

50 GHz ARRAYED WAVEGUIDE GRATING (AWG)



The Gemfire 500 Series of Arrayed Waveguide Gratings (AWGs) are cost-effective, high-performance DWDM mux/demux devices operating on 50GHz channel spacing at the C and L Band ITU grid. The PhotonIC™ planar-processed, silica-on-silicon chips use arrayed channel waveguides to separate or combine multiple wavelengths. Gemfire AWGs provide low insertion loss, excellent channel isolation, ease of fiber handling, and long-term reliability in a compact package. The product is offered with wideband or Gaussian passband options in multiple channel counts.

Applications include:

- Metro-Area or Long-Haul DWDM Transmission
- Add-Drop Multiplexing
- Wavelength Selective Routing
- Optical Signal Processing

8 to 80 Channels

Low Insertion Loss & PDL

Low Crosstalk

Gaussian & Wide-Band Options

High Uniformity

**Internal Thermal Regulation
Electronics Option**

Compact Footprint

MSA-Compliant Option Available

Telcordia GR-1209/GR-1221 Qualified



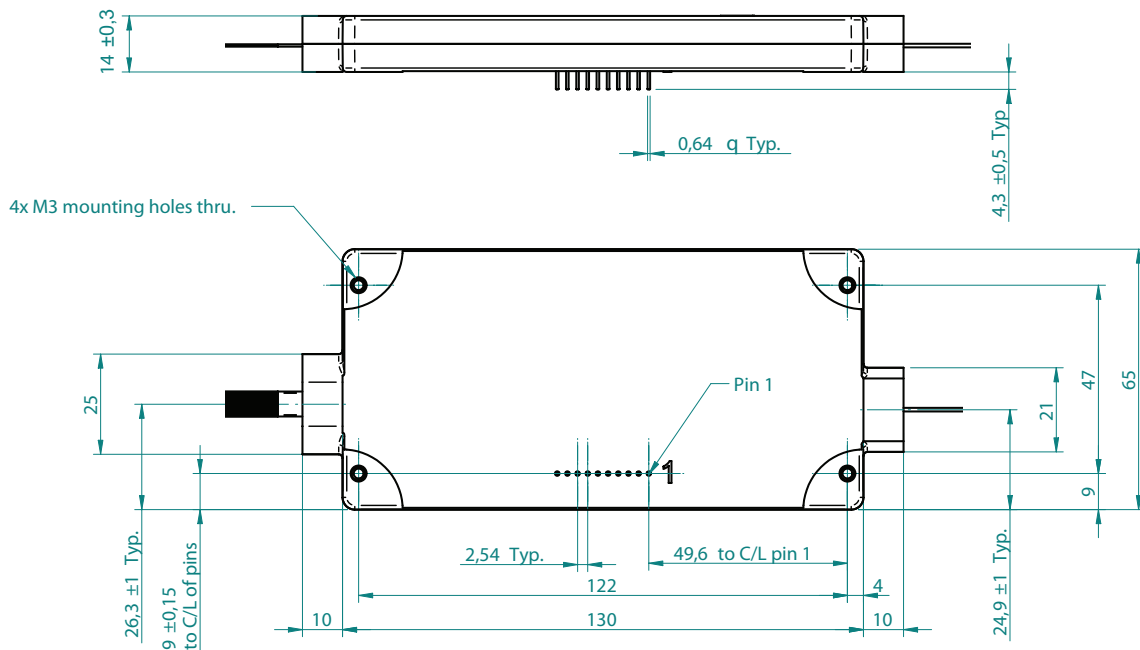
For product sales, call 1-866-4GEMFIRE.

	GAUSSIAN	WIDE-BAND
Number of channels	8 - 80	8 - 80
Channel spacing	50GHz	50GHz
Clear window (specification passband)	12.5GHz	12.5GHz
Insertion loss (at ITU grid) ¹	2.5dB	4.5dB
Insertion loss (across clear window passband) ¹	4.0dB	5.0dB
Insertion loss uniformity (40 channel)	1.5dB	1.0dB
Insertion loss uniformity (80 channel)	2.0dB	1.5dB
-1dB passband	0.1nm	0.18nm
Passband uniformity	1.5dB	0.4dB
Polarization dependent loss (at ITU grid)	0.2dB	0.2dB
Polarization dependent loss (across clear window)	0.5dB	0.3dB
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 for 40 channel package ² (L x W x H)	130 x 65 x 14mm	130 x 65 x 14mm
Qualified to Telcordia GR-1209/GR-1221		

All parameters are worst-case across clear window, temperature and polarization

1. Includes connector loss

2. More compact packaging available



Available with multiple connector types and optional internal control electronics.

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