



RPM-40-100

Rack Mountable Passive DWDM Mux/Demux for 100 GHz

Key Features

- Low Insertion Loss
- Passive, Athermal Design
- Flat-Top Spectral Response
- Customized Channel Plans and Spectral Characteristics
- Shelf-Level, Network Ready

Applications

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



Product Overview

The RPM-40-100 is a 40-channel, 100 GHz, network-ready subsystem in IRU shelf form factor. It is designed for advanced, high-speed optical communications networks, including long-haul, metropolitan and Hybrid Fiber Coax DWDM. The RPM-40-100 Rack Mountable Passive Mux/Demux provides unsurpassed specifications for insertion loss, filter shape, and crosstalk and is ideal for applications where high performance and high reliability are required. The unit is completely passive and athermal, requiring no power or temperature-control infrastructure while operating from -5°C to +65°C. Ultra-low insertion loss across all channels (typically 3.0 dB or less) means you can reduce or eliminate optical amplifier usage. The flat-top spectral response provides low ripple within the passband while minimizing signal distortion. The RPM-40-100 includes integrated power taps for network troubleshooting and performance monitoring.

Product Specifications

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

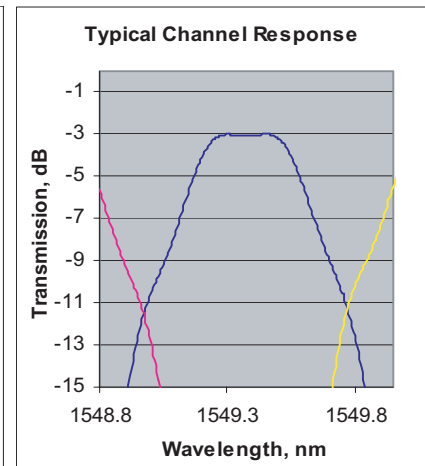
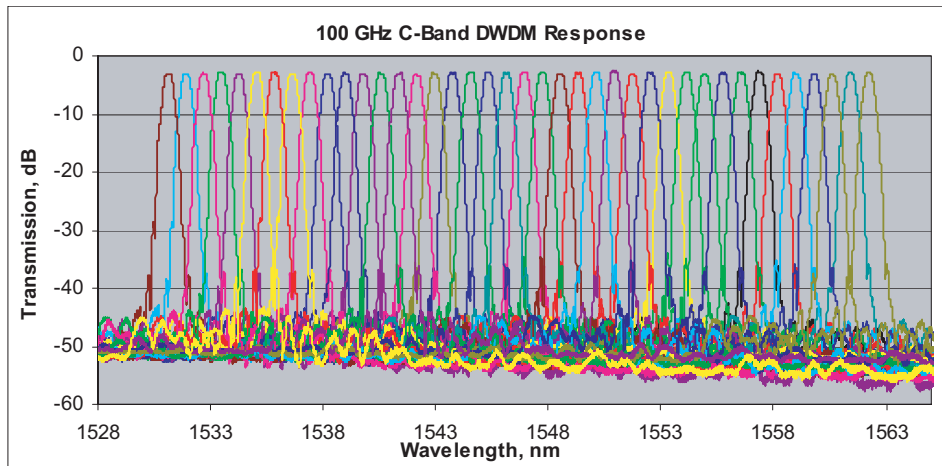
Channel Count	40 ¹⁾	Typical Insertion Loss (IL)	3.0 dB
Channel Spacing	100 GHz	IL Uniformity Across All Channels	≤1.0 dB
Channel Plan	Customer specified on ITU Grid ²⁾ , C- and/or L-Band	Ripple	≤1.0 dB
Filter Shape	Flat ³⁾	Adjacent Isolation	≥25 dB
1-dB Filter Width	0.32 nm	Non-adjacent Isolation	≥37 dB
Channel Passband	0.2 nm	Polarization Dependent Loss	<0.4 dB
Fiber Connector	SC/UPC, others upon request	Optical Return Loss	>40 dB
Power Requirements	none	Chromatic Dispersion	<20 ps/nm
Operating Temperature Range	-5 to +65 °C (passive athermal design)	Polarization Mode Dispersion	<0.1 ps/nm
Dimensions	16" W x 1.75" H x 12" D		

1) Other configurations available up to 52 channels

2) ITU offsets available for interleaved solutions

3) Several filter shapes available

Spectral Response



Monitor Tap Specifications

- Insertion loss contribution to primary fiber ≤ 0.2 dB
- Monitor port tap percentage of primary fiber = 1%

Specifications subject to change without notice. Rev. 10/04
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