



6 Channel 25G Ready Single Fiber CWDM MUX/DEMUX SCMD-6A

Product Description:

SCMD-6A is part of our Industrial Passive xWDM filter series, and supports 6 CWDM Channel interconnection over single fiber using 1271-1371nm and 1471-1571nm wavelength from ITU-T G.694.2 grid. SCMD-6A is a LGX type B module installed in standard 19-inch 1U telecom subrack, is simple to install, requires zero configuration or maintenance and is fully passive - no power supply or cooling required. SCMD-6A is used together with Industrial SCMD-6BI, which is deployed in harsh outdoor environments on the other side of the link. SCMD-6A uses Compact CWDM filter technology and provides ≤ 1.7 dB insertion loss and has a monitor port, which ensures easy troubleshooting without downtime.

xWDM filters are data rate or line protocol neutral and are used in combination with colored optical transceivers which ensure desired application and data rate. Typical use case for SCMD-6A filters are 5G/4G Mobile Fronthaul Network Baseband Unit (BBU) and Remote Radio Head (RRH) interconnection (CPRI/eCPRI protocol), Enterprise Network 25G/10G Ethernet links or Datacenter 32/16/8G Fiber Channel connections.

Key Highlights:

- 6 CWDM Data services over Single SMF
- Connect to SCMD-6BI
- Compact: 1U Standard 19" Rack
- Low Insertion Loss: ≤ 1.7 dB
- Compact CWDM filters
- Monitoring Port for easy troubleshooting
- Industrial Temperature: $-45^{\circ}\text{C} - +85^{\circ}\text{C}$
- Fully passive (No Power Supply or Cooling)
- Zero configuration or maintenance
- Protocol & Data Rate neutral
- MTBF: 100+ Years
- 5 Year Warranty

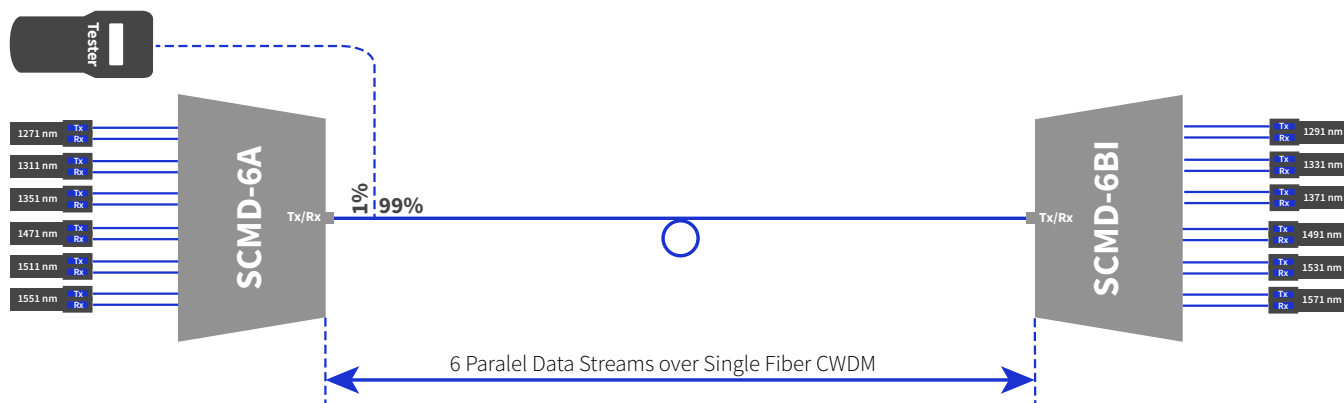


Product Specification:

Parameter		Unit	Value
Product Type:			Double Fiber CWDM Unit
Number of Data Channels:			6
Number of Wavelength			12 CWDM Channels According ITU-T G.694.2
Transport Media:			Single Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	<ul style="list-style-type: none"> • Ch1-Tx: 1271nm • Ch1-Rx: 1291nm • Ch2-Tx: 1311nm • Ch2-Rx: 1331nm • Ch3-Tx: 1351nm • Ch3-Rx: 1371nm • Ch4-Tx: 1471nm • Ch4-Rx: 1491nm • Ch5-Tx: 1511nm • Ch5-Rx: 1531nm • Ch6-Tx: 1551nm • Ch6-Rx: 1571nm
Filter Technology:			CCWDM (Compact CWDM - Free Space Technology)
Passband:	λ_{center}	nm	± 7.5 nm
Channel Spacing:		nm	20 nm
Insertion Loss <small>Passband:</small>	Max	dB	≤ 1.7 dB
Monitoring Port Type:			Yes - 1% Monitoring Port
Isolation Adjacent Channels:	Min	dB	30 dB
Isolation Non-Adjacent Channels:	Min	dB	45 dB
Channel Passband Ripple:	Min	dB	0.5 dB
Insertion Loss Temperature:		dB/ (°C)	<0.003
Wavelength Temperature Shifting:		nm/ (°C)	<0.002
Polarization Dependant Los (PDL):	Max	dB	<0.1 dB
Polarization Mode Dispersion (PMD):	Max	ps/nm	< 0.1 ps/nm
Directivity:	Min	dB	>50 dB
Return Loss:	Min	dB	>45 dB
Maximum Power Handling:	Max	mW	500mW = 26.98dBm maximum power pass
Connectors:			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, RoHS

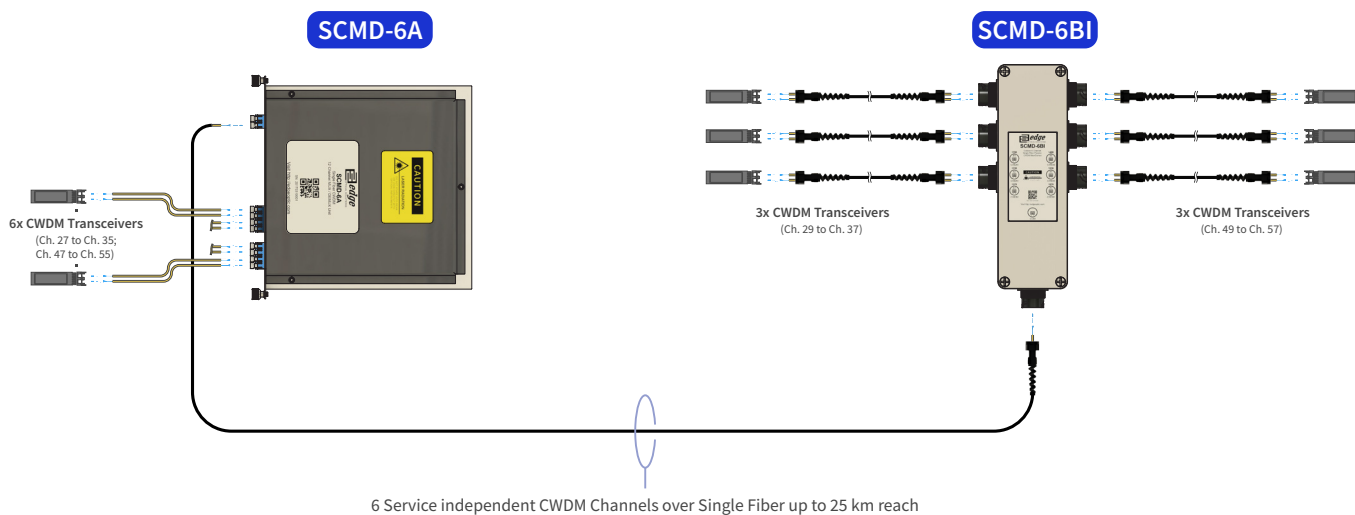


Functional Diagram:

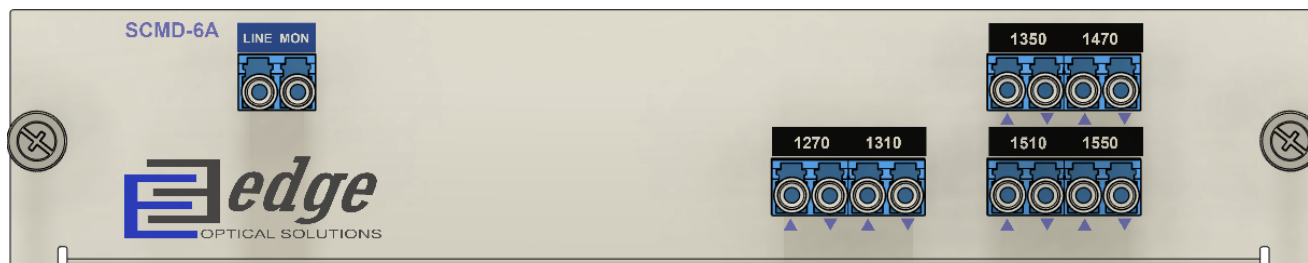


Network Diagram:

SCMD-6A is part of our Passive xWDM filter product line, which is designed with primary focus on wireless fronthaul applications - optimized to carry 25G services, however it is compatible with legacy 10G services as well. In order to create 6 x 25G services capacity CWDM line over single fiber, it's possible to use SCMD-6A (Indoor Scenario) or SCMD-6AI (Fully Outdoor Scenario) in one end of line and SCMD-6BI Industrial version fully outdoor mux on other end.



Front Panel:

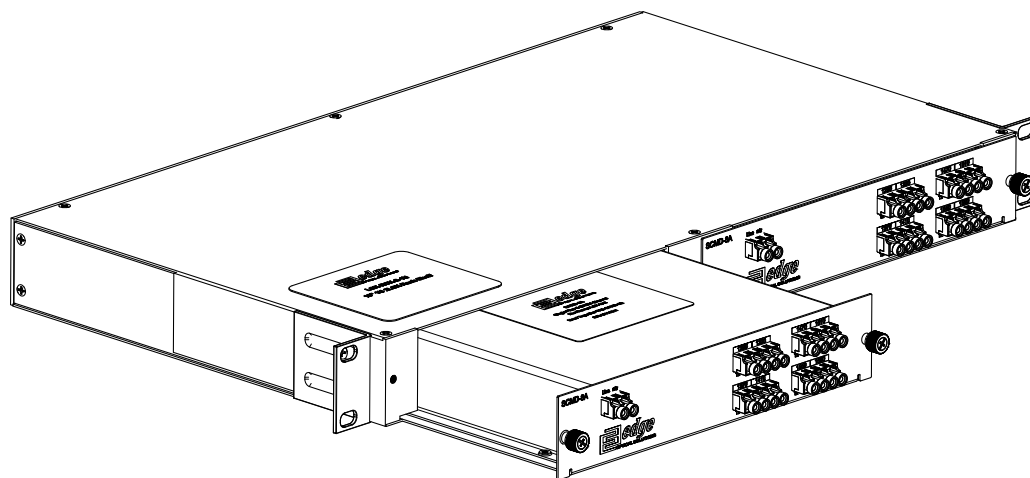


LINE: Line interface for common signal

MON: 1% Monitoring Port

1270 - 1550: CWDM Channel colored 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**.



Ordering Information:

PN	Description
SCMD-6A	6 Channel Single Fiber 25G Ready Passive Modular CCWDM A-Side Mux/Demux, ITU-T G.694.2 Channels (1271 - 1371 nm & 1471 - 1571nm), IL below 1.7 dB, with Monitor port, LGX Type

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.

