

# SCORPION 50/100 GHz Interleaver



## 50/100 Passive Interleaver/De-Interleaver

The Tsunami™ Scorpion™ 50/100 GHz passive interleaver / de-interleaver may be used as a frequency multiplexer or demultiplexer interleaver that operates over the entire S, C and L bands. As an multiplexer, it combines two streams of 100 GHz spaced signals, each stream on separate singlemode fibers, into one stream of 50 GHz spaced signals on one singlemode fiber. As a demultiplexer, it separates a stream of 50 GHz spaced signals on one singlemode fiber into two streams of 100 GHz spaced signals, each stream on separate singlemode fibers. The interleaver / de-interleaver does not require temperature control. Tsunami's interleavers support today's growing demand for capacity, while providing a scalable upgrade path to future metro core and long haul networks, as well as an ideal balance of price and performance .

## features & benefits)

Low dispersion

No temperature control required

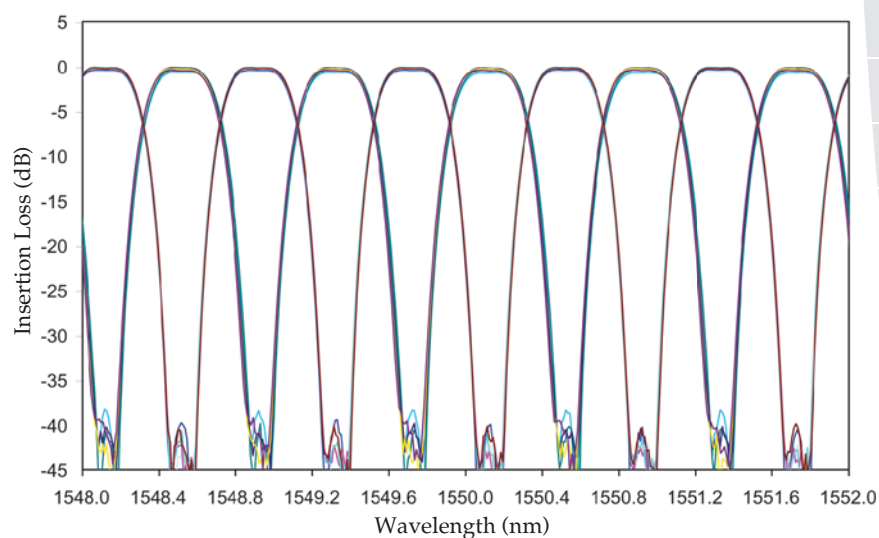
Optimum passband definition

Low insertion loss

High isolation

Qualified in accordance with applicable Telcordia and NEBS standards

Thermal Stability At -10°, 25°, 45°, 65°C



## Specifications

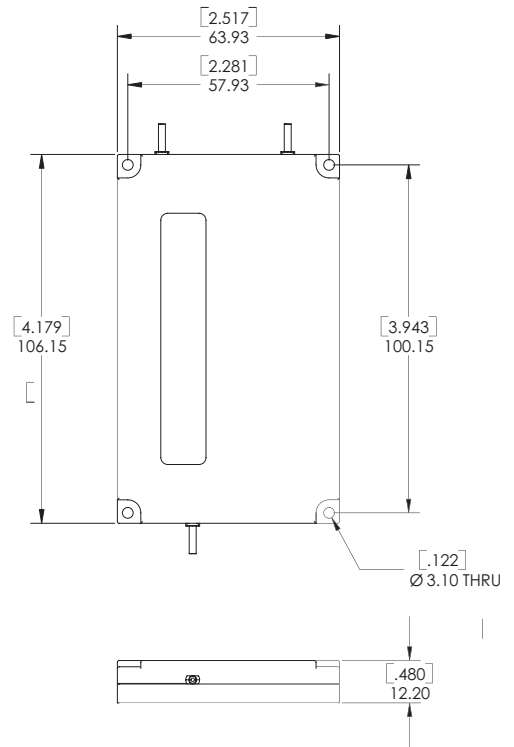
Wavelength range		S, C and L Bands
Center wavelengths		ITU grid or 25 GHz offset
Input / output channel spacing		50 GHz / 100 GHz
Passband	@ 0.5 dB @ 1.0 dB @ 3.0 dB	± 11 GHz ± 13 GHz ± 18 GHz
Insertion loss <sup>1,2</sup>	Max	1.5 dB
Insertion loss uniformity <sup>1,2</sup>		0.5 dB
Insertion loss variation over temperature <sup>1,2</sup>	Max	0.5 dB
Directivity	Min	60 dB
Passband ripple <sup>3</sup>	Max	0.25 dB
Stopband		± 11 GHz
Adjacent channel isolation over stopband <sup>2</sup>	Min	25 dB
Return loss	Min	45 dB
Polarization dependent loss <sup>3</sup>	Max	0.3 dB
Polarization mode dispersion <sup>3</sup>	Max	0.3 ps
Group delay variation <sup>3</sup>		± 1.0 ps
Chromatic dispersion <sup>3</sup>		± 15.0 ps/nm
Input power	Max	500 mW
Thermal stability (center λ drift)	Max	0.0015 nm / °C
Operating / storage temperature range		-5° to 70°C / -40° to 85°C
Pigtail fiber		Corning™ SMF-28 (9/125/900 micron)
Pigtail length		100 ± 5 cm

<sup>1</sup> Specified without connectors.

<sup>2</sup> Specified at ITU wavelengths or 25 GHz offset.

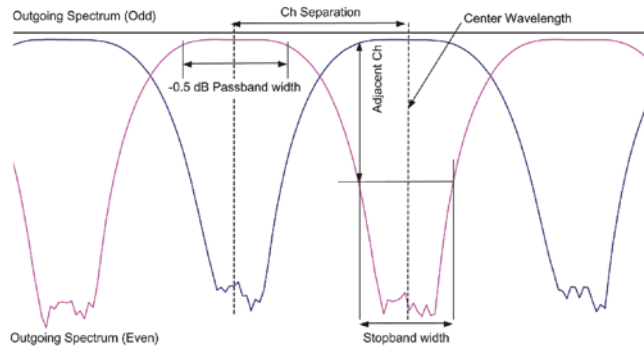
<sup>3</sup> Specified over 0.5 dB passband.

Please contact Tsunami to discuss specific performance requirements.



[inches]  
millimeters

## Parameter Definition



## Part Number

S050 - CONNECTOR - 000

NO = No connector  
FP = FC / UPC  
SP = SC / UPC  
FA = FC / APC  
SA = SC / APC  
LC = LC  
MU = MU  
CU = Custom

Custom Options\*

\* Tsunami will assign a custom number.

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