

ClearSpectrum™

CDE – CHROMATIC DISPERSION EMULATOR

The ClearSpectrum™ - CDE is a passive chromatic dispersion emulator for test and measurement.



This 1U half 19-inch rack mountable module is designed to emulate tens of thousands of picoseconds per nanometer in a compact unit while maintaining very low insertion loss. Entirely passive, it can be cascaded several times to achieve the desired dispersion level.

Based on TeraXion's well-established FBG-based technology, this emulator has a very low latency, a high input power handling and minimal non-linear behavior. It is perfectly suited for test and measurement applications such as coherent system field assembly testing.

Features

- Up to 45,000 ps/nm per module
- Ultra low insertion loss
- 1U half 19-inch rack mountable
- Flat or slope-matched
- Low latency
- Sub-band emulation

Applications

- Coherent communication transponder assembly testing
- Dispersion emulation for test and measurement

TeraXion

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Specifications

Emulation Level	ps/nm	+3,333	+6,666	+10,000	+ 15,000	+ 30,000 ⁽⁴⁾	+ 45,000 ⁽⁴⁾⁽⁵⁾	+250,000 ⁽⁴⁾
Channel Spacing ⁽¹⁾⁽²⁾⁽³⁾	GHz	200			200 SCH	200 SCH	200 SCH	SCH
Operation Bandwidth	GHz	> 50			> 50 > 400	> 50 > 400	> 50 > 400	> 400
Insertion Loss ⁽⁴⁾	dB	< 4	< 8	< 12	< 16 < 10	< 32 < 20	< 48 < 30	< 165

(1): C-band or L-band

(2): 100 GHz option available

(3): SCH = Single Channel Configuration

(4): Multiple outputs option available or required

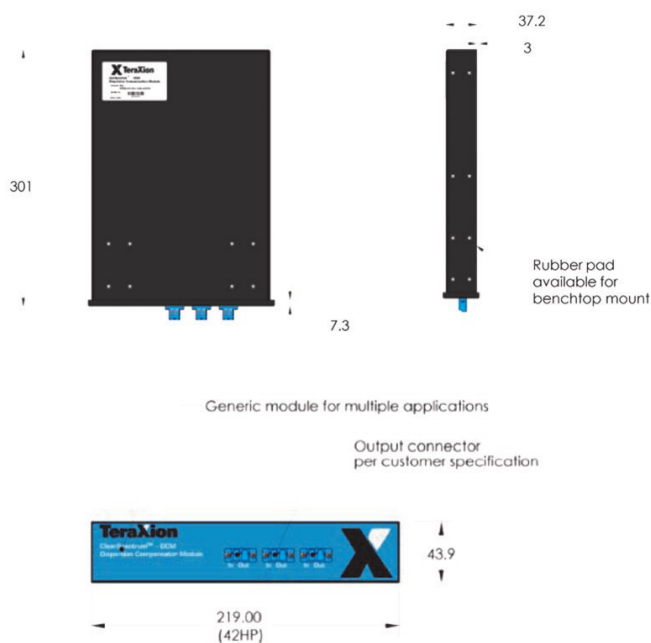
(5): Limited to 40,000 ps/nm for SCH (4 x 10,000 ps/nm)

Environmental Specifications

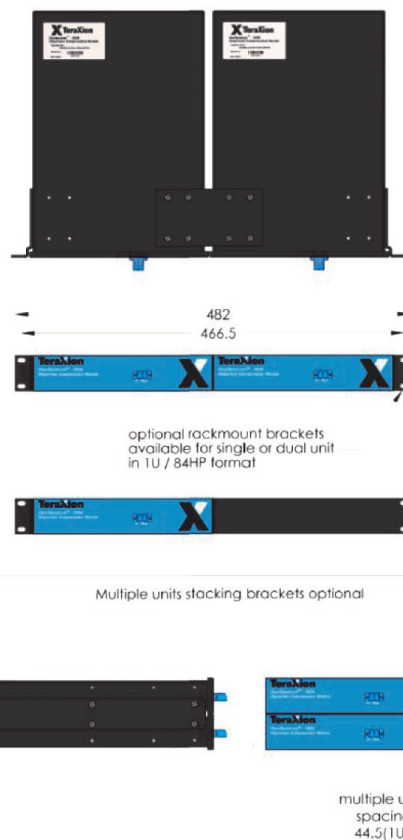
Operating Temperature	10 to 40°C (-5 to 70°C optional)
Storage temperature	-40 to 85°C

Mechanical Dimensions

3 outputs option shown below



Available Mounting Options



Ordering information

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