



DATASHEET

CWDM Passive Optical Add/Drop Multiplexers

Data Center & Cloud Computing
Infrastructure Solutions

Overview

CWDM Optical Add/Drop multiplexer (OADM) is a passive optical device used in WDM networks for adding and dropping one/multiple CWDM channels into one or two fibers, while letting the rest of the wavelengths bypass to the needed destination. Through the use of CWDM technology, individual channels can be optically extracted from a fiber pair while allowing pass-through traffic to continue unobstructed through the bus or ring.

CWDM OADM modules are available in single-sided (East or West) and dual-sided (East and West) configurations supporting up to four wavelengths. Each CWDM OADM uses wavelengths that fall within the ITU-T G.694.2 (2002) CWDM grid standard from 1270 nm to 1610 nm with 20 nm spacing.

FS CWDM OADM are modular, scalable and are perfectly suited to 10/1G Ethernet, 16/8/4/2/1G FC, SDH/SONET, Video, CATV, FTTx applications.

Key Features

- Low insertion loss for C-band channels
- Add/drop up to 4 channels at remote sites
- Protocol transparent (support 1G, 10G etc.)
- Based on thin film optics with epoxy free optical path
- Fully compliant with Telcordia GR1221, GR1209, RoHS, ISO
- Plug-in module for integration in a standalone or 2-slot 1U 19" rack mount
- Completely passive, no power or maintenance required
- Ideal for DWDM ring structures or daisy chain applications


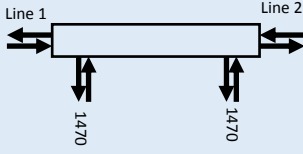

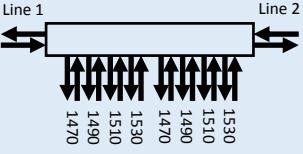

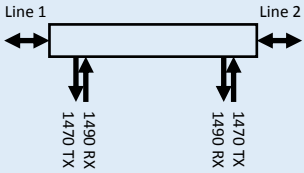
Benefits

- Maximize fiber applications
- Provides fiber conservation/reclamation through CWDM
- Lowest cost solution on the market
- Highly flexible and scalable

Product Specifications

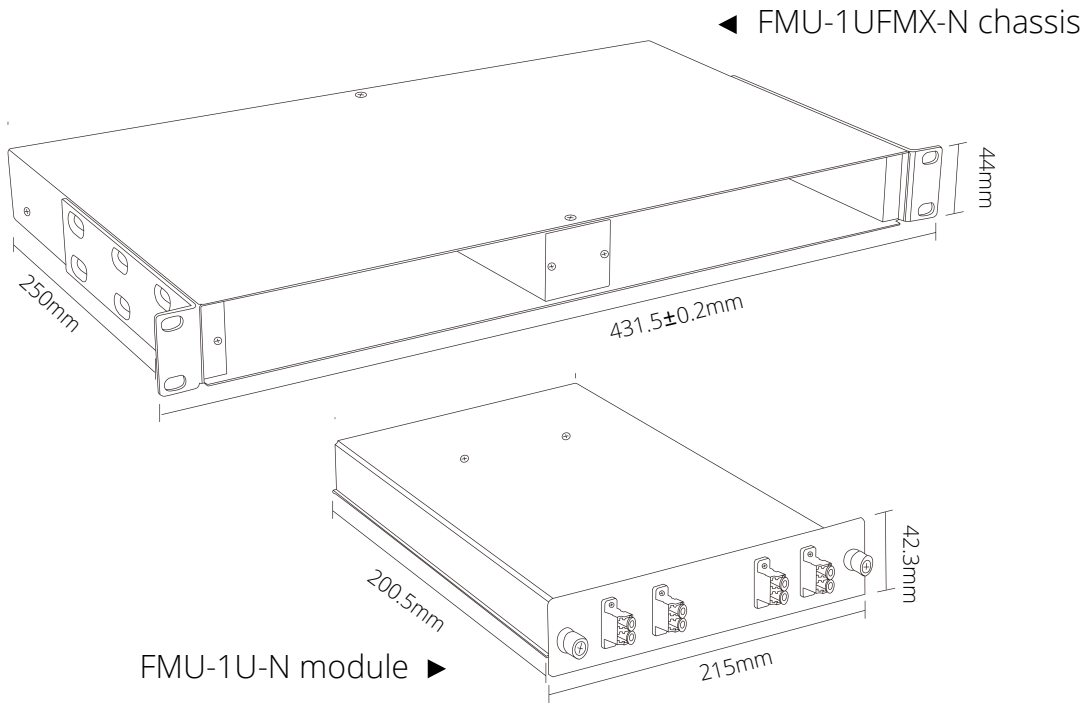
Parameter	Value
Operation Wavelength	1260~1620 nm
Channel Spacing	20 nm
Channel Passband	±6.5 dB
Add & Drop Adjacent Channel Isolation	≥ 30 dB
Add & Drop Non-adjacent Channel Isolation	≥ 35 dB
Output Channel Isolation	≥13 dB
Filter Technology	TFF (Thin Film Filter)
Passband Ripple	≤ 0.3 dB
Return Loss	≥ 45 dB
Directivity	≥ 50 dB
PDL	≤ 0.3 dB
PMD	≤ 0.2 ps
Power Handling	≤ 300 mW
Connectors	LC/UPC
Operating Temperature	-5 ~ +75°C
Storage Temperature	-40 ~ +85°C
Dimension	212mm(W) x 255mm(D) x 44mm(H)
Compliance	ITU-T G.694.2, Telcordia GR1221, GR1209, RoHS, ISO
Craftsmanship	SPCC construction, black powder coating finish
Fitting Chassis	FMU-1UFMX 2-slot 1U 19" Rack Chassis

General Specification

Front View	Logical Diagram	Optical Specification
Dual Fiber West and East		
<p>FMU-MCA0147</p> 		<p>Wavelength: 1470nm</p> <p>Add/Drop Insertion Loss: ≤ 1.0 dB</p> <p>Bypass Insertion Loss: ≤ 1.3 dB</p>
<p>FMU-MCA044753</p> 		<p>Wavelength: 1470nm, 1490nm, 1510nm, 1530nm</p> <p>Add/Drop Insertion Loss: ≤ 2.1 dB</p> <p>Bypass Insertion Loss: ≤ 2.5 dB</p>
Single Fiber West and East		
<p>FMU-MCAS014749</p> 		<p>Wavelength: 1470/1490nm</p> <p>Add/Drop Insertion Loss: ≤ 1.3 dB</p> <p>Bypass Insertion Loss: ≤ 1.6 dB</p>

Layout and Dimensions

FMU-1UFMX is a standard 1U 19" rack mount which provides simple installation for plug-in modules and the chassis can accommodate up to two plug-in modules. It may be mounted (forward or backward) into 19" or 23" racks.



Customized Services

Channel Count	1ch, 2ch, 4ch, etc.
Wavelengths	1270 -1610nm, 20nm spacing
Fiber Type	Dual fiber, Single fiber
Connectors	LC/UPC, LC/APC, SC/UPC, SC/APC FC/UPC, FC/APC, ST/UPC, ST/APC
Housing	FMU plug-in module, 1U 19" rack mount FUD plug-in module, ABS pigtailed module
Special Service	1310nm Port, 1550nm Port, Monitor Port

Note: If you need even more customization – welcome to contact sales@fs.com.



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