

PRODUCT INTRODUCTION

Miniaturized DCM for O+E+C Band



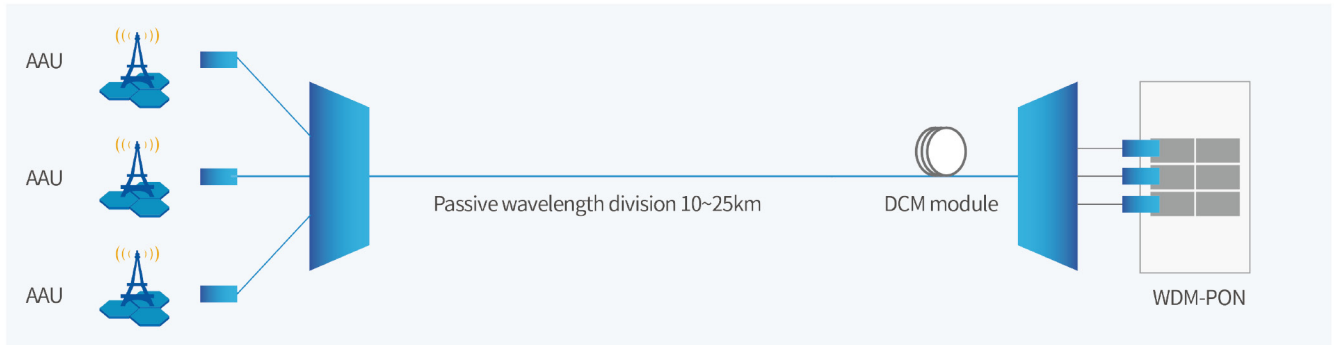
The miniaturized O+E+C band dispersion compensating module can perform broadband dispersion adjustment in the O+E+C band for standard single-mode fibre (G.652), thereby optimizing the residual dispersion of the system. And it has extremely low insertion loss in the O+E+C band. Based on the design of new BD NDCF fibre and mature and reliable processing technology, the module can improve the performance of optical transmission systems. At the same time, the miniaturized device package dimension can meet the requirements of system miniaturization.

+ Features

- Broadband Dispersion Compensation for DWDM Systems
- Low insertion loss
- Low polarization mode dispersion
- The performance indicators certified to Telcordia GR-2854-CORE standard
- Reliability certified to Telcordia GR-1221-CORE standard
- Miniaturized package

+ Applications

- 5G fronthaul system O-band dispersion adjustment
- G.652 standard single mode optical fibre long distance and metro communication system
- DWDM transmission system
- SDH transmission system
- CATV cable television system



Parameters

Specifications

Type		AD-1KM	AD-2KM
Fibre type		BD NDCF	
Working band		O Band (1320 ~ 1375)	
		E Band (1410 ~ 1480)	
		C Band (1525 ~ 1565)	
Fibre length*①	km	0.95~1.05	1.95~2.05
Dispersion@1331nm	ps/nm	-63~-83	-128~-162
Dispersion@1351nm	ps/nm	-65~-86	-133~-168
Dispersion@1371nm	ps/nm	-68~-90	-140~-184
Dispersion@1545nm	ps/nm	-150~-180	-300~-360
Relative dispersion slope@1545nm	nm ⁻¹	0.0036±10 %	
Insertion loss @1320~1370nm	dB	≤2.6	≤4.5
Insertion loss @1410~1470nm	dB	≤2.6	≤4.5
Insertion loss @1525~1565nm	dB	≤1.6	≤2.3
Polarization mode dispersion*②	ps	≤0.25	≤0.3
Polarization dependent loss	dB	≤0.1	
Wavelength dependent loss @1525~1565nm	dB	≤0.3	
Return loss of connector	dB	<-45	

*①Fibre length can be provided according to customer requirements

*②Polarization mode dispersion is the average differential group delay measured by the Jones matrix method in the application band

Other indicators

Nonlinear characteristics

Parameters	Minimum	Maximum
Brillouin scattering threshold (dBm)	6	-
Nonlinear coefficient (n_2/A_{eff}) (W ⁻¹)	-	1.4×10^{-9}
Effective area (A_{eff}) (μm ²)	20	-

Environmental indicators

Items	Minimum	Maximum
Operating temperature range (°C)	-5	70
Storage temperature range (°C)	-40	85
Relative humidity (%RH)	-	85
Environmental/Reliability testing	Compliant with Telcordia GR-2854 and GR-1221 standards	

Packaging Style	Type	Dimension (mm)	Type of Connector	Length of Connector
Miniaturized packaging case	AD-1KM	100×100×15	LC/UPC or according to customer's requirements	2.0mm loose tube cable, outlet length: 0.5±0.05m
	AD-2KM	125×105×20		Flange interface
Other	Neutral packaging or according to customer's requirements			