

# DMUX-R



## DEVICE

## DMUX Multiplexer for DWDM Networks

## OVERVIEW

The Optilab DMUX series Multiplexer/Demultiplexer uses Array Waveguide Grating (AWG) technology to combine/separate multiple DWDM wavelength channels. In metro networks, a single DMUX can combine up to 40 C-band DWDM channels into a single optical fiber. The DMUX features low insertion loss, high isolation, and stable temperature operation. Depending on the system requirements, DMUX can be ordered with either Gaussian spectral profile (DMUX-G model) or Flat-top spectral profile (DMUX-F model). Gaussian profiles offer lower insertion loss with a narrower pass band. Flat-top type multiplexers offer broader pass band with a higher insertion loss. Both types of multiplexers can be ordered with either 8, 16, 32, or 40 wavelength channels. DMUX units are available in a 19-inch 1u rack-mountable housing with FC, SC, or LC type connectors. To ensure long term stable operation, DMUX series product is precisely temperature stabilized by an internal integrated temperature controller. This built-in controller requires a single 5V DC power supply to operate. This unique design enables new benchmarks to be set in design flexibility, performance, and overall cost.

## FEATURES

- 8, 16, 32, or 40 channel model (100 GHz spacing)
- Operating temperature range: -5°C to +65°C
- Low insertion loss
- High isolation value of 30 dB
- Built-in temperature controller
- Broad wavelength window operation

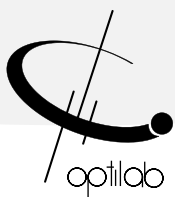
## USE IN

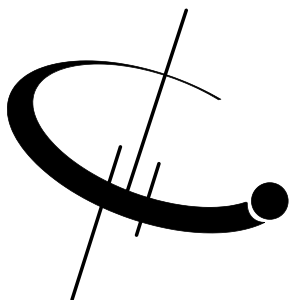
- DWDM Metro Networks
- Complimentary ROADM
- Fiber Sensing
- Test and Measurement

## ORDERING OPTIONS

### DMUX -W-X-Y-ZZ-R

- W** Operating Wavelength Band: C, L
- XXX** Channel Spacing (GHz): 50, 100
- Y** Spectral Response Shape: G, F
- ZZ** DWDM Channels: 8, 16, 32, 40, 48, 96





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## SPECIFICATIONS

### GAUSSIAN DMUX

Spectral Response Shape	Gaussian
Number of Multiplexer Channels	8, 16, 32, 40, 48, or 96
Operating Wavelength Range	1528 nm – 1562 nm (L-Band optional)
1 dB Bandwidth	> 0.2 nm
3 dB Bandwidth	> 0.4 nm
Insertion Loss	< 5.5 dB
Loss Uniformity (channel to channel)	< 1.3 dB
Adjacent Channel Cross-Talk	> 25 dB
Non-Adjacent Channel Cross-Talk	> 30 dB
All Channels Cross-Talk	> 22 dB
Polarization Dependent Loss	< 0.4 dB
Return Loss	> 50 dB

### FLAT-TOP DMUX

Spectral Response Shape	Flat-Top
Number of Multiplexer Channels	8, 16, 32, 40, 48, or 96
Operating Wavelength Range	1528 nm – 1562 nm (L-Band optional)
1 dB Bandwidth	> 0.4 nm
3 dB Bandwidth	> 0.6 nm
Insertion Loss	< 6.0 dB
Loss Uniformity (channel to channel)	< 1.3 dB
Adjacent Channel Cross-Talk	> 25 dB
Non-Adjacent Channel Cross-Talk	> 30 dB
All Channels Cross-Talk	> 22 dB
Polarization Dependent Loss	< 0.4 dB
Return Loss	> 50 dB

## MECHANICAL

Operating Temperature Range	-5°C to +65°C
Optical Fiber Type	SMF-28
Optical Connectors	SC/APC, FC/APC, or Custom
Power Supply	100 – 120 VAC
Housing Dimensions	12.8" (L) x 19" (W) x 1.75" (H)

