



4 Channel 25G Ready Industrial class CWDM Junction Box DCMD-4I

Product Description:

DCMD-4I is an 100G QSFP28 to 4x25G SFP28 or 40G QSFP to 4x10G SFP+ Optical Junction Box and is part of our Industrial Passive xWDM filter series. Unit supports CWDM4 channel (1271nm, 1291nm, 1311nm, 1331nm) splitting to individual channels according to 100G CWDM4 and 40GE-LR4/ER4 wavelength plan and ITU-T G.694.2 grid. Depending on the connection distance and application DCMD-4I is connected to [100G-QSFP28-2.1](#), [100G-QSFP28-11](#), [40G-QSFP-10](#) or [40G-QSFP-40](#). DCMD-4I 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 double 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. DCMD-4I uses Compact CWDM filter technology and provides ≤ 1.2 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 DCMD-4I filters are 5G/4G Mobile Fronthaul Network Baseband Unit (BBU) and Remote Radio Head (RRH) interconnection (CPRI/eCPRI protocol), Enterprise Network 100G/40G to 4x25G/10G Ethernet links or Datacenter Fiber Channel connections.

Key Highlights:

- Split 100G/40G CWDM4 to 4x25G or 4x10G
- 4 CWDM Data services over Double SMF
- Connect to 100G-QSFP28-2.1, 100G-QSFP28-11, 40G-QSFP-10, 40G-QSFP-40
- IP65 Water, Dust resistant
- Outdoor ODVA Dual LC connectors
- Telecom Pole or Wall installation
- Small size and light weight
- Low Insertion Loss: ≤ 1.2 dB
- Compact CWDM 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

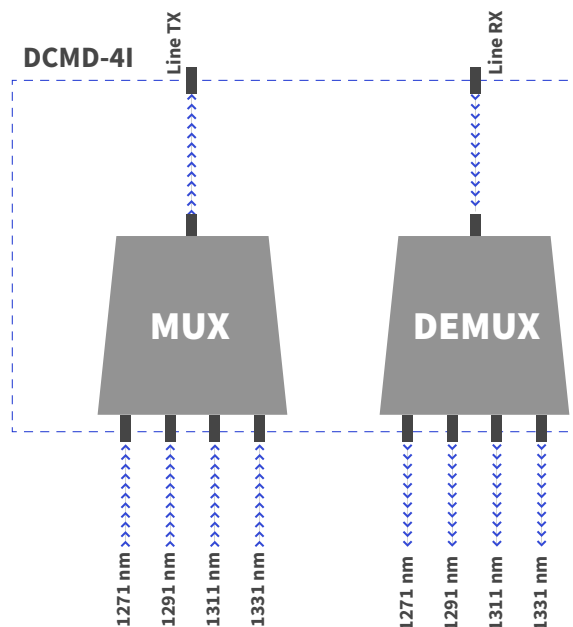


Product Specification:

Parameter	Unit		Value
Product Type:			Double Fiber CWDM Unit
Number of Data Channels:			4
Number of Wavelength			4 CWDM Channels According ITU-T G.694.2
Transport Media:			Double Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	<ul style="list-style-type: none"> Ch1: 1271 nm Ch2: 1291 nm Ch3: 1311 nm Ch4: 1331 nm
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	≤ 1.2 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

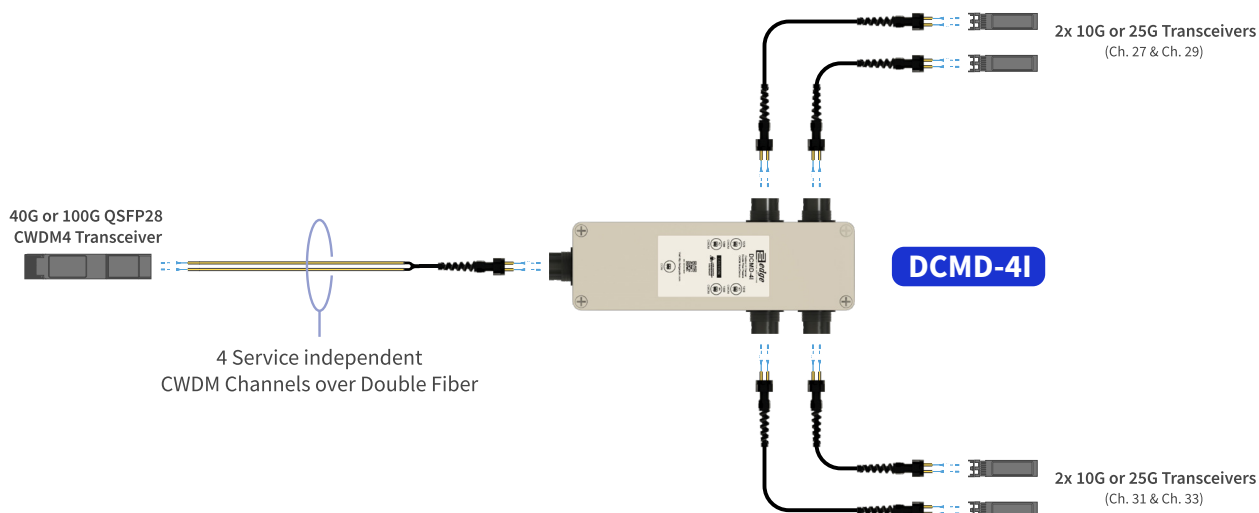


Functional Diagram:

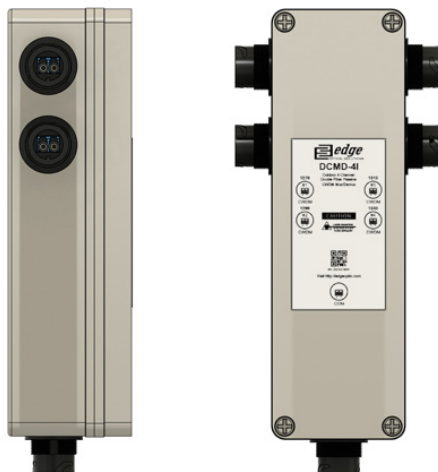


Network Diagram:

DCMD-4I 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 4 x 25G services capacity WDM line over double fiber, it's possible to use 100G or 40G CWDM4 transceiver at one end and DCMD-4I Outdoor industrial MUX with on other end:



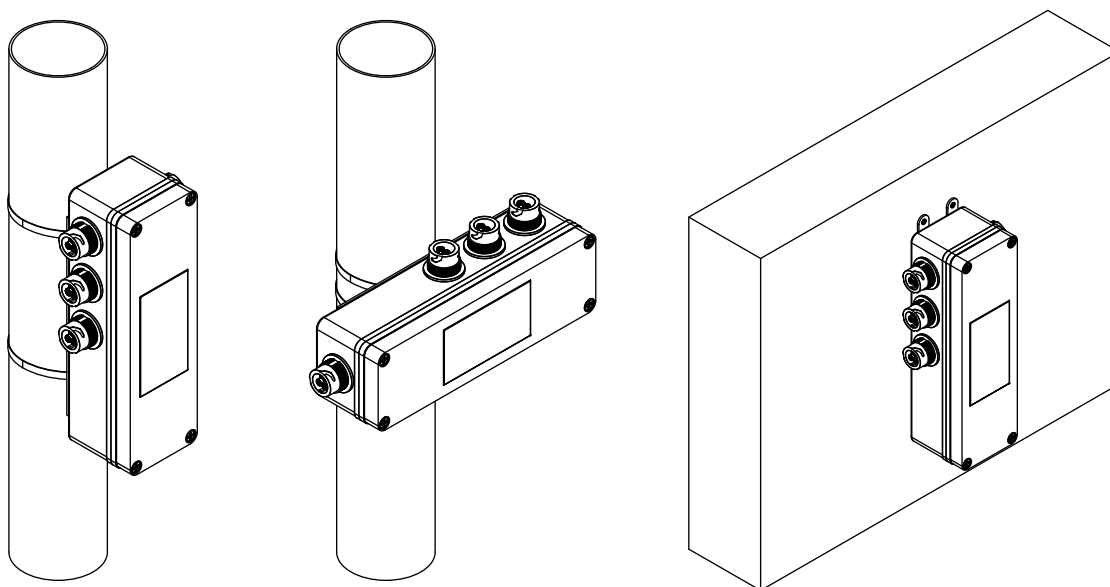
Front Panel:



COM: Line interface for common signal

1271-1331: CWDM Channel colored interfaces

Installation:



DCMD-4I 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 - DCMD-4I is also available with included wall installation kit.



Ordering Information:

PN	Description
DCMD-4I-P	4 Channel Double Fiber 25G Ready IP65-Class Full Outdoor Passive Modular CCWDM Junction Box Mux with ODVA LC/UPC connectors, ITU-T G.694.2 CWDM4 Channels (1271 - 1331 nm), IL below 1.2 dB, with Pole Mount kit
DCMD-4I-W	4 Channel Double Fiber 25G Ready IP65-Class Full Outdoor Passive Modular CCWDM Junction Box Mux with ODVA LC/UPC connectors, ITU-T G.694.2 CWDM4 Channels (1271 - 1331 nm), IL below 1.2 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.

