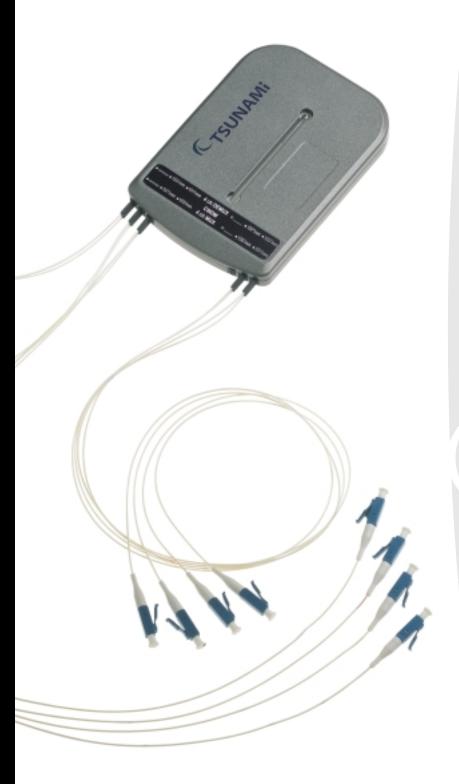
# metro CHANNEL 1-4





## **Integrated Four-Channel Coarse WDM** (CWDM) Multiplexer / Demultiplexer

The Tsunami<sup>™</sup> MetroChannel<sup>™</sup> I-4 is an integrated four-channel coarse WDM (CWDM) multiplexer/ demultiplexer module designed for integration into metro and access optical communication networks. This dual function product combines a multiplexer and demultiplexer in one module. The multiplexer combines four wavelengths (channels) traveling in four separate singlemode fibers into one singlemode fiber. The demultiplexer operates on a different set of input/output fibers than the multiplexer, and separates four wavelengths traveling in a singlemode fiber into four wavelengths, each traveling in a separate singlemode fiber. The module operates independent of data rate and protocol, and is designed to work with uncooled lasers having wavelengths spaced 20 nm apart. Deployed in CWDM architectures, Tsunami's CWDM modules provide an ideal balance of price and performance for multiplexing and demultiplexing in metro and access networks.

#### features & benefits)

Multiplexes and demultiplexes 4 channels with 20 nm separation and 13 nm bandwidth in one module

Ports available for upgrades to mux and/or demux additional channels

Designed for use with uncooled lasers

Thin film filter technology enables cost-effective performance

Operates independent of protocol and data rate

Low insertion loss supports long links

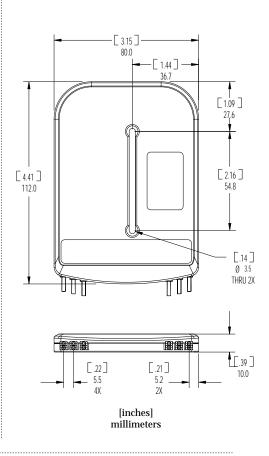
High channel isolation minimizes cross-talk

Qualified in accordance with applicable Telcordia and NEBS standards

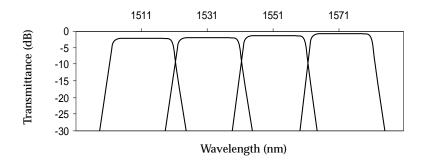
### **Specifications**

	MUX		DEMUX
Channel center wavelengths (select four)		1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm	
Channel center wavelength separation		20 nm	
Channel bandwidth at channel insertion loss		≥ 13 nm	
Insertion loss	≤ 1.5 dB		≤ 1.8 dB
Link loss with mux/demux combination		≤ 2.2 dB	
Return loss		≥ 50 dB	
Adjacent channel isolation	-		≥ 30 dB
Non-adjacent channel isolation	-		≥ 50 dB
Channel uniformity with mux/demux combination		≤ 0.8 dB	
Input power		300 mW max	
Polarization dependent loss		≤ 0.1 dB	
Thermal stability		0.005 nm /°C	
Pigtail fiber type	Corning <sup>®</sup> SMF-28 <sup>™</sup> (9/125/250 micron) Connectorized pigtails have 900 micron buffer.		
Pigtail fiber length		1 m ± 5 cm	
Operating temperature		- 10°C to +65°C	
Storage temperature		- 40°C to +85°C	
Dimensions		$112.0 \times 80.0 \times 10.0 \text{ mm}$ [4.41 × 3.15 × .39 in]	

Specifications do not include connectors. The modules are tested in accordance with applicable Telcordia¹¹¹ 1209, Telcordia 1221 and NEBS standards. Please contact Tsunami to discuss specific performance requirements.



#### Transmittance (Demux)



#### **Part Number**

