



4 Data Channels Single Fiber Passive CCWDM Mux/Demux SCMD-4B-E

Product Description:

Expandable 4 Channels Single Fiber Passive CCWDM Mux/Demux – SCMD-4B-E is a member of EDGE Optics xWDM Series product line. We designed EDGE Optics xWDM Series products to allow easy, gradual, logical, and cost-efficient expansion of network bandwidth using industry-leading passive WDM technology. The main advantage of xWDM is its passive nature – no power supply or cooling necessary, robustness – no special micro-climate requirements, and as a passive element, it has MTBF 100+ Years. xWDM is fully data rate or line protocol neutral – it is possible to use with colored transceivers supporting such applications as 1G/10G Ethernet, SDH/SONET, and 8/4/2/1G Fiber Channel. It's simple to install and requires no configuration or maintenance.

SCMD-4B-E is a passive multiplexer/De-multiplexer package allowing organize 4 duplex and parallel protocol independent ITU-T G.694.2 compatible Compact Coarse Wavelength Division Multiplex (CCWDM) data streams over single fiber of single mode optical fiber. The unit has LC/UPC connectors. With our focus on providing maximally low insertion loss, SCMD-4B-E is equipped with band-pass or skip filters extending the maximum distance of CWDM connections. SCMD-4B-E is manufactured as an LGX-type package, installed in a 19" 1U sub-rack fitting any standard equipment rack. SCMD-4B-E is used together with the counterpart SCMD-4A-E module at the other end of the line. Monitor port (1%) ensures easy troubleshooting without downtime.

Key Highlights:

- 4 CWDM Data Streams over Single SMF
- Fully Passive: No Power Supply or Cooling
- MTBF: 100+ Years
- Protocol & Data Rate neutral
- Low Insertion Loss - 1.5 dB
- Band-Pass / Skip filters Installed
- Compact: LGX Type package
- Easy Installation & Expansion
- Monitoring Port for easy troubleshooting
- 5 Year Warranty

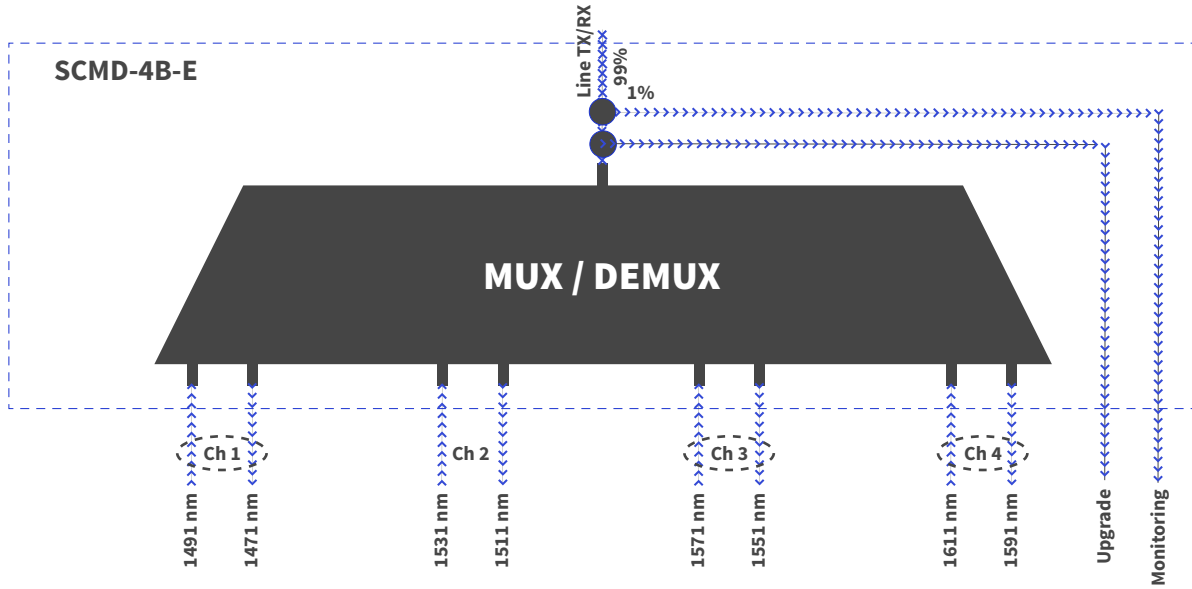


Product Specification:

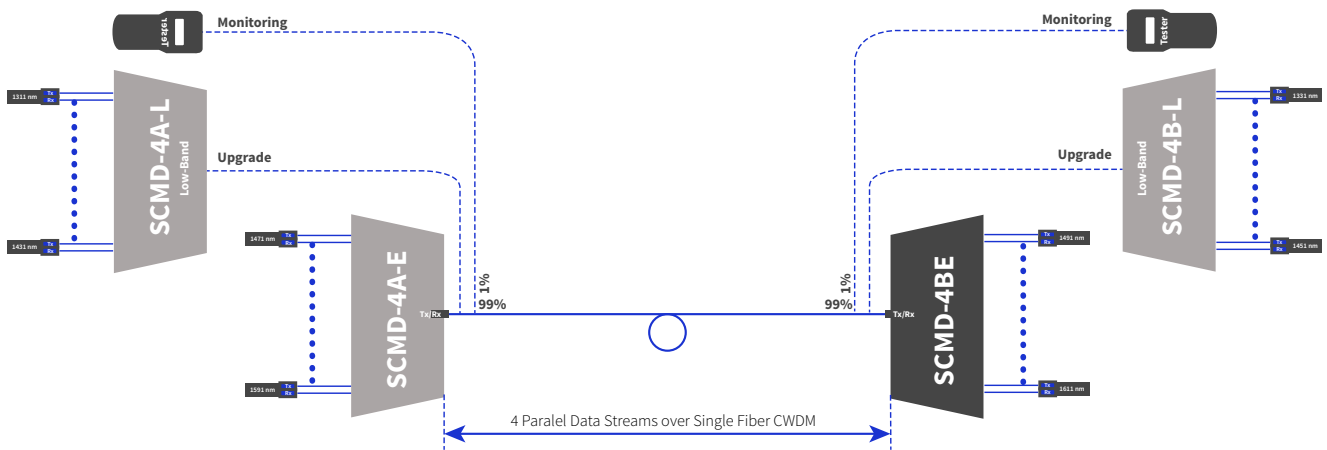
Parameter		Unit	Value
Product Type:			CCWDM MUX/DEMUX Unit
Number of Data Streams:			4
Number of Channels		Ch	8 CWDM Channels According ITU-T G.694.2
Transport Media:			Single Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	Ch1-Tx:1491nm Ch1-Rx:1471nm Ch2-Tx:1531nm Ch2-Rx:1511nm Ch3-Tx:1571nm Ch3-Rx:1551nm Ch4-Tx:1611nm Ch4-Rx:1591nm
Filter Technology:			Compact CWDM
Passband:	λ_{center}	nm	± 6.5 nm
Channel Spacing:		nm	20 nm
Band-Pass ("Skip") Filters:			Yes
Insertation Loss <small>Passband:</small>	Max	dB	1.5 dB
Insertation Loss <small>Upgrade:</small>	Max	dB	1.5 dB
Insertation Loss <small>1% Monitor Port:</small>	Max	dB	23 dB
Monitoring Port Type:			1% Monitoring Port
Isolation Adjacent Channels:	Min	dB	> 30 dB
Isolation Non-Adjacent Channels:	Min	dB	> 40 dB
Channel Passband Ripple:	Min	dB	< 0.3 dB
Plarization Dependant Los (PDL):	Max	dB	≤ 0.2 dB
Polarization Mode Dispersion (PMD):	Max	ps/nm	< 0.1 PS
Directivity:	Min	dB	> 50 dB
Return Loss:	Min	dB	> 45 dB
Maximum Power Handling:	Max	mW	500 mW
Connectors:			LC Adapters for use with TIA/EIA 604-10 compliant LC UPC Connectors
Operating Temperature:		(°C)	-5~+70 (°C)
Storage Temperature:		(°C)	-40~+85 (°C)
Dimensions (W x H x D):		mm	214 x 41.3 x 198
Relative Humidity:		%	0 - 90%



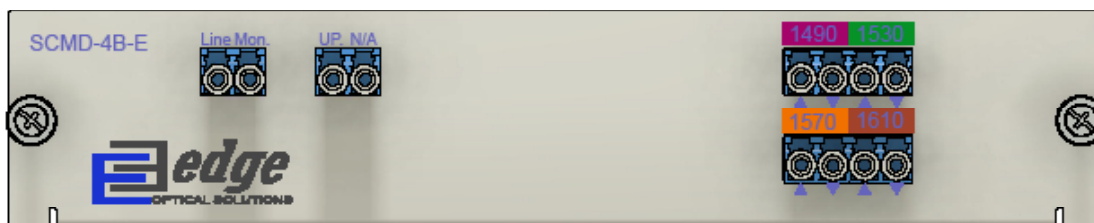
Functional Diagram:



Network Diagram:



Front Panel:



Line: Line interface for common signal
Mon. Interface for in-service performance testing

1270-1610: CWDM Channel colored transceivers interfaces
UP: Upgrade port supporting 1260-1460nm

Installation:



In order to install CWDM LGX Module in 19" rack, please order 19" 1U sub-rack supporting up to two LGX modules. Product code **LGX-RCK-2-1U**.

Warranty:

EDGE Optic's provides a limited warranty for **sixty (60)** months from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.

