



RAM-20-200

Rack Mountable Intelligent DWDM Mux/Demux for 200 GHz

Key Features

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

Applications

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



Product Overview

The RAM-20-200 Rack Mountable Intelligent DWDM Mux/Demux is a network-ready, 2RU form factor solution targeted at Metropolitan and HFC DWDM applications. Based on our free-space diffraction grating technology, the RAM-20-200 simultaneously achieves low insertion loss, flat filter profiles, and athermal operation. These characteristics are well-suited for both Telecom and Broadband applications, requiring DWDM Mux/Demuxes with 200 GHz channel spacing. The monitoring and control features include optical power detection at the primary fiber, visual alarms, alarm relay outputs, and craft interface that provides access to the unit's identification data. Integrated power taps allow external monitoring of incoming and outgoing signals in the primary fiber.

Product Specifications

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

Channel Count	20 ¹⁾	Typical Insertion Loss (IL)	3.0 dB
Channel Spacing	200 GHz	IL Uniformity Across All Channels	≤1.0 dB
Channel Plan	Customer specified on ITU Grid ²⁾ , C- or L-Band	Ripple	≤0.5 dB
Filter Shape	Flat ³⁾	Adjacent Isolation	≥27 dB
0.5-dB Filter Width	0.52 nm	Non-adjacent Isolation	≥35 dB
Channel Passband	0.33 nm	Polarization Dependent Loss (Typ.)	<0.35 dB
Fiber Connector	SC/APC, others upon request	Optical Return Loss	>40 dB
Power Requirements	-48 VDC ⁴⁾	Chromatic Dispersion	<5 ps/nm
Operating Temperature Range	-5 to +65 °C (passive athermal design)	Polarization Mode Dispersion	<0.1 ps/nm
Dimensions	16" W x 3.5" H x 12" D		

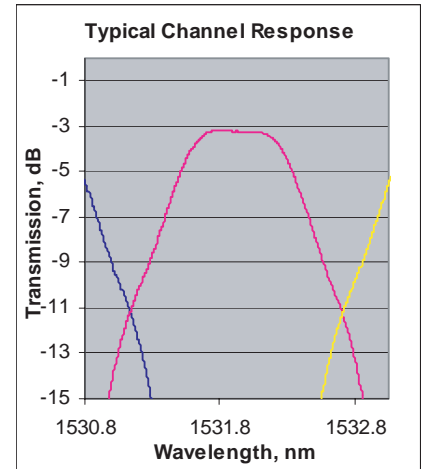
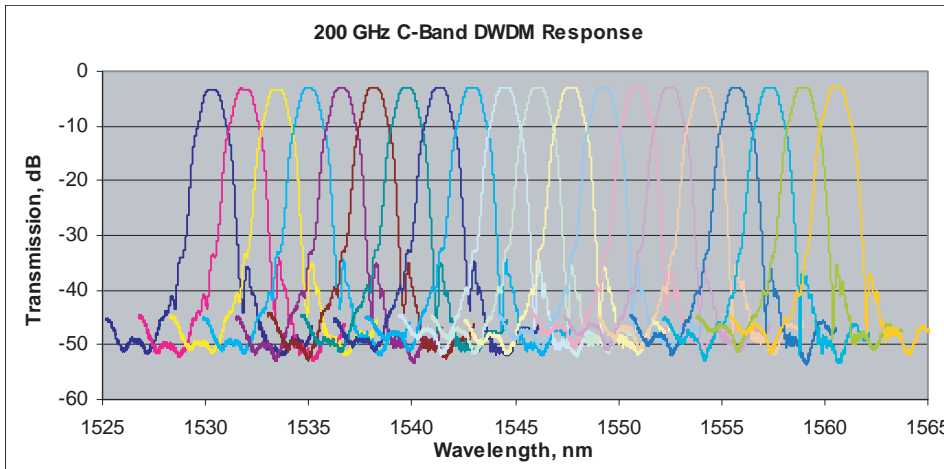
1) Other configurations available up to 52 channels

2) ITU offsets available for interleaved solutions

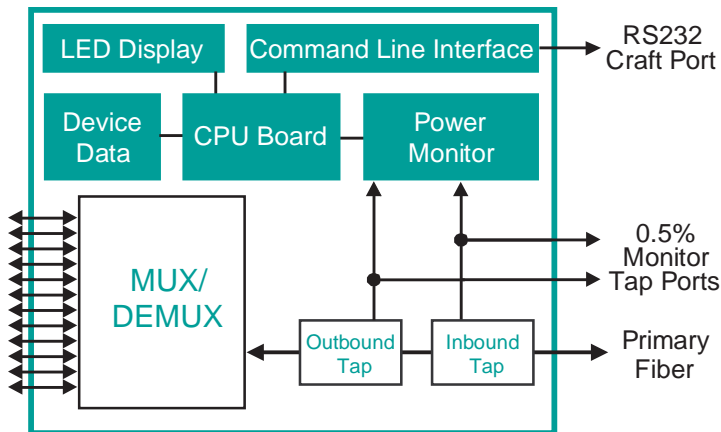
3) Several filter shapes available

4) Optional 120 VAC adapter available

Spectral Response



Monitoring and Control Features



Integrated Intelligence

- Primary fiber power monitor
 - Monitors overall line power on the primary fiber
- Access to device data
 - Serial number
 - Spectral characteristic data for each channel
 - Manufacturing related information

LED Display

- Status indication LEDs
 - Critical, major, minor unit alarms
- Channel LEDs
 (when interfaced with external spectrometer)
 - Traffic direction sensing
 - Channel alarm indication

Monitor Tap Specifications

- Insertion loss contribution to primary fiber ≤ 0.2 dB
- Monitor port tap percentage of primary fiber = 0.5%

Interface

- Serial port RS232
- Command line interface (CLI)