-use assets obtained in exchange for operating lease liabilities	\$	10,358	\$	10,791

## Asset Retirement Obligations

The Company's ARO consists of legal requirements to decommission assets, restoration of the existing leased facilities to their original state, and certain environmental work to be performed due to the presence of a manufacturing fabrication operation. ARO includes assumptions related to renewal option periods for those facilities where we expect to extend lease terms. The Company recognizes its estimate of the fair value of its ARO in the period incurred in long-term liabilities. The fair value of the ARO is also capitalized as property, plant and equipment. In connection with the Company's lease agreements, we have recorded an ARO liability of \$2.0 million and \$2.0 million at September 30, 2021 and September 30, 2020, respectively. The fair value of ARO was estimated by discounting projected cash flows over the estimated life of the related assets using credit adjusted risk-free rates which ranged from 0.06% to 1.73%. Accretion expense of \$47.6 thousand, \$31.9 thousand and \$54.2 thousand was recorded during the fiscal years ended September 30, 2021, 2020 and 2019, respectively.

The following table summarizes ARO activity:

<i>(in thousands)</i>	<b>Amount</b>
Balance at September 30, 2020	\$ 2,022
Accretion expense	48
Revision in estimated cash flows	(21)
Balance at September 30, 2021	\$ 2,049

## Indemnifications

We have agreed to indemnify certain customers against claims of infringement of intellectual property rights of others in sales contracts with these customers. Historically, we have not paid any claims under these customer indemnification obligations. We enter into indemnification agreements with each director and executive officer pursuant to which we agree to indemnify them for certain potential expenses and liabilities arising from their status as a director or executive officer of the Company. We maintain director and officer insurance, which may cover certain liabilities arising from the obligation to indemnify directors and executive officers in certain circumstances. It is not possible to determine the aggregate maximum potential loss under these indemnification agreements due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular claim.

## Legal Proceedings

We are subject to various legal proceedings, claims, and litigation, either asserted or unasserted, that arise in the ordinary course of business. Except as described below, the outcome of these matters is currently not determinable and we are unable to estimate a range of loss, should a loss occur, from these proceedings. The ultimate outcome of legal proceedings involves judgments, estimates and inherent uncertainties and the results of these matters cannot be predicted with certainty. Professional legal fees are expensed when incurred. We accrue for contingent losses when such losses are probable and reasonably estimable. In the event that estimates or assumptions prove to differ from actual results, adjustments are made in subsequent periods to reflect more current information. Should we fail to prevail in any legal matter or should several legal matters be resolved against the Company in the same reporting period, then the financial results of that particular reporting period could be materially affected.

### *Intellectual Property Lawsuits*

We protect our proprietary technology by applying for patents where appropriate and, in other cases, by preserving the technology, related know-how and information as trade secrets. The success and competitive position of our product lines are impacted by the ability to obtain intellectual property protection for research and development efforts. We have, from time to time, exchanged correspondence with third parties regarding the assertion of patent or other intellectual property rights in connection with certain of our products and processes.

### *Phoenix Legal Proceedings*

On June 12, 2018, Phoenix commenced an arbitration against EMCORE with the AAA in New York. On August 31, 2018, Phoenix filed a First Amended Demand for Arbitration, asserting the following claims: breach of contract, breach of the covenant of good faith and fair dealing, misappropriation of trade secrets (under the Defend Trade Secrets Act, 18 U.S.C. § 1836, and New York law), conversion, unjust enrichment, correction of inventorship relating to U.S. Patent No. 8,773,665, and

declaratory relief, relating to EMCORE's termination of certain agreements entered into between EMCORE and Phoenix related to the purported license of certain intellectual property related to FOG technology and disputed royalty payments related thereto. On September 14, 2018, EMCORE filed an Answering Statement and Counterclaim, denying all of Phoenix's claims and asserting counterclaims for breach of the implied covenant of good faith and fair dealing and declaratory relief.

On June 21, 2019, an interim award (the "Interim Award") was issued in connection with all claims in the AAA proceeding other than the claims related to correction of inventorship and declaratory relief relating to U.S. Patent No. 8,773,665 (the "Patent Claims"). While Phoenix ultimately sought \$21.2 million in total damages, plus attorneys' fees and costs, in the Interim Award, the arbitrator found in the Interim Award that (a) Phoenix's claim for breach of the covenant of good faith and fair dealing was denied; (b) Phoenix's claim for breach of the agreements entered with EMCORE for failure to provide funding for non-recurring engineering was denied; (c) Phoenix's claim for unjust enrichment was denied; (d) Phoenix's claim for conversion was granted, but damages for that claim duplicate the damages on the breach of contract and misappropriation of trade secret claims described below and no incremental damages were awarded based on the granting of this claim; and (e) EMCORE's request for a declaration that, as between EMCORE and Phoenix, EMCORE owns its proprietary IOC and transceiver was granted.

The arbitrator also found in the Interim Award that (a) EMCORE breached certain license agreements entered into with Phoenix by failing to make royalty payments due and failing to provide required accounting, (b) Phoenix and its members are no longer subject to prior exclusivity restrictions; (c) EMCORE's claim for breach of the covenant of good faith and fair dealing was denied; and (d) the proceedings for the Patent Claims and EMCORE's counterclaim with respect thereto would be established by a future proceeding.

Further, out of the original 97 trade secret subpart claims by Phoenix, the arbitrator found in the Interim Award that EMCORE had misappropriated a total of five trade secret subparts (the "Deemed Trade Secrets"), and found that at least one Deemed Trade Secret was being used in seven EMCORE products (the "EMCORE Products"). The arbitrator found that as a result of the foregoing, royalties of 7.5% of the sale price are owed, to the extent not previously paid, on (a) sales through July 16, 2018 on all FOGs sold by EMCORE, and (b) sales from July 16, 2018 through May 31, 2019 of the EMCORE Products whether standalone or incorporated into a larger product, in each case together with interest at the New York statutory rate of 9% simple interest. In addition, the arbitrator found in the Interim Award that Phoenix was the prevailing party, and Phoenix was awarded attorneys' fees and costs in the amount of approximately \$3.7 million, which amount was reduced 10% from Phoenix's attorneys' fees request.

In the Interim Award, the arbitrator further determined that EMCORE shall pay Phoenix a royalty of 7.5% of the sale price on (a) future customer payments for certain EMCORE product contracts previously entered into and (b) customer payments for future sales of any product using any Deemed Trade Secret, in each case payable in a single lump sum within one month of completion of the calendar quarter in which payment has been received from the customer, and shall concurrently submit to Phoenix a written report that sets forth the calculation of the amount of the royalty payment in a form similar to previous royalty reports, provided that following the first \$1 million of royalty payments on the EMP-1 product only, inclusive of payments made to date, EMCORE will pay to Phoenix a royalty of 2.25% of the sale price (net of any warranty work, returns, rebates, discounts or credits). EMCORE is required to continue to make royalty payments in this manner until such time as it has in good faith determined, and can so document, that it has completely ceased use of the Deemed Trade Secrets, and at such time, EMCORE shall provide Phoenix written notice of same.

On October 1, 2019, the arbitrator issued a Modified Partial Final Award, which incorporated by reference the terms of the Interim Award and ordered and awarded, among other items, (a) an award to Phoenix of attorneys' fees and costs in the amount of approximately \$3.8 million, (b) an award to Phoenix of \$1.0 million in damages owing for unpaid royalties through June 30, 2019, of which \$0.6 million remained to be paid as of the issuance of the Modified Partial Final Award, (c) an award to Phoenix of \$0.1 million in pre-judgment interest, calculated at the New York statutory rate of 9% simple interest, and (d) an order that EMCORE make the payments in the foregoing items (a), (b) and (c) on or before October 14, 2019. On October 10, 2019, EMCORE made the foregoing payments to Phoenix in an aggregate amount equal to approximately \$4.5 million. This amount was accrued as of September 30, 2019 and paid during the fiscal year ended September 30, 2020.

During the fiscal year ended September 30, 2019, we recorded the award and settlement to Phoenix of attorneys' fees and costs in the amount of approximately \$3.8 million, and legal expenses of approximately \$5.7 million within selling, general and administrative expense on the consolidated statement of operations and comprehensive (loss) income.

The Patent Claims were not determined in the Interim Award or the Modified Partial Final Award. In December 2019, EMCORE and Phoenix entered into a settlement agreement with respect to the Patent Claims pursuant to which EMCORE (a)

granted Phoenix a fully paid, perpetual nonexclusive license to the disputed patent and (b) agreed to pay Phoenix a total of \$0.4 million, of which \$0.2 million was paid in January 2020, \$0.1 million was paid in April 2020 and \$0.1 million was paid in July 2020.

During the fiscal year ended September 30, 2020, the Company recorded the settlement of the Patent Claims in the amount of approximately \$0.4 million within selling, general and administrative expense on the consolidated statement of operations and comprehensive loss.

On June 21, 2018, Phoenix commenced a special proceeding against EMCORE in the New York Supreme Court, Commercial Division. As part of the special proceeding, Phoenix filed an application for a preliminary injunction in aid of arbitration pursuant to CLPR 7502(c), in connection with the AAA arbitration proceeding in New York. The application resulted in a so-ordered stipulated injunction between EMCORE and Phoenix, which was entered in August 2018. In January 2020, the court granted a motion to confirm the Modified Partial Final Award, vacated the so-ordered stipulated injunction entered in August 2018, and disposed of the special proceeding.

#### *Resilience Litigation*

In February 2021, Resilience Capital (“Resilience”) filed a complaint against us with the Delaware Chancery Court containing claims arising from the February 2020 sale of SDI’s real property (the “Concord Property Sale”) located in Concord, California (the “Concord Real Property”) to Eagle Rock and that certain Single-Tenant Triple Net Lease, dated as of February 10, 2020, entered into by and between SDI and Eagle Rock, pursuant to which SDI leased from Eagle Rock the Concord Real Property for a 15 year term. The Resilience complaint seeks, among other items, (a) a declaration that the Concord Property Sale included a non-cash component; (b) a decree requiring us and Resilience to follow the appraisal requirements set forth in that certain Purchase and Sale Agreement (the “SDI Purchase Agreement”), dated as of June 7, 2019, by and among the Company, The Resilience Fund IV, L.P., The Resilience Fund IV-A, L.P., Aerospace Newco Holdings, Inc. and Ember Acquisition Sub, Inc.; (c) recovery of Resilience’s costs and expenses; and (d) pre- and post-judgment interest.

In April 2021, we filed with the Delaware Chancery Court our answer to the Resilience complaint and counterclaims against Resilience, in which we are seeking, among other items, (a) dismissal of the Resilience complaint and/or granting of judgment in favor of EMCORE with respect to the Resilience complaint, (b) entering final judgment against Resilience awarding damages to us for Resilience’s fraud and breaches of the SDI Purchase Agreement in an amount to be proven at trial and not less than \$1,565,000, (c) a judicial determination of the respective rights and duties of us and Resilience under the SDI Purchase Agreement, (d) an award to us of costs and expenses and (e) pre- and post-judgment interest. We believe that the claims made by Resilience in its complaint are without merit and we intend to vigorously defend ourselves against them.

#### **NOTE 12. Equity**

##### **Equity Plans**

We provide long-term incentives to eligible officers, directors, and employees in the form of equity-based awards. We maintain three equity incentive compensation plans, collectively described below as “Equity Plans” including the 2010 Equity Incentive Plan (“2010 Plan”), the 2012 Equity Incentive Plan (“2012 Plan”), and the 2019 Equity Incentive Plan (“2019 Plan”).

We issue new shares of common stock to satisfy awards issued under our Equity Plans. In March 2021, our shareholders approved the Amended and Restated EMCORE Corporation 2019 Equity Incentive Plan, which was adopted by the Company’s Board of Directors in December 2020 and increased the maximum number of shares of the Company’s common stock that may be issued or transferred pursuant to awards under the 2019 Equity Incentive Plan by an additional 2,138,000 shares.

##### **Stock Options**

Most stock options vest and become exercisable over four to five years and have a contractual life of 10 years. Certain stock options awarded are intended to qualify as incentive stock options pursuant to Section 422A of the Code.

The following table summarizes stock option activity under the Equity Plans for the fiscal year ended September 30, 2021:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (*) (in thousands)
Outstanding as of September 30, 2020	44,065	\$ 5.14		
Granted	—	—		
Exercised	(15,025)	5.13		
Forfeited	—	—		
Expired	(9,171)	6.35		
Outstanding as of September 30, 2021	19,869	\$ 4.59	3.75	\$ 57
Exercisable as of September 30, 2021	19,869	\$ 4.59	3.75	\$ 57
Vested and expected to vest as of September 30, 2021	19,869	\$ 4.59	3.75	\$ 57

(\*) Intrinsic value for stock options represents the “in-the-money” portion or the positive variance between a stock option’s exercise price and the underlying stock price. For the fiscal year ended September 30, 2020, the intrinsic value of options exercised was \$0.

As of September 30, 2021, there was no unrecognized stock-based compensation expense related to non-vested stock options granted under the Equity Plans.

#### Valuation Assumptions

There were no stock option grants for the fiscal years ended September 30, 2021 and 2020.

#### Time-Based Restricted Stock

Time-based restricted stock units (“RSU”) and restricted stock awards (“RSA”) granted to employees under the 2010 Plan, 2012 Plan or 2019 Plan typically vest over 3 to 4 years and are subject to forfeiture if employment terminates prior to the vesting or lapse of the restrictions, as applicable. RSUs are not considered issued or outstanding common stock until they vest. RSAs are considered issued and outstanding on the grant date and are subject to forfeiture if specified vesting conditions are not satisfied.

The following table summarizes the activity related to RSUs and RSAs subject to time-based vesting requirements for the fiscal year ended September 30, 2021:

	RSUs		RSAs	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Non-vested as of September 30, 2020	1,548,045	\$ 3.41	8,154	\$ 8.20
Granted	1,045,673	5.55	—	—
Vested	(598,986)	3.43	(8,154)	8.20
Forfeited	(189,878)	3.70	—	—
Non-vested as of September 30, 2021	1,804,854	\$ 4.61	—	\$ —

As of September 30, 2021, there was approximately \$6.7 million of remaining unamortized stock-based compensation expense associated with RSUs, which will be expensed over a weighted average remaining service period of approximately 2.7 years. The 1.8 million outstanding non-vested and expected to vest RSUs have an aggregate intrinsic value of \$13.5 million and a weighted average remaining contractual term of 2.7 years. For the fiscal years ended September 30, 2021, 2020, and 2019, the intrinsic value of RSUs vested was approximately \$3.6 million, \$1.3 million and \$1.4 million, respectively. For the fiscal years ended September 30, 2020 and 2019, the weighted average grant date fair value of RSUs granted was \$3.41 and \$3.68 per share, respectively.

For the fiscal year ended September 30, 2021, \$27.3 thousand of RSAs vested. As of September 30, 2021, there was no remaining unamortized stock-based compensation expense associated with RSAs.

## Performance Stock

Performance based restricted stock units (“PSU”) and performance based shares of restricted stock (“PRSA”) granted to employees under the 2012 Plan or 2019 Plan typically vest over 1 to 3 years and are subject to forfeiture in whole, if employment terminates, or in whole or in part, if specified vesting conditions are not satisfied, in each case prior to vesting. PSUs are not considered issued or outstanding common stock until they vest. PRSAs are considered issued and outstanding on the grant date and are subject to forfeiture if specified vesting conditions are not satisfied. PSUs and PRSAs that are granted to executive officers and key employees are provided as long-term incentive compensation that is based on relative total shareholder return, which measures performance against the Russell Microcap Index.

The following table summarizes the activity related to PSUs for the fiscal year ended September 30, 2021:

	PSUs	
	Number of Shares (at Target)	Weighted Average Grant Date Fair Value
Non-vested as of September 30, 2020	868,500	\$ 4.79
Granted	231,000	7.39
Vested	(6,086)	7.91
Forfeited	(126,414)	7.70
Non-vested as of September 30, 2021	967,000	\$ 5.01

As of September 30, 2021, there was approximately \$2.4 million of remaining unamortized stock-based compensation expense associated with PSUs, which will be expensed over a weighted average remaining service period of approximately 1.3 years. The 1.0 million outstanding non-vested and expected to vest PSUs have an aggregate intrinsic value of approximately \$7.2 million and a weighted average remaining contractual term of 1.3 years. For the fiscal years ended September 30, 2021, 2020 and 2019, the intrinsic value of PSUs vested was \$34.4 thousand, \$0.0 million and \$0.2 million, respectively. For the fiscal years ended September 30, 2020 and 2019, the weighted average grant date fair value of PSUs granted was \$3.81 and \$5.19 per share, respectively.

As of September 30, 2020, there was no remaining unamortized stock-based compensation expense associated with PRSAs.

## Stock-based Compensation

The following table set forth stock-based compensation expense by award type:

<i>(in thousands)</i>	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Employee stock options	\$ 2	\$ 13	\$ 25
RSUs and RSAs	2,093	1,755	1,495
PSUs and PRSAs	1,396	1,243	685
ESPP	307	214	180
Outside director equity awards and fees in common stock	382	291	221
Total stock-based compensation expense	\$ 4,180	\$ 3,516	\$ 2,606

The following table set forth stock-based compensation expense by expense type:

<i>(in thousands)</i>	For the Fiscal Year Ended September 30,		
	2021	2020	2019
Cost of revenue	\$ 767	\$ 692	\$ 482
Selling, general, and administrative	2,590	2,155	1,478
Research and development	823	669	646
Total stock-based compensation expense	\$ 4,180	\$ 3,516	\$ 2,606

Stock-based compensation within SG&A expense was lower for the fiscal year ended September 30, 2019 due to the reversal of previously recognized expense associated with the forfeiture of unvested RSUs and PSUs of the former CFO.

## Capital Stock

Authorized capital stock consists of 50 million shares of common stock, no par value, and 5,882,352 shares of preferred stock, \$0.0001 par value.

On February 16, 2021, the Company closed our offering of 6,655,093 shares of our common stock, which included the full exercise of the underwriters' option to purchase 868,056 additional shares of common stock, at a price to the public of \$5.40 per share, resulting in net proceeds to us from the offering, after deducting the underwriting discounts and commissions and other offering expenses, of approximately \$33.1 million. The shares were sold by us pursuant to an underwriting agreement with Cowen and Company, LLC, dated as of February 10, 2021. As of September 30, 2021 and 2020, we had 43.9 million and 36.5 million shares of common stock issued and outstanding, respectively. There were no shares of preferred stock issued or outstanding as of September 30, 2021 and 2020.

#### 401(k) Plan

The Company has a savings plan that qualifies as a deferred salary arrangement under Section 401(k) of the Code. Under this savings plan, participating employees may defer a portion of their pretax earnings, up to the Internal Revenue Service annual contribution limit. Since June 2015, all employer contributions are made in cash. Our matching contribution in cash for each of the fiscal years ended September 30, 2021, 2020 and 2019 was approximately \$1.1 million, \$1.0 million, and \$0.6 million, respectively.

#### Earnings (Loss) per Share

The following table sets forth the computation of basic and diluted earnings (loss) per share:

<i>(in thousands, except per share)</i>	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
<b>Numerator</b>			
Net income (loss)	\$ 25,643	\$ (7,000)	\$ (35,984)
<b>Denominator</b>			
Weighted average number of shares outstanding - basic	34,020	29,136	27,983
<b>Effect of dilutive securities</b>			
Stock options	7	—	—
PSUs, RSUs, and restricted stock	1,762	—	—
Weighted average number of shares outstanding - diluted	35,789	29,136	27,983
Earnings (loss) per share - basic	\$ 0.75	\$ (0.24)	\$ (1.29)
Earnings (loss) per share - diluted	\$ 0.72	\$ (0.24)	\$ (1.29)
Weighted average antidilutive options, unvested RSUs and RSAs, unvested PSUs and ESPP shares excluded from the computation	195	1,109	810

Basic EPS is computed by dividing net income (loss) for the period by the weighted-average number of common stock outstanding during the period. Diluted EPS is computed by dividing net income (loss) for the period by the weighted average number of common stock outstanding during the period, plus the dilutive effect of outstanding RSUs and RSAs, PSUs, stock options, and shares issuable under the Employee Stock Purchase Plan ("ESPP") as applicable pursuant to the treasury stock method. Certain of the Company's outstanding share-based awards, noted in the table above, were excluded because they were anti-dilutive, but they could become dilutive in the future. The dilutive stock options and unvested stock were excluded from the computation of diluted net loss per share for the fiscal years ended September 30, 2020 and 2019 due to the Company incurring a net loss for the period.

#### ESPP

Until September 2021, we maintained the ESPP, which provided employees an opportunity to purchase common stock through payroll deductions. The ESPP was a 6-month duration plan with new participation periods beginning on approximately February 25 and August 26 each year, with the purchase price set at 85% of the average high and low market price of common stock on either the first or last trading day of the participation period, whichever was lower, and annual contributions were limited to the lower of 10% of an employee's compensation or \$25.0 thousand. In September 2021, the Compensation Committee of our Board Directors approved the termination of the ESPP, effective immediately.



Prior to termination of the ESPP, we issued new shares of common stock to satisfy the issuance of shares under this stock-based compensation plan. Common stock issued under the ESPP during the fiscal years ended September 30, 2021, 2020 and 2019 totaled approximately 192.0 thousand, 231.0 thousand and 197.0 thousand shares, respectively. As of September 30, 2021, the total amount of common stock issued under the ESPP totaled 3,395,090 shares and the total shares remaining available for issuance under the ESPP totaled 0.

#### Future Issuances

As of September 30, 2021, we had common stock reserved for the following future issuances:

	<b>Number of Common Stock Shares Available for Future Issuances</b>
Exercise of outstanding stock options	19,869
Unvested RSUs and RSAs	1,804,854
Unvested PSUs and PRSAs (at 200% maximum payout)	1,934,000
Issuance of stock-based awards under the Equity Plans	1,751,234
Purchases under the officer and director share purchase plan	88,741
Total reserved	<u>5,598,698</u>

#### NOTE 13. Segment and Revenue Information

##### Reportable Segments

Reported below are the Company's segments for which separate financial information is available and upon which operating results are evaluated by the chief operating decision maker, the Chief Executive Officer, to assess performance and to allocate resources. We do not allocate sales and marketing or general and administrative expenses, or interest expense and interest income to our segments, because management does not include the information in its measurement of the performance of the operating segments. Also, a measure of segment assets and liabilities has not been provided to the Company's chief operating decision maker and therefore is not shown below.

Information on reportable segments utilized by the chief operating decision maker is as follows:

(in thousands)

	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
<b>Revenue</b>			
Aerospace and Defense	\$ 50,838	\$ 55,240	\$ 33,086
Broadband	107,606	54,888	54,179
Total revenue	<u>\$ 158,444</u>	<u>\$ 110,128</u>	<u>\$ 87,265</u>
<b>Segment income (loss)</b>			
Aerospace and Defense gross profit	\$ 13,705	\$ 16,729	\$ 9,207
Aerospace and Defense research and development expense	14,616	17,469	10,448
Aerospace and Defense segment loss	<u>\$ (911)</u>	<u>\$ (740)</u>	<u>\$ (1,241)</u>
Broadband gross profit	\$ 47,783	\$ 18,853	\$ 5,882
Broadband research and development expense	2,832	2,800	8,995
Broadband segment income (loss)	<u>\$ 44,951</u>	<u>\$ 16,053</u>	<u>\$ (3,113)</u>
Consolidated segment income (loss)	<u>\$ 44,040</u>	<u>\$ 15,313</u>	<u>\$ (4,354)</u>
<b>Unallocated operating expense</b>			
Selling, general, and administrative	\$ 24,544	\$ 24,631	\$ 32,080
Loss (gain) on sale of assets	515	(2,284)	(302)
Total unallocated operating expense	<u>\$ 25,059</u>	<u>\$ 22,347</u>	<u>\$ 31,778</u>
Operating income (loss)	<u>\$ 18,981</u>	<u>\$ (7,034)</u>	<u>\$ (36,132)</u>

##### Product Categories

Revenue is also classified by major product category and is presented below:

<i>(in thousands)</i>	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
<b>Aerospace and Defense</b>			
Navigation and Inertial Sensing	\$ 36,539	\$ 38,983	\$ 23,203
Defense Optoelectronics	14,299	16,257	9,883
<b>Broadband</b>			
CATV Lasers and Transmitters	95,255	44,457	41,150
Chip Devices	3,106	4,873	10,828
Other Optical Products	9,245	5,558	2,201
Total revenue	<u>\$ 158,444</u>	<u>\$ 110,128</u>	<u>\$ 87,265</u>

### Geographical Concentration

The following table sets forth revenue by geographic area based on customers' billing address:

<i>(in thousands)</i>	<b>For the Fiscal Year Ended September 30,</b>		
	<b>2021</b>	<b>2020</b>	<b>2019</b>
United States and Canada	\$ 139,443	\$ 91,205	\$ 68,607
Asia	11,836	9,397	11,637
Europe	4,802	5,559	6,209
Other	2,363	3,967	812
Total revenue	<u>\$ 158,444</u>	<u>\$ 110,128</u>	<u>\$ 87,265</u>

### Significant Customers

Significant customers are defined as customers representing greater than 10% of consolidated revenue. Revenue from three, three and three significant customers represented an aggregate of 70%, 57% and 55% of consolidated revenue for the fiscal years ended September 30, 2021, 2020 and 2019, respectively. The percentage from significant customers increased driven by higher Broadband revenue.

Significant portions of the Company's sales are concentrated among a limited number of customers. The duration, severity, and future impact of the COVID-19 pandemic are highly uncertain and could result in significant disruptions to the business operations of the Company's customers. If one or more of these significant customers significantly decreases their orders for the Company's products, or if we are unable to deliver finished products to the customer in connection with such orders, the Company's business could be materially and adversely affected.

### NOTE 14. Subsequent Events

On November 1, 2021, we entered into an Amendment to Lease (the "New Alhambra Lease Amendment") to that certain Standard Industrial/Commercial Single-Tenant Lease – Net, dated as of October 1, 2017, by and between the Company and CHESTNUT2015 LLC (the "Alhambra Lease"), as previously amended by that certain Amendment to Lease, dated as of March 31, 2019 (the "Original Alhambra Lease Amendment"). Pursuant to the terms of the New Alhambra Lease Amendment, we agreed to extend the term of the lease for our corporate headquarters, manufacturing and research and development facilities located in Alhambra, California (the "Leased Facilities") through September 30, 2031, with a five-year Company option to extend beyond such expiration date. Under the terms of the New Alhambra Lease Amendment, base rent for the Leased Facilities will remain unchanged from the rates of \$51,500 per month during the fiscal year ending September 30, 2022 and \$53,500 per month during the fiscal year ending September 30, 2023, in each case as previously agreed in the Original Alhambra Lease Amendment, and we continue to be responsible for certain other monthly expenses related to the Leased Facilities, including taxes and utilities. Base rent for the fiscal year ending September 30, 2024 will be based on a mutually determined fair market value, subject to the appraisal process set forth in New Alhambra Lease Amendment, which amount shall be at least 2% greater than the monthly rent paid during the fiscal year ending September 30, 2023. Monthly base rent for the fiscal year ending September 30, 2025 and each fiscal year thereafter during the term of the lease shall increase from the monthly rent payable in the immediately preceding fiscal year in an amount equal to the percentage increase, from the immediately preceding fiscal year, in the most recently published Consumer Price Index for All Urban Consumers, Los Angeles-Long Beach-Anaheim area, published by the Bureau of Labor Statistics of the U.S. Department of Labor.

## Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors  
EMCORE Corporation:

### *Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting*

We have audited the accompanying consolidated balance sheets of EMCORE Corporation and subsidiaries (the Company) as of September 30, 2021 and 2020, the related consolidated statements of operations and comprehensive income (loss), shareholders' equity, and cash flows for each of the years in the three-year period ended September 30, 2021, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of September 30, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended September 30, 2021, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2021 based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

### *Change in Accounting Principle*

As discussed in [Note 2](#) to the consolidated financial statements, the Company changed its method of accounting for leases as of October 1, 2019 due to the adoption of FASB's ASC Topic 842, Leases.

### *Basis for Opinions*

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

### *Definition and Limitations of Internal Control Over Financial Reporting*

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and

dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

*Critical Audit Matter*

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

*Net realizable value of inventory*

As discussed in [Note 2](#) and [Note 6](#) to the consolidated financial statements, the Company has inventory of \$32.3 million as of September 30, 2021, which is stated at the lower of cost or net realizable value. The Company writes-down inventory once it has been determined that conditions exist that may not allow the inventory to be sold for its intended purpose or the inventory is determined to be excess or obsolete. The determination of the excess and obsolete inventory requires management to make assumptions related to estimates of future inventory demand and market conditions.

We identified the evaluation of net realizable value of inventory as a critical audit matter. Subjective auditor judgment was required to evaluate future inventory demand and market conditions, including whether past consumption and recent purchases used in the Company's model were indicative of future inventory demand.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the inventory process, including controls over the assumptions described above. We evaluated historical write down trends, historical sales of older inventory, and relevant changes in the overall business environment, including changes in key customers, product lines, and competitors, in order to assess the Company's model. For a sample of products within inventory, we compared the Company's determination of past consumption and recent purchases used to estimate future inventory demand of the product to supporting documentation.

/s/ KPMG LLP

We have served as the Company's auditor since 2010.

Irvine, California  
December 3, 2021

**ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

Not applicable.

**ITEM 9A. Controls and Procedures**

**a. Evaluation of Disclosure Control and Procedures**

Management, with the participation of its Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Financial Officer and Accounting Officer), evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based upon this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that disclosure controls and procedures were effective as of the end of the period covered by this report.

**b. Management's Annual Report on Internal Control over Financial Reporting**

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act. Under the supervision of the Chief Executive Officer and Chief Financial Officer and with the participation of management, we conducted an evaluation of the effectiveness of internal control over financial reporting as of September 30, 2021 based on the framework in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, management concluded that internal control over financial reporting was effective as of September 30, 2021.

The Company's independent registered public accounting firm has issued an audit report on the effectiveness of the Company's internal control over financial reporting as stated within their report which appears herein.

**c. Changes in Internal Control over Financial Reporting**

There were no changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) promulgated under the Exchange Act) during the quarter ended September 30, 2021 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting. Due to the ongoing COVID-19 pandemic, a significant number of employees are now working from home. The design of processes, systems, and controls allows for remote execution with accessibility to secure data.

**d. Limitations on Effectiveness of Controls and Procedures**

Management, including the Chief Executive Officer and Chief Financial Officer, does not expect that disclosure controls or internal controls over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by individual acts, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based, in part, upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with associated policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

**ITEM 9B. Other Information**

Not applicable.

**PART III.**

**ITEM 10. Directors, Executive Officers, and Corporate Governance**

Information regarding executive officers and directors required by this Item is incorporated by reference to the section entitled “Proposal I: Election of Directors - Directors and Executive Officers” that will be included in the Definitive Proxy Statement in connection with the Annual Meeting of Stockholders (the “Proxy Statement”), which will be filed with the SEC within 120 days after the fiscal year ended September 30, 2021. Information required by Items 407(c)(3), (d)(4), and (d)(5) of Regulation S-K is incorporated by reference to the information under the caption “Governance of the Company - Board Committees” in the Proxy Statement.

We have adopted a code of ethics entitled the “EMCORE Corporation Code of Business Conduct and Ethics,” which is applicable to all employees, officers, and directors of the Company. The full text of the Code of Business Conduct and Ethics is included with the Corporate Governance information available on our website (www.emcore.com). We intend to disclose any changes in or waivers from the code of ethics for directors and executive officers to the extent disclosure is required by the applicable rules of the SEC and Nasdaq Stock Market LLC by posting such information on our website or by filing a Current Report on Form 8-K.

**ITEM 11. Executive Compensation**

Information required by this Item is incorporated by reference to the information under the captions “Director Compensation for Fiscal Year 2021,” “Compensation Discussion and Analysis,” “Executive Compensation,” “Compensation Committee Report”, and “Compensation Committee Interlocks and Insider Participation” in the Proxy Statement.

**ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

Information regarding security ownership of certain beneficial owners and management is incorporated by reference to the information under the caption “Ownership of Securities - Security Ownership of Certain Beneficial Owners and Management” in the Proxy Statement.

Information regarding equity compensation plans is incorporated by reference to the information under caption “Ownership of Securities - Equity Compensation Plan Information” in the Proxy Statement.

**ITEM 13. Certain Relationships, Related Transactions, and Director Independence**

Information required by this Item is incorporated by reference to information under the captions entitled “Governance of the Company - Related Person Transaction Approval Policy” and “Governance of the Company - Director Independence” in the Proxy Statement.

**ITEM 14. Principal Accounting Fees and Services**

Information required by this Item is incorporated by reference to the information under the caption “Ratification of the Appointment of Independent Registered Public Accounting Firm” in the Proxy Statement.

**PART IV.**

**ITEM 15. Exhibits and Financial Statement Schedules**

**(a)(1) Financial Statements**

Included in [Part II, Item 8](#) of this Annual Report on Form 10-K:

- [Consolidated Statements of Operations and Comprehensive Income \(Loss\) for the fiscal years ended September 30, 2021, 2020, and 2019](#)
- [Consolidated Balance Sheets as of September 30, 2021 and 2020](#)
- [Consolidated Statements of Shareholders' Equity for the fiscal years ended September 30, 2021, 2020, and 2019](#)
- [Consolidated Statements of Cash Flows for the fiscal years ended September 30, 2021, 2020, and 2019](#)
- [Notes to Consolidated Financial Statements](#)
- [Report of Independent Registered Public Accounting Firm](#)

**(a)(2) Financial Statement Schedules**

The applicable financial statement schedules required under this Item 15(a)(2) are presented in the consolidated financial statements and notes thereto under [Part II, Item 8](#) of this Annual Report on Form 10-K.

**(a)(3) Exhibits**

See Item 15(b) below. Each management contract or compensatory plan or arrangement required to be filed has been identified.

**(b) Exhibits**

- |        |   |
|--------|---|
| 2.1    | <a href="#">Purchase and Sale Agreement, dated as of June 7, 2019 by and among EMCORE Corporation, The Resilience Fund IV, L.P., The Resilience Fund IV-A, L.P., Aerospace Newco Holdings, Inc. and Ember Acquisition Sub, Inc. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on June 10, 2019).</a>  |
| 2.2    | <a href="#">Asset Purchase Agreement, dated as of October 25, 2019 by and among EMCORE Corporation, Hytera Communications (Hong Kong) Company Limited and Shenzhen Hytera Communications Co., Ltd. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on October 30, 2019).</a>  |
| 2.3    | <a href="#">Asset Purchase Agreement, dated as of August 9, 2021, by and among EMCORE Corporation, Shenzhen Fastrain Technology Co., Ltd. and Hong Kong Fastrain Company Limited (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on August 11, 2021).</a>   |
| 2.4    | <a href="#">Standard Offer, Agreement and Escrow Instructions for Purchase of Real Estate (Non-Residential) dated as of December 31, 2019 by and between Parkview Management Group, Inc. and Systron Donner Inertial, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8 K filed on January 6, 2020).</a>  |
| 2.5    | <a href="#">First Amendment to Standard Offer, Agreement and Escrow Instructions for Purchase of Real Estate (Non-Residential) dated as of January 13, 2020 by and between Parkview Management Group, Inc. and Systron Donner Inertial, Inc. (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q filed on February 10, 2020).</a>   |
| 3(i).1 | <a href="#">Restated Certificate of Incorporation, dated April 4, 2008, (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on April 4, 2008).</a>  |
| 3(i).2 | <a href="#">Certificate of Amendment of Restated Certificate of Incorporation, dated February 15, 2012 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 16, 2012).</a>   |
| 3(i).3 | <a href="#">Certificate of Amendment of Restated Certificate of Incorporation of EMCORE Corporation, dated September 18, 2014 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on September 18, 2014).</a>   |
| 3(i).4 | <a href="#">Certificate of Designation Establishing the Series A Junior Participating Preferred Stock and Fixing the Powers, Designations, Preferences and Relative, Participating, Optional and Other Special Rights, and the Qualifications, Limitations and Restrictions, of the Series A Junior Participating Preferred Stock, dated September 18, 2014 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on September 18, 2014).</a> |

3(i).5	<a href="#">Certificate of Amendment to the Restated Certificate of Incorporation dated March 19, 2018 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on March 20, 2018).</a>
3(i).6	<a href="#">Certificate of Amendment to the Restated Certificate of Incorporation dated May 12, 2021 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on May 13, 2021).</a>
3(ii).7	<a href="#">By-Laws of EMCORE Corporation, as amended through January 11, 2021 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on January 13, 2021).</a>
4.1	<a href="#">Specimen Certificate for Shares of Common Stock (incorporated by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K filed on December 6, 2017).</a>
4.2**	<a href="#">Description of EMCORE Corporation Capital Stock</a>
10.1	<a href="#">Stipulation of Compromise and Settlement, dated as of November 28, 2007, executed by the Company and the other defendants and the plaintiffs in the Federal Court Action and the State Court Actions (incorporated by reference to Exhibit 10.19 to the Company's Annual Report on Form 10-K filed on December 31, 2007).</a>
10.2†	<a href="#">Directors Compensation Policy (Effective March 18, 2021) (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on May 7, 2021).</a>
10.3†	<a href="#">Officer and Director Share Purchase Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 27, 2011).</a>
10.4†	<a href="#">2010 Equity Incentive Plan, as amended and restated on June 14, 2011 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 16, 2011).</a>
10.5†	<a href="#">2012 Equity Incentive Plan, as amended and restated on January 19, 2017 (incorporated by reference to Exhibit 10.7 to the Company's Annual Report on Form 10-K filed on December 6, 2017).</a>
10.6†	<a href="#">Form of Restricted Stock Unit Award Agreement under the 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.9 to the Company's Annual Report on Form 10-K filed on December 14, 2015).</a>
10.7†	<a href="#">Form of time-based Restricted Stock Unit Award Agreement under the 2012 Equity Incentive Plan (as of October 2016) (incorporated by reference to Exhibit 10.9 to the Company's Annual Report on Form 10-K filed on December 7, 2016).</a>
10.8†	<a href="#">Form of Performance-Based Restricted Stock Award Agreement under the 2012 Equity Incentive Plan (for executive officers) (as of December 2017) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on February 6, 2018).</a>
10.9†	<a href="#">Form of Performance-Based Restricted Stock Award Agreement under the 2012 Equity Incentive Plan (for non-executive officers) (as of October 2016) (incorporated by reference to Exhibit 10.11 to the Company's Annual Report on Form 10-K filed on December 6, 2017).</a>
10.10†	<a href="#">Restricted Stock and Restricted Stock Unit Award Agreement under the 2012 Equity Incentive Plan entered into between the Company and Jeffrey Rittichier, with a grant date of October 18, 2016 (incorporated by reference to Exhibit 10.12 to the Company's Annual Report on Form 10-K filed on December 6, 2017).</a>
10.11†	<a href="#">Performance-Based Restricted Stock and Restricted Stock Unit Award Agreement under the 2012 Equity Incentive Plan entered into between the Company and Jeffrey Rittichier, with a grant date of October 18, 2016 (incorporated by reference to Exhibit 10.13 to the Company's Annual Report on Form 10-K filed on December 6, 2017).</a>
10.12†	<a href="#">EMCORE Corporation 2000 Employee Stock Purchase Plan, as amended March 5, 2014 (incorporated by reference to Exhibit B to the Company's Proxy Statement filed on January 28, 2014).</a>
10.13†	<a href="#">Form of Indemnification Agreement entered into with directors and executive officers (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q filed on August 4, 2020).</a>
10.14†	<a href="#">Employment Agreement, dated December 10, 2014, by and between EMCORE Corporation and Jeff Rittichier (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 11, 2014).</a>
10.15†**	<a href="#">Amended and Restated EMCORE Corporation 2019 Equity Incentive Plan, as amended and restated on November 29, 2021.</a>
10.16†	<a href="#">Form of Time-Based Restricted Stock Unit Award under the EMCORE Corporation 2019 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on March 27, 2019).</a>
10.17†	<a href="#">Form of Performance-Based Restricted Stock Unit Award under the EMCORE Corporation 2019 Equity Incentive Plan (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on March 27, 2019).</a>



10.18†	<a href="#">Form of Time-Based Restricted Stock Unit Award (for directors) under the Amended and Restated EMCORE Corporation 2019 Equity Incentive Plan (as of March 2021) (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on May 7, 2021).</a>
10.19†	<a href="#">Form of Performance-Based Restricted Stock Unit Award (for executive officers) under the Amended and Restated EMCORE Corporation 2019 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed on May 7, 2021).</a>
10.20†	<a href="#">Employment Agreement, dated August 7, 2019, by and between EMCORE Corporation and Tom Minichiello (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 12, 2019).</a>
10.21	<a href="#">Contract Manufacturing Agreement, dated as of October 25, 2019, by and among EMCORE Corporation, Hytera Communications (Hong Kong) Company Limited and Shenzhen Hytera Communications Co., Ltd. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 30, 2019).</a>
10.22	<a href="#">Termination Agreement, dated as of August 9, 2021, by and among EMCORE Corporation, EMCORE Optoelectronics (Beijing) Co., Ltd., Shenzhen Fastrain Technology Co., Ltd. and Hong Kong Fastrain Company Limited, Hytera Communications (Hong Kong) Company Limited and Shenzhen Hytera Communications Co., Ltd. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 11, 2021).</a>
10.23	<a href="#">Manufacturing Supply Agreement, dated as of August 9, 2021, by and among EMCORE Corporation, Shenzhen Fastrain Technology Co., Ltd. and Hong Kong Fastrain Company Limited (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on August 11, 2021).</a>
10.24†	<a href="#">EMCORE Corporation Fiscal 2021 Bonus Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8 K filed on December 16, 2020).</a>
10.25	<a href="#">Single-Tenant Triple Net Lease, dated as of February 10, 2020, by and between Systron Donner Inertial, Inc. and Eagle Rock Holdings, LP (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on February 11, 2020).</a>
10.26	<a href="#">Lease Guaranty, dated as of February 10, 2020, by and between Systron Donner Inertial, Inc. and Eagle Rock Holdings, LP (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on February 11, 2020).</a>
10.27	<a href="#">Paycheck Protection Program Promissory Note and Agreement, dated May 3, 2020, entered into by and between EMCORE Corporation and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 6, 2020).</a>
10.28	<a href="#">Standard Industrial/Commercial Single-Tenant Lease – Net, dated as of October 1, 2017, by and between EMCORE Corporation and CHESTNUT2015 LLC (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 2, 2021).</a>
10.29	<a href="#">Amendment to Lease, dated as of March 31, 2019, by and between EMCORE Corporation and CHESTNUT2015 LLC (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on November 2, 2021).</a>
10.30	<a href="#">Amendment to Lease, dated as of November 1, 2021, by and between EMCORE Corporation and CHESTNUT2015 LLC (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on November 2, 2021).</a>
10.31	<a href="#">Credit and Security Agreement, dated November 11, 2010, between Wells Fargo Bank National Association and the Company (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed November 17, 2010).</a>
10.32	<a href="#">First Amendment to Credit and Security Agreement dated December 21, 2011, between Wells Fargo Bank National Association and the Company, (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed February 14, 2012).</a>
10.33	<a href="#">Second Amendment to the Credit and Security Agreement, dated June 14, 2012, between Wells Fargo Bank National Association and the Company, (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed August 8, 2012).</a>
10.34	<a href="#">Third Amendment to Credit and Security Agreement, dated December 28, 2012, between Wells Fargo Bank National Association and the Company, (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on January 4, 2013).</a>
10.35	<a href="#">Fourth Amendment to Credit and Security Agreement, dated May 21, 2013, between Wells Fargo Bank, National Association and the Company, (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 23, 2013).</a>

10.36	<a href="#">Fifth Amendment to Credit and Security Agreement, dated August 26, 2013, between Wells Fargo Bank, National Association and the Company (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 30, 2013).</a>
10.37	<a href="#">Sixth Amendment to Credit and Security Agreement, dated December 3, 2014, between Wells Fargo Bank, National Association and the Company (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 5, 2014).</a>
10.38**	<a href="#">Seventh Amendment to Credit and Security Agreement, dated November 10, 2015, between Wells Fargo Bank, National Association and the Company.</a>
10.39**	<a href="#">Eighth Amendment to Credit and Security Agreement, dated October 31, 2016, between Wells Fargo Bank, National Association and the Company.</a>
10.40**	<a href="#">Ninth Amendment to Credit and Security Agreement, dated July 27, 2017, between Wells Fargo Bank, National Association and the Company.</a>
10.41**	<a href="#">Tenth Amendment to Credit and Security Agreement, dated November 7, 2018, between Wells Fargo Bank, National Association and the Company.</a>
10.42**	<a href="#">Eleventh Amendment to Credit and Security Agreement, dated December 2, 2019, between Wells Fargo Bank, National Association and the Company.</a>
10.43**	<a href="#">Twelfth Amendment to Credit and Security Agreement, dated December 8, 2020, between Wells Fargo Bank, National Association and the Company.</a>
10.44**	<a href="#">Thirteenth Amendment to Credit and Security Agreement, dated October 26, 2021, between Wells Fargo Bank, National Association and the Company.</a>
21.1**	<a href="#">Subsidiaries of the Company.</a>
23.1**	<a href="#">Consent of KPMG LLP, independent registered public accounting firm.</a>
24.1	Power of Attorney (see the signature page of this Annual Report on Form 10-K).
31.1**	<a href="#">Certificate of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
31.2**	<a href="#">Certificate of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
32.1***	<a href="#">Certificate of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a>
32.2***	<a href="#">Certificate of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a>
101.INS**	Inline XBRL Instance Document.
101.SCH**	Inline XBRL Taxonomy Extension Schema Document.
101.CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
101.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document.
104	Cover Page Interactive Data File - formatted in Inline XBRL and contained in Exhibit 101.

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† Management contract or compensatory plan

\*\* Filed herewith

\*\*\* Furnished herewith

#### ITEM 16. Form 10-K Summary

Not applicable.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

**EMCORE CORPORATION**

Date: **December 3, 2021**

By: **/s/ Jeffrey Rittichier**

Jeffrey Rittichier  
Chief Executive Officer  
(Principal Executive Officer)

Date: **December 3, 2021**

By: **/s/ Tom Minichiello**

Tom Minichiello  
Chief Financial Officer  
(Principal Financial and Accounting Officer)

Each person whose signature appears below constitutes and appoints and hereby authorizes Jeffrey Rittichier such person's true and lawful attorney-in-fact, with full power of substitution or resubstitution, for such person and in his name, place and stead, in any and all capacities, to sign on such person's behalf, individually and in each capacity stated below, any and all amendments to this Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorney-in-fact, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant in the capacities indicated, on December 3, 2021.

Signature	Title
<b><u>/s/ Jeffrey Rittichier</u></b> Jeffrey Rittichier	Chief Executive Officer and Director (Principal Executive Officer)
<b><u>/s/ Tom Minichiello</u></b> Tom Minichiello	Chief Financial Officer (Principal Financial and Accounting Officer)
<b><u>/s/ Stephen L. Domenik</u></b> Stephen L. Domenik	Chairman of the Board
<b><u>/s/ Bruce E. Grooms</u></b> Bruce E. Grooms	Director
<b><u>/s/ Noel Heiks</u></b> Noel Heiks	Director
<b><u>/s/ Rex S. Jackson</u></b> Rex S. Jackson	Director

**EMCORE CORPORATION DESCRIPTION OF SECURITIES REGISTERED PURSUANT TO  
SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

The following is a summary of the material provisions of our Restated Certificate of Incorporation, as amended (our “Certificate of Incorporation”), and By-Laws (our “Bylaws”), insofar as they relate to the material terms of our capital stock. This summary is qualified in its entirety by reference to the full text of our Restated Certificate of Incorporation and Bylaws, which are included as exhibits to our most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission (“SEC”), as may be amended by a document filed with one of our periodic reports filed with the SEC subsequent to the date of that Annual Report. Additionally, the New Jersey Business Corporation Act (the “NJBCA”) may also affect the terms of our capital stock.

**Authorized Capitalization**

Our authorized capital stock consists of:

100,000,000 shares of common stock, no par value (“Common Stock”); and  
5,882,352 shares of preferred stock, par value \$0.0001 per share (“Preferred Stock”).

**Common Stock**

Subject to the relative rights, limitations and preferences of the holders of any then outstanding Preferred Stock, holders of our Common Stock will be entitled to certain rights, including (i) to share ratably in dividends if, when and as declared by our Board of Directors (our “Board”) out of funds legally available therefor and (ii) in the event of our liquidation, dissolution or winding up, to share ratably in the distribution of assets legally available therefor, after payment of debts and expenses. Each outstanding share of our Common Stock entitles the holder to one vote on all matters submitted to a vote of the shareholders, including the election of directors, and the holders of shares of our Common Stock will possess the exclusive voting power. The holders of our Common Stock do not have cumulative voting rights in the election of directors or preemptive rights to subscribe for additional shares of our capital stock.

Holders of shares of our Common Stock do not have any preference, conversion, exchange, sinking fund, redemption or appraisal rights. All outstanding shares of Common Stock are fully paid and nonassessable.

**Preferred Stock**

Under the terms of our Certificate of Incorporation, our Board has the authority, without any requirement of vote or class vote of shareholders, to issue up to 5,882,352 shares of Preferred Stock, in one or more classes or series, and to establish and designate in any such class or series of Preferred Stock such priorities, powers, preferences and relative, participating, optional or other special rights and qualifications, limitations and restrictions as it shall determine.

**Anti-Takeover Effects of Our Certificate of Incorporation and Bylaw Provisions and the NJBCA**

Certain provisions of our Certificate of Incorporation and Bylaws, as well as certain provisions of the NJBCA, may make it more difficult to acquire control of us by means of a tender offer, open market purchase, proxy contest or otherwise. These provisions, summarized below, are expected to discourage certain types of coercive takeover practices and takeover bids that our Board may consider inadequate and to encourage persons seeking to acquire control of our company to first negotiate with our Board. We believe that the benefits of increased protection of our ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company outweigh the disadvantages of discouraging takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms. For additional information, we refer you to the provisions of our Restated Certificate of Incorporation, our Bylaws and the applicable sections of the NJBCA.

*Certain Provisions of our Certificate of Incorporation and Bylaws*

Certain provisions contained in our Certificate of Incorporation and Bylaws could have an anti-takeover effect. These provisions:

- authorize the issuance by our Board of Preferred Stock, without any requirement of vote or class vote of shareholders, commonly referred to as “blank check” preferred stock, which shares of Preferred Stock may have rights senior to those of our Common Stock;
- do not provide for cumulative voting by shareholders in the election of directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors;
- provide that directors may be removed at any time, but only for cause and only by the affirmative vote of the holders of at least a majority of our outstanding shares of capital stock entitled to vote generally in the election of directors cast at a meeting of the shareholders called for that purpose;
- provide that a supermajority vote of our shareholders is required to amend some portions of our Certificate of Incorporation and Bylaws, including requiring approval by the holders of 80% or more of the outstanding shares of our capital stock entitled to vote generally in the election of directors for certain business combinations unless these transactions meet certain fair price criteria and procedural requirements or are approved by two-thirds of our continuing directors;
- limit the persons who can call special shareholder meetings; shareholders do not have authority to call a special meeting of shareholders;

- establish advance notice requirements that must be complied with by shareholders to nominate persons for election to our Board or to propose matters that can be acted on by shareholders at shareholder meetings;
- provide for the filling of vacancies on our Board by action of 66 2/3% of the directors and not by the shareholders; and
- provide that the authorized number of directors may be changed only by resolution of the Board.

#### *New Jersey Shareholders Protection Act*

We are subject to NJBCA Section 14A-10A, which is also known the New Jersey Shareholders Protection Act, a type of anti-takeover statute designed to protect shareholders against coercive, unfair or inadequate tender offers and other abusive tactics and to encourage any person contemplating a business combination with us to negotiate with our Board for the fair and equitable treatment of all shareholders. Subject to certain qualifications and exceptions, the statute prohibits an interested stockholder of a corporation from effecting a business combination with the corporation for a period of five years unless the corporation's board of directors approved the combination prior to the shareholder becoming an interested shareholder. In addition, but not in limitation of the five-year restriction, if applicable, corporations covered by the New Jersey statute may not engage at any time in a business combination with any interested shareholder of that corporation unless the combination is approved by the board of directors prior to the interested shareholder's stock acquisition date, the combination receives the approval of two-thirds of the voting stock of the corporation not beneficially owned by the interested shareholder, or the combination meets minimum financial terms specified by the statute.

An "interested stockholder" is defined to include any beneficial owner of 10% or more of the voting power of the outstanding voting stock of the corporation and any affiliate or associate of the corporation who within the prior five year period has at any time owned 10% or more of the voting power of the then outstanding stock of the corporation.

The term "business combination" is defined broadly to include, among other things:

- the merger or consolidation of the corporation with the interested stockholder or any corporation that is or after the merger or consolidation would be an affiliate or associate of the interested stockholder,
- the sale, lease, exchange, mortgage, pledge, transfer or other disposition to an interested stockholder or any affiliate or associate of the interested stockholder of 10% or more of the corporation's assets, or
- the issuance or transfer to an interested stockholder or any affiliate or associate of the interested stockholder of 5% or more of the aggregate market value of the stock of the corporation.

The effect of the statute is to protect non-tendering, post-acquisition minority shareholders from mergers in which they will be “squeezed out” after the merger, by prohibiting transactions in which an acquirer could favor itself at the expense of minority shareholders. The statute generally applies to corporations that are organized under New Jersey law, and have a class of stock registered or traded on a national securities exchange or registered with the SEC pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

**Listing**

Our Common Stock is listed on The Nasdaq Global Select Market under the trading symbol “EMKR.”

**Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

Appendix AEMCORE CORPORATION  
AMENDED AND RESTATED 2019 EQUITY INCENTIVE PLAN**1. PURPOSE OF PLAN**

The purpose of this EMCORE Corporation Amended and Restated 2019 Equity Incentive Plan (this “**Plan**”) of EMCORE Corporation, a New Jersey corporation (the “**Corporation**”), is to promote the success of the Corporation by providing an additional means through the grant of awards to attract, motivate, retain and reward selected employees and other eligible persons and to enhance the alignment of the interests of the selected participants with the interests of the Corporation’s stockholders.

**2. ELIGIBILITY**

The Administrator (as such term is defined in Section 3.1) may grant awards under this Plan only to those persons that the Administrator determines to be Eligible Persons. An “**Eligible Person**” is any person who is either: (a) an officer (whether or not a director) or employee of the Corporation or one of its Subsidiaries; (b) a director of the Corporation or one of its Subsidiaries; or (c) an individual consultant or advisor who renders or has rendered bona fide services (other than services in connection with the offering or sale of securities of the Corporation or one of its Subsidiaries in a capital-raising transaction or as a market maker or promoter of securities of the Corporation or one of its Subsidiaries) to the Corporation or one of its Subsidiaries and who is selected to participate in this Plan by the Administrator; provided, however, that a person who is otherwise an Eligible Person under clause (c) above may participate in this Plan only if such participation would not adversely affect either the Corporation’s eligibility to use Form S-8 to register under the Securities Act of 1933, as amended (the “**Securities Act**”), the offering and sale of shares issuable under this Plan by the Corporation or the Corporation’s compliance with any other applicable laws. An Eligible Person who has been granted an award (a “**participant**”) may, if otherwise eligible, be granted additional awards if the Administrator shall so determine. As used herein, “**Subsidiary**” means any corporation or other entity a majority of whose outstanding voting stock or voting power is beneficially owned directly or indirectly by the Corporation; and “**Board**” means the Board of Directors of the Corporation.

**3. PLAN ADMINISTRATION**

**3.1 The Administrator.** This Plan shall be administered by and all awards under this Plan shall be authorized by the Administrator. The “**Administrator**” means the Board or one or more committees (or subcommittees, as the case may be) appointed by the Board or another committee (within its delegated authority) to administer all or certain aspects of this Plan. Any such committee shall be comprised solely of one or more directors or such number of directors as may be required under applicable law. A committee may delegate some or all of its authority to another committee so constituted, subject to the provisions of this Plan and any other policies as the Corporation, the Board or such committee may adopt. The Board or a committee comprised solely of directors may also delegate, to the extent permitted by N.J.S.A. Section 14A:8-1(4) (or successor provision) and any other applicable law, to one or more officers of the Corporation, its authority under this Plan. The Board or another committee (within its delegated authority) may delegate different levels of authority to different committees or persons with administrative and grant authority under this Plan. Unless otherwise provided in the Bylaws of the Corporation or the applicable charter of any Administrator: (a) a majority of the members of the acting Administrator shall constitute a quorum, and (b) the vote of a majority of the members present assuming the presence of a quorum or the unanimous written consent of the members of the Administrator shall constitute action by the acting Administrator.

**3.2 Powers of the Administrator.** Subject to the express provisions of this Plan, the Administrator is authorized and empowered to do all things necessary or desirable in connection with the authorization of awards and the administration of this Plan (in the case of a committee or delegation to one or more officers, within any express limits on the authority delegated to that committee or person(s)), including, without limitation, the authority to:

- (a) determine eligibility and, from among those persons determined to be eligible, determine the particular Eligible Persons who will receive an award under this Plan;
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- (b) grant awards to Eligible Persons, determine the price (if any) at which securities will be offered or awarded and the number of securities to be offered or awarded to any of such persons (in the case of securities-based awards), determine the other specific terms and conditions of awards consistent with the express limits of this Plan, establish the installment(s) (if any) in which such awards shall become exercisable or shall vest (which may include, without limitation, performance and/or time-based schedules), or determine that no delayed exercisability or vesting is required, establish any applicable performance-based exercisability or vesting requirements, determine the circumstances in which any performance-based goals (or the applicable measure of performance) will be adjusted and the nature and impact of any such adjustment, determine the extent (if any) to which any applicable exercise and vesting requirements have been satisfied, establish the events (if any) on which exercisability or vesting may accelerate (which may include, without limitation, retirement and other specified terminations of employment or services, or other circumstances), and establish the events (if any) of termination, expiration or reversion of such awards;
  - (c) approve the forms of any award agreements (which need not be identical either as to type of award or among participants);
  - (d) construe and interpret this Plan and any agreements defining the rights and obligations of the Corporation, its Subsidiaries, and participants under this Plan, make any and all determinations under this Plan and any such agreements, further define the terms used in this Plan, and prescribe, amend and rescind rules and regulations relating to the administration of this Plan or the awards granted under this Plan;
  - (e) cancel, modify, or waive the Corporation's rights with respect to, or modify, discontinue, suspend, or terminate any or all outstanding awards, subject to any required consent under Section 8.6.5;
  - (f) accelerate, waive or extend the vesting or exercisability, or modify or extend the term of, any or all such outstanding awards (in the case of options or stock appreciation rights, within the maximum term of such awards) in such circumstances as the Administrator may deem appropriate (including, without limitation, in connection with a retirement or other termination of employment or services, or other circumstances) subject to any required consent under Section 8.6.5;
  - (g) adjust the number of shares of Common Stock subject to any award, adjust the price of any or all outstanding awards or otherwise waive or change previously imposed terms and conditions, in such circumstances as the Administrator may deem appropriate, in each case subject to Sections 4 and 8.6 (and subject to the no repricing provision below);
  - (h) determine the date of grant of an award, which may be a designated date after but not before the date of the Administrator's action to approve the award (unless otherwise designated by the Administrator, the date of grant of an award shall be the date upon which the Administrator took the action approving the award);
  - (i) determine whether, and the extent to which, adjustments are required pursuant to Section 7.1 hereof and take any other actions contemplated by Section 7 in connection with the occurrence of an event of the type described in Section 7;
  - (j) acquire or settle (subject to Sections 7 and 8.6) rights under awards in cash, stock of equivalent value, or other consideration (subject to the no repricing provision below); and
  - (k) determine the fair market value of the Common Stock or awards under this Plan from time to time and/or the manner in which such value will be determined.
- 3.3 *Prohibition on Repricing.*** Notwithstanding anything to the contrary in Section 3.2 and except for an adjustment pursuant to Section 7.1 or a repricing approved by stockholders, in no case may the Administrator (1) amend an outstanding stock option or SAR to reduce the exercise price or base price of the award, (2) cancel, exchange, or surrender an outstanding stock option or SAR in exchange for cash or other awards for the purpose of repricing the award, or (3) cancel, exchange, or surrender an outstanding stock option or SAR in exchange for an option or SAR with an exercise or base price that is less than the exercise or base price of the original award.
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- 3.4 *Binding Determinations.*** Any determination or other action taken by, or inaction of, the Corporation, any Subsidiary, or the Administrator relating or pursuant to this Plan (or any award made under this Plan) and within its authority hereunder or under applicable law shall be within the absolute discretion of that entity or body and shall be conclusive and binding upon all persons. Neither the Board nor any other Administrator, nor any member thereof or person acting at the direction thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with this Plan (or any award made under this Plan), and all such persons shall be entitled to indemnification and reimbursement by the Corporation in respect of any claim, loss, damage or expense (including, without limitation, attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under any directors and officers liability insurance coverage that may be in effect from time to time. Neither the Board nor any other Administrator, nor any member thereof or person acting at the direction thereof, nor the Corporation or any of its Subsidiaries, shall be liable for any damages of a participant should an option intended as an ISO (as defined below) fail to meet the requirements of the Internal Revenue Code of 1986, as amended (the "**Code**"), applicable to ISOs, should any other award(s) fail to qualify for any intended tax treatment, should any award grant or other action with respect thereto not satisfy Rule 16b-3 promulgated under the Securities Exchange Act of 1934, as amended, or otherwise for any tax or other liability imposed on a participant with respect to an award.
- 3.5 *Reliance on Experts.*** In making any determination or in taking or not taking any action under this Plan, the Administrator may obtain and may rely upon the advice of experts, including employees and professional advisors to the Corporation. No director, officer or agent of the Corporation or any of its Subsidiaries shall be liable for any such action or determination taken or made or omitted in good faith.
- 3.6 *Delegation.*** The Administrator may delegate ministerial, non-discretionary functions to individuals who are officers or employees of the Corporation or any of its Subsidiaries or to third parties.
- 3.7 *Minimum Vesting Requirement.*** Notwithstanding anything to the contrary in Section 3.2 and except as provided in the next sentence, all awards granted under this Plan shall be subject to a minimum vesting requirement for one year, and no portion of any such award may vest earlier than the first anniversary of the grant date of the award (the "**Minimum Vesting Requirement**"). The Minimum Vesting Requirement shall not apply to 5% of the total number of shares available under this Plan.

#### **4. SHARES OF COMMON STOCK SUBJECT TO THE PLAN; SHARE LIMITS**

- 4.1 *Shares Available.*** Subject to the provisions of Section 7.1, the capital stock that may be delivered under this Plan shall be shares of the Corporation's authorized but unissued Common Stock and any shares of its Common Stock held as treasury shares. For purposes of this Plan, "**Common Stock**" shall mean the common stock of the Corporation and such other securities or property as may become the subject of awards under this Plan, or may become subject to such awards, pursuant to an adjustment made under Section 7.1.
- 4.2 *Aggregate Share Limit.*** The maximum number of shares of Common Stock that may be delivered pursuant to awards granted to Eligible Persons under this Plan (the "**Share Limit**") is equal to the sum of the following:
- (1) 5,813,160 shares of Common Stock, plus
  - (2) the number of any shares subject to stock options granted under the Corporation's 2012 Equity Incentive Plan, as amended or amended and restated (the "**2012 Plan**") and the Corporation's 2010 Equity Incentive Plan, as amended (the "**2010 Plan**" and together with the 2012 Plan, the "**Prior Plans**") that were outstanding on March 22, 2019 (the date of initial stockholder approval of this Plan, the "**Stockholder Approval Date**") which expire, or for any reason are cancelled or terminated, after the Stockholder Approval Date without being exercised, plus
  - (3) the number of any shares subject to restricted stock and restricted stock unit awards granted under the Prior Plans that were outstanding and invested on the Stockholder
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Approval Date and that are forfeited, terminated, cancelled or otherwise reacquired by the Corporation without having become vested, after the Stockholder Approval Date.

provided that in no event shall the Share Limit exceed 7,106,420 shares (which is the sum of the 5,813,160 shares set forth above, plus the aggregate number of shares subject to awards previously granted and outstanding under the Prior Plans as of the Stockholder Approval Date).

**4.3 Additional Share Limits.** The following limits also apply with respect to awards granted under this Plan. These limits are in addition to, not in lieu of, the aggregate Share Limit in Section 4.2.

- (a) The maximum number of shares of Common Stock that may be delivered pursuant to options qualified as incentive stock options granted under this Plan is 5,813,160 shares.
- (b) Notwithstanding any other provision of the Plan to the contrary, the maximum value of Awards granted under the Plan during a calendar year to a non-employee Director for services on the Board, taken together with any cash fees paid by the Company to such non-employee Director during such calendar year for services on the Board, shall not exceed \$800,000 in total value (calculating the value of any such Awards based on the grant date fair value of such Awards), including for this purpose the value of any Awards that are received in lieu of payment of all or a portion of his or her regular annual retainer, additional retainer paid in connection with service on any committee of the Board, or other cash fees. For purposes of this Section 4.3(b), a “**non-employee director**” is an individual who, on the grant date of the award, is a member of the Board who is not then an officer or employee of the Corporation or one of its Subsidiaries. For purposes of this Section 4.3(b), “**grant date fair value**” means the value of the award as of the date of grant of the award and as determined using the equity award valuation principles applied in the Corporation’s financial reporting. The limits of this Section 4.3(b) do not apply to, and shall be determined without taking into account, any award granted to an individual who, on the grant date of the award, is an officer or employee of the Corporation or one of its Subsidiaries. The limits of this Section 4.3(b) apply on an individual basis and not on an aggregate basis to all non-employee directors as a group.

**4.4 Share-Limit Counting Rules.** The Share Limit shall be subject to the following provisions of this Section 4.4:

- (a) Shares that are subject to or underlie awards granted under this Plan which expire or for any reason are cancelled or terminated, are forfeited, fail to vest, or for any other reason are not paid or delivered under this Plan shall not be counted against the Share Limit and shall be available for subsequent awards under this Plan.
  - (b) To the extent that shares of Common Stock are delivered pursuant to the exercise of a stock appreciation right granted under this Plan, the total number of underlying shares subject to such stock appreciation right shall be counted against the Share Limit. (For purposes of clarity, if a stock appreciation right relates to 100,000 shares and is exercised in full at a time when the payment due to the participant is 15,000 shares, 100,000 shares shall be counted against the Share Limit with respect to such exercise.)
  - (c) Shares that are exchanged by a participant or withheld by the Corporation as full or partial payment in connection with any stock option or stock appreciation right granted under this Plan, as well as any shares exchanged by a participant or withheld by the Corporation or one of its Subsidiaries to satisfy the tax withholding obligations related to any stock option or stock appreciation right granted under this Plan, shall be counted against the Share Limit and shall not be available for subsequent awards under this Plan. Shares that are exchanged by a participant or withheld by the Corporation as full or partial payment in connection with any “full-value award” granted under this Plan, as well as any shares exchanged by a participant or withheld by the Corporation or one of its Subsidiaries to satisfy the tax withholding obligations related to any full-value award granted under this Plan, shall be counted against the Share Limit and shall not be available for subsequent awards under this Plan.
  - (d) In addition, shares that are exchanged by a participant or withheld by the Corporation after the Stockholder Approval Date as full or partial payment in connection with any award granted under the Prior Plans, as well as any shares exchanged by a participant or
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withheld by the Corporation or one of its Subsidiaries after the Stockholder Approval Date to satisfy the tax withholding obligations related to any award granted under the Prior Plans, shall not be available for new awards under this Plan.

- (e) To the extent that an award granted under this Plan is settled in cash or a form other than shares of Common Stock, the shares that would have been delivered had there been no such cash or other settlement shall not be counted against the Share Limit and shall be available for subsequent awards under this Plan.
- (f) In the event that shares of Common Stock are delivered in respect of a dividend equivalent right granted under this Plan, the number of shares delivered with respect to the award shall be counted against the Share Limit. (For purposes of clarity, if 1,000 dividend equivalent rights are granted and outstanding when the Corporation pays a dividend, and 50 shares are delivered in payment of those rights with respect to that dividend, 50 shares shall be counted against the Share Limit). Except as otherwise provided by the Administrator, shares delivered in respect of dividend equivalent rights shall not count against any individual award limit under this Plan other than the aggregate Share Limit.
- (g) The Corporation may not increase the Share Limit by repurchasing shares of Common Stock on the market (by using cash received through the exercise of stock options or otherwise).

Refer to Section 8.10 for application of the share limits of this Plan, including the limits in Sections 4.2 and 4.3, with respect to assumed awards. Each of the numerical limits and references in Sections 4.2 and 4.3, and in this Section 4.4, is subject to adjustment as contemplated by Section 4.3, Section 7 and Section 8.10.

- 4.5 No Fractional Shares; Minimum Issue.** Unless otherwise expressly provided by the Administrator, no fractional shares shall be delivered under this Plan. The Administrator may pay cash in lieu of any fractional shares in settlements of awards under this Plan. The Administrator may from time to time impose a limit (of not greater than 100 shares) on the minimum number of shares that may be purchased or exercised as to awards (or any particular award) granted under this Plan unless (as to any particular award) the total number purchased or exercised is the total number at the time available for purchase or exercise under the award.

## 5. AWARDS

- 5.1 Type and Form of Awards.** The Administrator shall determine the type or types of award(s) to be made to each selected Eligible Person. Awards may be granted singly, in combination or in tandem. Awards also may be made in combination or in tandem with, in replacement of, as alternatives to, or as the payment form for grants or rights under any other employee or compensation plan of the Corporation or one of its Subsidiaries. The types of awards that may be granted under this Plan are:

**5.1.1 Stock Options.** A stock option is the grant of a right to purchase a specified number of shares of Common Stock during a specified period as determined by the Administrator. An option may be intended as an incentive stock option within the meaning of Section 422 of the Code (an “ISO”) or a nonqualified stock option (an option not intended to be an ISO). The agreement evidencing the grant of an option will indicate if the option is intended as an ISO; otherwise it will be deemed to be a nonqualified stock option. The maximum term of each option (ISO or nonqualified) shall be ten (10) years. The per share exercise price for each option shall be not less than 100% of the fair market value of a share of Common Stock on the date of grant of the option. When an option is exercised, the exercise price for the shares to be purchased shall be paid in full in cash or such other method permitted by the Administrator consistent with Section 5.4.

**5.1.2 Additional Rules Applicable to ISOs.** To the extent that the aggregate fair market value (determined at the time of grant of the applicable option) of stock with respect to which ISOs first become exercisable by a participant in any calendar year exceeds \$100,000, taking into account both Common Stock subject to ISOs under this Plan and stock subject to ISOs under all other plans of the Corporation or one of its Subsidiaries (or any parent or predecessor corporation to the extent required by and within the meaning of Section 422 of the Code and the regulations

promulgated thereunder), such options shall be treated as nonqualified stock options. In reducing the number of options treated as ISOs to meet the \$100,000 limit, the most recently granted options shall be reduced first. To the extent a reduction of simultaneously granted options is necessary to meet the \$100,000 limit, the Administrator may, in the manner and to the extent permitted by law, designate which shares of Common Stock are to be treated as shares acquired pursuant to the exercise of an ISO. ISOs may only be granted to employees of the Corporation or one of its subsidiaries (for this purpose, the term "subsidiary" is used as defined in Section 424(f) of the Code, which generally requires an unbroken chain of ownership of at least 50% of the total combined voting power of all classes of stock of each subsidiary in the chain beginning with the Corporation and ending with the subsidiary in question). No ISO may be granted to any person who, at the time the option is granted, owns (or is deemed to own under Section 424(d) of the Code) shares of outstanding Common Stock possessing more than 10% of the total combined voting power of all classes of stock of the Corporation, unless the exercise price of such option is at least 110% of the fair market value of the stock subject to the option and such option by its terms is not exercisable after the expiration of five years from the date such option is granted. If an otherwise-intended ISO fails to meet the applicable requirements of Section 422 of the Code, the option shall be a nonqualified stock option.

**5.1.3 Stock Appreciation Rights.** A stock appreciation right or "SAR" is a right to receive a payment, in cash and/or Common Stock, equal to the excess of the fair market value of a specified number of shares of Common Stock on the date the SAR is exercised over the "base price" of the award, which base price shall be set forth in the applicable award agreement and shall be not less than 100% of the fair market value of a share of Common Stock on the date of grant of the SAR. The maximum term of a SAR shall be ten (10) years.

**5.1.4 Other Awards; Dividend Equivalent Rights.** The other types of awards that may be granted under this Plan include: (a) stock bonuses, restricted stock, performance stock, stock units, restricted stock units, deferred shares, phantom stock or similar rights to purchase or acquire shares, whether at a fixed or variable price (or no price) or fixed or variable ratio related to the Common Stock, and, subject to the Minimum Vesting Requirement, any of which may (but need not) be fully vested at grant or vest upon the passage of time, the occurrence of one or more events, the satisfaction of performance criteria or other conditions, or any combination thereof; or (b) cash awards. The types of cash awards that may be granted under this Plan include the opportunity to receive a payment for the achievement of one or more goals established by the Administrator, on such terms as the Administrator may provide, as well as discretionary cash awards. Dividend equivalent rights may be granted as a separate award or in connection with another award under this Plan; provided, however, that dividend equivalent rights may not be granted as to a stock option or SAR granted under this Plan. In addition, any dividends and/or dividend equivalents as to the portion of an award that is subject to unsatisfied vesting requirements will be subject to termination and forfeiture to the same extent as the corresponding portion of the award to which they relate in the event the applicable vesting requirements are not satisfied.

**5.1.5 Performance Goals.** The grant, vesting, exercisability or payment of an award may (but need not) depend on the degree of achievement of one or more performance goals relative to a pre-established targeted level or levels using business criteria as selected by the Administrator in its sole discretion.

**5.2 Award Agreements.** Each award shall be evidenced by a written or electronic award agreement or notice in a form approved by the Administrator (an "award agreement"), and, in each case and if required by the Administrator, executed or otherwise electronically accepted by the recipient of the award in such form and manner as the Administrator may require.

**5.3 Deferrals and Settlements.** Payment of awards may be in the form of cash, Common Stock, other awards or combinations thereof as the Administrator shall determine, and with such restrictions (if any) as it may impose. The Administrator may also require or permit participants to elect to defer the issuance of shares or the settlement of awards in cash under such rules and procedures as it may establish under this Plan. The Administrator may also provide that deferred settlements include the payment or crediting of interest or other earnings on the deferral amounts, or the payment or crediting of dividend equivalents where the deferred amounts are denominated in shares.

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**5.4 Consideration for Common Stock or Awards.** The purchase price (if any) for any award granted under this Plan or the Common Stock to be delivered pursuant to an award, as applicable, may be paid by means of any lawful consideration as determined by the Administrator, including, without limitation, one or a combination of the following methods:

- (a) services rendered by the recipient of such award;
- (b) cash, check payable to the order of the Corporation, or electronic funds transfer;
- (c) notice and third party payment in such manner as may be authorized by the Administrator;
- (d) the delivery of previously owned shares of Common Stock;
- (e) by a reduction in the number of shares otherwise deliverable pursuant to the award; or
- (f) subject to such procedures as the Administrator may adopt, pursuant to a “cashless exercise” with a third party who provides financing for the purposes of (or who otherwise facilitates) the purchase or exercise of awards.

In no event shall any shares newly-issued by the Corporation be issued for less than the minimum lawful consideration for such shares or for consideration other than consideration permitted by applicable state law. Shares of Common Stock used to satisfy the exercise price of an option shall be valued at their fair market value. The Corporation will not be obligated to deliver any shares unless and until it receives full payment of the exercise or purchase price therefor and any related withholding obligations under Section 8.5 and any other conditions to exercise or purchase have been satisfied. Unless otherwise expressly provided in the applicable award agreement, the Administrator may at any time eliminate or limit a participant’s ability to pay any purchase or exercise price of any award or shares by any method other than cash payment to the Corporation.

**5.5 Definition of Fair Market Value.** For purposes of this Plan, “fair market value” shall mean, unless otherwise determined or provided by the Administrator in the circumstances, the closing price (in regular trading) for a share of Common Stock on the Nasdaq Stock Market (the “Market”) for the date in question or, if no sales of Common Stock were reported on the Market on that date, the closing price (in regular trading) for a share of Common Stock on the Market for the next preceding day on which sales of Common Stock were reported on the Market. The Administrator may, however, provide with respect to one or more awards that the fair market value shall equal the closing price (in regular trading) for a share of Common Stock on the Market on the last trading day preceding the date in question or the average of the high and low trading prices of a share of Common Stock on the Market for the date in question or the most recent trading day. If the Common Stock is no longer listed or is no longer actively traded on the Market as of the applicable date, the fair market value of the Common Stock shall be the value as reasonably determined by the Administrator for purposes of the award in the circumstances. The Administrator also may adopt a different methodology for determining fair market value with respect to one or more awards if a different methodology is necessary or advisable to secure any intended favorable tax, legal or other treatment for the particular award(s) (for example, and without limitation, the Administrator may provide that fair market value for purposes of one or more awards will be based on an average of closing prices (or the average of high and low daily trading prices) for a specified period preceding the relevant date).

**5.6 Transfer Restrictions.**

**5.6.1 Limitations on Exercise and Transfer.** Unless otherwise expressly provided in (or pursuant to) this Section 5.6 or required by applicable law: (a) all awards are non-transferable and shall not be subject in any manner to sale, transfer, anticipation, alienation, assignment, pledge, encumbrance or charge; (b) awards shall be exercised only by the participant; and (c) amounts payable or shares issuable pursuant to any award shall be delivered only to (or for the account of) the participant.

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**5.6.2 Exceptions.** The Administrator may permit awards to be exercised by and paid to, or otherwise transferred to, other persons or entities pursuant to such conditions and procedures, including limitations on subsequent transfers, as the Administrator may, in its sole discretion, establish in writing. Any permitted transfer shall be subject to compliance with applicable federal and state securities laws and shall not be for value (other than nominal consideration, settlement of marital property rights, or for interests in an entity in which more than 50% of the voting interests are held by the Eligible Person or by the Eligible Person's family members).

**5.6.3 Further Exceptions to Limits on Transfer.** The exercise and transfer restrictions in Section 5.6.1 shall not apply to:

- (a) transfers to the Corporation (for example, in connection with the expiration or termination of the award);
- (b) the designation of a beneficiary to receive benefits in the event of the participant's death or, if the participant has died, transfers to or exercise by the participant's beneficiary, or, in the absence of a validly designated beneficiary, transfers by will or the laws of descent and distribution;
- (c) subject to any applicable limitations on ISOs, transfers to a family member (or former family member) pursuant to a domestic relations order if received by the Administrator;
- (d) if the participant has suffered a disability, permitted transfers or exercises on behalf of the participant by his or her legal representative; or
- (e) the authorization by the Administrator of "cashless exercise" procedures with third parties who provide financing for the purpose of (or who otherwise facilitate) the exercise of awards consistent with applicable laws and any limitations imposed by the Administrator.

**5.7 International Awards.** One or more awards may be granted to Eligible Persons who provide services to the Corporation or one of its Subsidiaries outside of the United States. Any awards granted to such persons may be granted pursuant to the terms and conditions of any applicable sub-plans, if any, appended to this Plan and approved by the Administrator from time to time. The awards so granted need not comply with other specific terms of this Plan, provided that stockholder approval of any deviation from the specific terms of this Plan is not required by applicable law or any applicable listing agency.

## **6. EFFECT OF TERMINATION OF EMPLOYMENT OR SERVICE ON AWARDS**

**6.1 General.** The Administrator shall establish the effect (if any) of a termination of employment or service on the rights and benefits under each award under this Plan and in so doing may make distinctions based upon, inter alia, the cause of termination and type of award. If the participant is not an employee of the Corporation or one of its Subsidiaries, is not a member of the Board, and provides other services to the Corporation or one of its Subsidiaries, the Administrator shall be the sole judge for purposes of this Plan (unless a contract or the award otherwise provides) of whether the participant continues to render services to the Corporation or one of its Subsidiaries and the date, if any, upon which such services shall be deemed to have terminated.

**6.2 Events Not Deemed Terminations of Employment.** Unless the express policy of the Corporation or one of its Subsidiaries, or the Administrator, otherwise provides, or except as otherwise required by applicable law, the employment relationship shall not be considered terminated in the case of: (a) sick leave, (b) military leave, or (c) any other leave of absence authorized by the Corporation or one of its Subsidiaries, or the Administrator; provided that, unless reemployment upon the expiration of such leave is guaranteed by contract or law or the Administrator otherwise provides, such leave is for a period of not more than three months. In the case of any employee of the Corporation or one of its Subsidiaries on an approved leave of absence, continued vesting of the award while on leave from the employ of the Corporation or one of its Subsidiaries may be suspended until the employee returns to service, unless the Administrator otherwise provides or applicable law otherwise requires. In no event shall an award be exercised after the expiration of any applicable maximum term of the award.

- 6.3 Effect of Change of Subsidiary Status.** For purposes of this Plan and any award, if an entity ceases to be a Subsidiary of the Corporation a termination of employment or service shall be deemed to have occurred with respect to each Eligible Person in respect of such Subsidiary who does not continue as an Eligible Person in respect of the Corporation or another Subsidiary that continues as such after giving effect to the transaction or other event giving rise to the change in status unless the Subsidiary that is sold, spun-off or otherwise divested (or its successor or a direct or indirect parent of such Subsidiary or successor) assumes the Eligible Person's award(s) in connection with such transaction.

## **7. ADJUSTMENTS; ACCELERATION**

### **7.1 Adjustments.**

- (a) Subject to Section 7.2, upon (or, as may be necessary to effect the adjustment, immediately prior to): any reclassification, recapitalization, stock split (including a stock split in the form of a stock dividend) or reverse stock split; any merger, combination, consolidation, conversion or other reorganization; any spin-off, split-up, or similar extraordinary dividend distribution in respect of the Common Stock; or any exchange of Common Stock or other securities of the Corporation, or any similar, unusual or extraordinary corporate transaction in respect of the Common Stock; then the Administrator shall equitably and proportionately adjust: (1) the number and type of shares of Common Stock (or other securities) that thereafter may be made the subject of awards (including the specific share limits, maximums and numbers of shares set forth elsewhere in this Plan); (2) the number, amount and type of shares of Common Stock (or other securities or property) subject to any outstanding awards; (3) the grant, purchase, or exercise price (which term includes the base price of any SAR or similar right) of any outstanding awards; and/or (4) the securities, cash or other property deliverable upon exercise or payment of any outstanding awards, in each case to the extent necessary to preserve (but not increase) the level of incentives intended by this Plan and the then-outstanding awards.
- (b) Without limiting the generality of Section 3.4, any good faith determination by the Administrator as to whether an adjustment is required in the circumstances pursuant to this Section 7.1, and the extent and nature of any such adjustment, shall be conclusive and binding on all persons.

### **7.2 Corporate Transactions - Assumption and Termination of Awards.**

- (a) Upon any event in which the Corporation does not survive, or does not survive as a public company in respect of its Common Stock (including, without limitation, a dissolution, merger, combination, consolidation, conversion, exchange of securities, or other reorganization, or a sale of all or substantially all of the business, stock or assets of the Corporation, in any case in connection with which the Corporation does not survive or does not survive as a public company in respect of its Common Stock), then the Administrator may make provision for a cash payment in settlement of, or for the termination, assumption, substitution or exchange of any or all outstanding awards or the cash, securities or property deliverable to the holder of any or all outstanding awards, based upon, to the extent relevant under the circumstances, the distribution or consideration payable to holders of the Common Stock upon or in respect of such event. Upon the occurrence of any event described in the preceding sentence in connection with which the Administrator has made provision for the award to be terminated (and the Administrator has not made a provision for the substitution, assumption, exchange or other continuation or settlement of the award): (1) unless otherwise provided in the applicable award agreement, each then-outstanding option and SAR shall become fully vested, all shares of restricted stock then outstanding shall fully vest free of restrictions, and each other award granted under this Plan that is then outstanding shall become payable to the holder of such award (with any performance goals applicable to the award in each case being deemed met, unless otherwise provided in the award agreement, at the "target" performance level); and (2) each award (including any award or portion thereof that, by its terms, does not accelerate and vest in the circumstances) shall terminate upon the related event; provided that the holder of an option or SAR shall be given reasonable advance notice of the impending termination and a reasonable opportunity to exercise his or her outstanding vested options and SARs (after giving effect to any accelerated vesting required in the circumstances) in accordance with their terms before the termination of such awards (except that in no case shall more than ten days' notice of the impending termination be required and any acceleration of vesting and any exercise of any portion of an award that is so accelerated may be made contingent upon the actual occurrence of the event).
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- (b) Without limiting the preceding paragraph, in connection with any event referred to in the preceding paragraph or any change in control event defined in any applicable award agreement, the Administrator may, in its discretion, provide for the accelerated vesting of any award or awards as and to the extent determined by the Administrator in the circumstances.
- (c) For purposes of this Section 7.2, an award shall be deemed to have been “assumed” if (without limiting other circumstances in which an award is assumed) the award continues after an event referred to above in this Section 7.2, and/or is assumed and continued by the surviving entity following such event (including, without limitation, an entity that, as a result of such event, owns the Corporation or all or substantially all of the Corporation’s assets directly or through one or more subsidiaries (a “**Parent**”)), and confers the right to purchase or receive, as applicable and subject to vesting and the other terms and conditions of the award, for each share of Common Stock subject to the award immediately prior to the event, the consideration (whether cash, shares, or other securities or property) received in the event by the stockholders of the Corporation for each share of Common Stock sold or exchanged in such event (or the consideration received by a majority of the stockholders participating in such event if the stockholders were offered a choice of consideration); provided, however, that if the consideration offered for a share of Common Stock in the event is not solely the ordinary common stock of a successor corporation or a Parent, the Administrator may provide for the consideration to be received upon exercise or payment of the award, for each share subject to the award, to be solely ordinary common stock of the successor corporation or a Parent equal in fair market value to the per share consideration received by the stockholders participating in the event.
- (d) The Administrator may adopt such valuation methodologies for outstanding awards as it deems reasonable in the event of a cash or property settlement and, in the case of options, SARs or similar rights, but without limitation on other methodologies, may base such settlement solely upon the excess if any of the per share amount payable upon or in respect of such event over the exercise or base price of the award. In the case of an option, SAR or similar right as to which the per share amount payable upon or in respect of such event is less than or equal to the exercise or base price of the award, the Administrator may terminate such award in connection with an event referred to in this Section 7.2 without any payment in respect of such award.
- (e) In any of the events referred to in this Section 7.2, the Administrator may take such action contemplated by this Section 7.2 prior to such event (as opposed to on the occurrence of such event) to the extent that the Administrator deems the action necessary to permit the participant to realize the benefits intended to be conveyed with respect to the underlying shares. Without limiting the generality of the foregoing, the Administrator may deem an acceleration and/or termination to occur immediately prior to the applicable event and, in such circumstances, will reinstate the original terms of the award if an event giving rise to an acceleration and/or termination does not occur.
- (f) Without limiting the generality of Section 3.4, any good faith determination by the Administrator pursuant to its authority under this Section 7.2 shall be conclusive and binding on all persons.
- (g) The Administrator may override the provisions of this Section 7.2 by express provision in the award agreement and may accord any Eligible Person a right to refuse any acceleration, whether pursuant to the award agreement or otherwise, in such circumstances as the Administrator may approve. The portion of any ISO accelerated in connection with an event referred to in this Section 7.2 (or such other circumstances as may trigger accelerated vesting of the award) shall remain exercisable as an ISO only to the extent the applicable \$100,000 limitation on ISOs is not exceeded. To the extent exceeded, the accelerated portion of the option shall be exercisable as a nonqualified stock option under the Code.

## 8. OTHER PROVISIONS

- 8.1 Compliance with Laws.** This Plan, the granting and vesting of awards under this Plan, the offer, issuance and delivery of shares of Common Stock, and/or the payment of money under this Plan or under awards are subject to compliance with all applicable federal, state, local and foreign laws, rules and regulations (including, but not limited to, state and federal securities law and federal margin requirements) and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Corporation, be necessary or advisable in connection therewith. The person acquiring any securities under this Plan will, if requested by the Corporation or one of its Subsidiaries, provide such assurances and representations to the
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Corporation or one of its Subsidiaries as the Administrator may deem necessary or desirable to assure compliance with all applicable legal and accounting requirements.

- 8.2 No Rights to Award.** No person shall have any claim or rights to be granted an award (or additional awards, as the case may be) under this Plan, subject to any express contractual rights (set forth in a document other than this Plan) to the contrary.
- 8.3 No Employment/Service Contract.** Nothing contained in this Plan (or in any other documents under this Plan or in any award) shall confer upon any Eligible Person or other participant any right to continue in the employ or other service of the Corporation or one of its Subsidiaries, constitute any contract or agreement of employment or other service or affect an employee's status as an employee at will, nor shall interfere in any way with the right of the Corporation or one of its Subsidiaries to change a person's compensation or other benefits, or to terminate his or her employment or other service, with or without cause. Nothing in this Section 8.3, however, is intended to adversely affect any express independent right of such person under a separate employment or service contract other than an award agreement.
- 8.4 Plan Not Funded.** Awards payable under this Plan shall be payable in shares or from the general assets of the Corporation, and no special or separate reserve, fund or deposit shall be made to assure payment of such awards. No participant, beneficiary or other person shall have any right, title or interest in any fund or in any specific asset (including shares of Common Stock, except as expressly otherwise provided) of the Corporation or one of its Subsidiaries by reason of any award hereunder. Neither the provisions of this Plan (or of any related documents), nor the creation or adoption of this Plan, nor any action taken pursuant to the provisions of this Plan shall create, or be construed to create, a trust of any kind or a fiduciary relationship between the Corporation or one of its Subsidiaries and any participant, beneficiary or other person. To the extent that a participant, beneficiary or other person acquires a right to receive payment pursuant to any award hereunder, such right shall be no greater than the right of any unsecured general creditor of the Corporation.
- 8.5 Tax Withholding.** Upon any exercise, vesting, or payment of any award, or upon the disposition of shares of Common Stock acquired pursuant to the exercise of an ISO prior to satisfaction of the holding period requirements of Section 422 of the Code, or upon any other tax withholding event with respect to any award, arrangements satisfactory to the Corporation shall be made to provide for any taxes the Corporation or any of its Subsidiaries may be required or permitted to withhold with respect to such award event or payment. Such arrangements may include (but are not limited to) any one of (or a combination of) the following:
- (a) The Corporation or one of its Subsidiaries shall have the right to require the participant (or the participant's personal representative or beneficiary, as the case may be) to pay or provide for payment of the amount of any taxes which the Corporation or one of its Subsidiaries may be required or permitted to withhold with respect to such award event or payment.
  - (b) The Corporation or one of its Subsidiaries shall have the right to deduct from any amount otherwise payable in cash (whether related to the award or otherwise) to the participant (or the participant's personal representative or beneficiary, as the case may be) the amount of any taxes which the Corporation or one of its Subsidiaries may be required or permitted to withhold with respect to such award event or payment.
  - (c) In any case where a tax is required to be withheld in connection with the delivery of shares of Common Stock under this Plan, the Administrator may in its sole discretion (subject to Section 8.1) require or grant (either at the time of the award or thereafter) to the participant the right to elect, pursuant to such rules and subject to such conditions as the Administrator may establish, that the Corporation reduce the number of shares to be delivered by (or otherwise reacquire) the appropriate number of shares, valued in a consistent manner at their fair market value or at the sales price in accordance with authorized procedures for cashless exercises, necessary to satisfy any applicable withholding obligation on exercise, vesting or payment.
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## **8.6 *Effective Date, Termination and Suspension, Amendments.***

**8.6.1 *Effective Date.*** This Plan was originally effective as of December 14, 2018, the date of its original approval by the Board (the “**Effective Date**”). This amended version of this Plan is effective as of November 29, 2021, the date this amended version of this Plan was approved by the Board (the “**Amendment Date**”). Unless earlier terminated by the Board and subject to any extension that may be approved by stockholders, this Plan shall terminate at the close of business on December 9, 2028. After the termination of this Plan either upon such stated termination date or its earlier termination by the Board, no additional awards may be granted under this Plan, but previously granted awards (and the authority of the Administrator with respect thereto, including the authority to amend such awards) shall remain outstanding in accordance with their applicable terms and conditions and the terms and conditions of this Plan.

**8.6.2 *Board Authorization.*** The Board may, at any time, terminate or, from time to time, amend, modify or suspend this Plan, in whole or in part. No awards may be granted during any period that the Board suspends this Plan.

**8.6.3 *Stockholder Approval.*** To the extent then required by applicable law or deemed necessary or advisable by the Board, any amendment to this Plan shall be subject to stockholder approval.

**8.6.4 *Amendments to Awards.*** Without limiting any other express authority of the Administrator under (but subject to) the express limits of this Plan, the Administrator by agreement or resolution may waive conditions of or limitations on awards to participants that the Administrator in the prior exercise of its discretion has imposed, without the consent of a participant, and (subject to the requirements of Sections 3.2 and 8.6.5) may make other changes to the terms and conditions of awards. Any amendment or other action that would constitute a repricing of an award is subject to the no-repricing provision of Section 3.3.

**8.6.5 *Limitations on Amendments to Plan and Awards.*** No amendment, suspension or termination of this Plan or amendment of any outstanding award agreement shall, without written consent of the participant, affect in any manner materially adverse to the participant any rights or benefits of the participant or obligations of the Corporation under any award granted under this Plan prior to the effective date of such change. Changes, settlements and other actions contemplated by Section 7 shall not be deemed to constitute changes or amendments for purposes of this Section 8.6.

**8.7 *Privileges of Stock Ownership.*** Except as otherwise expressly authorized by the Administrator, a participant shall not be entitled to any privilege of stock ownership as to any shares of Common Stock not actually delivered to and held of record by the participant. Except as expressly required by Section 7.1 or otherwise expressly provided by the Administrator, no adjustment will be made for dividends or other rights as a stockholder for which a record date is prior to such date of delivery.

## **8.8 *Governing Law; Severability.***

**8.8.1 *Choice of Law.*** This Plan, the awards, all documents evidencing awards and all other related documents shall be governed by, and construed in accordance with the laws of the State of New Jersey, notwithstanding any New Jersey or other conflict of law provision to the contrary.

**8.8.2 *Severability.*** If a court of competent jurisdiction holds any provision invalid and unenforceable, the remaining provisions of this Plan shall continue in effect.

**8.9 *Captions.*** Captions and headings are given to the sections and subsections of this Plan solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of this Plan or any provision thereof.

**8.10 *Stock-Based Awards in Substitution for Stock Options or Awards Granted by Other Corporation.*** Awards may be granted to Eligible Persons in substitution for or in connection with an assumption of employee stock options, SARs, restricted stock or other stock-based awards

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granted by other entities to persons who are or who will become Eligible Persons in respect of the Corporation or one of its Subsidiaries, in connection with a distribution, merger or other reorganization by or with the granting entity or an affiliated entity, or the acquisition by the Corporation or one of its Subsidiaries, directly or indirectly, of all or a substantial part of the stock or assets of the employing entity. The awards so granted need not comply with other specific terms of this Plan, provided the awards reflect adjustments giving effect to the assumption or substitution consistent with any conversion applicable to the common stock (or the securities otherwise subject to the award) in the transaction and any change in the issuer of the security. Any shares that are delivered and any awards that are granted by, or become obligations of, the Corporation, as a result of the assumption by the Corporation of, or in substitution for, outstanding awards previously granted or assumed by an acquired company (or previously granted or assumed by a predecessor employer (or direct or indirect parent thereof) in the case of persons that become employed by the Corporation or one of its Subsidiaries in connection with a business or asset acquisition or similar transaction) shall not be counted against the Share Limit or other limits on the number of shares available for issuance under this Plan.

- 8.11 *Non-Exclusivity of Plan.*** Nothing in this Plan shall limit or be deemed to limit the authority of the Board or the Administrator to grant awards or authorize any other compensation, with or without reference to the Common Stock, under any other plan or authority.
- 8.12 *No Corporate Action Restriction.*** The existence of this Plan, the award agreements and the awards granted hereunder shall not limit, affect, or restrict in any way the right or power of the Corporation or any Subsidiary (or any of their respective shareholders, boards of directors or committees thereof (or any subcommittees), as the case may be) to make or authorize: (a) any adjustment, recapitalization, reorganization or other change in the capital structure or business of the Corporation or any Subsidiary, (b) any merger, amalgamation, consolidation or change in the ownership of the Corporation or any Subsidiary, (c) any issue of bonds, debentures, capital, preferred or prior preference stock ahead of or affecting the capital stock (or the rights thereof) of the Corporation or any Subsidiary, (d) any dissolution or liquidation of the Corporation or any Subsidiary, (e) any sale or transfer of all or any part of the assets or business of the Corporation or any Subsidiary, (f) any other award, grant, or payment of incentives or other compensation under any other plan or authority (or any other action with respect to any benefit, incentive or compensation), or (g) any other corporate act or proceeding by the Corporation or any Subsidiary. No participant, beneficiary or any other person shall have any claim under any award or award agreement against any member of the Board or the Administrator, or the Corporation or any employees, officers or agents of the Corporation or any Subsidiary, as a result of any such action. Awards need not be structured so as to be deductible for tax purposes.
- 8.13 *Other Company Benefit and Compensation Programs.*** Payments and other benefits received by a participant under an award made pursuant to this Plan shall not be deemed a part of a participant's compensation for purposes of the determination of benefits under any other employee welfare or benefit plans or arrangements, if any, provided by the Corporation or any Subsidiary, except where the Administrator expressly otherwise provides or authorizes in writing. Awards under this Plan may be made in addition to, in combination with, as alternatives to or in payment of grants, awards or commitments under any other plans, arrangements or authority of the Corporation or its Subsidiaries.
- 8.14 *Clawback Policy.*** The awards granted under this Plan are subject to the terms of the Corporation's recoupment, clawback or similar policy as it may be in effect from time to time, as well as any similar provisions of applicable law, any of which could in certain circumstances require repayment or forfeiture of awards or any shares of Common Stock or other cash or property received with respect to the awards (including any value received from a disposition of the shares acquired upon payment of the awards).
- 8.15 *Administrative Discretion.*** Notwithstanding Section 3.7, the Minimum Vesting Requirement shall not limit or restrict the Administrator's discretion to accelerate the vesting of any awards granted under this Plan in circumstances it determines to be appropriate (whether in connection with a transaction, termination of employment or for any other reason).
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## SEVENTH AMENDMENT TO CREDIT AND SECURITY AGREEMENT

THIS SEVENTH AMENDMENT (the "Amendment"), dated Nov 10, 2015, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation ("Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Wells Fargo").

### RECITALS

Emcore and Wells Fargo are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

The Company has requested that certain amendments be made to the Credit Agreement, which Wells Fargo is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) Section 1.1(b) of the Credit Agreement is hereby deleted and replaced as follows:

(b) Maturity and Termination Dates. Company may request Advances from the date that the conditions set forth in Section 3 are satisfied until the earlier of: (i) November 11, 2018 (the "Maturity Date"), (ii) the date Company terminates the Line of Credit, or (iii) the date Wells Fargo terminates the Line of Credit following an Event of Default. (The earliest of these dates is the "Termination Date.")

(b) Section 1.7(a) of the Credit Agreement is hereby deleted and replaced as follows:

(a) Interest Rates Applicable to Line of Credit. Except as otherwise provided in this Agreement, the unpaid principal amount of each Line of Credit Advance evidenced by the Revolving Note shall accrue interest at an annual interest rate calculated as follows:

Floating Rate Pricing

The "Floating Rate" for Line of Credit Advances = an interest rate equal to the sum of Daily Three Month LIBOR, which interest rate shall change whenever Daily Three Month LIBOR changes, plus 2.50%.

(c) Section 1.8(f) of the Credit Agreement is hereby deleted and replaced as follows:

(f) Line of Credit Termination and/or Reduction Fees. If (i) Wells Fargo terminates the Line of Credit during a Default Period, or if (ii) Company terminates the Line of Credit on a date prior to the Maturity Date, or if (iii) Company and Wells Fargo agree to reduce the Maximum Line Amount, then

Company shall pay Wells Fargo as liquidated damages a termination or reduction fee in an amount equal to a percentage of the Maximum Line Amount (or the reduction of the Maximum Line Amount, as the case may be) in the amount of one percent (1.0%) if the termination or reduction occurs on or before November 11, 2016.

(d) Section 5.1(b) and (e) of the Credit Agreement are hereby deleted and replaced as follows:

(b) Financial Statements. As soon as available and in any event within 45 days after the end of the first three fiscal quarters and within 75 days after the end of each fiscal year (except if Liquidity at any time is less than \$10,000,000.00 at which time within 30 days of the end of each month), a Company prepared balance sheet and income statement prepared for that period and for the year-to-date period then ended, prepared, if requested by Wells Fargo, on a consolidated and consolidating basis to include Company's Affiliates, and stating in comparative form the figures for the corresponding date and periods in the prior fiscal year, subject to year-end adjustments. The financial statements shall be accompanied by a Compliance Certificate in the form of Exhibit E that is signed by Company's chief financial officer, except for the year-end fiscal month, which will be provided 75 days after year-end.

(e) Supplemental Reports. Monthly (except if Liquidity is at any time less than \$10,000,000.00 in which event, bi-weekly), or more frequently if Wells Fargo requests, Wells Fargo's standard form of "daily collateral report", together with receivables schedules, collection reports, and copies of invoices in excess of \$500,000.00, shipment documents and delivery receipts for goods sold to account debtors in excess of \$500,000.00.

(e) The opening paragraph of Section 5.2 of the Credit Agreement is hereby deleted and replaced as follows:

**5.2 Financial Covenants.** Company agrees, for any fiscal quarter in which the excess availability under the Borrowing Base plus all of the Company's cash and cash equivalents on deposit with Wells Fargo (collectively "Liquidity") is at any time less than \$10,000,000.00 to comply with the financial covenants described below, which shall be calculated using GAAP consistently applied, except as they may be otherwise modified by the following capitalized definitions.

(f) Section 5.6(g) of the Credit Agreement is hereby deleted and replaced as follows:

(g) A final, non-appealable arbitration award, judgment, or decree or order for the payment of money in an amount in excess of \$5,000,000.00 (which dollar figure shall be \$40,000,000.00 with respect to the current dispute between the Company and SEI) which is not insured or subject to indemnity, is entered against Company which is not stayed or appealed within the time provided by applicable law;





(g) Section 5.7 of the Credit Agreement is hereby deleted and replaced as follows:

**5.7 Dividends and Distributions.** Company shall not declare or pay any dividends (other than dividends payable solely in stock of Company) on any class of its stock, or make any payment on account of the purchase, redemption or retirement of any shares of its stock, or other securities or evidence of its indebtedness or make any distribution regarding its stock, either directly or indirectly; provided however, the Company may pay dividends or repurchase stock so long as after giving effect to any such dividend or stock repurchase, there is not less than \$60,000,000.00 in Liquidity, which dollar amount shall be reduced to \$25,000,000.00 upon the final settlement and payment of the SEI claim.

(h) The definition of "Fixed Charge Coverage Ratio" contained in Exhibit A of the Credit Agreement is hereby deleted and replaced as follows:

"Fixed Charge Coverage Ratio" means, for any period, the ratio of (i) EBITDA for such period *minus* (a) non-financed Capital Expenditures made (to the extent not already incurred in a prior period) or incurred during such period, and (b) cash taxes paid during such period to the extent greater than zero, to (ii) Fixed Charges for such period. The Fixed Charge Coverage Ratio shall be calculated without giving effect to amounts paid to SEI (not to exceed \$40,000,000.00 in the aggregate) to settle or pay off current claims and without regard to dividends paid or stock repurchased as permitted in this Credit Agreement.

(i) Exhibit E to the Credit Agreement is hereby deleted and replaced with Exhibit E attached hereto.

2. No Other Changes. Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. [RESERVED]

4. Conditions Precedent.

(a) This Amendment shall be effective when Wells Fargo shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Wells Fargo in its reasonable discretion:

(i) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each such Guarantor.

5. Representations and Warranties. The Company hereby represents and warrants to Wells Fargo as follows:

(a) The Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments has been duly executed and delivered by the Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.



(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

6. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all references in the Security Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

7. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Security Document or other document held by Wells Fargo, whether or not known to Wells Fargo and whether or not existing on the date of this Amendment.

8. Release. The Company, and each Guarantor signing the Acknowledgment and Agreement of Guarantors set forth below, hereby absolutely and unconditionally releases and forever discharges Wells Fargo, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing (each a "Released Party"), from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which the Company or each Guarantor has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown, except to the extent resulting from gross negligence, bad faith or willful misconduct or a material breach by a Released Party of the Credit Agreement or any other Loan Document, in each case, as determined by a final non-appealable judgment of a court of competent jurisdiction.

9. Costs and Expenses. The Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Wells Fargo on demand for all costs and expenses incurred by Wells Fargo in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, the Company specifically agrees to pay all title insurance premiums, fees and disbursements of counsel to Wells Fargo for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. The Company hereby agrees that Wells Fargo may, at any time or from time to time in its sole discretion and without further authorization by the Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such premiums, fees, disbursements, costs and expenses.

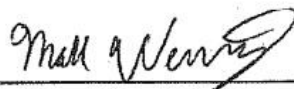


10. Miscellaneous. This Amendment and the Acknowledgment and Agreement of Guarantors may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Amendment and the Acknowledgment and Agreement of Guarantors by facsimile or electronic mail shall be effective as delivery of a manually executed counterpart of this Agreement.

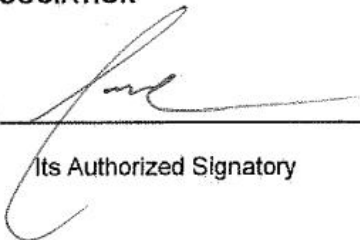


IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

**EMCORE CORPORATION**, a New Jersey corporation

By   
Its CFO

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By   
Its Authorized Signatory







## EIGHTH AMENDMENT TO CREDIT AND SECURITY AGREEMENT

THIS EIGHTH AMENDMENT (the "Amendment"), dated 10/31, 2016, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation ("Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Wells Fargo").

### RECITALS

Emcore and Wells Fargo are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

The Company has requested that certain amendments be made to the Credit Agreement, which Wells Fargo is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) Section 1.7(a) of the Credit Agreement is hereby deleted and replaced as follows:

(a) Interest Rates Applicable to Line of Credit. Except as otherwise provided in this Agreement, the unpaid principal amount of each Line of Credit Advance evidenced by the Revolving Note shall accrue interest at an annual interest rate calculated as follows:

#### Floating Rate Pricing

The "Floating Rate" for Line of Credit Advances = an interest rate equal to the sum of Daily Three Month LIBOR, which interest rate shall change whenever Daily Three Month LIBOR changes, plus 2.00%.

(b) Section 1.8(b) of the Credit Agreement is hereby deleted and replaced as follows:

(b) Unused Line Fee. Company shall pay Wells Fargo an annual unused line fee of 0.25% of the daily average of the Maximum Line Amount reduced by outstanding Advances and the L/C Amount (the "Unused Amount"), from the date of this Agreement to and including the Termination Date, which unused line fee shall be payable monthly in arrears on the first day of each month and on the Termination Date.

(c) Section 1.8(i) of the Credit Agreement is hereby deleted and replaced as follows:

Letter of Credit Fees. Company shall pay a fee with respect to each Letter of Credit issued by Wells Fargo of two and one-half percent (2.5%) of the aggregate undrawn amount of the Letter of Credit (the "Aggregate Face Amount") accruing

daily from and including the date the Letter of Credit is issued until the date that it either expires or is returned, which shall be payable monthly in arrears on the first day of each month and on the date that the Letter of Credit either expires or is returned; and following an Event of Default, this fee shall increase to four and one-half percent (4.5%) of the Aggregate Face Amount, commencing on the first day of the month in which the Default Period begins and continuing through the last day of such Default Period, or any shorter time period that Wells Fargo in its sole discretion may deem appropriate, without waiving any of its other rights and remedies.

2. No Other Changes. Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. [RESERVED]

4. Conditions Precedent.

(a) This Amendment shall be effective when Wells Fargo shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Wells Fargo in its reasonable discretion:

(i) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each such Guarantor.

5. Representations and Warranties. The Company hereby represents and warrants to Wells Fargo as follows:

(a) The Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments has been duly executed and delivered by the Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

(c) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each Guarantor.

6. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all



references in the Security Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

7. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Security Document or other document held by Wells Fargo, whether or not known to Wells Fargo and whether or not existing on the date of this Amendment.

8. Release. The Company, and each Guarantor signing the Acknowledgment and Agreement of Guarantors set forth below, hereby absolutely and unconditionally releases and forever discharges Wells Fargo, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing (each a "Released Party"), from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which the Company or each Guarantor has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown, except to the extent resulting from gross negligence, bad faith or willful misconduct or a material breach by a Released Party of the Credit Agreement or any other Loan Document, in each case, as determined by a final non-appealable judgment of a court of competent jurisdiction.

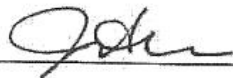
9. Costs and Expenses. The Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Wells Fargo on demand for all costs and expenses incurred by Wells Fargo in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, the Company specifically agrees to pay all title insurance premiums, fees and disbursements of counsel to Wells Fargo for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. The Company hereby agrees that Wells Fargo may, at any time or from time to time in its sole discretion and without further authorization by the Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such premiums, fees, disbursements, costs and expenses.

10. Miscellaneous. This Amendment and the Acknowledgment and Agreement of Guarantors may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Amendment and the Acknowledgment and Agreement of Guarantors by facsimile or electronic mail shall be effective as delivery of a manually executed counterpart of this Agreement.

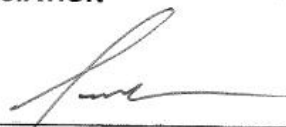


IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

**EMCORE CORPORATION**, a New Jersey corporation

By   
Its CFO

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By   
Its Authorized Signatory







## NINTH AMENDMENT TO CREDIT AND SECURITY AGREEMENT

THIS NINTH AMENDMENT (the "Amendment"), dated July 27, 2017, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation ("Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Wells Fargo").

### RECITALS

Emcore and Wells Fargo are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

The Company has requested that certain amendments be made to the Credit Agreement, which Wells Fargo is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) Effective July 1, 2017, Section 1.7(a) of the Credit Agreement is hereby deleted and replaced as follows:

(a) Interest Rates Applicable to Line of Credit. Except as otherwise provided in this Agreement, the unpaid principal amount of each Line of Credit Advance evidenced by the Revolving Note shall accrue interest at an annual interest rate calculated as follows:

Floating Rate Pricing

The "Floating Rate" for Line of Credit Advances = an interest rate equal to the sum of Daily Three Month LIBOR, which interest rate shall change whenever Daily Three Month LIBOR changes, plus 1.75%.

(b) Effective July 1, 2017, Section 1.8(i) of the Credit Agreement is hereby deleted and replaced as follows:

Letter of Credit Fees. Company shall pay a fee with respect to each Letter of Credit issued by Wells Fargo of two and one-quarter percent (2.25%) of the aggregate undrawn amount of the Letter of Credit (the "Aggregate Face Amount") accruing daily from and including the date the Letter of Credit is issued until the date that it either expires or is returned, which shall be payable monthly in arrears on the first day of each month and on the date that the Letter of Credit either expires or is returned; and following an Event of Default, this fee shall increase to four and one-half percent (4.5%) of the Aggregate Face Amount, commencing on the first day of the month in which the Default Period begins and continuing through the last day of such Default Period, or any shorter time period that Wells Fargo in its sole discretion may deem appropriate, without waiving any of its other rights and remedies.

2. No Other Changes. Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. [RESERVED]

4. Conditions Precedent.

(a) This Amendment shall be effective when Wells Fargo shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Wells Fargo in its reasonable discretion:

(i) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each such Guarantor.

5. Representations and Warranties. The Company hereby represents and warrants to Wells Fargo as follows:

(a) The Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments has been duly executed and delivered by the Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

(c) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each Guarantor.

6. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all references in the Security Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

7. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Security Document or other document held by Wells Fargo, whether or not known to Wells Fargo and whether or not existing on the date of this Amendment.

8. Release. The Company, and each Guarantor signing the Acknowledgment and Agreement of Guarantors set forth below, hereby absolutely and unconditionally releases and forever discharges Wells Fargo, and any and all participants,



parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing (each a "Released Party"), from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which the Company or each Guarantor has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown, except to the extent resulting from gross negligence, bad faith or willful misconduct or a material breach by a Released Party of the Credit Agreement or any other Loan Document, in each case, as determined by a final non-appealable judgment of a court of competent jurisdiction.


9. Costs and Expenses. The Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Wells Fargo on demand for all costs and expenses incurred by Wells Fargo in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, the Company specifically agrees to pay all title insurance premiums, fees and disbursements of counsel to Wells Fargo for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. The Company hereby agrees that Wells Fargo may, at any time or from time to time in its sole discretion and without further authorization by the Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such premiums, fees, disbursements, costs and expenses.

10. Miscellaneous. This Amendment and the Acknowledgment and Agreement of Guarantors may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Amendment and the Acknowledgment and Agreement of Guarantors by facsimile or electronic mail shall be effective as delivery of a manually executed counterpart of this Agreement.



IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

**EMCORE CORPORATION**, a New Jersey corporation

By  \_\_\_\_\_  
Its     CFO    

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By  \_\_\_\_\_  
Its Authorized Signatory







## TENTH AMENDMENT TO CREDIT AND SECURITY AGREEMENT

THIS TENTH AMENDMENT (the "Amendment"), dated November 7, 2018, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation ("Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Wells Fargo").

### RECITALS

Emcore and Wells Fargo are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

The Company has requested that certain amendments be made to the Credit Agreement, which Wells Fargo is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) Section 1.1(b) of the Credit Agreement is hereby deleted and replaced as follows:

(b) **Maturity and Termination Dates**. Company may request Advances from the date that the conditions set forth in Section 3 are satisfied until the earlier of: (i) November 11, 2021 (the "Maturity Date"), (ii) the date Company terminates the Line of Credit, or (iii) the date Wells Fargo terminates the Line of Credit following an Event of Default. (The earliest of these dates is the "Termination Date.")

(b) Section 1.4 of the Credit Agreement is hereby deleted and replaced as follows:

**1.4 Floating Rate Advances**. Company may request an Advance at the Floating Rate no later than 11:00 a.m. Pacific Standard time or Pacific Daylight saving time, as is in effect in Los Angeles, California on the Business Day on which Company wants the Floating Rate Advance to be funded. All Advance requests which are not made online via Wells Fargo's electronic platform or portal shall be subject to (and unless Wells Fargo elects otherwise in the exercise of its sole discretion, such Advances shall not be made until the completion of) Wells Fargo's authentication process (with results satisfactory to Wells Fargo) prior to the funding of any such requested Advance.

(c) Section 1.8(c) of the Credit Agreement is hereby deleted and replaced as follows:

(c) **Facility Fee**. Company shall pay to Wells Fargo a facility fee of 5 basis points per annum of the Maximum Line Amount, which facility fee will be fully earned and payable upon the execution of this Agreement and shall be payable annually on each November 11th, commencing November 11, 2018. The facility fee will not be pro-rated upon any early termination of this Agreement.

(d) Section 1.8(f) of the Credit Agreement is hereby deleted and replaced as follows:

(f) [RESERVED]

(e) Section 1.11 of the Credit Agreement is hereby deleted and replaced as follows:

**1.11 Letters of Credit.**

(a) Subject to the terms and conditions of this Agreement, upon the request of Company made in accordance herewith, and prior to the Termination Date, Wells Fargo agrees to issue a requested standby Letter of Credit or a sight commercial Letter of Credit for the account of Company. By submitting a request to Wells Fargo for the issuance of a Letter of Credit, Company shall be deemed to have requested that Wells Fargo issue the requested Letter of Credit. Each request for the issuance of a Letter of Credit, or the amendment, renewal, or extension of any outstanding Letter of Credit, shall be (i) irrevocable and made in writing by an Authorized Person, (ii) delivered to Wells Fargo via telefacsimile or other electronic method of transmission reasonably acceptable to Wells Fargo and reasonably in advance of the requested date of issuance, amendment, renewal, or extension, and (iii) subject to Wells Fargo's authentication procedures with results satisfactory to Wells Fargo. Each such request shall be in form and substance reasonably satisfactory to Wells Fargo and (i) shall specify (A) the amount of such Letter of Credit, (B) the date of issuance, amendment, renewal, or extension of such Letter of Credit, (C) the proposed expiration date of such Letter of Credit, (D) the name and address of the beneficiary of the Letter of Credit, and (E) such other information (including, the conditions to drawing, and, in the case of an amendment, renewal, or extension, identification of the Letter of Credit to be so amended, renewed, or extended) as shall be necessary to prepare, amend, renew, or extend such Letter of Credit, and (ii) shall be accompanied by such Issuer Documents as Wells Fargo may request or require, to the extent that such requests or requirements are consistent with the Issuer Documents that Wells Fargo generally requests for Letters of Credit in similar circumstances. Wells Fargo's records of the content of any such request will be conclusive. Anything contained herein to the contrary notwithstanding, Wells Fargo may, but shall not be obligated to, issue a Letter of Credit that supports the obligations of Company or one of its Subsidiaries in respect of a lease of real property, or an employment contract,

(b) Wells Fargo shall have no obligation to issue a Letter of Credit if any of the following would result after giving effect to the requested issuance:

(i) the Letter of Credit Usage would exceed the Letter of Credit Sublimit, or

(ii) the Letter of Credit Usage would exceed the Maximum Line Amount less the outstanding amount of outstanding Advances, or

(iii) the Letter of Credit Usage would exceed the Borrowing Base at such time less the outstanding principal balance of the outstanding Advances at such time.



(c) Wells Fargo shall have no obligation to issue or extend a Letter of Credit if (A) any order, judgment, or decree of any Governmental Authority or arbitrator shall, by its terms, purport to enjoin or restrain Wells Fargo from issuing such Letter of Credit, or any law applicable to Wells Fargo or any request or directive (whether or not having the force of law) from any Governmental Authority with jurisdiction over Wells Fargo shall prohibit or request that Wells Fargo refrain from the issuance of letters of credit generally or such Letter of Credit in particular, or (B) the issuance of such Letter of Credit would violate one or more policies of Wells Fargo applicable to letters of credit generally, or (C) if amounts demanded to be paid under any Letter of Credit will not or may not be in United States Dollars.

(d) Each Letter of Credit shall be in form and substance reasonably acceptable to Wells Fargo, including the requirement that the amounts payable thereunder must be payable in United States Dollars. If Wells Fargo makes a payment under a Letter of Credit, Company shall pay to Wells Fargo an amount equal to the applicable Letter of Credit Disbursement on the Business Day such Letter of Credit Disbursement is made and, in the absence of such payment, the amount of the Letter of Credit Disbursement immediately and automatically shall be deemed to be an Advance and, initially, shall bear interest at the rate then applicable to Advances. If a Letter of Credit Disbursement is deemed to be an Advance hereunder, Company's obligation to pay the amount of such Letter of Credit Disbursement to Wells Fargo shall be automatically converted into an obligation to pay the resulting Advance.

(e) Company agrees to indemnify, defend and hold harmless Wells Fargo (including its branches, Affiliates, and correspondents) and each such Person's respective directors, officers, employees, attorneys and agents (each, including Wells Fargo, a "Letter of Credit Related Person") (to the fullest extent permitted by law) from and against any and all claims, demands, suits, actions, investigations, proceedings, liabilities, fines, costs, penalties, and damages, and all reasonable fees and disbursements of attorneys, experts, or consultants and all other costs and expenses actually incurred in connection therewith or in connection with the enforcement of this indemnification (as and when they are incurred and irrespective of whether suit is brought), which may be incurred by or awarded against any such Letter of Credit Related Person (the "Letter of Credit Indemnified Costs"), and which arise out of or in connection with, or as a result of:

(i) any Letter of Credit or any pre-advice of its issuance;

(ii) any transfer, sale, delivery, surrender or endorsement (or lack thereof) of any Drawing Document at any time(s) held by any such Letter of Credit Related Person in connection with any Letter of Credit;

(iii) any action or proceeding arising out of, or in connection with, any Letter of Credit (whether administrative, judicial or in connection with arbitration), including any action or proceeding to compel or restrain any presentation or payment under any Letter of Credit, or for the wrongful dishonor of, or honoring a presentation under, any Letter of Credit;

(iv) any independent undertakings issued by the beneficiary of any Letter of Credit;



(v) any unauthorized instruction or request made to Wells Fargo in connection with any Letter of Credit or requested Letter of Credit, or any error, omission, interruption or delay in such instruction or request, whether transmitted by mail, courier, electronic transmission, SWIFT, or any other telecommunication, including communications through a correspondent;

(vi) an adviser, confirmer or other nominated person seeking to be reimbursed, indemnified or compensated;

(vii) any third party seeking to enforce the rights of an applicant, beneficiary, nominated person, transferee, assignee of Letter of Credit proceeds or holder of an instrument or document;

(viii) the fraud, forgery or illegal action of parties other than the Letter of Credit Related Person;

(ix) any prohibition on payment or delay in payment of any amount payable by Wells Fargo to a beneficiary or transferee beneficiary of a Letter of Credit arising out of Anti-Corruption Laws, Anti-Money Laundering Laws, or Sanctions;

(x) Wells Fargo's performance of the obligations of a confirming institution or entity that wrongfully dishonors a confirmation;

(xi) any foreign language translation provided to Wells Fargo in connection with any Letter of Credit;

(xii) any foreign law or usage as it relates to Wells Fargo's issuance of a Letter of Credit in support of a foreign guaranty, including, without limitation, the expiration of such guaranty after the related Letter of Credit expiration date and any resulting drawing paid by Wells Fargo in connection therewith;

(xiii) the acts or omissions, whether rightful or wrongful, of any present or future de jure or de facto governmental or regulatory authority or cause or event beyond the control of the Letter of Credit Related Person;

provided, that such indemnity shall not be available to any Letter of Credit Related Person claiming indemnification under clauses (i) through (x) above to the extent that such Letter of Credit Indemnified Costs may be finally determined in a final, non-appealable judgment of a court of competent jurisdiction to have resulted directly from the gross negligence or willful misconduct of the Letter of Credit Related Person claiming indemnity. Company hereby agrees to pay the Letter of Credit Related Person claiming indemnity on demand from time to time all amounts owing under this Section 1.11(e). If and to the extent that the obligations of Company under this Section 1.11(e) are unenforceable for any reason, Company agrees to make the maximum contribution to the Letter of Credit Indemnified Costs permissible under applicable law. This indemnification provision shall survive termination of this Agreement and all Letters of Credit.

(f) The liability of Wells Fargo (or any other Letter of Credit Related Person) under, in connection with or arising out of any Letter of Credit (or pre-advice), regardless of the form or legal grounds of the action or proceeding, shall be limited to direct





damages suffered by Company that are caused directly by Wells Fargo's gross negligence or willful misconduct in (i) honoring a presentation under a Letter of Credit that on its face does not at least substantially comply with the terms and conditions of such Letter of Credit, (ii) failing to honor a presentation under a Letter of Credit that strictly complies with the terms and conditions of such Letter of Credit, or (iii) retaining Drawing Documents presented under a Letter of Credit. Company's aggregate remedies against Wells Fargo and any Letter of Credit Related Person for wrongfully honoring a presentation under any Letter of Credit or wrongfully retaining honored Drawing Documents shall in no event exceed the aggregate amount paid by Company to Wells Fargo in respect of the honored presentation in connection with such Letter of Credit under Section 1.11(d), plus interest at the rate then applicable to Advances hereunder. Company shall take action to avoid and mitigate the amount of any damages claimed against Wells Fargo or any other Letter of Credit Related Person, including by enforcing its rights against the beneficiaries of the Letters of Credit. Any claim by Company under or in connection with any Letter of Credit shall be reduced by an amount equal to the sum of (x) the amount (if any) saved by Company as a result of the breach or alleged wrongful conduct complained of, and (y) the amount (if any) of the loss that would have been avoided had Company taken all reasonable steps to mitigate any loss, and in case of a claim of wrongful dishonor, by specifically and timely authorizing Wells Fargo to effect a cure.

(g) Company is responsible for the final text of the Letter of Credit as issued by Wells Fargo, irrespective of any assistance Wells Fargo may provide such as drafting or recommending text or by Wells Fargo's use or refusal to use text submitted by Company. Company understands that the final form of any Letter of Credit may be subject to such revisions and changes as are deemed necessary or appropriate by Wells Fargo, and Company hereby consent to such revisions and changes not materially different from the application executed in connection therewith. Company is solely responsible for the suitability of the Letter of Credit for Company's purposes. If Company requests Wells Fargo to issue a Letter of Credit for an affiliated or unaffiliated third party (an "Account Party"), (i) such Account Party shall have no rights against Wells Fargo; (ii) Company shall be responsible for the application and obligations under this Agreement; and (iii) communications (including notices) related to the respective Letter of Credit shall be among Wells Fargo and Company. Company will examine the copy of the Letter of Credit and any other documents sent by Wells Fargo in connection therewith and shall promptly notify Wells Fargo (not later than three (3) Business Days following Company's receipt of documents from Wells Fargo) of any non-compliance with Company's instructions and of any discrepancy in any document under any presentment or other irregularity. Company understands and agrees that Wells Fargo is not required to extend the expiration date of any Letter of Credit for any reason. With respect to any Letter of Credit containing an "automatic amendment" to extend the expiration date of such Letter of Credit, Wells Fargo, in its sole and absolute discretion, may give notice of nonrenewal of such Letter of Credit and, if Company do not at any time want the then current expiration date of such Letter of Credit to be extended, Company will so notify Wells Fargo at least 30 calendar days before Wells Fargo is required to notify the beneficiary of such Letter of Credit or any advising bank of such non-extension pursuant to the terms of such Letter of Credit.



(h) Company's reimbursement and payment obligations under this Section 1.11 are absolute, unconditional and irrevocable and shall be performed strictly in accordance with the terms of this Agreement under any and all circumstances whatsoever, including:

(i) any lack of validity, enforceability or legal effect of any Letter of Credit, any Issuer Document, this Agreement or any Loan Document or any term or provision therein or herein;

(ii) payment against presentation of any draft, demand or claim for payment under any Drawing Document that does not comply in whole or in part with the terms of the applicable Letter of Credit or which proves to be fraudulent, forged or invalid in any respect or any statement therein being untrue or inaccurate in any respect, or which is signed, issued or presented by a Person or a transferee of such Person purporting to be a successor or transferee of the beneficiary of such Letter of Credit;

(iii) Wells Fargo or any of its branches or Affiliates being the beneficiary of any Letter of Credit;

(iv) Wells Fargo or any correspondent honoring a drawing against a Drawing Document up to the amount available under any Letter of Credit even if such Drawing Document claims an amount in excess of the amount available under the Letter of Credit;

(v) the existence of any claim, set-off, defense or other right that Company or any of its Subsidiaries may have at any time against any beneficiary or transferee beneficiary, any assignee of proceeds, Wells Fargo or any other Person;

(vi) Wells Fargo or any correspondent honoring a drawing upon receipt of an electronic presentation under a Letter of Credit requiring the same, regardless of whether the original Drawing Documents arrive at Wells Fargo's counters or are different from the electronic presentation;

(vii) any other event, circumstance or conduct whatsoever, whether or not similar to any of the foregoing that might, but for this Section 1.11(h), constitute a legal or equitable defense to or discharge of, or provide a right of set-off against, Company's or any of its Subsidiaries' reimbursement and other payment obligations and liabilities, arising under, or in connection with, any Letter of Credit, whether against Wells Fargo, the beneficiary or any other Person; or

(viii) the fact that any Default or Event of Default shall have occurred and be continuing;

provided, that subject to Section 1.11(f) above, the foregoing shall not release Wells Fargo from such liability to Company as may be finally determined in a final, non-appealable judgment of a court of competent jurisdiction against Wells Fargo following reimbursement or payment of the obligations and liabilities, including reimbursement and other payment obligations, of Company to Wells Fargo arising under, or in connection with, this Section 1.11 or any Letter of Credit.



(i) Without limiting any other provision of this Agreement, Wells Fargo and each other Letter of Credit Related Person (if applicable) shall not be responsible to Company for, and Wells Fargo's rights and remedies against Company and the obligation of Company to reimburse Wells Fargo for each drawing under each Letter of Credit shall not be impaired by:

(i) honor of a presentation under any Letter of Credit that on its face substantially complies with the terms and conditions of such Letter of Credit, even if the Letter of Credit requires strict compliance by the beneficiary;

(ii) honor of a presentation of any Drawing Document that appears on its face to have been signed, presented or issued (A) by any purported successor or transferee of any beneficiary or other Person required to sign, present or issue such Drawing Document or (B) under a new name of the beneficiary;

(iii) acceptance as a draft of any written or electronic demand or request for payment under a Letter of Credit, even if nonnegotiable or not in the form of a draft or notwithstanding any requirement that such draft, demand or request bear any or adequate reference to the Letter of Credit;

(iv) the identity or authority of any presenter or signer of any Drawing Document or the form, accuracy, genuineness or legal effect of any Drawing Document (other than Wells Fargo's determination that such Drawing Document appears on its face substantially to comply with the terms and conditions of the Letter of Credit);

(v) acting upon any instruction or request relative to a Letter of Credit or requested Letter of Credit that Wells Fargo in good faith believes to have been given by a Person authorized to give such instruction or request;

(vi) any errors, omissions, interruptions or delays in transmission or delivery of any message, advice or document (regardless of how sent or transmitted) or for errors in interpretation of technical terms or in translation or any delay in giving or failing to give notice to Company;

(vii) any acts, omissions or fraud by, or the insolvency of, any beneficiary, any nominated person or entity or any other Person or any breach of contract between any beneficiary and Company or any of the parties to the underlying transaction to which the Letter of Credit relates;

(viii) assertion or waiver of any provision of the ISP or UCP that primarily benefits an issuer of a letter of credit, including any requirement that any Drawing Document be presented to it at a particular hour or place;

(ix) payment to any presenting bank (designated or permitted by the terms of the applicable Letter of Credit) claiming that it rightfully honored or is entitled to reimbursement or indemnity under Standard Letter of Credit Practice applicable to it;



(x) acting or failing to act as required or permitted under Standard Letter of Credit Practice applicable to where Wells Fargo has issued, confirmed, advised or negotiated such Letter of Credit, as the case may be;

(xi) honor of a presentation after the expiration date of any Letter of Credit notwithstanding that a presentation was made prior to such expiration date and dishonored by Wells Fargo if subsequently Wells Fargo or any court or other finder of fact determines such presentation should have been honored;

(xii) dishonor of any presentation that does not strictly comply or that is fraudulent, forged or otherwise not entitled to honor; or

(xiii) honor of a presentation that is subsequently determined by Wells Fargo to have been made in violation of international, federal, state or local restrictions on the transaction of business with certain prohibited Persons.

(j) Company shall pay immediately upon demand to Wells Fargo for the account of Wells Fargo as non-refundable fees, commissions, and charges (it being acknowledged and agreed that any charging of such fees, commissions, and charges to the Loan Account pursuant to the provisions of this Agreement shall be deemed to constitute a demand for payment thereof for the purposes of this Section 1.11(j)) any and all customary commissions, fees and charges then in effect imposed by, and any and all expenses incurred by, Wells Fargo, or by any adviser, confirming institution or entity or other nominated person, relating to Letters of Credit, at the time of issuance of any Letter of Credit and upon the occurrence of any other activity with respect to any Letter of Credit (including transfers, assignments of proceeds, amendments, drawings, renewals or cancellations).

(k) If by reason of (x) any Change in Law, or (y) compliance by Wells Fargo with any direction, request, or requirement (irrespective of whether having the force of law) of any Governmental Authority or monetary authority including, Regulation D of the Board of Governors as from time to time in effect (and any successor thereto):

(i) any reserve, deposit, or similar requirement is or shall be imposed or modified in respect of any Letter of Credit issued or caused to be issued hereunder or hereby, or any Loans or obligations to make Loans hereunder or hereby, or

(ii) there shall be imposed on Wells Fargo any other condition regarding any Letter of Credit, Loans, or obligations to make Loans hereunder,

and the result of the foregoing is to increase, directly or indirectly, the cost to Wells Fargo of issuing, making, participating in, or maintaining any Letter of Credit or to reduce the amount receivable in respect thereof, then, and in any such case, Wells Fargo may, at any time within a reasonable period after the additional cost is incurred or the amount received is reduced, notify Company, and Company shall pay within 30 days after demand therefor, such amounts as Wells Fargo may specify to be necessary to compensate Wells Fargo for such additional cost or reduced receipt, together with interest on such amount from the date of such demand until payment in full thereof at the rate then applicable to Advances





hereunder; provided, that (A) Company shall not be required to provide any compensation pursuant to this Section 1.11(k) for any such amounts incurred more than 180 days prior to the date on which the demand for payment of such amounts is first made to Company, and (B) if an event or circumstance giving rise to such amounts is retroactive, then the 180-day period referred to above shall be extended to include the period of retroactive effect thereof. The determination by Wells Fargo of any amount due pursuant to this Section 1.11(k), as set forth in a certificate setting forth the calculation thereof in reasonable detail, shall, in the absence of manifest or demonstrable error, be final and conclusive and binding on all of the parties hereto.

(l) Each standby Letter of Credit shall expire not later than the date that is 12 months after the date of the issuance of such Letter of Credit; provided, that any standby Letter of Credit may provide for the automatic extension thereof for any number of additional periods each of up to one year in duration; provided further, that with respect to any Letter of Credit which extends beyond the Termination Date, Letter of Credit Collateralization shall be provided therefor on or before the date that is five Business Days prior to the Termination Date. Each commercial Letter of Credit shall expire on the earlier of (i) 120 days after the date of the issuance of such commercial Letter of Credit and (ii) five Business Days prior to the Termination Date.

(m) If (i) any Event of Default shall occur and be continuing, or (ii) availability under the Borrowing Base shall at any time be less than zero, then on the Business Day following the date when the Company receives notice from Wells Fargo demanding Letter of Credit Collateralization pursuant to this Section 1.11(m) upon such demand, Company shall provide Letter of Credit Collateralization with respect to the then existing Letter of Credit Usage. If Company fail to provide Letter of Credit Collateralization as required by this Section 1.11(m), Wells Fargo may advance as Advances the amount of the cash collateral required pursuant to the Letter of Credit Collateralization provision so that the then existing Letter of Credit Usage is cash collateralized in accordance with the Letter of Credit Collateralization provision (whether or not the Revolver Commitment has terminated, an Overadvance exists or the conditions in Section 3 are satisfied).

(n) Unless otherwise expressly agreed by Wells Fargo and Company when a Letter of Credit is issued, (i) the rules of the ISP shall apply to each standby Letter of Credit, and (ii) the rules of the UCP shall apply to each commercial Letter of Credit.

(o) Wells Fargo shall be deemed to have acted with due diligence and reasonable care if Wells Fargo's conduct is in accordance with Standard Letter of Credit Practice or in accordance with this Agreement.

(p) In the event of a direct conflict between the provisions of this Section 1.11 and any provision contained in any Issuer Document, it is the intention of the parties hereto that such provisions be read together and construed, to the fullest extent possible, to be in concert with each other. In the event of any actual, irreconcilable conflict that cannot be resolved as aforesaid, the terms and provisions of this Section 1.11 shall control and govern.



(q) The provisions of this Section 1.11 shall survive the termination of this Agreement and the repayment in full of the Obligations with respect to any Letters of Credit that remain outstanding.

(r) At Company's cost and expense, Company shall execute and deliver to Wells Fargo such additional certificates, instruments and/or documents and take such additional action as may be reasonably requested by Wells Fargo to enable Wells Fargo to issue any Letter of Credit pursuant to this Agreement and related Issuer Document, to protect, exercise and/or enforce Wells Fargo's rights and interests under this Agreement or to give effect to the terms and provisions of this Agreement or any Issuer Document. Company irrevocably appoints Wells Fargo as its attorney-in-fact and authorizes Wells Fargo, without notice to Company, to execute and deliver ancillary documents and letters customary in the letter of credit business that may include but are not limited to advisements, indemnities, checks, bills of exchange and issuance documents. The power of attorney granted by Company is limited solely to such actions related to the issuance, confirmation or amendment of any Letter of Credit and to ancillary documents or letters customary in the letter of credit business. This appointment is coupled with an interest.

(f) A new Section 5.28 is hereby added to the Credit Agreement which provides as follows:

**5.28 OFAC; Sanctions; Anti-Corruption Laws; Anti-Money Laundering Laws.** Company will, and will cause each of its Subsidiaries to, comply with all Sanctions, Anti-Corruption Laws and Anti-Money Laundering Laws. Each of the Company and its Subsidiaries will implement and maintain in effect policies and procedures designed to ensure compliance by the Company and their Subsidiaries and their respective directors, officers, employees, agents and Affiliates with, and each of the Company and their respective Subsidiaries and Affiliates will comply with, all Sanctions, Anti-Corruption Laws and Anti-Money Laundering Laws.

(g) A new Section 5.29 is hereby added to the Credit Agreement which provides as follows:

**5.29 Permitted Acquisitions.** Notwithstanding anything in Sections 5.6, 5.18 and 5.20 to the contrary, the Company shall be permitted to acquire assets outside the ordinary course of its business so long as each of the following conditions are satisfied:

(a) There is not a then existing Event of Default or Default Period.

(b) Both before and after giving effect to any such acquisition, there is not less than \$25,000,000.00 in Liquidity (of which not less than \$2,500,000.00 shall be excess availability under the Borrowing Base).

(c) No new indebtedness for money borrowed by Company shall be created as a result of any such acquisition.

(d) To the extent the acquisition is an operating business:

(1) Said business must not have achieved an EBITDA of less than \$0.00 of the immediately preceding twelve month period, provided however, for Project



Sparrow only, said business must have achieved an EBITDA of not less than (\$7,500,000.00) for the immediately preceding twelve month period;

(2) Wells Fargo has received and approved in its sole discretion, a due diligence package applicable to the acquisition which includes but is not limited to historical financial statements, projected income statements, a balance sheet, cash flow analysis and such other matters as Wells Fargo may require;

(3) The entity being acquired must become a Co-Borrower or Guarantor under this Agreement as determined by and under terms acceptable to Wells Fargo in its sole discretion.

(h) The definition of "Daily Three Month LIBOR" contained in Exhibit A to the Credit Agreement is hereby deleted and replaced as follows:

"Daily Three Month LIBOR" means, for any day the rate per annum for United States dollar deposits determined by Wells Fargo for the purpose of calculating the effective interest rate for loans that reference Daily Three Month LIBOR as the Inter-Bank Market Offered Rate in effect from time to time for the 3 month delivery of funds in amounts approximately equal to the principal amount of such loans (and, if such rate is below zero, the Daily Three Month LIBOR shall be deemed to be zero). Company understands and agrees that Wells Fargo may base its determination of the Inter-Bank Market Offered Rate upon such offers or other market indicators of the Inter-Bank Market as Wells Fargo in its discretion deems appropriate, including but not limited to the rate offered for U.S. dollar deposits on the London Inter-Bank Market. When interest is determined hereunder in relation to Daily Three Month LIBOR, each change in the interest rate hereunder shall become effective each Business Day that Wells Fargo determines that Daily Three Month LIBOR has changed.

(i) The definition of "Indebtedness" contained in Exhibit A to the Credit Agreement is hereby deleted and replaced as follows:

"Indebtedness" is used in its most comprehensive sense and means any debts, obligations (including without limitation, Hedge Obligations) and liabilities of Company to Wells Fargo or to any Bank Product Provider, whether incurred in the past, present or future, whether voluntary or involuntary, and however arising, and whether due or not due, absolute or contingent, liquidated or unliquidated, determined or undetermined, and including without limitation all obligations arising under any Hedge Agreement, rate hedge agreement, derivative, foreign exchange, deposit, treasury management or similar transaction or arrangement however described or defined that Company may enter into at any time with Wells Fargo, any Bank Product Provider, or with Wells Fargo Merchant Services, L.L.C., whether or not Company may be liable individually or jointly with others, or whether recovery upon such Indebtedness may subsequently become unenforceable.

(j) The following definitions are hereby added or replaced, as applicable, to Exhibit A of the Credit Agreement.

"Anti-Corruption Laws" means the FCPA, the U.K. Bribery Act of 2010, as amended, and all other applicable laws and regulations or ordinances concerning



or relating to bribery, money laundering or corruption in any jurisdiction in which Company or any of its Subsidiaries or Affiliates is located or is doing business.

"Anti-Money Laundering Laws" means the applicable laws or regulations in any jurisdiction in which Company or any of its Subsidiaries or Affiliates is located or is doing business that relates to money laundering, any predicate crime to money laundering, or any financial record keeping and reporting requirements related thereto.

"Authorized Person" means Jeffrey Rittichier, Jikun Kim, Ryan Hochgesang and any other individual identified by Company from time to time as an authorized person.

"Bank Product" means any one or more of the following financial products or accommodations extended to Company or any of its Subsidiaries by a Bank Product Provider: (a) credit cards (including commercial cards (including so-called "purchase cards", "procurement cards" or "p-cards")), (b) payment card processing services, (c) debit cards, (d) stored value cards, (e) Cash Management Services, or (f) transactions under Hedge Agreements.

"Bank Product Provider" means Wells Fargo or any of its Affiliates, including each of the foregoing in its capacity, if applicable, as a Hedge Provider.

"Cash Management Services" means any cash management or related services including treasury, depository, return items, overdraft, controlled disbursement, merchant store value cards, e-payables services, electronic funds transfer, interstate depository network, automatic clearing house transfer (including the Automated Clearing House processing of electronic funds transfers through the direct Federal Reserve Fedline system) and other cash management arrangements.

"Change in Law" means the occurrence after the date of this Agreement of: (a) the adoption or effectiveness of any law, rule, regulation, judicial ruling, judgment or treaty, (b) any change in any law, rule, regulation, judicial ruling, judgment or treaty or in the administration, interpretation, implementation or application by any Governmental Authority of any law, rule, regulation, guideline or treaty, or (c) the making or issuance by any Governmental Authority of any request, rule, guideline or directive, whether or not having the force of law; provided, that notwithstanding anything in this Agreement to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith, and (ii) all requests, rules, guidelines or directives concerning capital adequacy promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities shall, in each case, be deemed to be a "Change in Law," regardless of the date enacted, adopted or issued.

"Drawing Document" means any Letter of Credit or other document presented for purposes of drawing under any Letter of Credit, including by electronic transmission such as SWIFT, electronic mail, facsimile or computer generated communication.





"FCPA" means the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder.

"Governmental Authority" means the government of any nation or any political subdivision thereof, whether at the national, state, territorial, provincial, county, municipal or any other level, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of, or pertaining to, government (including any supra-national bodies such as the European Union or the European Central Bank).

"Hedge Agreement" means a "swap agreement" as that term is defined in Section 101(53B)(A) of the Bankruptcy Code.

"Hedge Obligations" means any and all obligations or liabilities, whether absolute or contingent, due or to become due, now existing or hereafter arising, of each Loan Party and its Subsidiaries arising under, owing pursuant to, or existing in respect of Hedge Agreements entered into with one or more of the Hedge Providers.

"Hedge Provider" means Wells Fargo or any of its Affiliates.

"ISP" means, with respect to any Letter of Credit, the International Standby Practices 1998 (International Chamber of Commerce Publication No. 590) and any version or revision thereof accepted by Wells Fargo for such use.

"Issuer Document" means, with respect to any Letter of Credit, a letter of credit application, a letter of credit agreement, or any other document, agreement or instrument entered into (or to be entered into) by a Company in favor of Wells Fargo and relating to such Letter of Credit.

"Letter of Credit" means a letter of credit (as that term is defined in the UCC) issued by Wells Fargo for the account of a Company or its Subsidiaries.

"Letter of Credit Collateralization" means either (a) providing cash collateral (pursuant to documentation reasonably satisfactory to Wells Fargo (including that Wells Fargo has a first priority perfected lien in such cash collateral), including provisions that specify that the Letter of Credit Fees and all commissions, fees, charges and expenses provided for in Section 1.11(j) of this Agreement (including any fronting fees) will continue to accrue while the Letters of Credit are outstanding) to be held by Wells Fargo for the benefit of Wells Fargo in an amount equal to 110% of the then existing Letter of Credit Usage, (b) delivering to Wells Fargo documentation executed by all beneficiaries under the Letters of Credit, in form and substance reasonably satisfactory to Wells Fargo, terminating all of such beneficiaries' rights under the Letters of Credit, or (c) providing Wells Fargo with a standby letter of credit, in form and substance reasonably satisfactory to Wells Fargo, from a commercial bank acceptable to Wells Fargo (in its sole discretion) in an amount equal to 110% of the then existing Letter of Credit Usage (it being understood that the Letter of Credit Fee set forth in this Agreement will continue to accrue while the Letters of Credit are outstanding and that any such fees that



accrue must be an amount that can be drawn under any such standby letter of credit).

"Letter of Credit Disbursement" means a payment made by Wells Fargo pursuant to a Letter of Credit.

"Letter of Credit Fee" has the meaning specified therefor in Section 1.11(c) of this Agreement.

"Letter of Credit Indemnified Costs" has the meaning specified therefor in Section 1.11(e) of this Agreement.

"Letter of Credit Related Person" has the meaning specified therefor in Section 1.11(e) of this Agreement.

"Letter of Credit Sublimit" means \$8,000,000.00.

"Letter of Credit Usage" means, as of any date of determination, the sum of (a) the aggregate undrawn amount of all outstanding Letters of Credit, plus (b) the aggregate amount of outstanding reimbursement obligations with respect to Letters of Credit which remain unreimbursed or which have not been paid through an Advance.

"Liquidity" means the aggregate of cash or cash equivalents held by the Company plus excess availability under the Borrowing Base.

"OFAC" means The Office of Foreign Assets Control of the U.S. Department of the Treasury.

"Sanctioned Entity" means (a) a country or a government of a country, (b) an agency of the government of a country, (c) an organization directly or indirectly controlled by a country or its government, (d) a Person resident in or determined to be resident in a country, in each case of clauses (a) through (d) that is a target of Sanctions, including a target of any country sanctions program administered and enforced by OFAC.

"Sanctioned Person" means, at any time, (a) any a Person named on the list of Specially Designated Nationals and Blocked Persons maintained by OFAC, OFAC's consolidated Non-SDN list or any other Sanctions-related list maintained by any relevant Governmental Authority, (b) a Person or legal entity that is a target of Sanctions, (c) any Person operating, organized or resident in a Sanctioned Entity, or (d) any Person directly or indirectly owned or controlled (individually or in the aggregate) by or acting on behalf of any such Person or Persons described in clauses (a) through (c) above.

"Sanctions" means individually and collectively, respectively, any and all economic sanctions, trade sanctions, financial sanctions, sectoral sanctions, secondary sanctions, trade embargoes anti-terrorism laws and other sanctions laws, regulations or embargoes, including those imposed, administered or enforced from time to time by: (a) the United States of America, including those administered by OFAC, the U.S. Department of State, the U.S. Department of Commerce, or



through any existing or future executive order, (b) the United Nations Security Council, (c) the European Union or any European Union member state, (d) Her Majesty's Treasury of the United Kingdom, or (e) any other Governmental Authority with jurisdiction over Wells Fargo or Company or any of their respective Subsidiaries or Affiliates.

"UCP" means, with respect to any Letter of Credit, the Uniform Customs and Practice for Documentary Credits 2007 Revision, International Chamber of Commerce Publication No. 600 and any version or revision thereof accepted by Wells Fargo for use.

(k) A new subsection (q) is hereby added to Exhibit D to the Credit Agreement which provides as follows:

(q) **OFAC; Sanctions; Anti-Corruption Laws; Anti-Money Laundering Laws.** Neither the Company nor any of its Subsidiaries are in violation of any Sanctions. Neither the Company nor any of its Subsidiaries or, to the knowledge of Company, any director, officer, employee, agent or Affiliate of Company or such Subsidiary (a) is a Sanctioned Person or a Sanctioned Entity, (b) has any assets located in Sanctioned Entities, or (c) derives revenues from investments in, or transactions with Sanctioned Persons or Sanctioned Entities. Each of the Company and its Subsidiaries has implemented and maintains in effect policies and procedures designed to ensure compliance with all Sanctions, Anti-Corruption Laws and Anti-Money Laundering Laws. Each of the Company and its Subsidiaries, and to the knowledge of each such Company, each director, officer, employee, agent and Affiliate of each such Company and each such Subsidiary, is in compliance with all Sanctions, Anti-Corruption Laws and Anti-Money Laundering Laws. No proceeds of any Advance made or Letter of Credit issued hereunder will be used to fund any operations in, finance any investments or activities in, or make any payments to, a Sanctioned Person or a Sanctioned Entity, or otherwise used in any manner that would result in a violation of any Sanction, Anti-Corruption Law or Anti-Money Laundering Law by any Person (including Wells Fargo, Bank Product Provider, or other individual or entity participating in any transaction).

2. **No Other Changes.** Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. [RESERVED]

4. **Conditions Precedent.**

(a) This Amendment shall be effective when Wells Fargo shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Wells Fargo in its reasonable discretion:

(i) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each such Guarantor.

(ii) A Certificate of the Secretary of the Company (the "Amendment Certificate") certifying as to (A) the articles of incorporation and bylaws of the



Company have not been amended or otherwise modified except as set forth in the Certificate to be delivered, (B) the officers and agents of the Company contained therein are authorized to sign and to act on behalf of the Company continue to be so authorized or setting forth the sample signatures of each of the officers and agents of the Company authorized to execute and deliver this Amendment and all other documents, agreements and certificates on behalf of the Company, and (C) any updates to Exhibit D to the Credit Agreement necessary to make the representations and warranties contained in Section c) thereof correct on and as of the date hereof as though made on and as of such date, except to the extent that such representations and warranties relate solely to an earlier date.

(iii) Such other matters and instruments as Wells Fargo may deem necessary in its discretion.

5. Representations and Warranties. The Company hereby represents and warrants to Wells Fargo as follows:

(a) The Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments has been duly executed and delivered by the Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

6. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all references in the Security Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

7. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Security Document or other document held by Wells Fargo, whether or not known to Wells Fargo and whether or not existing on the date of this Amendment.

8. Release. The Company, and each Guarantor signing the Acknowledgment and Agreement of Guarantors set forth below, hereby absolutely and unconditionally releases and forever discharges Wells Fargo, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing (each a "Released Party"), from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any





state or federal law or otherwise, which the Company or each Guarantor has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown, except to the extent resulting from gross negligence, bad faith or willful misconduct or a material breach by a Released Party of the Credit Agreement or any other Loan Document, in each case, as determined by a final non-appealable judgment of a court of competent jurisdiction.

9. Costs and Expenses. The Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Wells Fargo on demand for all costs and expenses incurred by Wells Fargo in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, the Company specifically agrees to pay all title insurance premiums, fees and disbursements of counsel to Wells Fargo for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. The Company hereby agrees that Wells Fargo may, at any time or from time to time in its sole discretion and without further authorization by the Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such premiums, fees, disbursements, costs and expenses.


10. Miscellaneous. This Amendment and the Acknowledgment and Agreement of Guarantors may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Amendment and the Acknowledgment and Agreement of Guarantors by facsimile or electronic mail shall be effective as delivery of a manually executed counterpart of this Agreement.

[SIGNATURE PAGE FOLLOWS]




IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

**EMCORE CORPORATION**, a New Jersey corporation

By  \_\_\_\_\_  
Its CFD \_\_\_\_\_

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By  \_\_\_\_\_  
Its Authorized Signatory





## ELEVENTH AMENDMENT TO CREDIT AND SECURITY AGREEMENT

THIS TENTH AMENDMENT (the "Amendment"), dated December 2, 2019, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation ("Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Wells Fargo").

### RECITALS

Emcore and Wells Fargo are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

The Company has requested that certain amendments be made to the Credit Agreement, which Wells Fargo is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) Section 5.2 of the Credit Agreement is hereby deleted and replaced as follows:

**5.2 Liquidity**. Company agrees that at all times it shall maintain excess Availability under the Borrowing Base plus all of the Company's cash and cash equivalents on deposit with Wells Fargo (collectively "Liquidity") of not less than \$7,500,000.00 which amount shall automatically be increased to \$10,000,000.00 on March 1, 2020 (of which \$1,000,000.00 in all instances must be comprised at all times of excess Availability).

2. No Other Changes. Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. Conditions Precedent.

(a) This Amendment shall be effective when Wells Fargo shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Wells Fargo in its reasonable discretion:

(i) The Acknowledgment and Agreement of Guarantors set forth at the end of this Amendment, duly executed by each such Guarantor.

(ii) A Certificate of the Secretary of the Company (the "Amendment Certificate") certifying as to (A) the articles of incorporation and bylaws of the Company have not been amended or otherwise modified except as set forth in the Certificate to be delivered, and (B) the officers and agents of the Company contained therein are authorized to sign and to act on behalf of the Company continue to be so authorized or setting forth the sample signatures of each of the officers and agents of the Company authorized to execute and deliver this Amendment and all other documents, agreements and certificates on behalf of the Company.

(iii) Payment of the fee detailed in Section 10 below.

(iv) Such other matters and instruments as Wells Fargo may deem necessary in its discretion.

4. Representations and Warranties. The Company hereby represents and warrants to Wells Fargo as follows:

(a) The Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments has been duly executed and delivered by the Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

5. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all references in the Security Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

6. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Security Document or other document held by Wells Fargo, whether or not known to Wells Fargo and whether or not existing on the date of this Amendment.

7. Release. The Company, and each Guarantor signing the Acknowledgment and Agreement of Guarantors set forth below, hereby absolutely and unconditionally releases and forever discharges Wells Fargo, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing (each a "Released Party"), from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which the Company or each Guarantor has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown, except to the extent resulting from gross negligence, bad faith or willful misconduct or a material breach by a Released Party of the Credit Agreement or any other Loan





Document, in each case, as determined by a final non-appealable judgment of a court of competent jurisdiction.

8. Costs and Expenses. The Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Wells Fargo on demand for all costs and expenses incurred by Wells Fargo in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, the Company specifically agrees to pay all title insurance premiums, fees and disbursements of counsel to Wells Fargo for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. The Company hereby agrees that Wells Fargo may, at any time or from time to time in its sole discretion and without further authorization by the Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such premiums, fees, disbursements, costs and expenses and the fee detailed in Section 10 below.

9. Amendment Fee. Company shall pay Wells Fargo (on the date hereof) a fully earned, non-refundable fee in the amount of \$5,000.00 in consideration of Wells Fargo's execution and delivery of this Amendment.

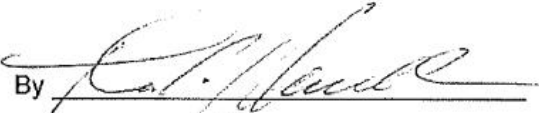
10. Miscellaneous. This Amendment and the Acknowledgment and Agreement of Guarantors may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page of this Amendment and the Acknowledgment and Agreement of Guarantors by facsimile or electronic mail shall be effective as delivery of a manually executed counterpart of this Agreement.

[SIGNATURE PAGE FOLLOWS]

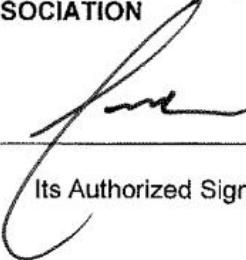


IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

**EMCORE CORPORATION**, a New Jersey corporation

By   
Its CFO

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By   
Its Authorized Signatory





**TWELFTH AMENDMENT TO  
CREDIT AND SECURITY AGREEMENT**

THIS TWELFTH AMENDMENT (the "Amendment"), dated December 8, 2020, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation, **AEROSPACE NEWCO HOLDINGS, INC.**, a Delaware corporation, **SYSTRON DONNER INERTIAL, INC.**, a Delaware corporation (collectively, jointly and severally, the "Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Lender").

**RECITALS**

Company and Lender are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

Company has requested that certain amendments be made to the Credit Agreement, which Lender is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) The following are hereby added or amended, as applicable, to Exhibit A of the Credit Agreement in proper alphabetical order:

"Base Rate" means the greater of (a) the Federal Funds Rate plus 1/2%, and (b) the rate of interest announced, from time to time, within Lender at its principal office in San Francisco as its "prime rate", with the understanding that the "prime rate" is one of Lender's base rates (not necessarily the lowest of such rates) and serves as the basis upon which effective rates of interest are calculated for those loans making reference thereto and is evidenced by the recording thereof after its announcement in such internal publications as Lender may designate (and, if any such announced rate is below zero, then the rate determined pursuant to this clause (b) shall be deemed to be zero).

"CARES Act - Title I" means Title I of the Coronavirus Aid, Relief and Economic Security Act, as amended (including any successor thereto), and all requests, rules, guidelines, requirements and directives thereunder or issued in connection therewith or in implementation thereof, regardless of the date enacted, adopted, issued or implemented.

"CARES Debt" has the meaning set forth in Section 5.4(d).

"CARES Forgiveness Date" means five (5) Business Days (or such longer period as may be approved in writing by Lender) after the later of the date that the Company obtains a final determination by (i) Lender and (ii) to the extent required, the Small Business Administration regarding the amount of CARES Debt, if any, that will be forgiven pursuant to the provisions of the CARES Act - Title I.

"Change in Law" means the occurrence after the date of this Amendment of: (a) the adoption or effectiveness of any law, rule, regulation, judicial ruling, judgment or treaty, (b) any change in any law, rule, regulation, judicial ruling, judgment or treaty or in the administration, interpretation, implementation or application by any Governmental Authority of any law, rule, regulation, guideline or treaty, or (c) the making or issuance by any Governmental Authority of any request, rule, guideline or directive, whether or not having the force of law; provided, that, notwithstanding anything in this Agreement to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith, and (ii) all requests, rules, guidelines or directives concerning capital adequacy promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities shall, in each case, be deemed to be a "Change in Law," regardless of the date enacted, adopted or issued.

"Company" means, jointly, severally and collectively, Emcore Corporation, a New Jersey corporation, Aerospace Newco Holdings, Inc., a Delaware corporation, and Systron Donner Inertial, Inc., a Delaware corporation.

The introductory sentence of the definition of "Eligible Inventory" contained in Exhibit A of the Credit Agreement is hereby deleted and replaced as follows:

"Eligible Inventory" means all Inventory of Emcore Corporation (but not Aerospace Newco Holdings, Inc. or Systron Donner Inertial, Inc.).

"Federal Funds Rate" means, for any period, a fluctuating interest rate per annum equal to, for each day during such period, the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System, as published on the next succeeding Business Day by the Federal Reserve Bank of New York, or, if such rate is not so published for any day which is a Business Day, the average of the quotations for such day on such transactions received by Lender from three Federal funds brokers of recognized standing selected by it (and, if any such rate is below zero, then the rate determined pursuant to this definition shall be deemed to be zero).

"Floating Rate Advance" and "Floating Rate Advances" means any Advance which bears interest at the Floating Rate.

"Governmental Authority" means the government of any nation or any political subdivision thereof, whether at the national, state, territorial, provincial, county, municipal or any other level, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of, or pertaining to, government (including any supra-national bodies such as the European Union or the European Central Bank).

"Small Business Administration" means the U.S. Small Business Administration.





(b) A new Subsection (d) is hereby added to Section 5.4 of the Credit Agreement which provides as follows:

"(d) unsecured Indebtedness in an aggregate principal amount not to exceed \$6,500,000.00 advanced by (i) any Governmental Authority (including the Small Business Administration) or Lender acting as a financial agent of a Governmental Authority or (ii) any other Person to the extent such Indebtedness under this clause (ii) is guaranteed by a Governmental Authority (including the Small Business Administration), in each case under this clause 5.4(d), pursuant to the CARES Act - Title I (such unsecured Indebtedness, "CARES Debt")."

(c) A new Section 5.30 is hereby added to the Credit Agreement which provides as follows:

"Section 5.30 CARES Debt.

(a) The Company shall timely submit all applications and required documentation necessary or desirable for Lender of the CARES Debt and/or the Small Business Administration to make a determination regarding the amount of the CARES Debt that is eligible to be forgiven.

(b) The Company shall, to the extent not included in the foregoing clause (a), promptly (and in any event within three (3) Business Days) upon receipt or filing thereof, as applicable, provide to Lender copies of all material documents, applications and correspondence with any Governmental Authority relating to CARES Debt, including with respect to loan forgiveness.

(c) Company agrees that it will not make any claim that Lender or any of its Affiliates have rendered advisory services of any nature or respect in connection with any CARES Debt, the CARES Act – Title I or the process leading thereto."

(d) A new Section 5.31 is hereby added to the Credit Agreement which provides as follows:

"Section 5.31 Amendment to CARES Debt. Company shall provide Lender with notice of (and a copy of) any other modification to the CARES Debt within 30 days of the effective date of any such modification."

(e) A new Section 6.1(x) is hereby added to the Credit Agreement which provides as follows:

"(x) any event of default occurs with respect to the CARES Debt."

(f) A new Section 7.18 is hereby added to the Credit Agreement which provides as follows:

**7.18 Illegality; Market Conditions.** Notwithstanding anything to the contrary contained herein, other than as a result of the occurrence of a Benchmark Transition Event or an Early Opt-in Election, as such terms are defined in Schedule 7.18, if (a) any Change in Law makes it unlawful for Lender to make or maintain Floating Rate Advances or to maintain the commitment with respect to making



Floating Rate Advances or (b) Lender determines in good faith (which determination shall, absent manifest error, be final and conclusive and binding upon all parties hereto) that (i) it has become impractical as a result of a circumstance that adversely affects the London interbank market or the position of Lender in such market to ascertain Daily Three Month LIBOR, (ii) Daily Three Month LIBOR cannot be determined pursuant to the definition thereof, or (iii) adequate and fair means do not exist for ascertaining the interest rate applicable to Floating Rate Advances on the basis provided for in the definition of Daily Three Month LIBOR, then Lender shall give notice thereof to the Company and may (A) declare that Floating Rate Advances require that all outstanding Floating Rate Advances made by Lender be converted to Base Rate Advances immediately, in which event all outstanding Floating Rate Advances shall be so converted and all Indebtedness (except for the undrawn amount of any issued and outstanding Letters of Credit) shall bear interest at the Base Rate in effect from time to time, plus the 1.75%."

(g) A new Section 7.19 is hereby added to the Credit Agreement which provides as follows:

"7.19 **Joint and Several Liability.** Each entity constituting the Company agrees that it is jointly and severally liable for, and absolutely and unconditionally guarantees to Wells Fargo the prompt payment and performance of, all obligations and Indebtedness under this Agreement and all agreements under the Loan Documents. Each entity constituting the Company agrees that its guaranty obligations hereunder constitute a continuing guaranty of payment and not of collection, that such obligations shall not be discharged until cash payment in full of the obligations and Indebtedness, and that such obligations are absolute and unconditional, irrespective of (i) the genuineness, validity, regularity, enforceability, subordination or any future modification of, or change in, any obligations or Loan Document, or any other document, instrument or agreement to which any Entity constituting the Company is or may become a party or be bound; (ii) the absence of any action to enforce this Agreement (including this Section) or any other Loan Document, or any waiver, consent or indulgence of any kind by Wells Fargo with respect thereto; (iii) the existence, value or condition of, or failure to perfect any of Wells Fargo's Liens or to preserve rights against, any security or guaranty for the obligations, Indebtedness or any action, or the absence of any action, by Wells Fargo in respect thereof (including the release of any security or guaranty); (iv) the insolvency of any Entity constituting the Company; (v) any election by Wells Fargo in an insolvency proceeding for the application of Section 1111(b)(2) of the Bankruptcy Code; (vi) any borrowing or grant of a lien by any other borrower, as debtor-in-possession under Section 364 of the Bankruptcy Code or otherwise; (vii) the disallowance of any claims of Wells Fargo against any Entity constituting the Company for the repayment of any obligations and the Indebtedness under Section 502 of the Bankruptcy Code or otherwise; or (viii) any other action or circumstances that might otherwise constitute a legal or equitable discharge or defense of a surety or guarantor, except cash payment in full of all obligations and the Indebtedness."

(h) A new Schedule 7.18 is hereby added to the Credit Agreement which shall be in the form attached hereto.



2. No Other Changes. Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. Consent. Lender hereby consents to the Company incurring the CARES Debt and acknowledges that no default under the Credit Agreement exists in connection therewith.

4. Conditions Precedent. This Amendment shall be effective when Lender shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Lender.

(a) The execution, delivery and performance by Company of this Amendment has been duly authorized by all necessary corporate action and does not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which each Company is a party or by which it or its properties may be bound or affected.

(b) Payment of the fee detailed in Section 10 below.

(c) Such other matters as Lender may require.

5. Representations and Warranties. Company hereby represents and warrants to Lender as follows:

(a) Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments have been duly executed and delivered by Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate and company action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation, articles of organization, operating agreement or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

(c) All of the representations and warranties contained in Article V of the Credit Agreement are correct on and as of the date hereof as though made on and as of such date, except to the extent that such representations and warranties relate solely to an earlier date.

6. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all references in the



Loan Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

7. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Loan Document or other document held by Lender, whether or not known to Lender and whether or not existing on the date of this Amendment.

8. Release. Company hereby absolutely and unconditionally releases and forever discharges Lender, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing, from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which Company has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown.

9. Costs and Expenses. Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Lender on demand for all costs and expenses incurred by in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, Company specifically agrees jointly and severally to pay all fees and disbursements of counsel to Lender for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. Company hereby agrees that Lender may, at any time or from time to time in its sole discretion and without further authorization by Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such fees, disbursements, costs and expenses and the fee detailed in Section 10 below.

10. Amendment Fee. Company shall pay Lender as of the date hereof a fully earned, non-refundable fee in the amount of \$7,500.00 in consideration of Lender's execution and delivery of this Amendment.

11. Miscellaneous. This Amendment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument.

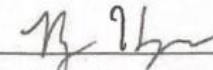
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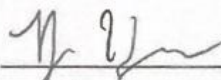


IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

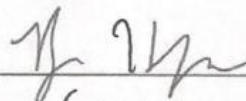
**EMCORE CORPORATION**, a New Jersey corporation

By:   
Its VP, General Counsel

**AEROSPACE NEWCO HOLDINGS, INC.**, a Delaware corporation

By:   
Its Secretary

**SYSTRON DONNER INERTIAL, INC.**, a Delaware corporation

By:   
Its Secretary

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By:   
Its Authorized Signatory



SCHEDULE 7.18  
TO  
CREDIT AGREEMENT

LIBOR Replacement

Defined terms used in this Schedule 7.18 that are not otherwise defined in this Agreement are set forth at the end of this Schedule 7.18.

1. **Benchmark Replacement.** Notwithstanding anything to the contrary herein or in any other Loan Document, upon the occurrence of a Benchmark Transition Event or an Early Opt-in Election, as applicable, Lender may amend this Agreement to replace the then-current Benchmark with a Benchmark Replacement. Any such amendment will become effective at 5:00 p.m. on the fifth Business Day after Lender has provided such amendment to Company without any further action or consent of Company, so long as Lender has not received, by such time, written notice of objection to such amendment from Company if such amendment is with respect to an Early Opt-in Election. No replacement of a Benchmark with a Benchmark Replacement pursuant to this Schedule 7.18 will occur prior to the applicable Benchmark Transition Start Date.

2. **Benchmark Replacement Conforming Changes.** In connection with a Benchmark Replacement, Lender will have the right to make Benchmark Replacement Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Benchmark Replacement Conforming Changes will become effective without any further action or consent of the Company.

3. **Notices; Standards for Decisions and Determinations.** Lender will promptly notify Company of (a) any occurrence of a Benchmark Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date and Benchmark Transition Start Date, (b) the implementation of any Benchmark Replacement, (c) the effectiveness of any Benchmark Replacement Conforming Changes and (d) the commencement or conclusion of any Benchmark Unavailability Period. Any determination, decision or election that may be made by Lender pursuant to this Schedule 7.18, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action, will be conclusive and binding absent manifest error and may be made in Lender's sole discretion and without consent from Company, except, in each case, as expressly required pursuant to this Schedule 7.18.

4. **Benchmark Unavailability Period.** Upon Company's receipt of notice of the commencement of a Benchmark Unavailability Period, Lender may require that all outstanding Floating Rate Advances made by Lender be converted to Base Rate Advances immediately, in which event all outstanding Floating Rate Advances shall be so converted and shall bear interest at the Base Rate in effect from time to time, plus the Applicable Margin. The Base Rate in effect from time to time plus the Applicable Margin shall replace the then-current Benchmark for any determination of interest hereunder or under any other Loan Document during a Benchmark Unavailability Period.

5. **Certain Defined Terms.** As used in this Schedule 7.18:



"Benchmark" means, initially, Daily Three Month LIBOR, provided, that, if a Benchmark Transition Event or an Early Opt-in Election, as applicable, has occurred with respect to Daily Three Month LIBOR or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has become effective pursuant to the provisions of this Schedule 7.18.

"Benchmark Replacement" means the sum of: (a) the alternate benchmark rate (which may include a term SOFR) that has been selected by Lender giving due consideration to (i) any selection or recommendation of a replacement rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a rate of interest as a replacement to the then-current Benchmark for U.S. dollar-denominated syndicated or bilateral credit facilities and (b) the Benchmark Replacement Adjustment; provided, that, if the Benchmark Replacement as so determined would be less than zero, the Benchmark Replacement will be deemed to be zero for the purposes of this Agreement.

"Benchmark Replacement Adjustment" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement, the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by Lender giving due consideration to (a) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body or (b) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated syndicated or bilateral credit facilities at such time.

"Benchmark Replacement Conforming Changes" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the timing and frequency of determining rates and making payments of interest, prepayment provisions, and other administrative matters) that Lender decides may be appropriate to reflect the adoption and implementation of such Benchmark Replacement and to permit the administration thereof by Lender in a manner substantially consistent with market practice (or, if Lender decides that adoption of any portion of such market practice is not administratively feasible or if Lender determines that no market practice for the administration of the Benchmark Replacement exists, in such other manner of administration as Lender decides is reasonably necessary in connection with the administration of this Agreement).

"Benchmark Replacement Date" means the earlier to occur of the following events with respect to the then-current Benchmark:

(a) in the case of clause (a) or (b) of the definition of "Benchmark Transition Event," the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of the Benchmark permanently or indefinitely ceases to provide the Benchmark; or

(b) in the case of clause (c) of the definition of "Benchmark Transition Event," the date of the public statement or publication of information referenced therein.



"Benchmark Transition Event" means the occurrence of one or more of the following events with respect to the then-current Benchmark:

(a) a public statement or publication of information by or on behalf of the administrator of the Benchmark announcing that such administrator has ceased or will cease to provide the Benchmark, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark;

(b) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark, the U.S. Federal Reserve System, an insolvency official with jurisdiction over the administrator for the Benchmark, a resolution authority with jurisdiction over the administrator for the Benchmark or a court or an entity with similar insolvency or resolution authority over the administrator for the Benchmark, which states that the administrator of the Benchmark has ceased or will cease to provide the Benchmark permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark; or

(c) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark announcing that the Benchmark is no longer representative.

"Benchmark Transition Start Date" means (a) in the case of a Benchmark Transition Event, the earlier of (i) the applicable Benchmark Replacement Date and (ii) if such Benchmark Transition Event is a public statement or publication of information of a prospective event, the 90th day prior to the expected date of such event as of such public statement or publication of information (or if the expected date of such prospective event is fewer than 90 days after such statement or publication, the date of such statement or publication) and (b) in the case of an Early Opt-in Election, the date specified by Lender by notice to Company, so long as Lender has not received, by such date, written notice of objection to such Early Opt-In Election from Company.

"Benchmark Unavailability Period" means, if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to the then-current Benchmark and solely to the extent that the Benchmark has not been replaced with a Benchmark Replacement, the period (a) beginning at the time that such Benchmark Replacement Date has occurred if, at such time, no Benchmark Replacement has replaced the Benchmark for all purposes hereunder in accordance with this Schedule 7.18 and (b) ending at the time that a Benchmark Replacement has replaced the Benchmark for all purposes hereunder pursuant to this Schedule 7.18.

"Early Opt-in Election" means the occurrence of:

(a) a determination by Lender that at least five currently outstanding U.S. dollar-denominated syndicated or bilateral credit facilities at such time contain (as a result of amendment or as originally executed) as a benchmark interest rate, in lieu of the then-current Benchmark, a new benchmark interest rate to replace the Benchmark, and

(b) the election by Lender to declare that an Early Opt-in Election has occurred and the provision by Lender of written notice of such election to Company.





"Federal Reserve Bank of New York's Website" means the website of the Federal Reserve Bank of New York at <http://www.newyorkfed.org>, or any successor source.

"Relevant Governmental Body" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

"SOFR" with respect to any day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark, (or a successor administrator) on the Federal Reserve Bank of New York's Website.

"Term SOFR" means the forward-looking term rate based on SOFR that has been selected or recommended by the Relevant Governmental Body.

"Unadjusted Benchmark Replacement" means the Benchmark Replacement excluding the Benchmark Replacement Adjustment.





**THIRTEENTH AMENDMENT TO  
CREDIT AND SECURITY AGREEMENT**

THIS THIRTEENTH AMENDMENT (the "Amendment"), dated October 26, 2021, is entered into by and between **EMCORE CORPORATION**, a New Jersey corporation, **AEROSPACE NEWCO HOLDINGS, INC.**, a Delaware corporation, **SYSTRON DONNER INERTIAL, INC.**, a Delaware corporation (collectively, jointly and severally, the "Company"), and **WELLS FARGO BANK, NATIONAL ASSOCIATION** ("Lender").

**RECITALS**

Company and Lender are parties to a Credit and Security Agreement dated November 11, 2010 (as amended from time to time, the "Credit Agreement"). Capitalized terms used in these recitals have the meanings given to them in the Credit Agreement unless otherwise specified.

Company has requested that certain amendments be made to the Credit Agreement, which Lender is willing to make pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements herein contained, it is agreed as follows:

1. Amendments. The Credit Agreement is hereby amended as follows:

(a) Section 1.1(b) of the Credit Agreement is hereby deleted and replaced as follows:

(b) Maturity and Termination Dates. Company may request Advances from the date that the conditions set forth in Section 3 are satisfied until the earlier of: (i) February 9, 2022 (the "Maturity Date"), (ii) the date Company terminates the Line of Credit, or (iii) the date Wells Fargo terminates the Line of Credit following an Event of Default. (The earliest of these dates is the "Termination Date.").

(b) Section 1.8(c) of the Credit Agreement is hereby deleted and replaced as follows:

[INTENTIONALLY DELETED]

2. No Other Changes. Except as explicitly amended by this Amendment, all of the terms and conditions of the Credit Agreement shall remain in full force and effect and shall apply to any advance or letter of credit thereunder.

3. Conditions Precedent. This Amendment shall be effective when Lender shall have received an executed original hereof, together with each of the following, each in substance and form acceptable to Lender.

(a) The execution, delivery and performance by Company of this Amendment has been duly authorized by all necessary corporate action and does not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation or by-laws of the Company, or (iii) result in a breach of

or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which each Company is a party or by which it or its properties may be bound or affected.

(b) Such other matters as Lender may require.

4. Representations and Warranties. Company hereby represents and warrants to Lender as follows:

(a) Company has all requisite power and authority to execute this Amendment and any other agreements or instruments required hereunder and to perform all of its obligations hereunder, and this Amendment and all such other agreements and instruments have been duly executed and delivered by Company and constitute the legal, valid and binding obligation of the Company, enforceable in accordance with its terms.

(b) The execution, delivery and performance by the Company of this Amendment and any other agreements or instruments required hereunder have been duly authorized by all necessary corporate and company action and do not (i) require any authorization, consent or approval by any governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, (ii) violate any provision of any law, rule or regulation or of any order, writ, injunction or decree presently in effect, having applicability to the Company, or the articles of incorporation, articles of organization, operating agreement or by-laws of the Company, or (iii) result in a breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease or instrument to which the Company is a party or by which it or its properties may be bound or affected.

(c) All of the representations and warranties contained in Article V of the Credit Agreement are correct on and as of the date hereof as though made on and as of such date, except to the extent that such representations and warranties relate solely to an earlier date.

5. References. All references in the Credit Agreement to "this Agreement" shall be deemed to refer to the Credit Agreement as amended hereby; and any and all references in the Loan Documents to the Credit Agreement shall be deemed to refer to the Credit Agreement as amended hereby.

6. No Waiver. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default under the Credit Agreement or a waiver of any breach, default or event of default under any Loan Document or other document held by Lender, whether or not known to Lender and whether or not existing on the date of this Amendment.

7. Release. Company hereby absolutely and unconditionally releases and forever discharges Lender, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing, from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which Company has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown.



8. Costs and Expenses. Company hereby reaffirms its agreement under the Credit Agreement to pay or reimburse Lender on demand for all costs and expenses incurred by in connection with the Loan Documents, including without limitation all reasonable fees and disbursements of legal counsel. Without limiting the generality of the foregoing, Company specifically agrees jointly and severally to pay all fees and disbursements of counsel to Lender for the services performed by such counsel in connection with the preparation of this Amendment and the documents and instruments incidental hereto. Company hereby agrees that Lender may, at any time or from time to time in its sole discretion and without further authorization by Company, make a loan to the Company under the Credit Agreement, or apply the proceeds of any loan, for the purpose of paying any such fees, disbursements, costs and expenses.

9. Miscellaneous. This Amendment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and all of which counterparts, taken together, shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]



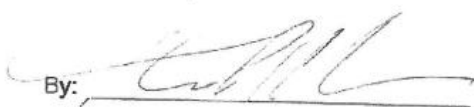


IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

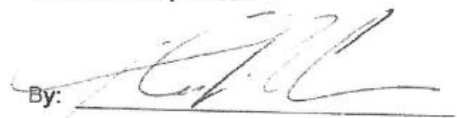
**EMCORE CORPORATION**, a New Jersey corporation

By:   
Its CFO

**AEROSPACE NEWCO HOLDINGS, INC.**, a Delaware corporation

By:   
Its Treasurer

**SYSTRON DONNER INERTIAL, INC.**, a Delaware corporation

By:   
Its Treasurer

**WELLS FARGO BANK, NATIONAL ASSOCIATION**

By:   
Its Authorized Signatory





Exhibit 21.1

EMCORE Corporation subsidiaries\*

Name
Corona Optical Systems, Inc., a Delaware corporation
EMCORE Hong Kong, Limited, a Hong Kong corporation
Langfang EMCORE Optoelectronics Company, Limited, a Chinese corporation
EMCORE Optoelectronics (Beijing) Co., LTD, a Chinese corporation
Aerospace Newco Holdings, Inc., a Delaware corporation
Systron Donner Inertial, Inc., a Delaware corporation

\*As of December 3, 2021



**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
EMCORE Corporation:

We consent to the incorporation by reference in the registration statements (Nos. 333-171929, 333-175777, 333-185699, 333-197179, 333-211912, 333-217799 and 333-230709) on Form S-8, and (No. 333-256090) on Form S-3 of EMCORE Corporation of our report dated December 3, 2021, with respect to the consolidated balance sheets of EMCORE Corporation as of September 30, 2021 and 2020, the related consolidated statements of operations and comprehensive income (loss), shareholders' equity, and cash flows for each of the years in the three-year period ended September 30, 2021, and the related notes, and the effectiveness of internal control over financial reporting as of September 30, 2021, which report appears in the September 30, 2021 annual report on Form 10-K of EMCORE Corporation.

Our report refers to a change in the method of accounting for leases as of October 1, 2019 due to the adoption of the Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC) Topic 842, Leases.

/s/ KPMG LLP

Irvine, California  
December 3, 2021

**EMCORE CORPORATION**  
**CERTIFICATION PURSUANT TO SECTION 302**  
**OF THE SARBANES-OXLEY ACT OF 2002**

I, Jeffrey Rittichier, certify that:

1. I have reviewed this Annual Report on Form 10-K of EMCORE Corporation ("Report");
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and
  - d. Disclosed in this Report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: **December 3, 2021**

By: **/s/ Jeffrey Rittichier**

Jeffrey Rittichier

Chief Executive Officer

(Principal Executive Officer)

**EMCORE CORPORATION**  
**CERTIFICATION PURSUANT TO SECTION 302**  
**OF THE SARBANES-OXLEY ACT OF 2002**

I, Tom Minichiello, certify that:

1. I have reviewed this Annual Report on Form 10-K of EMCORE Corporation ("Report");
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and
  - d. Disclosed in this Report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: **December 3, 2021**

By: **/s/ Tom Minichiello**

\_\_\_\_\_  
Tom Minichiello  
Chief Financial Officer  
(Principal Financial and Accounting Officer)



**STATEMENT REQUIRED BY 18 U.S.C. §1350, AS ADOPTED  
PURSUANT TO §906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of EMCORE Corporation (the "Company") for the quarterly period ended September 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jeffrey Rittichier, Chief Executive Officer (Principal Executive Officer) of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 3, 2021 By: /s/ Jeffrey Rittichier  
Jeffrey Rittichier  
Chief Executive Officer  
(Principal Executive Officer)

*The foregoing certification is being furnished pursuant to 18 U.S.C. Section 1350. It is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and it is not to be incorporated by reference into any filing of the Company, regardless of any general incorporation language in such filings.*

**STATEMENT REQUIRED BY 18 U.S.C. §1350, AS ADOPTED  
PURSUANT TO §906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of EMCORE Corporation (the "Company") for the quarterly period ended September 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Tom Minichiello, Chief Financial Officer (Principal Financial and Accounting Officer) of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 3, 2021 By: /s/ Tom Minichiello  
Tom Minichiello  
Chief Financial Officer  
(Principal Financial and Accounting Officer)

*The foregoing certification is being furnished pursuant to 18 U.S.C. Section 1350. It is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and it is not to be incorporated by reference into any filing of the Company, regardless of any general incorporation language in such filings.*