

Dispersion Compensation Module

OTN Solutions for Metro, Regional & Long Haul



Description

DCM (Dispersion Compensation Modules) - provides fixed chromatic dispersion compensation for high-speed metro core, regional, and extended-haul DWDM networks.

FS DCM is a purely passive module that provides negative dispersion for DWDM transmission systems, increasing transmission range and decreasing BER of optical links. And it can be used to compensate dispersion on standard single-mode optical fiber (SMF) across the entire C-Band.

Based on DCF technology, it is designed for protocol transparent data rates between 10Mbps and 40Gbps high-speed extended haul DWDM networks. When combined with transponders and amplifiers, the DCM provides a simple, reliable, and cost-effective DWDM transport solution.

Features

- 100% slope compensation of G.652 fiber in C-band (Typical)
- Low insertion loss
- Low polarization mode dispersion
- Wide band dispersion compensation
- Completely passive—no powering utilized
- Compensation up to 140km ($\leq 100\text{km}$ with pluggable module, $>100\text{km}$ with 1U rack mount chassis)

Application

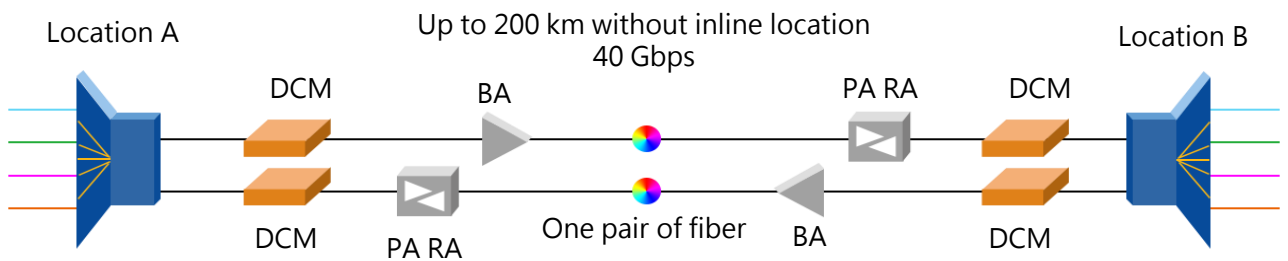
- Metro and long-haul DWDM networks
- SDH/SONET system
- CATV system

Product Specifications

Compensation Distance (km)	Dispersion (ps/nm)	Insertion Loss (dB) (Pluggable Module)	Insertion Loss (dB) (1U 19" Rack Mount)	PMD (ps)	PDL (dB)
10	-170±3%	≤2.5	≤2.3	≤0.5	≤0.1
20	-340±3%	≤2.8	≤2.9	≤0.6	≤0.1
30	-510±3%	≤3.6	≤3.9	≤0.7	≤0.1
40	-680±3%	≤4.2	≤4.8	≤0.8	≤0.1
50	-850±3%	≤4.5	≤5.8	≤0.9	≤0.1
60	-1020±3%	≤4.8	≤6.8	≤1.0	≤0.1
70	-1190±3%	≤5.3	≤7.8	≤1.1	≤0.1
80	-1360±3%	≤5.8	≤8.7	≤1.2	≤0.1
90	-1530±3%	≤6.2	≤9.7	≤1.3	≤0.1
100	-1700±3%	≤6.5	≤10.7	≤1.4	≤0.1
120	-2040±3%	/	≤12.9	≤1.4	≤0.1
140	-2380±4%	/	≤14.8	≤1.5	≤0.1

DCM for DWDM Network up to 200km

DCM is designed for protocol transparent data rates between 10Mbps and 40Gbps of DWDM networks application. Thus up to 96 DWDM wavelengths (100GHz grid) can be compensated on a fiber optic link. Using these dispersion compensation modules, the transmission distances in fiber can be increased significantly without regenerating the signals.

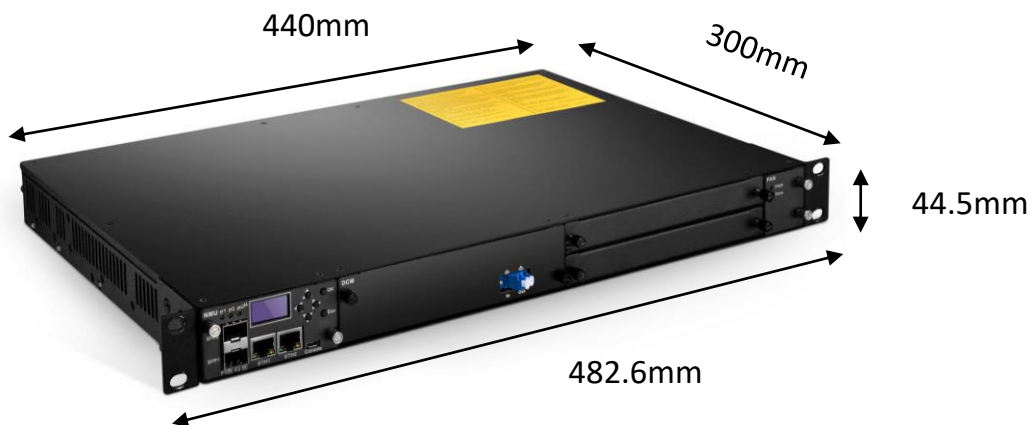


Dimensions

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")

DCM plug-in card occupies two slots.





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