



## 4 Data Channels Single Fiber Passive CWDM Mux/Demux SCMD-4A-L

### Product Description:

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. Main advantage of xWDM is its passive nature – no power supply or cooling necessary, robustness – no special micro-climate requirements and as passive element, it has MTBF 100+ Years. xWDM is – it 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, requires no configuration or maintenance.

SCMD-4A-L is passive multiplexer/De-multiplexer package based on Thin-Film Filter (TFF) technology, allowing organize 4 duplex and parallel protocol independent ITU-T G.694.2 compatible Coarse Wavelength Division Multiplex (CWDM) data streams over single fibre of single mode optical fiber. With our focus to provide maximally low insertion loss, SCMD-4A-L is equipped with band-pass or skip filters extending maximum distance of CWDM connections SCMD-4A-L is manufactured as LGX type B module, installed in 19" 1U sub rack fitting any standard equipment rack. SCMD-4A-L is used together with counterpart SCMD-4B-L module in other end of line. SCMD-4A-L is operating in Low-Band and can be used in combination with SCMD-4A-E or SCMD-2A-E, by connecting it to Upgrade ports of these modules.

### 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 - 2.2 dB
- Band-Pass / Skip filters Installed
- Compact: LGX Type B package
- Easy Installation & Expansion
- 5 Year Warranty

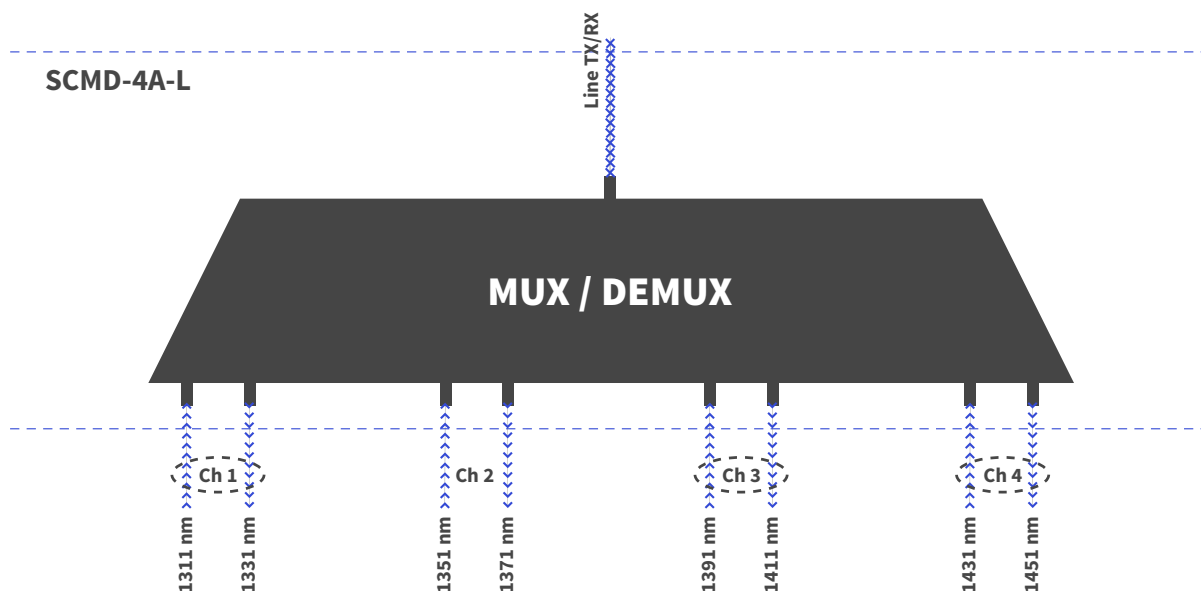


## Product Specification:

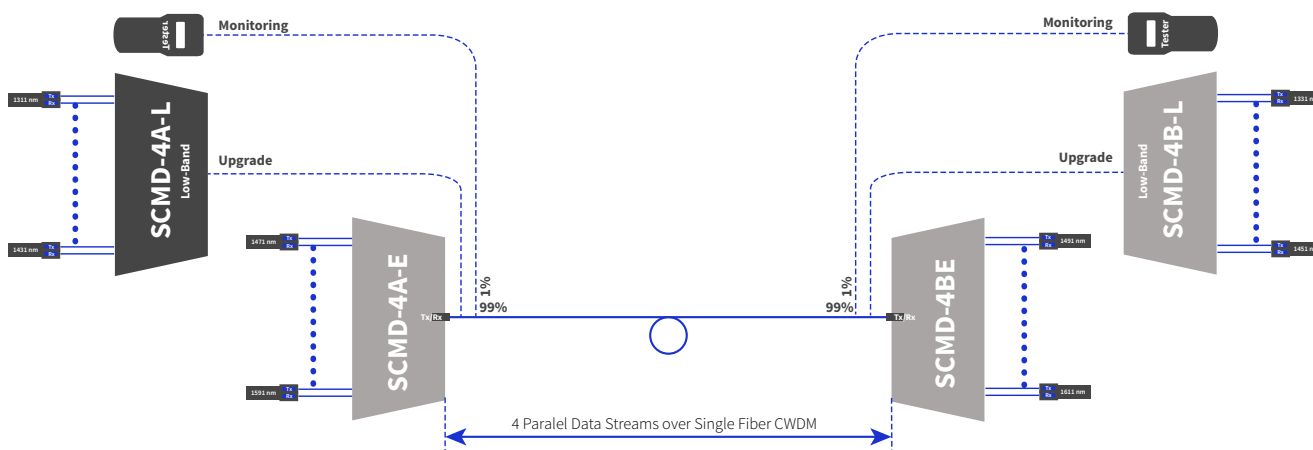
Parameter		Unit	Value
Product Type:			CWDM MUX/DEMUX Unit
Number of Data Streams:			4
Number of Channels		Ch	8 CWDM Channels According ITU-T G.694.2
Transport Media:			Single Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	Ch1-Tx:1311nm Ch4-Rx:1451nm Ch1-Rx:1331nm Ch2-Tx:1351nm Ch2-Rx:1371nm Ch3-Tx:1391nm Ch3-Rx:1411nm Ch4-Tx:1431nm
Filter Technology:			TFF (Thin Film Filter)
Passband:	$\lambda_{center}$	nm	$\pm 6.5$ nm
Channel Spacing:		nm	20 nm
Band-Pass ("Skip") Filters:			Yes
Insertion Loss <small>Passband:</small>	Max	dB	2.2 dB
Isolation Adjacent Channels:	Min	dB	30 dB
Isolation Non-Adjacent Channels:	Min	dB	40 dB
Channel Passband Ripple:	Min	dB	0.3 dB
Polarization Dependant Los (PDL):	Max	dB	<0.15 dB
Polarization Mode Dispersion (PMD):	Max	ps/nm	< 0.15 ps/nm
Directivity:	Min	dB	>50 dB
Return Loss:	Min	dB	>45 dB
Maximum Power Handling:	Max	mW	< 300 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%
Compliance:			ITU-T G.694.2, CE, ISO, RoHS, Telecordia GR-20



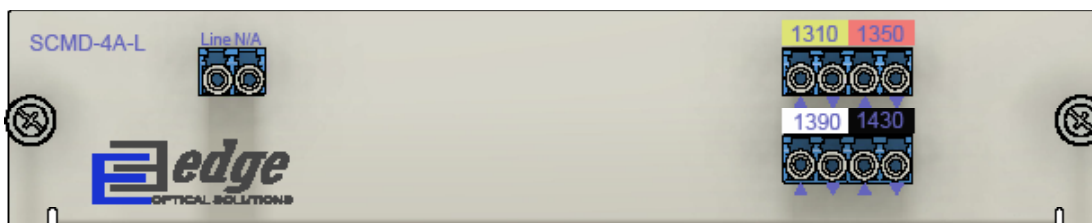
## Functional Diagram:



## Network Diagram:



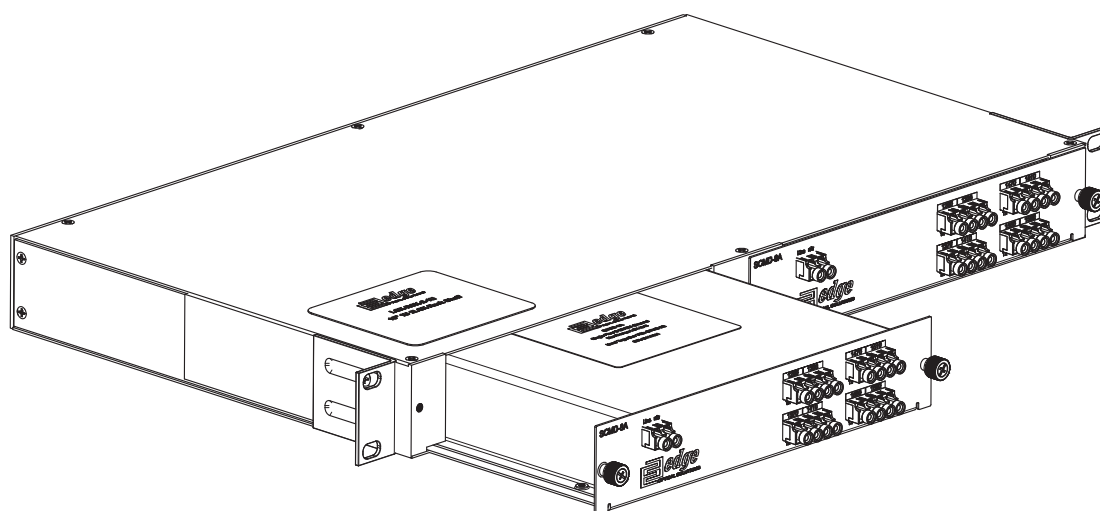
## Front Panel:



Line: Line interface for common signal

1270-1610: CWDM Channel colored transceivers interfaces

## 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.

