



## DCM-1000 Dispersion Compensation Module

Dispersion Compensation Modules (DCMs) are designed to compensate the dispersion of conventional G.652 fiber or other transmission fibers having a positive dispersion that occurs in long-haul optical transmission systems. These products offer superior polarization mode dispersion (PMD) performance and a negative dispersion slope, allowing a DWDM or long-haul system to maintain signal integrity over great distances. Low insertion loss and PMD make the product ideal for long-haul telecommunication systems as well as DWDM transport. The compact 1U size can be mounted easily on 19 and 23-inch cabinet rack.

### Applications

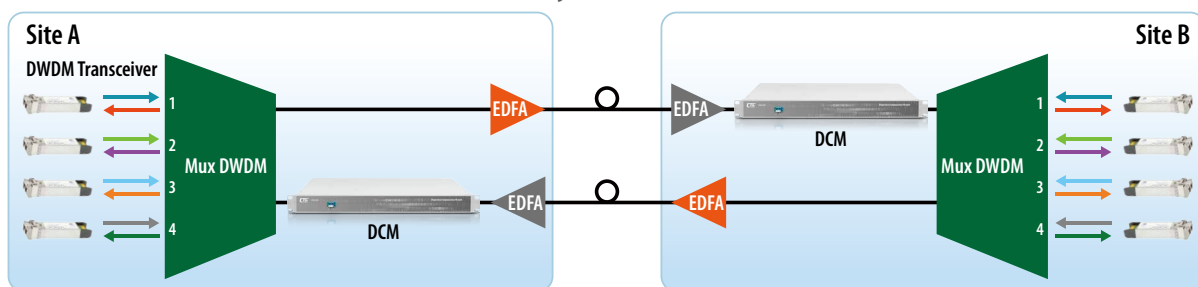
- High speed transmission system
- Long-haul telecommunication system
- Dispersion limit extension of DWDM system

### Features

- DWDM system dispersion compensation and Broadband low residual dispersion
- G.652 fiber C-Band 100% slope compensation
- Low insertion loss
- Low polarization model dispersion
- Conform to Telcordia GR-2854-CORE standard
- Reliability tested by Telcordia GR-1221-CORE standard

### Applications

DWDM Active System with EDFA & DCM



### Specifications

Parameters / Model No. ( xx= )	DCM1020	DCM1040	DCM1060	DCM1080	DCM1100	DCM1120	DCM1160
Compensated Distance (km)	20	40	60	80	100	120	160
1545nm dispersion (ps/nm)	-340+/-10	-670+/-20	-1000+/-30	-1340+/-40	-1680+/-50	-2010+/-60	-2380+/-4
1545nm relative dispersion slope	0.0036 +/- 10%						
Insertion Loss (dB)	≤3.3	≤4.7	≤6.4	≤8.0	≤9.5	≤11.0	≤18.8
Insertion Loss (typ) (dB)	2.7	4.0	5.4	6.7	8.0	9.3	16.6
Polarization mode dispersion (ps)	≤0.6	≤0.7	≤0.8	≤0.9	≤1.0	≤1.1	≤1.7
Polarization mode dispersion (types)	0.2	0.3	0.4	0.5	0.6	0.7	0.9
Polarization dependent loss (dB)	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1
Parameter	Min		Max		Unit		
Brillouin scattering threshold	6		-		dBm		
Non-linear coefficient	-		1.4*10 <sup>-9</sup>		(n <sup>2</sup> /Aeff) (W <sup>-1</sup> )		
Effective area (Aeff)@1550nm	20		-		um <sup>2</sup>		
Maximum Input power	-		23		dBm		
Operating temperature range	-5		70		°C		
Storage temperature range	-40		85		°C		
Relative humidity	<85%		85		RH%		
Environmental / Reliability testing	Comply with Telcordia GR-2854 and GR-1221 standard						
Size	482.6(W) × 350(D) × 43.6(H) mm						

### Ordering Information

Model Name	Description
DCM1020-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 20km LC/UPC
DCM1040-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 40km LC/UPC
DCM1060-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 60km LC/UPC
DCM1080-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 80km LC/UPC
DCM1100-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 100km LC/UPC
DCM1120-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 120km LC/UPC
DCM1160-LC/U	1U 19" Rack, C-Band Dispersion Compensation Module 160km LC/UPC