



## 8 Data Channels Double Fiber Passive CWDM Mux/Demux DCMD-8L

### Product Description:

8 Channels Double Fiber Low-band Passive CWDM Mux/Demux – DCMD-8L 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.

DCMD-8L is a passive multiplexer/de-multiplexer package based on Thin-Film Filter (TFF) technology, allowing organize 8 duplex and parallel protocol independent ITU-T G.694.2 compatible Coarse Wavelength Division Multiplex (CWDM) data streams over pair of single-mode optical fiber. DCMD-8L operates within the CWDM Low-Band range of 1270-1450nm and it is possible to use it as an upgrade package together with High-Band CWDM products such as DCMD-4HE or DCMD-8HE, or also as a standalone. The unit has LC/UPC connectors. With our focus on providing maximally low insertion loss, DCMD-8L is equipped with band-pass or skip filters extending the maximum distance of CWDM connections. DCMD-8L is manufactured as an LGX-type package, installed in a 19" 1U sub-rack fitting any standard equipment rack.

### Key Highlights:

- 8 CWDM Data Streams over Double SMF
- Fully Passive: No Power Supply or Cooling
- MTBF: 100+ Years
- Protocol & Data Rate neutral
- Low Insertion Loss - 2.8 dB
- Band-Pass / Skip filters Installed
- Compact: LGX Type package
- Easy Installation & Expansion
- 5 Year Warranty

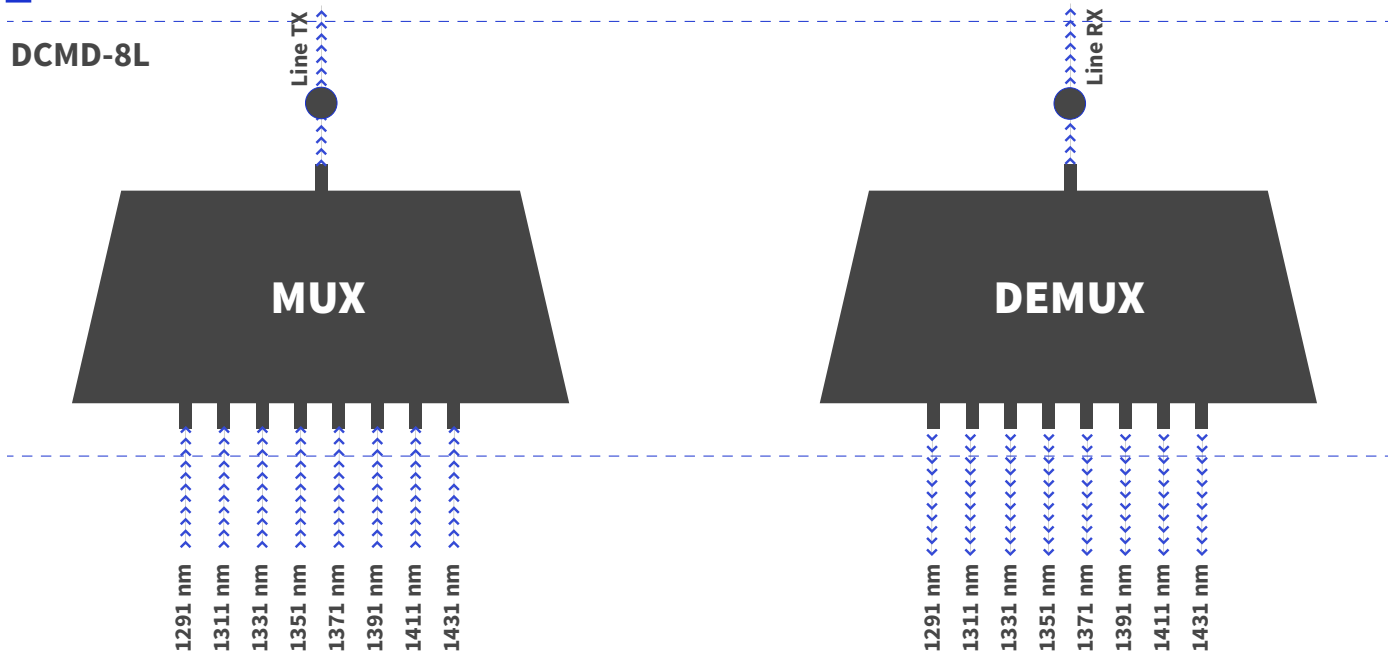


## Product Specification:

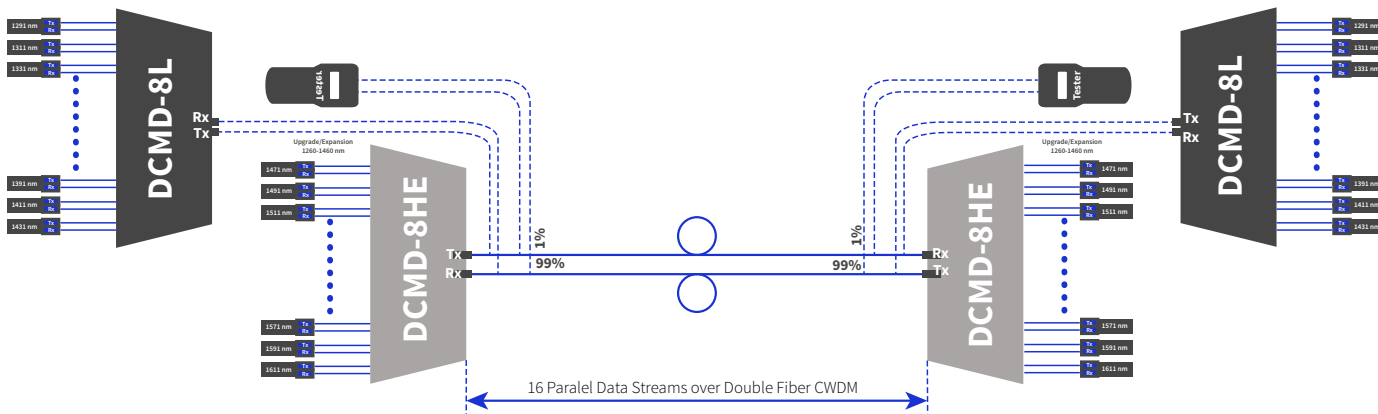
Parameter		Unit	Value
Product Type:			CWDM MUX/DEMUX Unit
Number of Data Streams:			8
Number of Channels		Ch	8 CWDM Channels According ITU-T G.694.2
Transport Media:			Double Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	Ch1: 1291nm      Ch7: 1411nm Ch2: 1311nm      Ch8: 1431nm Ch3: 1331nm Ch4: 1351nm Ch5: 1371nm Ch6: 1391nm
Filter Technology:			TFF (Thin Film Filter)
Passband:	$\lambda_{center}$	nm	$\pm 7.5$ nm
Channel Spacing:		nm	20 nm
Band-Pass ("Skip") Filters:			Yes
Insertion Loss <small>Passband:</small>	Max	dB	2.8 dB
Isolation Adjacent Channels:	Min	dB	> 30 dB
Isolation Non-Adjacent Channels:	Min	dB	> 45 dB
Channel Passband Ripple:	Min	dB	< 0.3 dB
Polarization Dependant Los (PDL):	Max	dB	< 0.1 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%
Compliance:			ITU-T G.694.2, CE, ISO, RoHS



## Functional Diagram:



## Network Diagram:



It's possible to inject DWDM Channels into 1531 & 1551 CWDM Channels forming Hybrid WDM:

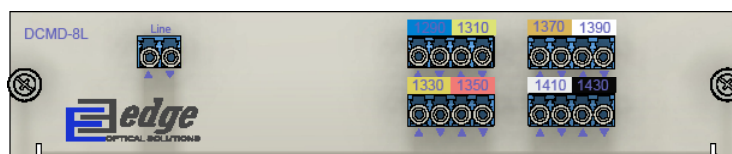
1531nm can add 12 100GHz spacing DWDM Channels

1551 can add 16 100GHz spaced DWDM Channels

Total Hybrid xWDM capacity can reach up to 34 Data Streams or 34 x 10Gbps= 340 Gbps over pair of SMF



## Front Panel:



Line: Line interface for common signal

1290-1430: 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.

