



G4-100 DWDM Mux/Demux Component for 100 GHz

Key Features

- Low Insertion Loss
- Passive, Athermal Design
- Flat-Top Spectral Response
- Customized Channel Plan and Spectral Characteristics
- Small Footprint
- High Channel Count

Applications

- Long-Haul and Metropolitan DWDM Networks
- HFC DWDM Networks
- Single-Fiber Bi-Directional Networks



Product Overview

Confluent Photonics' G4-100 DWDM is the industry's only high-channel-count Mux/Demux that combines low insertion loss (typically less than 3.0 dB), flat filter profile, high channel uniformity, low crosstalk, and passive athermal operation -5°C to +65°C (standard) or -40°C to +85°C (extended range) — all at a reasonably low cost. It is designed for long-haul, metropolitan, PON and HFC DWDM applications that require high performance, high reliability, and a high channel count. The G4-100 is built on Confluent Photonics' proven and reliable free-space diffraction grating technology platform. This high-channel passive component performs reliably under various environmental conditions, exceeding the exacting requirements of today's world-class optical networks.

Product Specifications

(Valid over full temperature range, within specified passband, across all channels and polarizations)

Channel Count	42 ¹	Typical Insertion Loss (IL)	3.0 dB
Channel Spacing	100 GHz	IL Uniformity Across All Channels	≤1.0 dB
Channel Plan	Customer specified on ITU Grid ² , C- and/or L-Band	Ripple	≤1.0 dB
Filter Shape	Flat ³	Adjacent Isolation	≥25 dB
1.0-dB Filter Width	0.32 nm	Non-adjacent Isolation	≥37 dB
Channel Passband	0.2 nm	Polarization Dependent Loss	<0.4 dB
Fiber Connector	SC/UPC, others upon request	Optical Return Loss	>40 dB
Operating Temperature Range (passive athermal design)	-5 to +65 °C ⁴	Chromatic Dispersion	<20 ps/nm
Package Dimensions	8.0" L x 4.2" W x 0.8" H	Polarization Mode Dispersion	<0.1 ps/nm

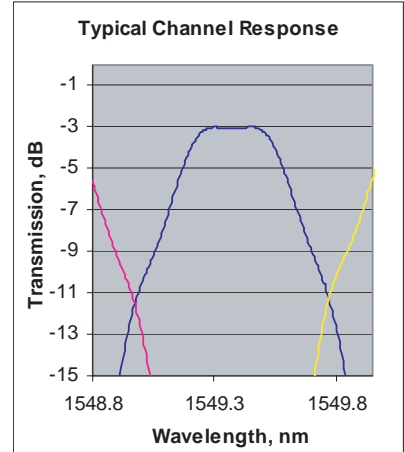
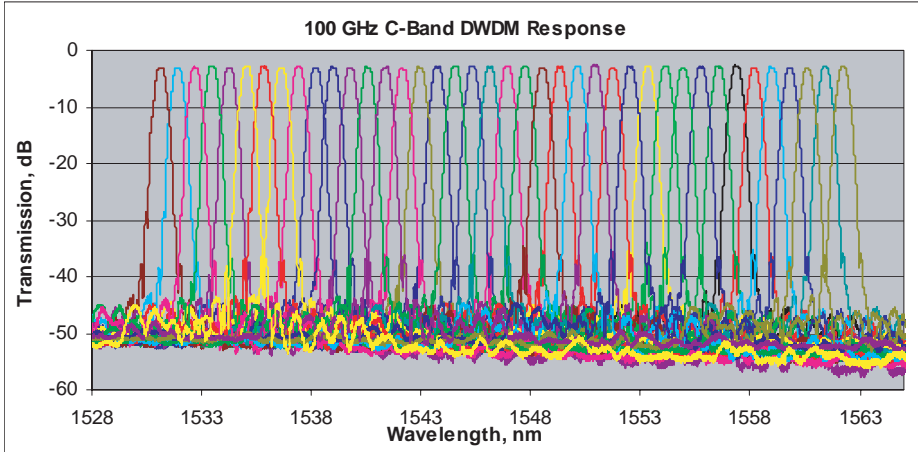
1 Other configurations available up to 52 channels

2 ITU offsets available for interleaved solutions

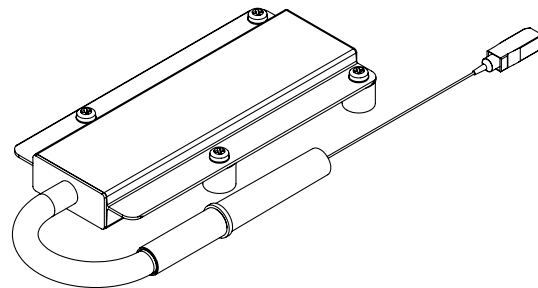
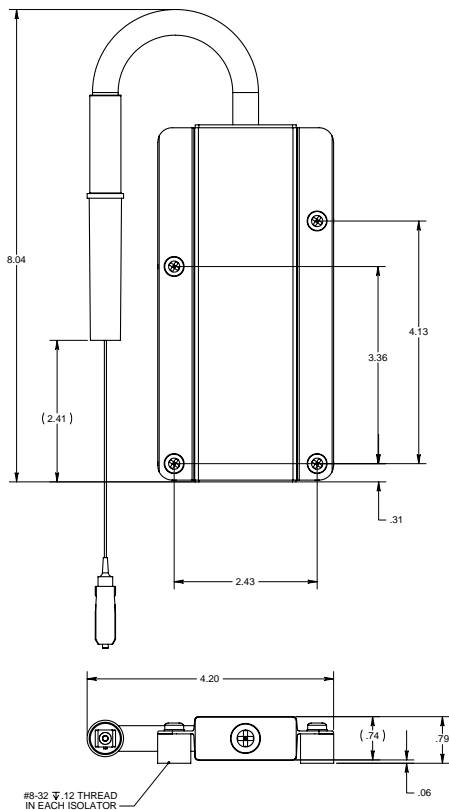
3 Several filter shape options available

4 Extended temperature range of -40 to +85°C available

Spectral Response



Mechanical Drawing (All dimensions in inches)



Specifications subject to change without notice. Rev. 10/04
 © 2002-2004 Confluent Photonics Corporation. All rights reserved.