ClearSpectrum™

TDCMB—BENCHTOP TUNABLE DISPERSION COMPENSATION MODULE

The ClearSpectrum™ - TDCMB is a tunable, fully integrated bench-top module that provides accurate dynamic control of chromatic dispersion for any channel in high-speed communication networks.

This tunable dispersion compensator is a fully integrated module with a wide bandwidth and a large dispersion range specifically designed for R&D and production floor plans.

TeraXion's well-established expertise in FBG technology translates into a reliable and accurate solution with an innovative ready-to-use module integrating a circulator and all the electronics. With its embedded channel selector, the ClearSpectrum™ - TDCMB serves as the ideal option to generate or compensate chromatic dispersion, regardless of the channel plan.

Features

- Large tuning range and wide bandwidth
- Channel plan independent
- Plug-and-play module
- LabVIEW interface
- C or L band

Applications

- Dispersion emulation / compensation for test & measurement
- Transponder assembly testing

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Specifications

Optical Parameters[1]

Dispersion Range	± 900 ps/nm	± 1,200 ps/nm	± 1,600 ps/nm	2,400 - 0 ps/nm	± 2,000 ps/nm
Operation Bandwidth	> 40 GHz	> 45 GHz	> 45 GHz	> 45 GHz	> 35 GHz
Channel Grid	continuous	50 GHz	continuous	100 GHz[2]	continuous
Insertion Loss	< 5 dB		< 9 dB		
Phase Ripple srd dev	< 0.08 rad		< 0.15 rad		
Dispersion Resolution	5 ps/nm		5 ps/nm		
Polarization Dependent Loss	< 0.3 dB		< 0.5 dB		
Polarization Mode Dispersion	< 0.5 ps		< 1 ps		
Maximum Input Power	< 27 dBm		< 27 dBm		

Mechanical Parameters

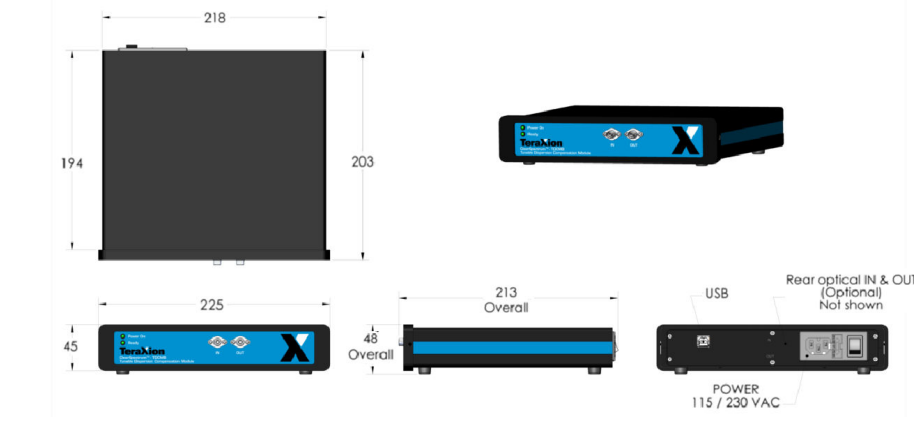|	
Operating Temperature	-5 to 65°C
Storage Temperature	-40 to 85°C
Operating Humidity[3]	5 to 90% RH
Dimensions	225 x 203 x 45 mm

Electronic Control

Control Interface	RS-232
Input Voltage	115-230 VAC — 50-60 Hz — Max 74 W

(1): Specifications can be customized
(2): 50 GHz option available with >25 GHz OBW
(3): Non-condensing

Dimensions

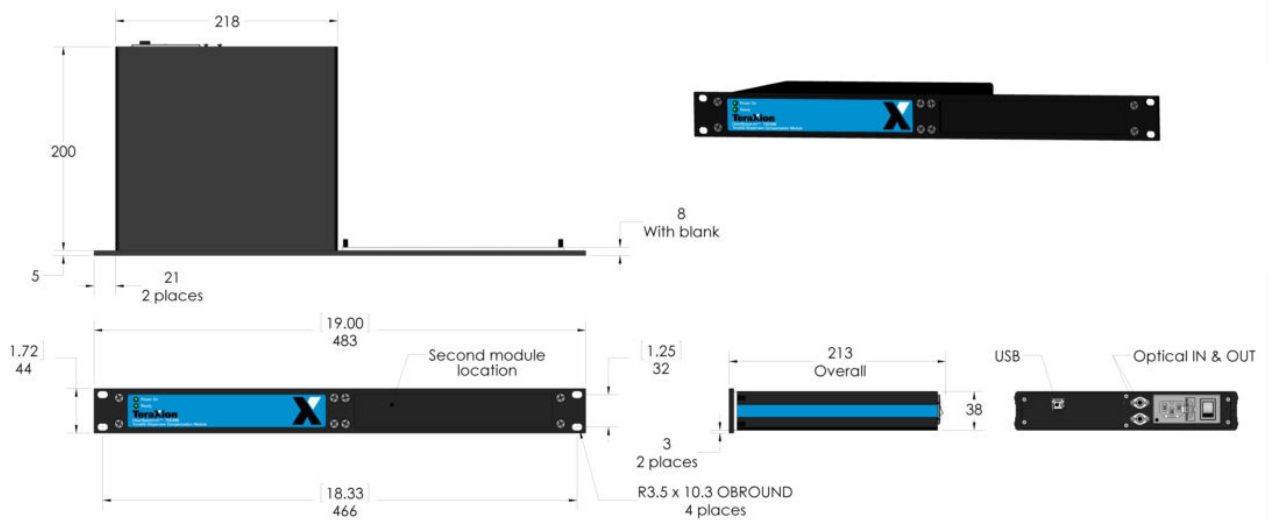**Benchtop version**

Ordering information
For orders, questions, specific requirements, contact us at
info@teraxion.com

Rackmount version

SPEC-020-201209-2.2

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