DATASHEET

100 GHz DWDM Passive Optical Add/Drop Multiplexers

Data Center & Cloud Computing
Infrastruture Solutions

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Overview

DWDM Optical Add/Drop multiplexer (OADM) is a passive optical device used in WDM networks for adding and dropping one/multiple 100 GHz DWDM channels in the C-band into one or two fibers, while letting the rest of the wavelengths bypass to the needed destination. Using the DWDM technology can add effctively WDM capability to their existing and new networks, and extend the optical signals transmission distance.

DWDM OADM modules are available in single-sided (East or West) and dual-sided (East and West) configurations. With matching MUX/DeMUX units placed at each end of an optical link, multiple data channels can be combined and transmitted over a single-mode fiber trunk. The passive OADM modules can add or drop up to 4 data channels at any point along the trunk.

FS DWDM 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

· Improves capacity exhaust in fiber-constrained situations
· Conserves or reclaims fiber with DWDM
· Lowest cost solution on the market
· Highly flexible and scalable

Product Specifications

| Parameter	Value
Operation Wavelength	C21-C60
Channel Spacing	100GHz (0.8 nm)
Channel Passband	±0.11 nm
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	≤ 0.5 dB
Return Loss	≥ 45 dB
Directivity	≥ 50 dB
PDL	≤ 0.2 dB
PMD	≤ 0.1 ps
Power Handling	≤ 300 mW
Connectors	LC/UPC
Operating Temperature	-5 ~ +75℃
Storage Temperature	-40 ~ +85℃
Dimension	212mm(W) x 255mm(D) x 44mm(H)
Compliance	ITU-T G.694.1, Telcordia GR1221, GR1209, RoHS, ISO
Craftsmanship	SPCC construction, black powder coating finish
Fitting Chassis	FMU-1UFMX-N 2-slot 1U 19" Rack Chassis

General Specification

Front View	Logical Diagram	Optical Specification

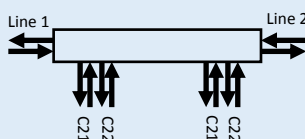## Dual Fiber West and East

FMU-MDA0121
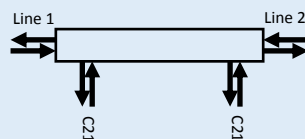
Wavelength: C21

Add/Drop Insertion Loss: ≤ 1.2 dB
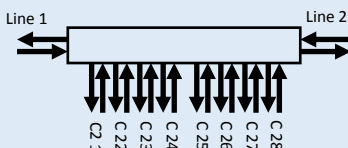
Bypass Insertion Loss: ≤ 1.3 dB
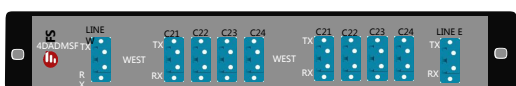
FMU-MDA022122

Wavelength: C21, C22

Add/Drop Insertion Loss: ≤1.5 dB

Bypass Insertion Loss: ≤1.7 dB
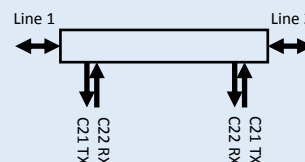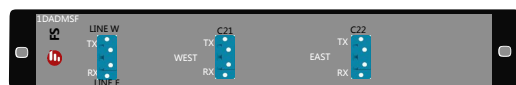
FMU-MDA042124

Wavelength: C21, C22, C23, C24

Add/Drop Insertion Loss: ≤ 2.4 dB

Bypass Insertion Loss: ≤ 2.6 dB

Single Fiber West and East
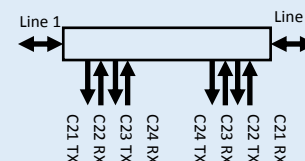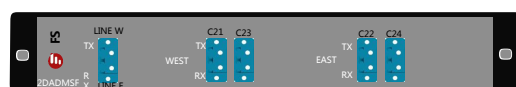
FMU-MDAS0121

Wavelength: C21/C22

Add/Drop Insertion Loss: ≤1.5 dB

Bypass Insertion Loss: ≤ 1.7 dB

FMU-MDAS022124

Wavelength: C21/C22, C23/C24

Add/Drop Insertion Loss: ≤ 2.4 dB

Bypass Insertion Loss: ≤ 2.6 dB

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.

◄ FMU-1UFMX-N chassis

44mm

250mm

431.5±0.2mm

42.3mm

200.5mm

FMU-1U-N module ►

215mm
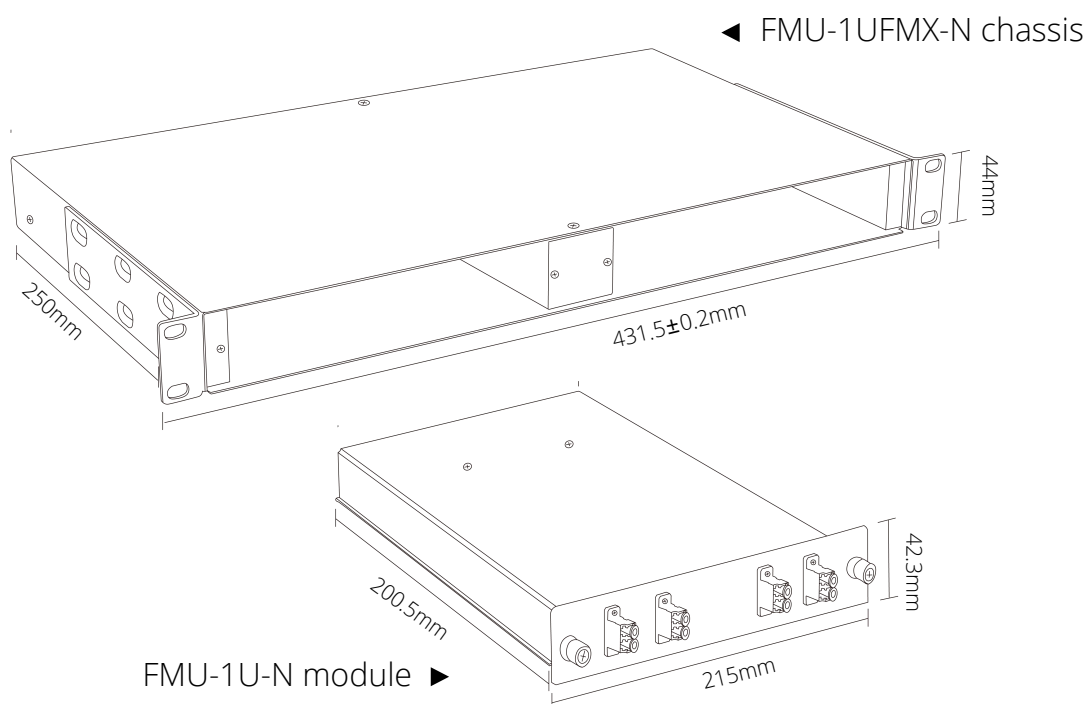
Customized Services

Channel Count	1ch, 2ch, 4ch, 8ch, etc.
Wavelengths	C21-C60 in C-Band,100GHz, 0.8nm 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, Monitor Port

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

United Kingdom   Russia

Germany

United States

China

Singapore

Australia

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