

# 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

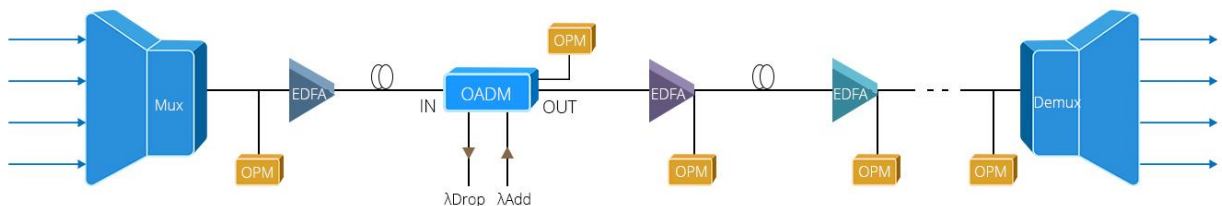
- Optical Power or OSNR Monitoring for Gain Equalization
- System Alarms or Error Warnings DWDM
- Other optical systems

## Product Specifications

Wavelength Range	1528nm-1568nm	Channel Spacing	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.

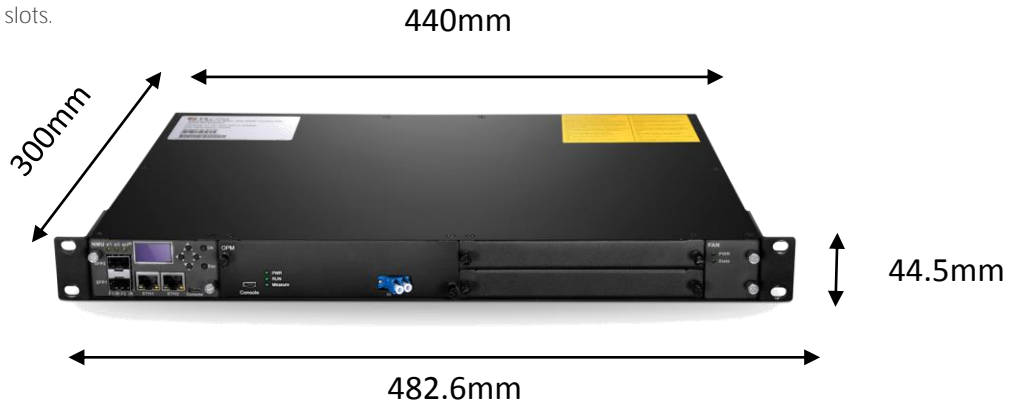


## Dimensions

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	
	<p><a href="#">FMU-D402160M3</a> 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</p>
DWDM MUX DEMUX	<p><a href="#">M6200-D2160M</a> 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</p>
	<p><a href="#">FMU-D162136EM3</a> 16 Channels 100GHz C21-C36, with Monitor, Expansion and 1310nm Port, LC/UPC, Dual Fiber DWDM Mux Demux, 1U Rack Mount #72430</p>
CWDM MUX DEMUX	<p><a href="#">FMU-MD085360EM3</a> 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</p>
	<p><a href="#">FMU-C182761M</a> 18 Channels 1270-1610nm, with Monitor Port, LC/UPC, Dual Fiber CWDM Mux Demux, 1U Rack Mount #33489</p>
LWDM MUX DEMUX	<p><a href="#">FMU-MC084761EM</a> 8 Channels 1470-1610nm, with Monitor and Expansion Port, LC/UPC, Dual Fiber, Low Insertion Loss CWDM Mux Demux, FMU Plug-in Module #78163</p>
	<p><a href="#">ABS-L042930A</a> 4 Channels 1295.56-1309.14nm, Single Fiber LAN-WDM Mux Demux, Side-A, ABS Pigtailed Module, LC/UPC #97782</p>
OADM	<p><a href="#">ABS-C062737A</a> 6 Channels 1271-1371nm, Single Fiber CWDM Mux Demux, Side-A, ABS Pigtailed Module, LC/UPC #97784</p>
	<p><a href="#">DOADM-DF</a> Customized Dual Fiber &amp; Single Fiber DWDM OADM #70427</p>
	<p><a href="#">COADM-DF</a> Customized Dual Fiber &amp; Single Fiber CWDM OADM #70425</p>
Chassis	<p><a href="#">FMU-1UFMX-N</a> FMU 2-Slot 1U 19" Rack Chassis Unloaded, holds up to 2 Units FMU Plug-in Module #30408</p>
	<p><a href="#">FUD-1UFMX-N</a> FUD 4-Slot 1U 19" Rack Chassis Unloaded, holds up to 4 Units FUD Plug-in Module #106578</p>

## TRANSPONDERS & MUXPONDERS

25G	<a href="#">FMT4DL-OEO25GSFP28</a>	4 Channels 25G WDM Transponder (Converter), 8 SFP28/SFP+ Slots#92056
10G	<a href="#">FMT4DL-OEO10GSFP</a>	4 Channels WDM Transponder (Converter), 8 SFP/SFP+ Slots#30515
Chassis	<a href="#">FMT04-CH1U</a>	1U Managed Chassis Unloaded Platform, Supports up to 4x EDFA/OEO/OLP Card with Accessories #39214
	<a href="#">FMT-CH</a>	Customized 1U/2U/4U Managed Chassis Unloaded, Supports up to 16x Multiplexer/EDFA/OEO/OLP Module with Accessories #70413

## OPEN LINE SYSTEM

Amplifiers	<a href="#">FMT26PA-EDFA</a>	26dB Gain DWDM EDFA Pre-Amplifier, 16dBm Output#36524
	<a href="#">FMT20PA-EDFA</a>	20dB Gain DWDM EDFA Pre-Amplifier, 13dBm Output#72284
	<a href="#">FMT17BA-EDFA</a>	17dBm Output DWDM EDFA Booster Amplifier, 17dB Gain #72283
	<a href="#">FMT-LA</a>	In-Line EDFA for DWDM Solution#35924
Dispersion Compensation	<a href="#">FMT40-DCM</a>	40KM DCF-based Passive Dispersion Compensation Module#65781
	<a href="#">FMT80-DCM</a>	80KM DCF-based Passive Dispersion Compensation Module#65779
	<a href="#">FS-TDCM</a>	C-band Tunable Dispersion Compensation Module (TDCM)#72427
Line Protection	<a href="#">FMT-OLP2</a>	1+1 Optical Line Protection Switch (OLP)#66010
	<a href="#">FMT-BDOLP</a>	FMT-BDOLP, Optical Line Protection Switch (OLP)#72700
	<a href="#">FMT-BDSplitter</a>	FMT-BDSplitter, Optical Splitter#73324
Red/Blue Filter	<a href="#">FMT-RB</a>	1x2 Single Fiber DWDM Splitter Red/Blue C Band Filter#65981
	<a href="#">FMT-OPD</a>	4 Channels 1550nm Optical Power Detection OPD (AIU)#78568
	<a href="#">FMT-OPM</a>	Optical Performance Monitoring (OPM)#71586
Fiber Monitoring	<a href="#">FMT-OSW</a>	1x16 Multi-Channel Opto-Mechanical Optical Switches with Adjustable Channels Control#73287
	<a href="#">FMT-OTDR</a>	Optical Time Domain Reflectometer (OTDR)#73281
	<a href="#">FMT-LSU</a>	LSU Light Source Unit, Pluggable Module for FMT Multi-Service Transport Platform#78469
VOA Units	<a href="#">FS-VOA-C</a>	Variable Optical Attenuator, 0~15dB, Pluggable Module, LC/UPC#65271
	<a href="#">AT-M-LCU</a>	Fixed Fiber Optic Attenuators #70009



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



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