# 40KM Passive Dispersion Compensation Module, LC/UPC

Pluggable Module for M6200 Series Multi-Service Transport System



## Description

DCM (Dispersion Compensation Modules) provides fixed chromatic dispersion compensation for high-speed metro core, regional, and extended long haul DWDM networks, and it can be used to compensate dispersion on standard singlemode optical fiber (SMF) across the entire C-Band.

It is designed for DWDM C-band high-speed extended haul DWDM networks. When combined with transponders and amplifiers, the DCM provides a simple, reliable, and costeffective DWDM transport solution.

#### Features

- 100% slope compensation of G.652 fiber in C-band
- Low insertion loss
- Low polarization mode dispersion
- Wide band dispersion compensation
- Compensation up to 40km
- Completely passive—no powering utilized
- Highly integrated with M6200 series management platform

#### Application

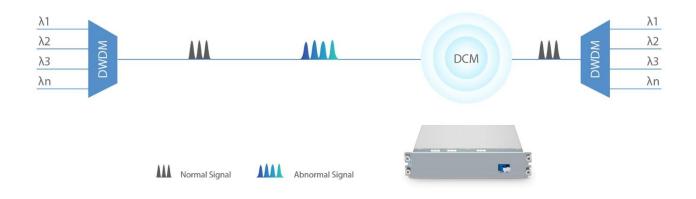
- Metro and long-haul DWDM networks
- SDH transmission system
- CATV system
- Dispersion accommodation

# Product Specifications

Parameter	Description	
Compensated Length	40km	
Wavelength	1525nm~1565nm	
Dispersion Compensator @1545nm	-670±20 ps/nm	
Insertion Loss	≤4.0dB	
Relative Dispersion Slop @1545nm	0.0036±20%nm-1	
Brillouin Scattering Threshold	≥6dBm	
Nonlinear System (n <sup>2</sup> /Aeff)	≤1.4*10~9 W <sup>-1</sup>	
Effective Area (Aeff)	≥20um²	
Polarization Dependent Loss	≤0.1dB	
Polarization Mode Dispersion	≤0.3ps	
Connector Type	LC/UPC	
Housing	Pluggable module (Occupies 2-slot in M6200 series managed chassis)	
Relative Humidity	<85%	
OperatingTemperature	-5 to 70° C	
Storage Temperature	-40 to 85° C	

### Applications

DCM is needed to fix the form of optical signals that are deformed by chromatic dispersion in long-haul transmission. It can effectively neutralize the fiber dispersion before the signal reaches the receiver, which provides a simple, reliable, and cost-effective long-haul transport solution, making signals go further without regeneration.



## Matching Chassis

M6200 series 40km DCM pluggable module occupies 2-slot in M6200 series managed chassis.

- Width: 444mm (17.48")
- Height: 88mm (3.46")
- Depth: 325mm (12.80")



# 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-DE	Customized Dual Fiber & Single Fiber DWDM OADM #70427		
	<u>COADM-DF</u>	Customized Dual Fiber & Single Fiber CWDM OADM #70425		
Chassis	<u>FMU-1UFMX-N</u>	FMU 2-Slot 1U 19" Rack Chassis Unloaded, holds up to 2 Units FMU Plug-in Module #30408		
	<u>FUD-1UFMX-N</u>	FUD 4-Slot 1U 19" Rack Chassis Unloaded, holds up to 4 Units FUD Plug-in Module #106578		
TRANSPONDERS & MUXPONDERS				
8x 200G	<u>M6800-TSP16</u>	16x 100G QSFP28 to 8x 200G CFP2 OTN Managed Transport Platform#111053		
100G/200G	<u>M6500-TMXP5</u>	2x 100G QSFP28/4x 40G QSFP+ to 1x 200G CFP2 Transponder/Muxponder#111049		
10G	<u>M6200-OEO10G</u>	5 Channels WDM Transponder (Converter), 10 SFP/SFP+ Slots#107365		
Chassis	<u>M6500-CH2U</u>	2U Managed Chassis Unloaded Platform, Supports 2x 200G Transponder/Muxponder #96454		
	<u>M6500-CH5U</u>	5U Managed Chassis Unloaded Platform, Supports 6x 200G Transponder/Muxponder #111050		
	<u>M6200-CH2U</u>	2U Managed Chassis Unloaded Platform, Supports 7x Mux/DEMUX/EDFA/OEO/OLP/DCM Cards #107371		
	<u>M6200-CH5U</u>	5U Managed Chassis Unloaded Platform, Supports 15x MUX/DEMUX/EDFA/OEO/OLP/DCM Cards #111052		

OPEN LINE SYSTEM				
Amplifiers	<u>M6200-25PA</u>	25dB Gain DWDM EDFA Pre-Amplifier, 16dBm Output#107367		
	<u>M6200-20BA</u>	20dBm Output DWDM EDFA Booster Amplifer, 16dB Gain#107366		
Dispersion Compensation	M6200-DCM40	40KM DCF-based Passive Dispersion Compensation Module#107370		
	M6200-DCM80	80KM DCF-based Passive Dispersion Compensation Module#119071		
Line Protection	<u>M6200-OLP2</u>	1+1 Optical Line Protection Switch (OLP)#107368		
Red/Blue Filter	<u>M6200-RB</u>	1x2 Single Fiber DWDM Red/Blue Filter#107369		
VOA Units	M6200-SFPVOA	SFP Variable Optical Attenuator Module#107373		
	AT-M-LCU	Fixed Fiber Optic Attenuators #70009		
Chassis	<u>M6200-CH2U</u>	2U Managed Chassis Unloaded Platform, Supports 7x Mux/DEMUX/EDFA/OEO/OLP/DCM Cards #107371		
	<u>M6200-CH5U</u>	5U Managed Chassis Unloaded Platform, Supports 15x MUX/DEMUX/EDFA/OEO/OLP/DCM Cards #111052		
WDM TRANSCEIVERS				
100G/200G CFP2	M-CFP2-DCO	C14 1566.31nm 100G/200G Tunable CFP2-DCO Coherent Transceiver, up to 1000km #120128		
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	<u>DWDM-SFP1G-EZX</u>	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
	<u>CWDM-SFP1G-EZX</u>	1000BASE-CWDM SFP 1270nm 120km DOM LC SMF Transceiver Module #102776
	<u>CWDM-SFP1G-ZX</u>	1000BASE-CWDM SFP 1270nm 80km DOM LC SMF Transceiver Module #33234

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



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