



12 Channel 25G Ready Double Fiber Industrial class CWDM MUX/DEMUX DCMD-12I

Product Description:

DCMD-12I is part of our Industrial Passive xWDM filter series and supports 12 CWDM Channel interconnection over double fiber using 1271-1371nm and 1471-1571nm wavelength from ITU-T G.694.2 grid. DCMD-12I 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-12I can be used together with DCMD-12 which is a 1U unit deployed in a standard 19-inch telecom subrack or can be used with another Industrial DCMD-12I filter unit. DCMD-12I uses Compact CWDM filter technology and provides ≤ 1.9 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-12I 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:

- 12 CWDM Data services over Double SMF
- Connect to DCMD-12 or DCMD-12I
- IP65 Water, Dust resistant
- Outdoor ODVA Double LC connectors
- Telecom Pole or Wall installation
- Small size and lightweight
- Low Insertion Loss: ≤ 1.9 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

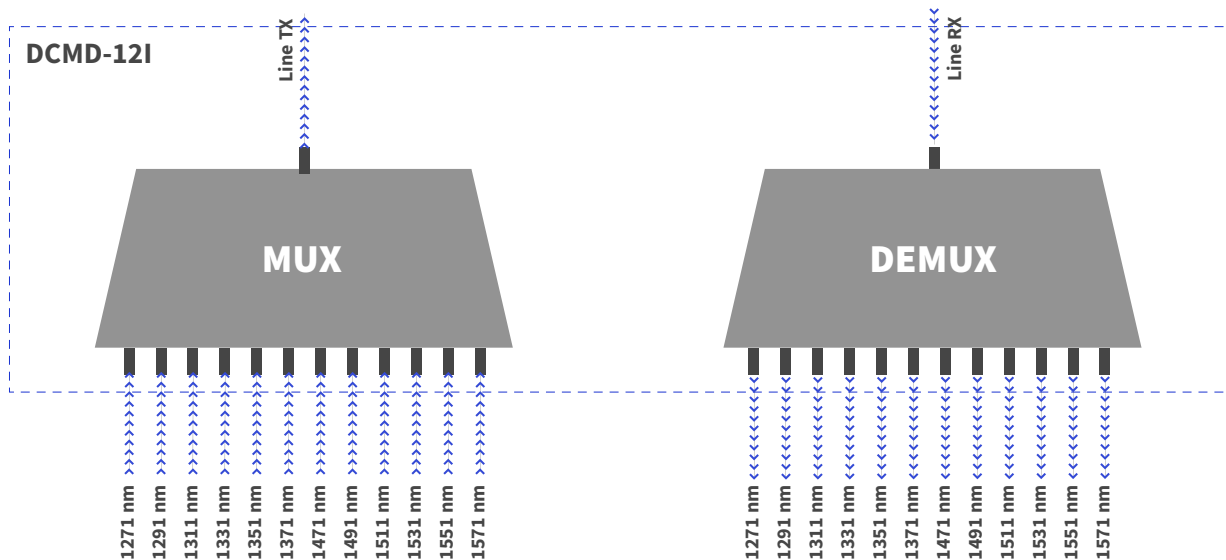


Product Specification:

| Parameter | Unit | | Value |
|---|--------------------|----------|---|
| Product Type: | | | Double Fiber CWDM Unit |
| Number of Data Channels: | | | 12 |
| Number of Wavelength | | | 12 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 • Ch5: 1351 nm • Ch6: 1371 nm • Ch7: 1471 nm • Ch8: 1491 nm • Ch9: 1511 nm • Ch10: 1531 nm • Ch11: 1551 nm • Ch12: 1571 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 | ≤ 1.9 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 | 150 x 250 x 100 |
| Protection Class: | | % | IP65 - Water, Dust resistant |
| Compliance: | | | ITU-T G.694.2, CE, RoHS, IP65 |

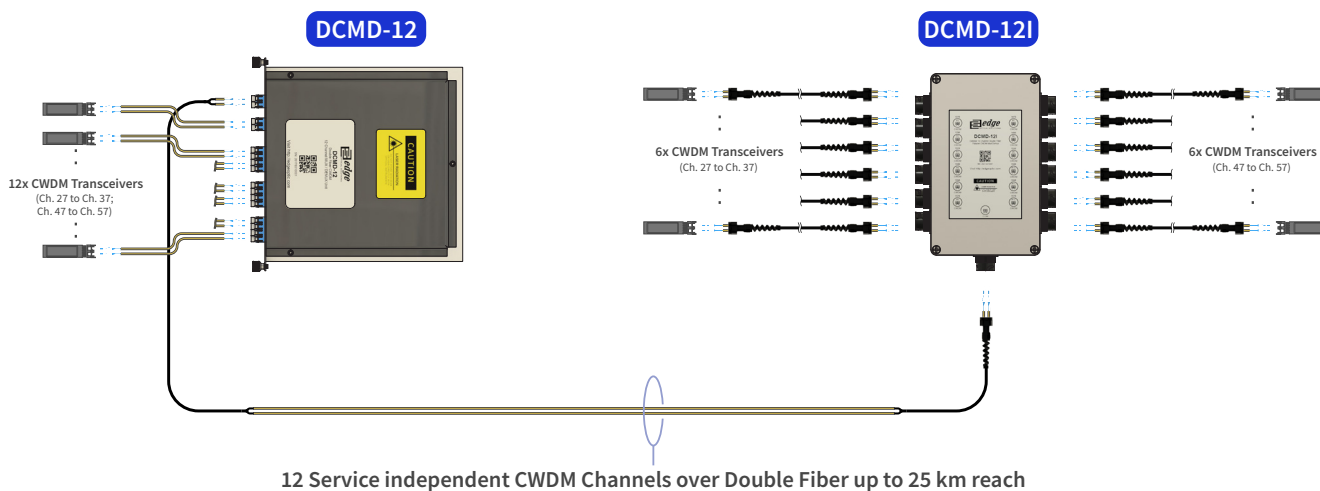


Functional Diagram:



Network Diagram:

DCMD-12I 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 12 CWDM capacity line, it's possible to use DCMD-12I in both ends of pair of single-mode fibers, or it can be interfaced with DCMD-12 indoor version of same channel plan mux.

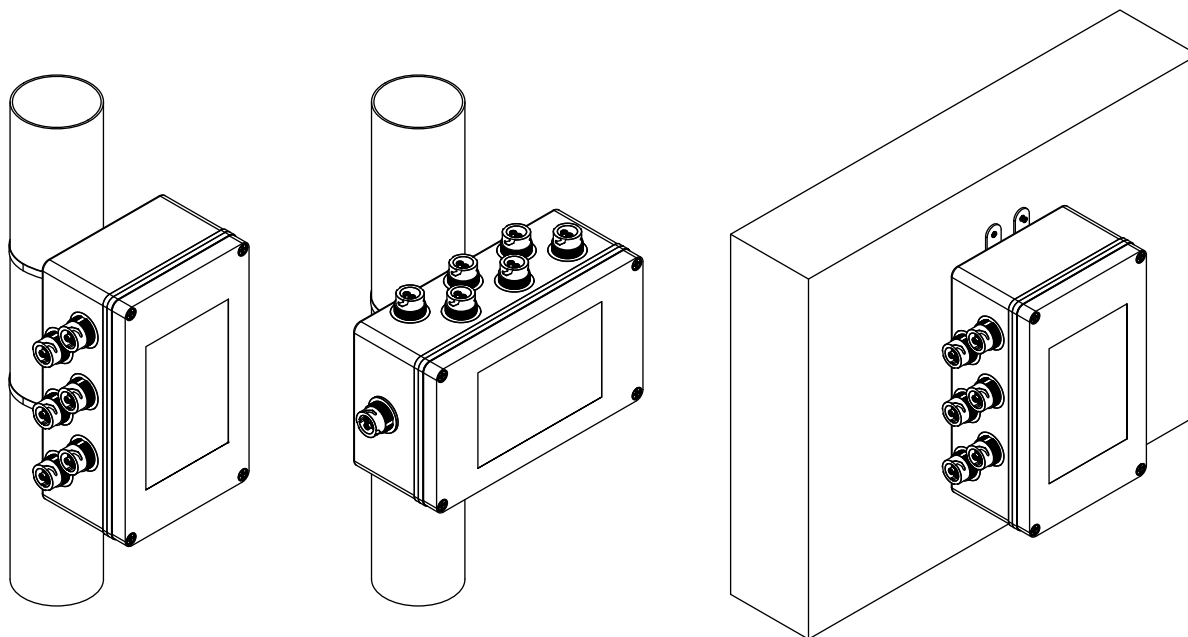


Front Panel:



COM: Line interface for common signal
1270 - 1570: CWDM Channel colored interfaces

Installation:



DCMD-121 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-121 is also available with included wall installation kit.



Ordering Information:

| PN | Description |
|------------|--|
| DCMD-12I-P | 12 Channel Double Fiber 25G Ready IP65-Class Full Outdoor Passive Modular CCWDM Mux/Demux with ODVA LC/UPC connectors, ITU-T G.694.2 Channels (1271 - 1371 nm & 1471 - 1571nm), IL below 1.9 dB, with Pole Mount kit |
| DCMD-12I-W | 12 Channel Double Fiber 25G Ready IP65-Class Full Outdoor Passive Modular CCWDM Mux/Demux with ODVA LC/UPC connectors, ITU-T G.694.2 Channels (1271 - 1371 nm & 1471 - 1571nm), IL below 1.9 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.

