DCM-G.652-C-Fxx

Dispersion Compensation Optical Fiber Module

PRODUCT DESCRIPTION

ITU G.652 standard single-mode fiber has dispersion in C-Band, the typical value is 16.6ps/nm Km dispersion. Dispersion limits the transmission distance of 1550nm optical fiber system and the available bandwidth.

There are several methods of optical fiber dispersion compensation. Practice proved that the dispersion compensation fiber module (DCF, DCM) is the method is simple, the most economical, effective. It can not only effectively extra dispersion compensation of standard single mode fiber, dispersion slope compensation can also be 100% standard single mode fiber.

GT and DCM-G.652-C-Fxx dispersion compensation fiber module, is negative dispersion compensation based on optical fiber technology, can effectively compensate for G.652 standard single-mode fiber transmission band of 1525 ~ 1565nm dispersion and dispersion slope characteristic.

PRODUCT FEATURE

▶Adapt to standard single mode optical fiber G.652, 1525~1565nm transmission channel

▶Excellent dispersion compensation feature can eliminate the influence to system's index, because of residual dispersion

▶G.652 100% C band dispersion compensation fiber

▶Dispersion compensation value range is 10~120Km optional.

▶Low insertion loss

TECHNICAL INDEX

Performance			Index			Supplement
			Min.	Typ.	Max.	
Operating wavelength		(nm)	1525		1565	
Pass power		(dBm)	30			
Effectivity area		(m^2)		20		
Nonlinearity		(n2/Aeff)		1.4×10^{-9}		
SBS threshold		(dBm)	+6			
Optical connector			SC/APC,LC/APC			
Return loss		(dB)			-45	
Compensated optical fiber length		(Km)		10		F10
				20		F20
				40		F40
				60		F60
				80		F80
				100		F100
				120		F120
Dispersion Value	1525nm	(ps/nm)	-159		-145	F10
			-315		-293	F20
			-629		-588	F40
			-942		-883	F60
			-1251		-1183	F80
			-1560		-1482	F100
			-1868		-1782	F120
	1545nm	(ps/nm)	-170	-165	-158	F10
			-337	-332	-319	F20
			-673	-664	-640	F40
			-1009	-996	-960	F60
			-1340	-1328	-1280	F80
			-1671	-1660	-1611	F100
			-2001	-1990	-1937	F120

	1565	(ps/nm)	-184		-168	F10
			-364		-340	F20
			-727		-682	F40
			-1090		-1024	F60
			-1448		-1371	F80
			-1805		-1718	F100
			-2162		-2066	F120
Optical fiber insertion loss (1525~1565nm)		(dB)		1.2	2.1	F10
				1.8	2.7	F20
				3.2	4.1	F40
				4.5	5.5	F60
				6.0	6.9	F80
				7.4	8.4	F100
				8.8	9.8	F120
Residual dispersion slope		(nm^{-1})	0.00299	0.00360	0.00421	
Polarization dependence loss		(dB)		0.1		
Wavelength dependence loss (1530nm~1565nm)		(dB)			0.5	F10
					0.6	F20
					0.6	F40
					0.7	F60
					0.8	F80
					0.8	F100
					0.9	F120
Polarization Mode Dispersion (PMD)		(ps)		0.1	0.3	F10
				0.2	0.4	F20
				0.2	0.5	F40
				0.2	0.6	F60
				0.3	0.7	F80
				0.3	0.8	F100
				0.3	0.8	F120

Dispersion Optical Fiber Length	(Km)	0.85	1.0	1.2	F10
		1.7	2.0	2.4	F20
		3.5	4.1	4.8	F40
		5.2	6.1	7.2	F60
		7.0	8.1	9.6	F80
		8.5	10.2	11.5	F100
		10.2	12.3	13.8	F120
Operating Temp.	(℃)	-5		+70	
Store Temp.	(℃)	-40		+85	
Operating humidity	(%)	0		85	
Store humidity	(%)	0		85	
Size (W)×(D)×(H)	(mm)	483×279×44			

PRODUCT SERIES

Model	Compensation Distance (Km)	Dispersion typical value (1545nm) (ps/nm)	Polarization mode dispersion (ps)	Insertion loss (dB)
DCM-G.652-C-F10	10	-165	0.1	1.2
DCM-G.652-C-F20	20	-332	0.2	1.8
DCM-G.652-C-F40	40	-664	0.2	3.2
DCM-G.652-C-F60	60	-996	0.2	4.5
DCM-G.652-C-F80	80	-1328	0.3	6.0
DCM-G.652-C-F100	100	-1660	0.3	7.4
DCM-G.652-C-F120	120	-1990	0.3	8.8

Note: orange for conventional products.

MODEL EXPLANATION

DCM – G.652 – C – F□□ – □□ – □ / □□

Product series	Fiber	Wavelength		Compensating fiber length		Connector		Exterior		Optical port position	
Dispersion compensator module	G.652	C	C-Band 1528~1565nm	10	10Km	LA	LC/APC	1U	19" 1RU	F	Front panel
	G.655			20	20Km	LP	LC/UPC			B	Back panel
				40	40Km	SP	SC/UPC				
				60	60Km	FP	FC/UPC				
				80	80Km						
				100	100Km						
				120	120Km						