

MDM-7004

CWDM Multiplexer & Demultiplexer



DATASHEET

FIBER OPTICS



Features

- Supports 4 different CWDM wavelengths
- Singlemode fiber
- Minimization of optical fiber for Add/Drop
- Low insertion loss
- No EMI, RFI, or Ground Loops
- Passive CWDM
- 3-Year Warranty

Applications

- Nodes in dual-redundant fiber rings
- Minimize fiber runs
- Add signals to existing fiber networks

CWDM Multiplexing & Demultiplexing over Fiber

The MDM-7004 supports up to 4 CWDM wavelengths onto or from a common singlemode optical fiber. Supported wavelengths range from 1490 nm to 1550 nm.

The MDM-7004 is most typically used in rings, or other network topologies, in which particular directed video, audio, and data signals are sourced and terminated at nodes on a network that are characterized by a particular optical wavelength. As 4 CWDM wavelengths are supported, up to 4 nodes may be addressed on such a CWDM ring. The MDM-7004 would typically be used at a central node or control center that is required to add up to 4 and/or remove up to 4 wavelengths to a single fiber. Baseband digital bandwidths of up to 3.125 Gbps per wavelength are supported. As a result, up to 25 Gbps may be transported on a CWDM network, with any particular node being capable of adding and/or dropping 3.125 Gbps.

In addition, the MDM-7004 is part of our innovative Optiva video, audio and data media transport system. New signals may be added without the need for additional fiber through our proprietary daisy-chain technology.

System Design

MDM-7004 is a card-based form factor multiplexer designed for use in Optiva enclosures. It utilizes one insert card slot

optiva PLATFORM

in 19" rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosures (Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies. Also available in the rackmount form factor is our 1RU enclosure (Model: OT-CC-6-1U) which can accommodate six insert cards and utilizes two 60 watt power supplies. For desktop or wall mounting applications there are one-slot (Model: OT-DTCR-1) and two-slot (Model: OT-DTCR-2) enclosures. Both use an external wall mount power supply.

U.S. Patent #'s 7720385 & 8064773

MDM-7004

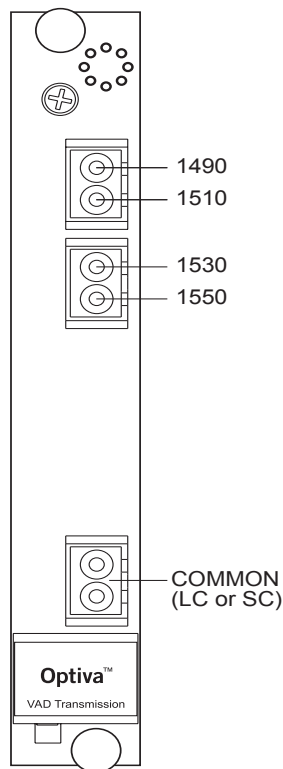
CWDM Multiplexer & Demultiplexer

Models

Model	Description
MDM-7004-CWDM-LC	Singlemode 1490 to 1550nm, LC input/output ports, LC com port
MDM-7004-CWDM-SC	Singlemode 1490 to 1550nm, LC input/output ports, LC com port

- Works as multiplexer or demultiplexer

Connection Diagram



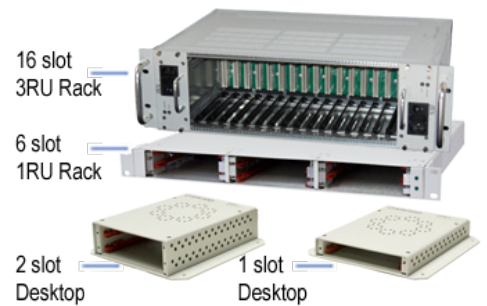
Specifications

Specifications	Values
Wavelengths	1490, 1510, 1530, 1550nm
Insertion Loss	< 3.0 dB
Fiber Type	Singlemode
Optical Return Loss	50 dB
Port Isolation	30 dB (Adjacent Channel) 40 dB (Non-Adjacent Channel)
I/O Port Optical Connector	LC
Com Port Optical Connector	LC or SC

General

Specifications	Values
Dimensions (Insert Card)	6.3"D x 0.8"W x 4.0"H
Weight	11 oz.
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Humidity	0% to 95% non-condensing
Power Consumption	None (passive device)
System Latency	None
Warranty	3 Year

Enclosure Options



Compliance

