

TDC Tunable Dispersion Compensation Module

CWDM/DWDM System



Specification

TDC is an electric tunable dispersion compensation module for high-speed transmission systems. Accurate dispersion compensation based on the principle of temperature-controlled dispersion compensation fiber output. It can be used for 10G/40G/100G long-distance optical communication transmission system and data center interconnection, with long-distance compensation, high output accuracy and low insertion loss, low phase jitter, low group delay jitter, low PDL and PMD.

Functions and features

- Low insertion loss, low polarization mode dispersion.
- High dispersion compensation and the compensation distance can reach 60KM.
- The optical signal line is transparent and does not change the optical signal.
- Broadband dispersion compensation for DWDM systems.
- Supporting SNMP-based unified network management platform, network management mode CLI, WEB, NetRiver (graphical interface).

Parameters

System Parameter	Technical Index	
Dispersion compensation range	±700nm or ±1360nm.	
Operating wavelength	C&C+ Band (1528.97nm~1567.13nm).	
Channel spacing	50 GHZ or 100 GHZ.	
Nonlinear system(n_2/A_{eff})	±25 Ps/nm or ±60 Ps/nm.	
Insertion loss	<4dB.	
Return loss	50dB.	
Polarization dependent loss	0.1dB.	
Maximum input power	27dBm.	
Maximum power	<4.5W.	
Network management mode	CLI, NetRiver, WEB.	
Product dimension	177 (W)*20(H)*225(D)(mm).	
Environmental requirements	Working temperature	-10°C ~ 70°C
	Storage temperature	-40°C ~ 80°C
	Relative humidity	5% ~ 95% no condensation
Safety and EMC	Compliance with FCC, UL, CE, TUV, CSA standards.	
Power consumption	<10W.	

Networking Applications

The products dispersion compensation equipment is widely used to solve the problem of distance limitation of long-distance transmission of optical communication due to dispersion and nonlinear distortion. The device is connected in series on the optical communication line, and is completely transparent to the service, and the amplifier can be placed according to the needs of the optical communication system.

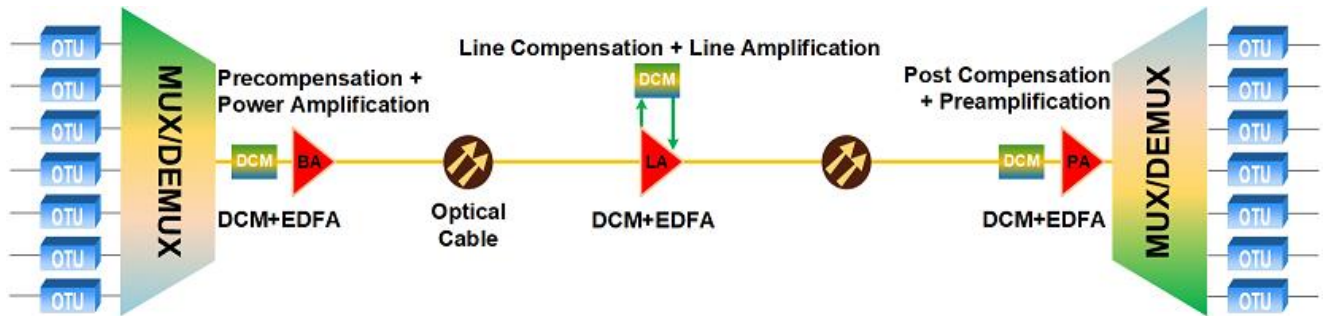


Figure: Dispersion Compensation Application