

100 GHz ATHERMAL AWG MULTIPLEXER



The Gemfire Athermal AWG (Arrayed Waveguide Grating) is a high-performance DWDM mux/demux device operating on 100GHz channel spacing without the need for temperature stabilization. The PhotonIC™ planar-processed silica-on-silicon chips comprise arrayed channel waveguides to separate or combine multiple wavelengths. Athermal AWGs allow multiplexing and demultiplexing of DWDM signals over a wide operating temperature range, without the need for heater drive and monitoring electronics. These AWGs offer low insertion loss, excellent channel isolation, ease of fiber handling, and long-term reliability in a compact package. Gemfire's athermalization technology simplifies deployment of AWG multiplexers and demultiplexers by DWDM network providers.

8 - 48 Channel x 100GHz Mux/Demux

Fully Passive Module

Wide Operating Temperature Range

Low Insertion Loss & PDL

Low Crosstalk

High Uniformity

No Electronics Required

Compact Footprint

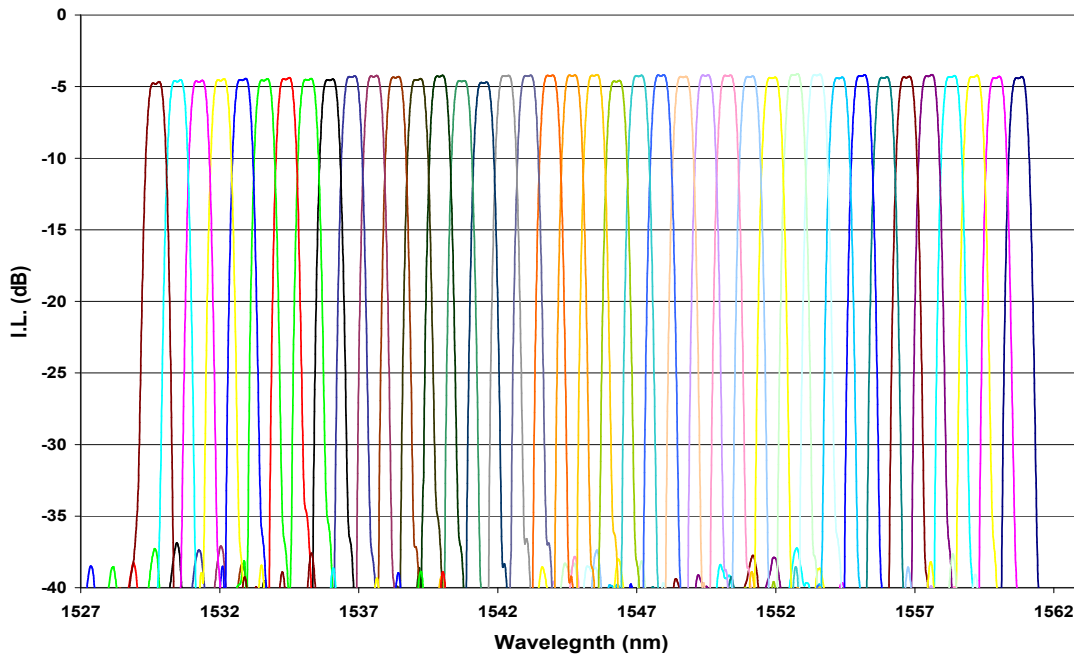
Versatile Alternative to TFF Mux



	GAUSSIAN	WIDE-BAND
Number of channels	8 - 48	8 - 48
Channel spacing	100GHz	100GHz
Clear window (specification passband)	25GHz	25GHz
Insertion loss (at ITU grid) ¹	3.5dB	5.5dB
Insertion loss (across clear window passband) ¹	4.5dB	6.0dB
Insertion loss uniformity (40 channel)	1.5dB	1.0dB
-1dB passband	0.2nm	0.4nm
Passband uniformity	1.5dB	0.4dB
Polarization dependent loss (at ITU grid)	0.2dB	0.2dB
Polarization dependent loss (across clear window)	0.5dB	0.5dB
Chromatic dispersion	<10ps/nm	<10ps/nm
Differential group delay	0.5ps	0.5ps
Adjacent channel crosstalk	-25dB	-25dB
Non-adjacent channel crosstalk	-30dB	-30dB
Maximum integrated crosstalk	-22dB	-22dB
Optical return loss	-40dB	-40dB
Dimensions (L x W x H) ²	120 x 70 x 10mm	120 x 70 x 10mm
Maximum center wavelength deviation over temperature	±50pm	±50pm
Operating temperature range		-5°C to 65°C

1. Includes connector loss
2. More compact packaging available

40-Channel Wide-Band Athermal AWG



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