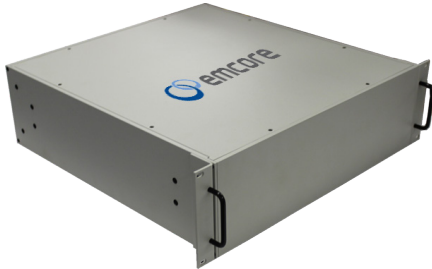


359A Series 1310 & 1550 nm Standard and Ultra Fiber Optic Delay Line Modules



Applications

- Radar Testing/Calibration
- Signal Processing
- Phased Array Antennas
- Phase Noise Processing

Features

- Delays Up to 1000 microseconds
- 200 KM
- Small Size
- Flat RF Amplitude Response and Phase

The 359A Series Standard and Ultra Fiber Optic Delay Line Modules provide optical delays for 1310 and 1550 nm applications housed in an industry standard 19" rack-mount enclosure. Fiber Optic Delay Lines deliver unmatched performance for radar testing, signal processing, phased array antennas and phase noise testing.

The 359A Series provides both a standard single-mode fiber and offers a purpose built solution for applications requiring maximum delay length.

The 359X platform works with a wide range of fiber optic transport products for satellite and microwave communications from 1 MHz to 40 GHz. These units can be used to construct transparent inter- and intra-facility links from 1 meter to >100 km for RF and microwave signal transport, antenna remoting, video transport, electronic warfare systems and other high-dynamic-range applications.

Delay Length Specifications

Product	Size	Max Delay	Max. Length
359A - Standard*	1 RU	110 μ s	24 km
359A - Ultra*	1 RU	200 μ s	40 km
359A - Standard*	3 RU	350 μ s	72 km
359A - Ultra*	3 RU	580 μ s	118 km
359A - Standard*	5 RU	600 μ s	120 km
359A - Ultra*	5 RU	1000 μ s	200 km

*Standard uses 250 micron buffer, Ultra uses 200 micron buffer

Optical Specifications

Parameter	Typical	Units
Attenuation @ 1550 nm	≤ 0.21	dB/km
Attenuation @ 1310 nm	≤ 0.34	dB/km
IOR @ 1550 nm	1.468	
IOR @ 1310 nm	1.467	
Zero Dispersion Wavelength	1312 \pm 10	
Zero Dispersion Slope	≤ 0.090 ps/nm ²	km
Typical Dispersion Slope	0.087 ps/nm ²	km
Typical Total Dispersion @ 1550 nm	16.2	ps/nm-km

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Mechanical Specifications

Description	Value	Units
Body Dimensions		
1 RU	16.75 (425.4) x 1.72 (43.7) x 12 (304.8)	in (mm)
3 RU	16.75 (425.4) x 5.22 (132.6) x 18 (458)	
5 RU	16.75 (425.4) x 8.72 (221.5) x 18 (458)	
Faceplate Dimensions		
1 RU	19 (482.6) x 1.75 (44.5)	in (mm)
3 RU	19 (482.6) x 5.25 (133.4)	
5 RU	19 (482.6) x 8.75 (222.3)	
Storage Temperature	-60 to +85	°C
Operating Temperature	-40 to +85	°C

Ordering Information

Product Number
359A-WW-XXXXXX-YY-ZZ

- When ordering replace "WW" with one of the Rack Unit Size Options
- When ordering replace "XXXXXX" with one of the Delay Options
- When ordering replace "YY" with one of the Connector Type Options
- When ordering replace "ZZ" with one of the Optional Features

Coil Type "A"	Rack Unit Size "WW"	Delay in μ S "XXXXXX"	Connector Type "YY"	Optional Features* "ZZ"
A = Standard or Ultra Delay	1U = 19" x 1.75" (1 RU) 3U = 19" x 5.25" (3 RU) 5U = 19" x 8.75" (5 RU)	001000 = 10 μ S Delay 010000 = 100 μ S Delay 100000 = 1000 μ S Delay	SA = SC/APC FA = FC/APC LA = LC/APC EA = E2000/APC	P = Pigtail Leads B = Bulkhead PM = Midspan Breakout - Pigtail BM = Midspan Breakout - Bulkhead

Midspan Breakouts - For some applications, particularly coils greater than 50 km in length for 1550 nm applications, higher signal levels and more configurability is required. For these cases, midspan breakouts can be placed at every 50 km (about every 245 μ s) interval of the 359A Series Delay and Dispersion Compensation Modules to allow the insertion of optical amplification (EDFA).

Pigtail Leads - If preferred, the standard bulkhead connector input and output of the 359A Series Delay and Dispersion Compensation Modules can be replaced with a one meter long pigtail with a male connector on the end.