

# Tunable Chromatic Dispersion Compensation Module



This TDCM series of the module is designed to compensate chromatic dispersion for DWDM network systems by directly insert into the transmission and receiving fiber lines. It feature a good linearity. It is based on changing the etalon cavity spacing to effectively compensate for the dispersion problem of the signals in the DWDM optical communication system after long-distance transmission of the optical fiber. Especially for non-coherent system of single wave 25 ~ 40G, the method of adopting DCF and TDCM can solve the dispersion residual problem and ensure the performance of the system. TDCM can be used as an urgent adjustment role in 10G DWDM point to point applications when transmission distance is in 160km, total loss is less than 40dB and system capacity is 80G.

The device only compensates for the peaks within the ITU grids.

## Features

- High Accuracy
- Large Range
- Low Cost
- Ease in Use
- Net Ready

## Applications

- Laboratory Uses
- Testing
- Net Management

## Specifications

Parameter	Min	Typical	Max	Unit
Wavelength Range	1528		1568	nm
Channel Spacing		100		GHz
Dispersion Slope Matching	G652 and G655			
Compensation Length	0-60	0-80	0-100	km
Dispersion Tuning Range	± 400	± 1000	± 1400	ps/nm
Dispersion Setting Resolution	10			ps/nm
Tuning Stability	± 5			ps/nm
Tuning Time	25			second
Insertion Loss			6	dB
Polarization Dependent Loss			0.2	dB
Polarization Dispersion			1	ps
Interface	Service rack		pluggable	
Power Consumption			8	W
Operating Temperature	-10		50	°C
Storage Temperature	-45		85	°C
Humidity	5 - 95		(no condensation)	%



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## DATASHEET

### Dimensions (mm)

159.7Wx220Dx20.6H

\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

### Electrical/Computer Connection

SNMPv1, Monitor Online, Simple Management Tool

### Ordering Information (Part Number)

Prefix	Channel Spacing	Wavelength	Fiber Type	Distance	Control box	1	1	1	Connector <sup>[1]</sup>
TDCM-	100 = 10 Special = 00	1528-1568 = 1 Special = 0	G652 = 1 G655 = 2	0-60 km = 6 0-80 km = 8 0-100 km = 1 0-20 km = 2	Ethernet = 1 RS232 = 2 None = 3				LC/PC = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 Special = 0

[1]. The connector cannot be installed directly onto bare fiber, as it is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer can remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SM28 fiber and decreases further with smaller core fibers.