Medallion 2100 Optical A/B Switch

DATASHEET | JUNE 2015 FIBER OPTICS

Applications

- Fiber Optical Protection Switching
- Redundant Ring Architectures
- FTTx Networks

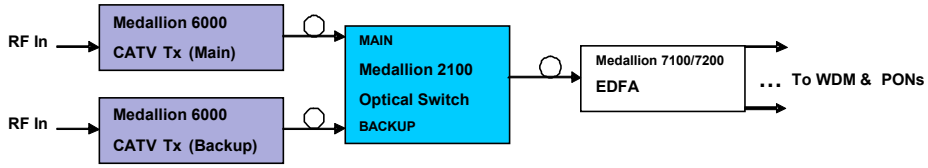
Features

- Automatic, Manual and Remote Switching
- Up to 4 Independent Switches
- Auto-Switching Time Less than 10 ms
- SNMPv2 Control Interface
- Web Server
- Front Panel LED Indicators
- 1 RU Rack-Mount Enclosure with Choice of Dual Hot Swappable AC or DC Redundant Power Supplies

The Medallion 2100 Optical A/B Switch is a high-performance solution for network protection and optical redundancy. Packaged in convenient 1 RU housing, this line of optical switches provides an automatic or manual fiber switching function to protect the network from inadvertent service outages due to up-stream optical signal degradation. Each fiber's optical signal power level is continuously monitored, as is an adjustable optical trip threshold for each channel. If the primary fiber's optical signal power level falls below the desired optical trip threshold, the unit automatically switches to the secondary fiber, thus eliminating the need for intervention of a system operator. The Medallion 2100 is capable of manual switching or can be switched remotely via SNMP or via a WEB browser adding optical protection to many system applications.

The Medallion 2100 series is designed as a low power, cost-effective, high-performance switching solution for applications that demand reliable and rapid response to changing network conditions.

Example Redundant Path Configuration for CATV Broadcast



Optical Characteristics

Property	Min.	Typ.	Max.	Units
Operating Wavelength	1260		1620	nm
Insertion Loss	-	≤ 1.0	1.5	dB
Return Loss	-	≥ 50	-	dB
Polarization Dependent Loss	-	≤ 0.05	0.1	dB
Repeatability	-	+/-0.02	+/-0.03	dB
Cross Talk	-	≥ 55	-	dB
Input Optical Power	-	-	27	dBm
Switching Time	-	≤ 10	25	ms
Durability	-	≥ 10^7	-	Cycles

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P +1 626-293-3400 E catv-sales@emcore.com W www.emcore.com

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General and Mechanical Specifications

Property	Requirement	Comments
Switching Threshold	20 dB dynamic range – see ordering info	Settable within range
Switching Mode	Auto, Manual, Remote	
Optical Connector	SC/APC	Other styles available (see ordering information)
Monitoring Interfaces	100 Base-T Ethernet Rear Panel RS-232 interface Front Panel Indicators	SNMPv2, WEB Graphical User Interface Local Craft Interface LED and Vacuum Fluorescent Display
Operating Temperature	0°C to 50°C	
Storage Temperature	-25°C to 65°C	
Power Consumption	15 W	Maximum
Supply Range (VAC) (VDC)	85 to 240 VAC, 50/60 Hz 36 - 72 VDC	
Dimensions	430 mm x 300 mm x 44 mm	
Individual Switches per Rack Unit	Up to 4	
Agency Listings, EMI	EN50083-2-2006 EN 55013 EN 61000-3-2 EN 61000-4-6 EN 61000-4-3 EN 61000-4-2 EN 61000-4-4 EN 61000-3-3 FCC Part 15 (Subpart B, Class A), 107(b), 109(b)	
Agency Listing, Safety	IEC 60950-1/A1:2009	
Transportation Vibration	GR-2853-CORE	
Transportation Shock	GR-2853-CORE	
Relative Humidity (non-condensing)	0% to 95%	

European Union “RoHS 2 Directive” Compliance

All homogenous materials contained in the product contain less than the maximum concentration levels for lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated biphenyl ethers permitted under the European Union Directive 2011/65/EC (the “RoHS 2 Directive”)

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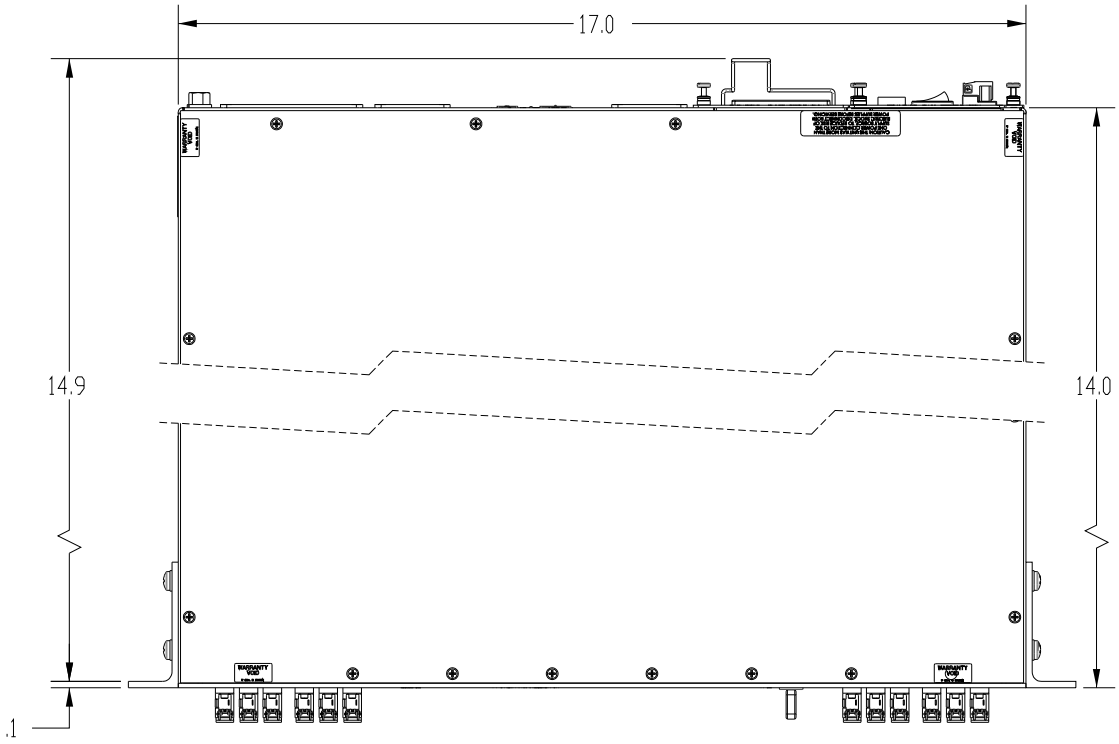
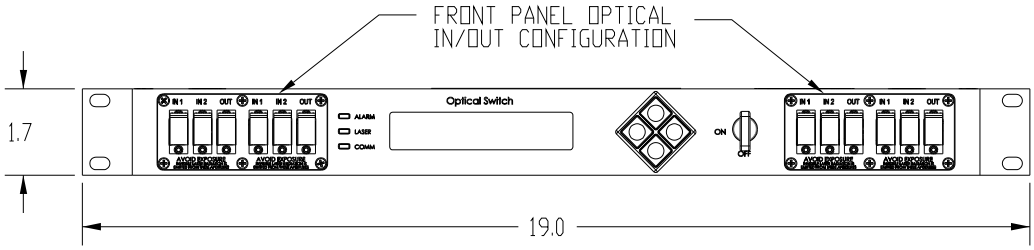
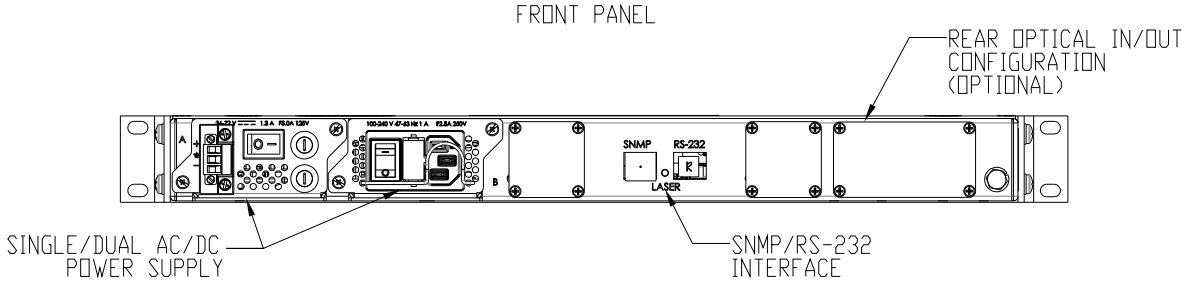
Outline Drawing





FRONT PANEL



REAR PANEL

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Model Number Information (note 1)

2100 – □□ – □□□□ – □□ 1 □□

Logo & Customer Specific	Operating Wavelength	Switch Configuration	Switch Quantity	Optics	Optical Connection	Switching Threshold Range	Reserved	Power Supply
0-EMCORE logo	**0** - 1260 nm to 1620 nm	**12 -** 1 out, 2 in	**01** – 1 switch	**1**-SC/APC	**1-** Front Mount	**1** – (-20 dBm, +20 dBm)	**0**	**1 -** AC primary, no secondary
1-no logo		**13 -** 1 out, 3 in	**02** – 2 switches	**2-** FC/APC	**2**-Rear Mount			**2 -** DC primary, no secondary
		14 - 1 out, 4 in	**03** – 3 switches	**3 -** E2000				**3 -** AC primary, AC secondary
		1X - 1 out, X in	**04** – 4 switches					**4 -** AC primary, DC secondary
			0X – X switches					**5 -** DC primary, DC secondary

Note 1: Not all configurations are available - contact factory

Example: 2100-10-1204-11103 No logo, 1550 nm, 1 x 2 switch, 4 switches, SC/APC connectors, front mount connectors, -20 dBm to +20 dBm range, AC power supply primary, AC power supply secondary

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