

ARRAYED WAVEGUIDE GRATINGS

150GHz 40-Channel C-Band Athermal AWG

40-channel C-band athermal AWG on a wide 150 GHz grid, with insertion loss as low as 4.8 dB.



Key Features

- Wide 150 GHz grid with generous passband margin
- Insertion loss 4.8 dB to 5.8 dB worst case
- Athermal package with no power requirement
- Adjacent channel crosstalk ≥ 25 dB
- 16, 24 and 32 channel versions available

Applications

- DWDM multiplexing and demultiplexing in metro and long-haul transport
- ROADM and optical add/drop line cards
- High-density data center interconnect
- Channel monitoring and optical test equipment

Overview

Arrayed waveguide gratings separate a multiplexed fiber into its individual wavelengths, and combine them again in the other direction. This device handles 40 channels on 150 GHz spacing across the C band.

The design is athermal: channel center wavelengths are held over the operating temperature range by passive compensation rather than a heater and control loop. That removes a power rail, a failure mode and a thermal settling time from the line card.

Channel count is configurable at order time, and the die is packaged to your connector, pigtail length and housing requirements.

The wider grid buys margin: passbands are broad enough to tolerate significant transmitter wavelength drift, and insertion loss drops to between 4.8 dB and 5.8 dB.

Specifications

Optical Performance

PARAMETER	VALUE	UNIT	CONDITIONS
Number of Channels	40		16, 24 and 32 channel also available
Channel Spacing	150	GHz	
Insertion Loss	4.8 – 5.8	dB	ITU passband, worst case
Bandwidth, 0.5 dB	55 – 107	GHz	
Bandwidth, 1 dB	75 – 125	GHz	
Bandwidth, 3 dB	93 – 167	GHz	
Adjacent Crosstalk	≥ 25	dB	
Non-Adjacent Crosstalk	≥ 30	dB	
Total Crosstalk	≥ 22	dB	

Order or request a quote

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Specifications are subject to change without notice and do not constitute a warranty. Confirm all parameters with Lightwit Photonics sales before ordering.