Product Name	GAOTek Dispersion Compensation Optical Fiber Module
Product SKU	GAOTek-DCM-105
Product URL	https://gaotek.com/product/gaotek-optical-fiber-dcm-dispersion-compensation-module/

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Introduction:

GAOTek Dispersion Compensation Optical Fiber Module is a 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, and 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-105 dispersion compensation fiber module, is negative dispersion compensation based on optical fiber technology, can effectively compensate for G.652 standardsingle-mode fiber transmission band of 1525 ~ 1565nm dispersion and dispersion slope characteristic.

Product Specifications:

- 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

Product Technical Specifications:

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

			-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
				0.1	0.3	F10
				0.2	0.4	F20
				0.2	0.5	F40

Polarization Mode Dispersion (PMD)	(PS)		0.2	0.6	F60
			0.3	0.7	F80
			0.3	0.8	F100
			0.3	0.8	F120
		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
		-5		+70	
		-40		+85	
		0		85	
		0		85	
Size (W)×(D)×(H)	(mm)	483×279×44			

Product Appearance:

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

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						

DCM-FBG-C-Fxx

Introduction

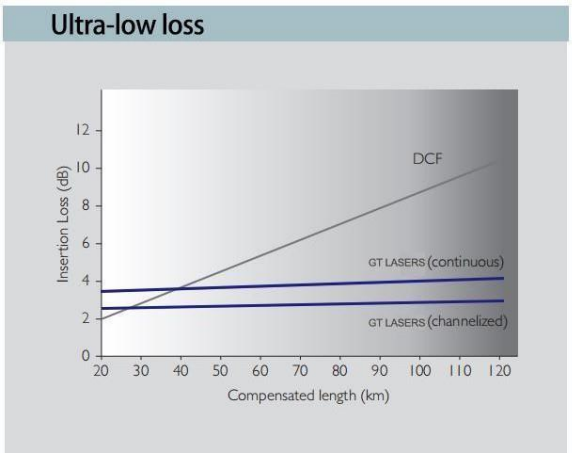
This is a Continuous Band Dispersion Compensation Module incorporates all the benefits of the Fiber Bragg Grating (FBG) technology, together with the Dispersion Compensation Fiber (DCF) technology advantages of full band and channel plan independent compensation.

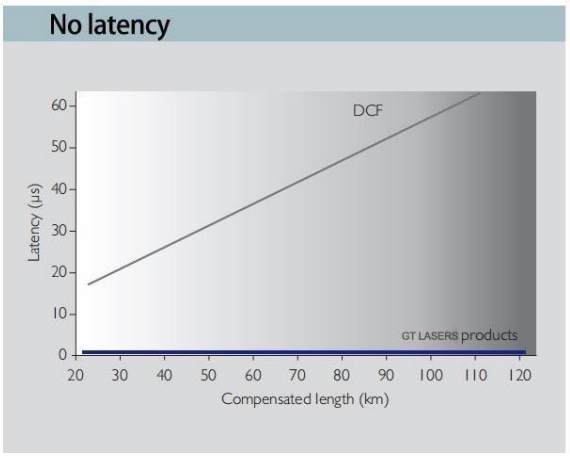
Product Specifications:

- ✓ Ultra-low loss
- ✓ No latency
- ✓ Continuous compensation
- ✓ Perfect slope matching
- ✓ No non-linear effects
- ✓ Improved space utilization

Technical Specifications:

FIBER TYPES [G.655]	
Compensation lengths	120 km ~240 km
Frequency range	C-band
Channel spacing	N/A
Insertion loss	~ 3.7 dB)





Product Application:

- Coherent systems
- Metro and regional
- Long haulz
- Festoon and submarine
- Simplified optical amplifiers
- Dispersion emulation
- Optical pulse shaping
- HF trading