Optical Performance Monitoring(OPM)

Plug-in Card Type for FMT Multi-Service Transport System
OTN Solutions for Metro, Regional & Long Haul

Description

Optical performance monitor uses proprietary thin-film interference filter technology combined with a micro-actuator and high-speed electronics.

OPM is used to measure critical information data on optical transmission signals in DWDM networks for monitoring signal dynamics, determining system functionality, identifying performance change, and providing feedback for controlling network elements so as to optimize operational performance.

OPM monitors each channel within a DWDM system to understand the signal status and signal quality more clearly and intuitively, which is helpful for network maintenance and troubleshooting.

Features

- High Reliability and Repeatability
- Support up to 96ch DWDM optical signal monitoring
- Support 100Ghz/50Ghz DWDM optical signal monitoring
- Support accurate measurement of wavelength, optical power and OSNR

Application

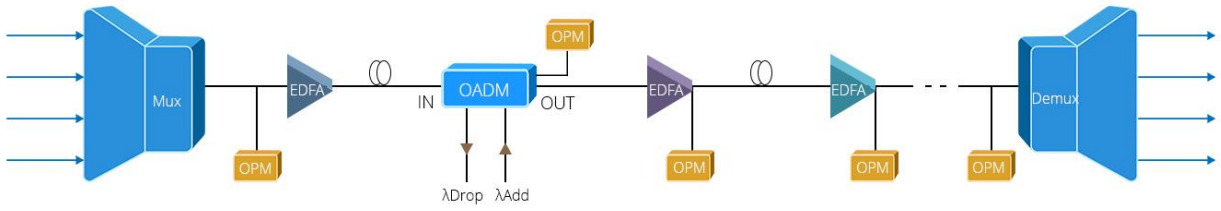
- Optical Power or OSNR Monitoring for Gain Equalization
- System Alarms or Error Warnings DWDM
- Other optical systems

Product Specifications

Wavelength Range	1528nm-1568nm	**Channel Spacing**	100GHz/50GHz
Wavelength Accuracy	50pm	**Channel Input Power Range**	-40dBm~-10dBm
Channel Power Accuracy	0.5dB	**Power Repeatability**	0.1dB
OSNR Accuracy	1.5dB	**Response Time**	< 500ms
Power Consumption	< 2W	**PDL**	< 0.3dB
Management	Monitor Online, Simple Management Tool, Monitor Cable		

Accurate and Lightweight Optical Performance Monitoring for DWDM systems

In order to ensure stable and reliable operation of the optical network under multi-channel and high-rate conditions, the wavelength, power and optical signal-to-noise ratio (OSNR) of each optical channel signal are monitored by OPM at key locations in the optical network.

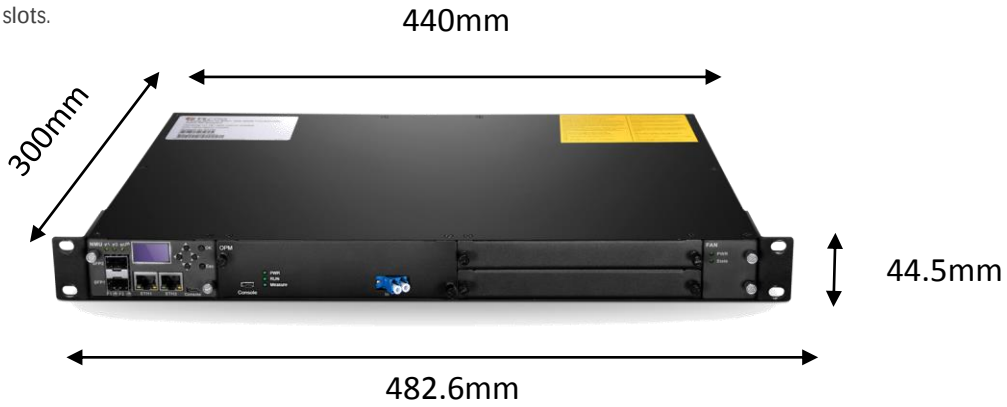


Dimensions

4-slot 1U managed chassis, supports up to 4x multiplexer/EDFA/OEO/OLP card with accessories;

- Width: 482.6mm (19")
- Height: 44.50mm (1.75")
- Depth: 300mm (11.81")

OPM plug-in card occupies two slots.



Ordering Information

Mux Demux & OADM		
DWDM MUX DEMUX	FMU-D402160M3	40 Channels 100GHz C21-C60, with 1310nm and Monitor Port, 3.5dB Typical IL, LC/UPC, Dual Fiber DWDM Mux Demux, 1U Rack Mount #35887
	M6200-D2160M	40 Channels 100GHz C21-C60 Dual Fiber DWDM Mux and Demux with Monitor Port, Pluggable Module, LC/UPC, Integrated with M6200 Series Managed Chassis #120424
	FMU-D162136EM3	16 Channels 100GHz C21-C36, with Monitor, Expansion and 1310nm Port, LC/UPC, Dual Fiber DWDM Mux Demux, 1U Rack Mount #72430
	FMU-MD085360EM3	CWDM/DWDM Hybrid Solution, 8 Channels 100GHz C53-C60, with Monitor, Expansion and 1310nm Port, LC/UPC, Dual Fiber DWDM Mux Demux, FMU Plug-in Module #72433
CWDM MUX DEMUX	FMU-C182761M	18 Channels 1270-1610nm, with Monitor Port, LC/UPC, Dual Fiber CWDM Mux Demux, 1U Rack Mount #33489
	FMU-MC084761EM	8 Channels 1470-1610nm, with Monitor and Expansion Port, LC/UPC, Dual Fiber, Low Insertion Loss CWDM Mux Demux, FMU Plug-in Module #78163
LWDM MUX DEMUX	ABS-L042930A	4 Channels 1295.56-1309.14nm, Single Fiber LAN-WDM Mux Demux, Side-A, ABS Pigtailed Module, LC/UPC #97782
	ABS-C062737A	6 Channels 1271-1371nm, Single Fiber CWDM Mux Demux, Side-A, ABS Pigtailed Module, LC/UPC #97784
OADM	DOADM-DF	Customized Dual Fiber & Single Fiber DWDM OADM #70427
	COADM-DF	Customized Dual Fiber & Single Fiber CWDM OADM #70425
Chassis	FMU-1UFMX-N	FMU 2-Slot 1U 19" Rack Chassis Unloaded, holds up to 2 Units FMU Plug-in Module #30408
	FUD-1UFMX-N	FUD 4-Slot 1U 19" Rack Chassis Unloaded, holds up to 4 Units FUD Plug-in Module #106578

TRANSPONDERS & MUXPONDERS		
25G	FMT4DL-OEO25GSFP28	4 Channels 25G WDM Transponder (Converter), 8 SFP28/SFP+ Slots#92056
10G	FMT4DL-OEO10GSFP	4 Channels WDM Transponder (Converter), 8 SFP/SFP+ Slots#30515
Chassis	FMT04-CH1U	1U Managed Chassis Unloaded Platform, Supports up to 4x EDFA/OEO/OLP Card with Accessories #39214
	FMT-CH	Customized 1U/2U/4U Managed Chassis Unloaded, Supports up to 16x Multiplexer/EDFA/OEO/OLP Module with Accessories #70413
OPEN LINE SYSTEM		
Amplifiers	FMT26PA-EDFA	26dB Gain DWDM EDFA Pre-Amplifier, 16dBm Output#36524
	FMT20PA-EDFA	20dB Gain DWDM EDFA Pre-Amplifier, 13dBm Output#72284
	FMT17BA-EDFA	17dBm Output DWDM EDFA Booster Amplifer, 17dB Gain #72283
	FMT-LA	In-Line EDFA for DWDM Solution#35924
Dispersion Compensation	FMT40-DCM	40KM DCF-based Passive Dispersion Compensation Module#65781
	FMT80-DCM	80KM DCF-based Passive Dispersion Compensation Module#65779
	FS-TDCM	C-band Tunable Dispersion Compensation Module (TDCM)#72427
Line Protection	FMT-OLP2	1+1 Optical Line Protection Switch (OLP)#66010
	FMT-BDOLP	FMT-BDOLP, Optical Line Protection Switch (OLP)#72700
	FMT-BDSplitter	FMT-BDSplitter, Optical Splitter#73324
Red/Blue Filter	FMT-RB	1x2 Single Fiber DWDM Splitter Red/Blue C Band Filter#65981
Fiber Monitoring	FMT-OPD	4 Channels 1550nm Optical Power Detection OPD (AIU)#78568
	FMT-OPM	Optical Performance Monitoring (OPM)#71586
	FMT-OSW	1x16 Multi-Channel MEMS Optical Switches with Adjustable Channels Control #73287
	FMT-OTDR	Optical Time Domain Reflectometer (OTDR)#73281
	FMT-LSU	LSU Light Source Unit, Pluggable Module for FMT Multi-Service Transport Platform#78469
VOA Units	FS-VOA-C	Variable Optical Attenuator, Pluggable Module, LC/UPC#65271
	AT-M-LCU	Fixed Fiber Optic Attenuators #70009

Chassis	FMT04-CH1U	1U Managed Chassis Unloaded Platform, Supports up to 4x EDFA/OEO/OLP Card with Accessories #39214
	FMT-CH	Customized 1U/2U/4U Managed Chassis Unloaded, Supports up to 16x Multiplexer/EDFA/OEO/OLP Module with Accessories #70413
WDM TRANSCEIVERS		
25G SFP28	DWDM-SFP25G-10	25G DWDM SFP28 100GHz 1563.86nm 10km DOM LC SMF Optical Transceiver Module #87000
	CWDM-SFP25G-40S	25G 1270nm CWDM SFP28 40km DOM LC SMF Optical Transceiver Module #100112
	CWDM-SFP25G-10SP	25G 1270nm CWDM SFP28 10km DOM LC SMF Optical Transceiver Module #76003
	LWDM-SFP25G-40	25G LWDM SFP28 1286.66nm 40km DOM LC SMF Optical Transceiver Module #93786
16G/8G FC	DWDM-SFP16G-40	Customized 16G DWDM SFP+ C20-C61 100GHz 40km DDM LC SMF Transceiver Module#73084
	DWDM-SFP16GH-40	Customized 16G DWDM SFP+ 50GHz 40km DDM LC SMF Transceiver Module #73085
	CWDM-SFP16G-40	Customized 16G Fiber Channel CWDM SFP+ 1470-1610nm 40km DDM LC SMF Transceiver Module #80765
10G SFP+	DWDM-SFP10G-80	10G DWDM SFP+ 1559.79nm 80km DOM LC SMF Transceiver Module, Commercial Temperature#31237, Industrial Temperature#113562
	DWDM-SFP10G-40	10G DWDM SFP+ 1560.61nm 40km DOM LC SMF Transceiver Module, Commercial Temperature#38731, Industrial Temperature#113511
	DWDM-SFP10G-C	10G DWDM C-band Tunable SFP+ 50GHz 80km DOM LC SMF Transceiver Module #69267
	CWDM-SFP10G-80L	10G CWDM SFP+ 1470nm 80km DOM LC SMF Transceiver Module #19367
	CWDM-SFP10G-40S	10G CWDM SFP+ 1270nm 40km DOM LC SMF Transceiver Module, Commercial Temperature#22168, Industrial Temperature#112392
1G SFP	DWDM-SFP1G-EZX	1000BASE-DWDM SFP 100GHz 1563.86nm 100km DOM LC SMF Transceiver Module #54150
	DWDM-SFP1G-ZX	1000BASE-DWDM SFP 1563.86nm 80km DOM LC SMF Transceiver Module #47697
	CWDM-SFP1G-EZX	1000BASE-CWDM SFP 1270nm 120km DOM LC SMF Transceiver Module #102776
	CWDM-SFP1G-ZX	1000BASE-CWDM SFP 1270nm 80km DOM LC SMF Transceiver Module #33234