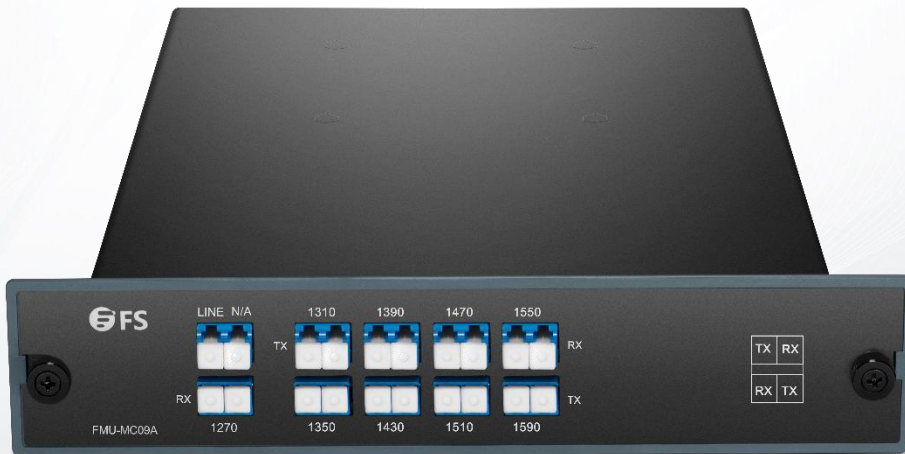


9ch Single Fiber 1270-1590nm Low Insertion Loss CWDM Mux Demux, Side-A

FMU Plug-in Module, LC/UPC

Data Center & Cloud Computing Infrastructure Solutions



Overview

These low insertion loss CWDM Mux Demux work in a pair to provide 9 bidirectional channels on a single strand of fiber. They use the 9 CWDM wavelengths from 1270nm to 1590nm being used in each direction.

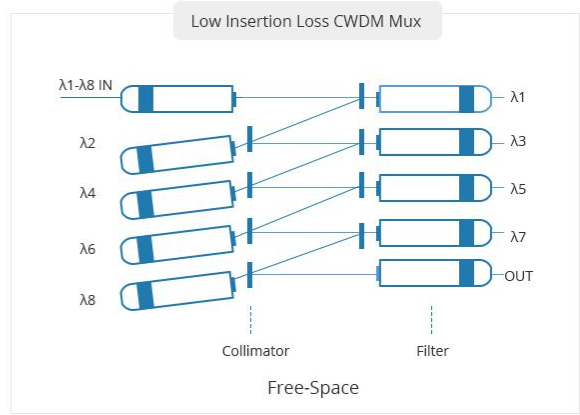
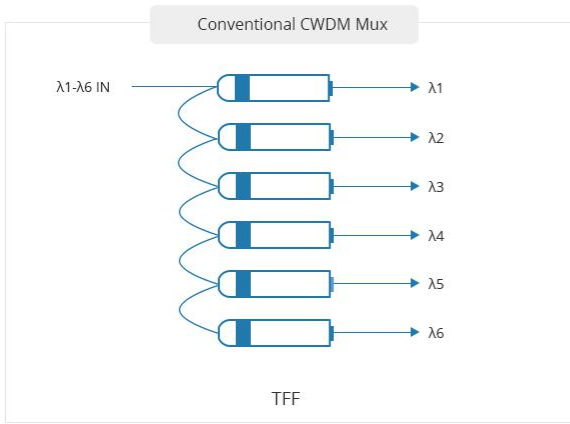
The main fields of applications are the use in SDH (STM-1, STM-4, STM-16, STM- 64), IP (Fast Ethernet, Gigabit Ethernet, 10 Gigabit) ATM and storage (1G, 2G, 4G, 8G, 10G Fiber Channel) networks.

Highlights

- Low insertion loss
- Based on free space technology
- Passive, no electric power required. (MTBF ca. 500 years)
- Low-profile modular design, fits in FMU 2-slot 1U chassis
- Duplex LC/UPC, easily support duplex patch cables between transceiver and passive unit
- 9 bi-directional channels using standard 18-channel CWDM band 1270-1590nm, 20 nm spacing

Unique Free-Space Technology

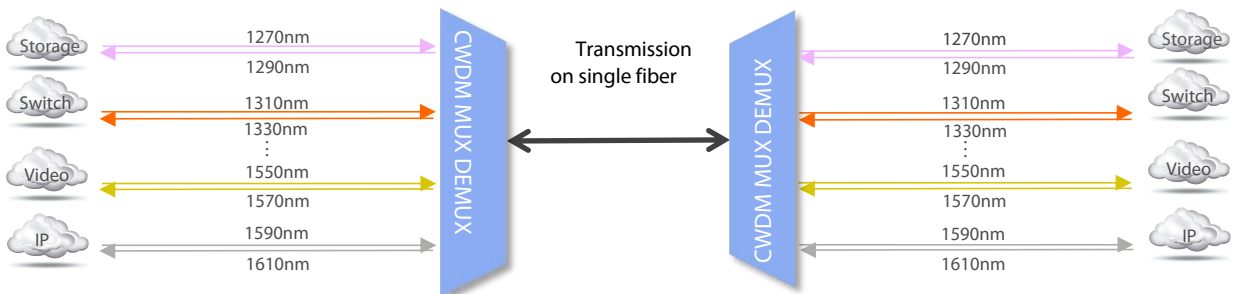
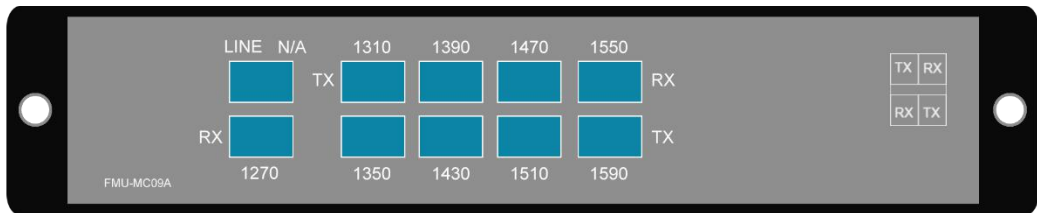
Different from the conventional CWDM Mux, the low insertion loss 9ch CWDM Mux adopts Free-Space technology, which uses light propagating in free space to wirelessly transmit data. This unique technology and great workmanship help it with low insertion loss.



General Specification

Front View	Function
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43711



Technical Data

Parameter	Value
Center Wavelength	1270-1590nm
Channel Spacing	20nm
Channel Passband	± 6.5nm
Insertion Loss (passband)	≤ 2.6dB
Adjacent Channel Isolation	≥ 30dB
Non-adjacent Channel Isolation	≥ 40dB
Technology	Free Space
Passband Ripple	≤ 0.5dB
PDL	≤ 0.3dB
Return Loss	≥ 45dB
Directivity	≥ 50dB
PMD	≤ 0.1ps
Power Handling	≤ 500mW
Operating Temperature	-40 ~ +85 ° C
Storage Temperature	-40 ~ +85 ° C
Fiber Type	G657 A1
Connector Type	LC/UPC Connector
Warranty	3 years warranty with free technical support
Dimensions (H x W x D)	1.73"x8.35"x10.04" (44x212x255mm)

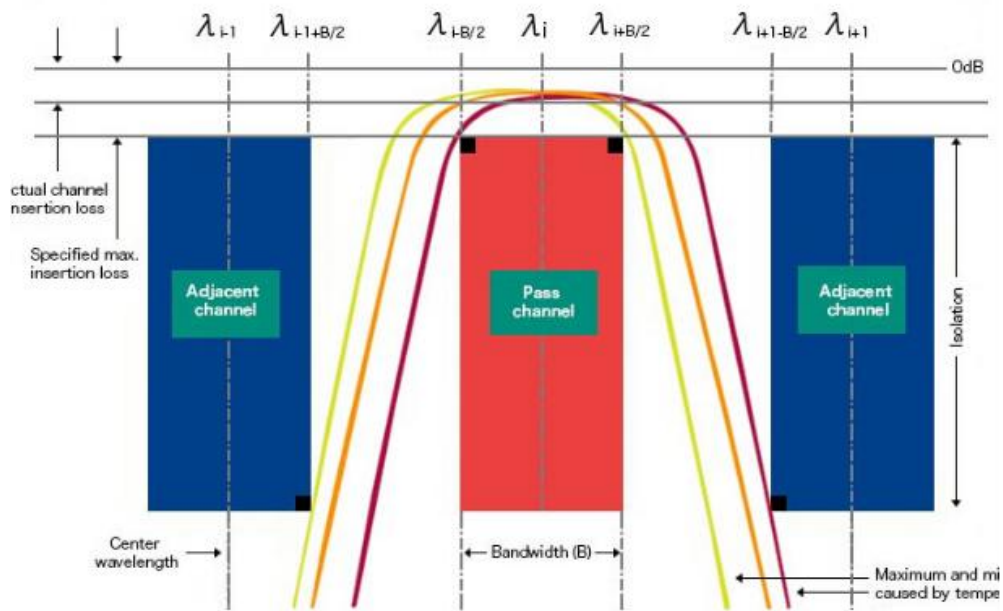
Notes:

1.Specified with connectors and adapters.

FS.COM Quality Assurance by Using High-quality CWDM Multiplexers

Our components fulfill or exceed standard market specifications for optical components. It may still not be entirely obvious how different parameters like isolation are more closely defined. The following diagram illustrates the most important parameters, following the "red box model", in accordance with ITU. The channel, including its bandwidth and isolation as defined by the component specifications, delineates a box.

The measured transmission spectrum of each channel has to be above the box. Under no circumstances can it interfere with any neighboring box (channel). Therefore, isolation and insertion losses have to be maintained within the borders set out by the defined center wavelengths and bandwidth.



CWDM Mux Demux Series

Application	ID#	Description
WHOLE BAND (1270-1610NM)		
Whole band (1270-1610nm)	#33489	18 Channels 1270-1610nm, with Monitor Port, LC/UPC, Dual Fiber CWDM Mux Demux, FMU 1U Rack Mount
HIGH BAND (1470-1610NM)		
High band (1470-1610nm)	#78163	8 Channels 1470-1610nm, with Monitor and Expansion Port, LC/UPC, Dual Fiber Low Insertion Loss CWDM Mux Demux, FMU Plug-in Module

LOW BAND (1270-1450NM)

Low band (1270-1450nm)	#42937	8 Channels 1270-1450nm (Skip 1390, 1410nm), LC/UPC, Dual Fiber CWDM Mux Demux, FMU Plug-in Module
Low band (1270-1450nm)	#42972	4 Channels 1270-1330nm, LC/UPC, Dual Fiber Low Insertion Loss CWDM Mux Demux, FMU Plug-in Module

SINGLE FIBER

Single fiber	#43711	9 Channels 1270-1590nm, LC/UPC, Single Fiber CWDM Mux Demux, Side-A, Plug-in Module, used together with ID#43699
Single fiber	#43699	9 Channels 1290-1610nm, LC/UPC, Single Fiber CWDM Mux Demux, Side-B, Plug-in Module, used together with ID#43711

*Standard products are listed above. Customized specifications are available upon request.

Channel Wavelengths and Color Coding for CWDM

For CWDM systems an industry standard color coding scheme is used. The latches of the transceivers match the colored port indicators on the passive units therefore guaranteeing simple setup, following color codes and wavelength are valid for CWDM.

ITU channel no.	Wavelength	Color	Color Coding
27	1270nm	light purple	
29	1290nm	sky blue	
31	1310nm	yellow green	
33	1330nm	yellow ocher	
35	1350nm	pink	
37	1370nm	beige	
39	1390nm	white	
41	1410nm	silver	
43	1430nm	black	

ITU channel no.	Wavelength	Color	Color Coding
45	1450nm	yellow orange	
47	1470nm	gray	
49	1490nm	violet	
51	1510nm	blue	
53	1530nm	green	
55	1550nm	yellow	
57	1570nm	orange	
59	1590nm	red	
61	1610nm	brown	

High Quality CWDM Transceivers to Build a Passive CWDM System

FS.COM offers CWDM transceiver modules in SFP, SFP+, SFP28, 3G-SDI SFP and XFP formats. Every optics is tested in real switches and fully compatible with Cisco, Juniper, Arista, Brocade, Dell, Extreme, etc.

Transmission distances range from 10-80km, transmission data rate range from 1G-25G speeds, without the use of optical amplifiers.



CWDM-SFP



CWDM-10G SFP+



CWDM-25G SFP28



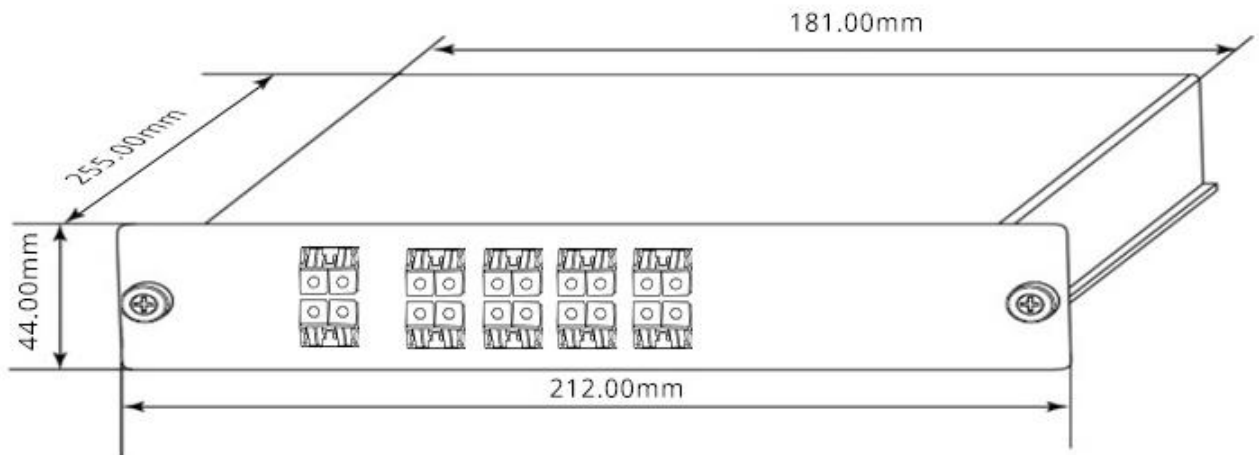
CWDM-3G-SDI-SFP



CWDM-XFP

Layout and Dimensions

- Width: 212.00mm (8.35")
- Height: 44.00mm (1.73")
- Depth: 255.00mm (10.04")
- The color of the module is black
- All fonts and labels are printed in black





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The information in this document is subject to change without notice. FS has made all efforts to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty.