



## 6 Channel 25G Ready Single Fiber Industrial class LWDM MUX/DEMUX SLMD-6BI

### Product Description:

SLMD-6BI is part of our Industrial Passive xWDM filter series and supports 6 Channel interconnection over single fiber using 12 LWDM (LAN-WDM) 1269.23-1318.35nm wavelength. SLMD-6BI unit is for harsh outdoor environments supporting IP65 water, dust resistance, -40 to 85C industrial temperature, telecom pole or wall installation options and comes with ODVA LC connectors for easy fiber connection. Unit is small in size, light in weight, is simple to install, requires zero configuration or maintenance and is fully passive - no power supply or cooling required.

SLMD-6BI is deployed in the far end site and used together in a scenario with SHMD-10A which is deployed in the main site and Industrial SCMD-4BI deployed in the middle site. SLMD-6BI connects to SHMD-10A through the SCMD-4BI upgrade port. SLMD-6BI uses TFF (thin-film filters) and with added band skip filters has  $\leq 3$  dB insertion loss.

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 SLMD-6BI 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 LWDM Data services over Single SMF
- Connect to SHMD-10A through SCMD-4BI
- IP65 Water, Dust resistant
- Outdoor ODVA LC connectors
- Telecom Pole or Wall installation
- Small size and lightweight
- Low Insertion Loss:  $\leq 3$  dB
- TFF with band skip filters
- Industrial Temperature: -45°C – +85°C
- Fully passive (No Power Supply or Cooling)
- Zero configuration or maintenance
- Protocol & Data Rate neutral
- MTBF: 100+ Years
- 5 Year Warranty

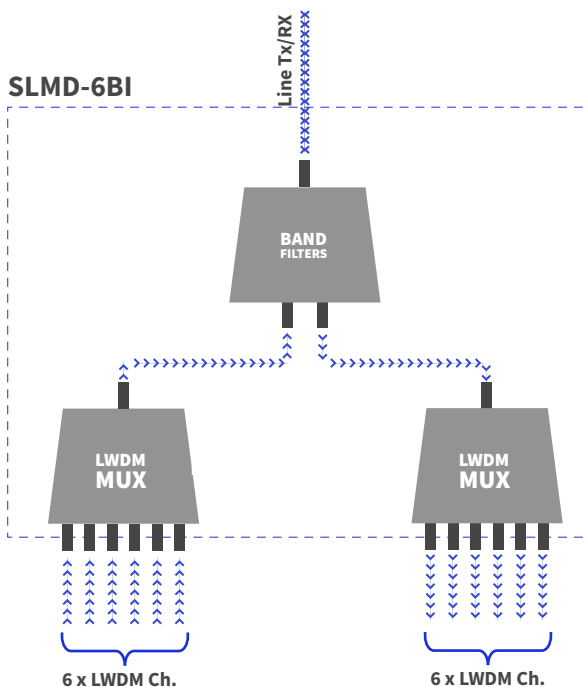


## Product Specification:

Parameter		Unit	Value
Product Type:			Single Fiber LWDM Unit
Number of Data Channels:			6
Number of Wavelength			12 LWDM (LAN-WDM) Channels
Transport Media:			One strand of Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	<ul style="list-style-type: none"> <li>• Ch1-Tx:1273.54nm</li> <li>• Ch1-Rx:1269.23nm</li> <li>• Ch2-Tx:1282.26nm</li> <li>• Ch2-Rx:1277.89nm</li> <li>• Ch3-Tx:1291.10nm</li> <li>• Ch3-Rx:1286.66nm</li> <li>• Ch4-Tx:1300.05nm</li> <li>• Ch4-Rx:1295.56nm</li> <li>• Ch5-Tx:1309.14nm</li> <li>• Ch5-Rx:1304.58nm</li> <li>• Ch6-Tx:1318.35nm</li> <li>• Ch6-Rx:1313.73nm</li> </ul>
Filter Technology:			TFF (Thin Film Filter Technology)
Passband:	$\lambda_{center}$	nm	$\pm 1.5$ nm
Channel Spacing:		nm	4.5 nm
Insertion Loss <small>Passband:</small>	Max	dB	$\leq 3$ dB
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:			ODVA Connectors with LC Adapters for use with ODVA Connectors and TIA/EIA 604-10 compliant LC UPC Connectors
Operating Temperature:		(°C)	-40~+85 (°C)
Storage Temperature:		(°C)	-40~+85 (°C)
Dimensions (W x H x D):		mm	77 x 250 x 72
Protection Class:		%	IP65 - Water, Dust resistant
Compliance:			ITU-T G.694.2, CE, RoHS, IP65

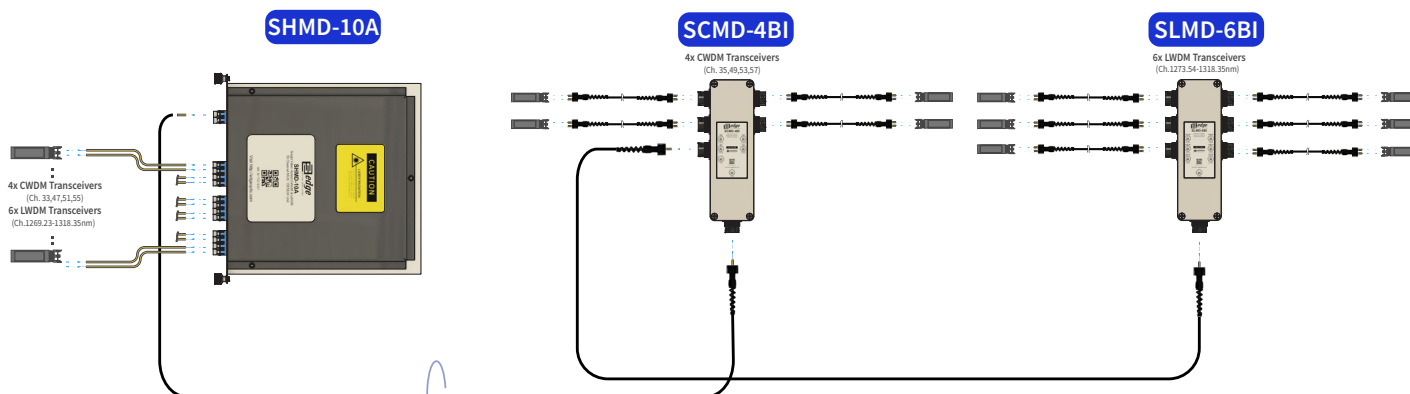


## Functional Diagram:



## Network Diagram:

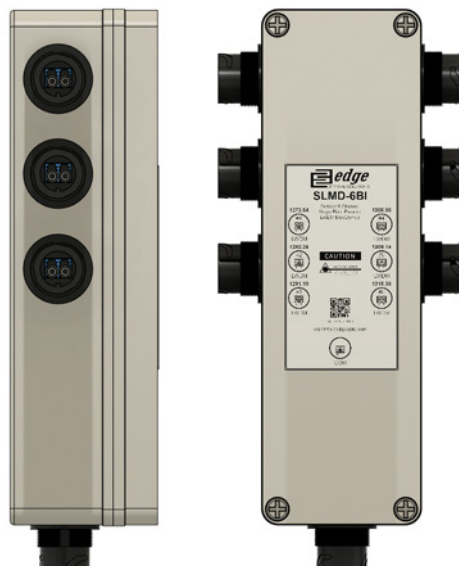
SLMD-6BI is part of our Passive xWDM filter product line, which is designed with primary focus on wireless fronthaul applications - optimized to carry 25G services, however it is compatible with legacy 10G services as well. In order to create 10 x 25G services capacity Hybrid WDM line over single fiber, it's possible to use SCMD-10A at one end and both - SCMD-4BI CWDM Outdoor industrial MUX with upgrade port and SLMD-6BI LWDM Outdoor industrial MUX on other end:



10 Service independent CWDM/LWDM Channels over Single Fiber up to 25 km reach

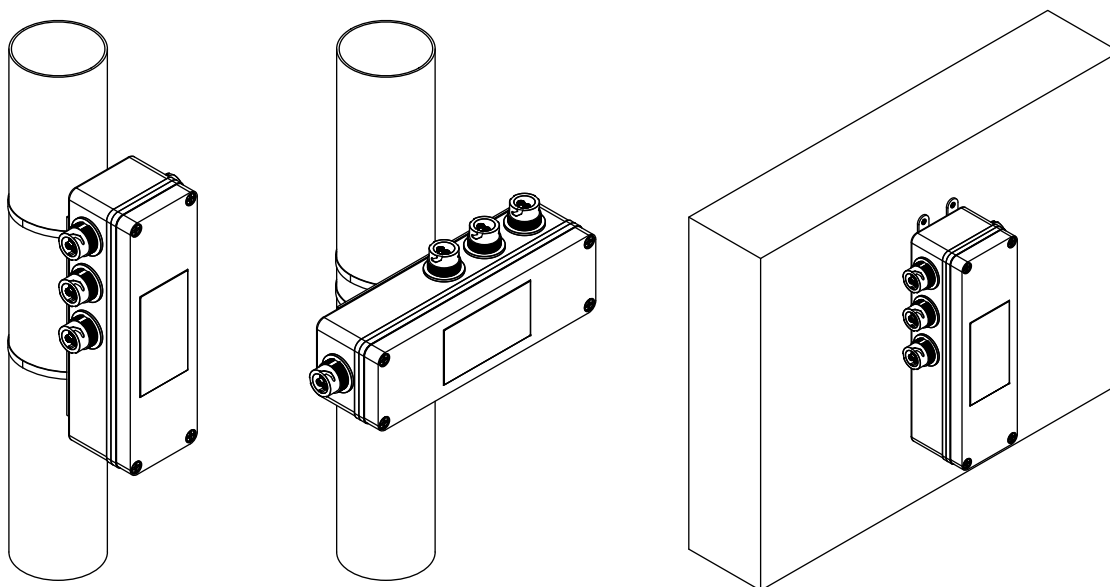


## Front Panel:



**COM:** Line interface for common signal  
**1273.54 - 1318.35:** LWDM Channel colored interfaces

## Installation:



SLMD-6BI is available for ordering with included pole mount kit, which allows easy install on any pole with diameter over 50mm vertically (recommended method) or horizontally. If necessary - SLMD-6BI is also available with included wall installation kit.



## Ordering Information:

PN	Description
SLMD-6BI-P	6 Channel Single Fiber 25G Ready IP65-Class Full Outdoor Passive Modular LWDM TFF B-Side Mux/Demux with ODVA LC/UPC connectors, LWDM Channels (1269.23-1318.35nm), IL below 3 dB, with Pole Mount kit
SLMD-6BI-W	6 Channel Single Fiber 25G Ready IP65-Class Full Outdoor Passive Modular LWDM TFF B-Side Mux/Demux with ODVA LC/UPC connectors, LWDM Channels (1269.23-1318.35nm), IL below 3 dB, with Wall Mount kit

## 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.

