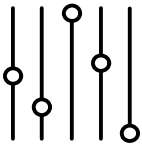


Tunable Dispersion Compensator

Communication and internet service providers (CSP & ISP) are seeking ways to increase data rates in next-generation DWDM access networks. This is particularly true for data-center interconnect (DCI)/enterprise, fiber-to-the-premises (FTTx), and 5G X-Haul networks operating with intensity modulation direct detection (IMDD) modulation formats such as PAM-4. Receivers for these modulation formats have very low tolerance for chromatic dispersion. As data rates increase, the tolerance decreases even further. These networks must then manage chromatic dispersion when operating at high data rates over longer distances.

Features



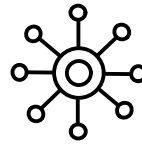
Tunable

Highly accurate, dynamically adjustable chromatic dispersion compensation over a large range of dispersion values



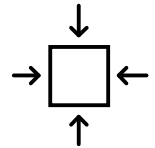
Ultra-Low latency

Latency less than 25 ns, a reduction of over 1000x compared to DCF. Making it the perfect choice for time-sensitive networks



Multi-Channel

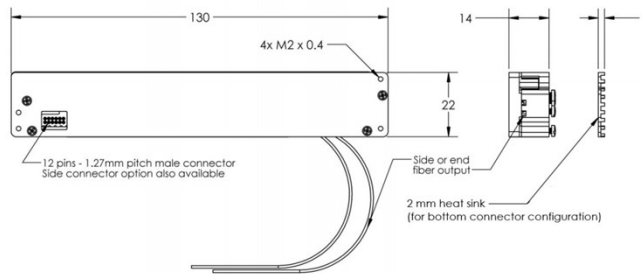
Full C-band coverage, either on a 50GHz or 100GHz grid



Compact

Enables an immense space saving resulting in substantial OPEX AND CAPEX related savings.

Module Dimensions



Can be flexibly build-in any Fiberroad's EDFA or Multiplexer card

50GHz Versions: 0 to 80km or ± 40km

Parameters	Specifications			Units
Channel Grid	50			GHz
Wavelength Range	1529.55 – 1567.54			nm
Compensation Range	0-80		-40 to 40	km
	Specs for 0-40 range	Specs for 40-80 range		
Typical -3dB bandwidth	34	30	34	GHz
Phase Ripple Std Deviation	≤0.1	≤0.13	≤0.12	rad
Slope-Matching Error	≤25	≤35	≤30	ps/nm
Dispersion Accuracy	≤2	≤2.5	≤2	km



100GHz Version: 0 to 80km

Parameters	Specifications		Units
Channel Grid	100		GHz
Wavelength Range	1527.99 – 1566.31		nm
Compensation Range	0 – 80		km
	Specs for 0-40 range	Specs for 40-80 range	
Typical -3dB Bandwidth	68	50	GHz
Phase Ripple Std Deviation	≤ 0.12	≤ 0.15	rad
Slope-Matching Error	≤ 20	≤ 35	ps/nm
Dispersion Accuracy	≤ 2	≤ 3	km

General Specifications

Parameters	Specifications		Units
Insertion Loss	< 6		dB
Polarization-dependent loss	≤ 0.5		dB
Polarization mode dispersion	≤ 1		ps
Maximum input power	< 27		dBm
Control interface	I ² C		
Voltage	5		V
Typical power consumption	4		W
Operating temperature	-5 to 70		°C
Storage temperature	-40 to 85		°C
Telcordia qualified	GR-468		

