

DCMX – DISPERSION COMPENSATION MODULE EXTENDED REACH

The ClearSpectrum™ - DCMX is a fixed chromatic dispersion compensation module for high-speed DWDM networks.



It is designed to offer a high compensation level while maintaining very low insertion loss in an ultra small package. The ClearSpectrum™ - DCMX is an attractive alternative to DCF (Dispersion Compensating Fiber) in cost-sensitive networks since its small footprint minimizes space and its low insertion loss reduces amplification requirements.

Based on TeraXion's patented multi-channel Fiber Bragg Grating technology, the compensators exhibit high optical system performance which allow their use in networks beyond 2,000 km. The ClearSpectrum™ product line is available as a mountable optical module (DCMX) or as a compact OEM (DCX) component.

Features

- Compensation up to 400 km
- Ultra low insertion loss
- Slope-matched to G.652 or G.655 fibers
- Low latency
- 100 or 50 GHz channel grid

Applications

- Metro and long-haul DWDM networks
- 40 Gb/s ready networks
- Submarine networks
- Festoon networks
- RF communication systems
- Fiber emulation for test and measurement

Specifications

Compensation Level	20 to 100 km	120 to 200 km	220 to 400 km
Channel Spacing ¹	100 GHz	100 GHz	100 GHz
Operation Bandwidth ²	> 40 GHz	> 30 GHz	> 30 GHz
Insertion Loss	< 3.0 dB	< 3.0 dB	< 5.0 dB
Latency	< 50 ns	< 50 ns	< 50 ns

(1): 50 GHz channel spacing available.

Environmental Specifications

Operating Temperature	-5 to 70°C
Storage temperature	-40 to 85°C

Four off-the-shelf modules are presented below and custom packages are available upon request



DCMX-Standard

10 to 100 km: 207 x 65 x 8.6 mm

120 to 400 km: 242 x 65 x 8.6 mm



DCMX-Compact

10 to 100 km: 200 x 25 x 9 mm

120 to 400 km: 235 x 25 x 9 mm



DCMX-LGX

10 to 200 km: 204 x 100 x 29 mm



DCMX-1U

10 to 200 km: 195 x 40 x 18 mm

OEM Option

The ClearSpectrum™ - DCX is an athermal FBG package available in two forms factors. It is a reflective component that needs to be used with an optical circulator.



ClearSpectrum™ - DCX

10 to 100 km: 190 x 6.3 Ø mm

120 to 200 km: 225 x 6.3 Ø mm

Ordering information

For orders, questions, specific requirements or to learn more about TeraXion's products, contact us at info@teraxion.com