

MD100 series filters

MD100-40, MD100-10, MD100-5, MD100-BD-4, LXBP10

- ✓ *Highly flexible filter architecture for GigaMux GM3200/1600 systems*
- ✓ *Multiple options provide cost per port flexibility for low and high channel counts*
- ✓ *High-Density — Conserves on Rack Space and shelf space*
- ✓ *Built-In Monitor Taps/Express ports for easy network integration*
- ✓ *Low dB loss, enabling longer link distances*
- ✓ *Multi-drop application support - enables cost effective client multi-port services*
- ✓ *MTP fan-out cables decrease fiber management concerns*

High density 100Ghz spaced filters

The MD100 series filter modules provide high-density optical multiplexer/demultiplexer functionality for the Sorrento GigaMux 3200 and 1600 optical transport systems. In supporting a high-density 40 channel architecture, the MD100 series filters allow operators to maximize the capabilities of their existing fiber infrastructure with native protocol support on a per-wavelength basis.

The MD100-40 operates on ITU 100GHz channel spacing and covers ITU channels from ITU-20 to ITU-59. Channel inputs and outputs for the module are grouped to correspond to the band definitions described in the following table. ITU Channel 20-59 4 x 10 channel groups (20-29, 30-39, 40-49, 50-59) 8 x 5 channel groups (20-24, 25-29, 30-35, 35-39, 40-44, 45-49, 50-54, 55-59)

These are supported through the following module types: MD100-40 Single three slot module with full mux/demux for all 40 ITU C band channels from 20-59. Includes a 5% passive monitor port for channel observation and monitoring through external test-sets.

MD100-10 Single two slot module with full mux/demux for 10 channels within the ITU C-band. The channel groups are broken into 4 x 10 channel groups (20-29, 30-39, 40-49, 50-59) with express pass-through of all other channels. Internal VOA's provide power balancing of the add/dropped channels with pass-through channels for management of channel updates as the network grows over time.

MD100-5 Single two slot module with full mux/demux for 5 channels within the ITU C-band. The channel groups are broken into 8 x 5 channel groups (20-24, 25-29, 30-35, 35-39, 40-44, 45-49, 50-54, 55-59) with express pass-through of all other channels. Internal VOA's provide power balancing of the add/dropped channels with pass-through channels for management of channel updates as the network grows over time.

MD100-BD-4 Single two slot module that accepts a 40 channel trunk and mux/demuxes into 4 x 10 channel trunks broken into channel groups 20-29, 30-39, 40-49, 50-59. This architecture allows for a low cost, low loss way to break out a high channel trunk port to multiple remote location for breakout to connected equipment.

LXBP10 Single slot module that provides a 10 channel trunk add/drop with express pass-through for all other channels. This trunk allows seamless integration of remote sites or spurs from the main transport network. This spur sites can then be further broken down with 5 or 10 channel filters at the endpoint node. These 10 channel trunks are broken into 4 x 10 channel groups (20-29, 30-39, 40-49, 50-59).

Tap Module Provides a passive optical component to non-intrusively monitor the network at any site. Ideal for wavelength visibility and troubleshooting.

Technical Specifications

Dimensions

- Single Slot: 4" H x .8" W x 8.25" D (100 mm x 20 mm x 210 mm)
- Dual-Slot: 4" H x 1.6" W x 8.25" D (100 mm x 40 mm x 210 mm)
- Three-Slot: 4" H x 2.4" W x 8.25" D (100 mm x 60 mm x 210 mm)

Interfaces

- Trunk/Pass-through ports: LC/UPC
- Monitor ports: LC/APC
- Breakout connections: MTP to LC/UPC fanout cable

Standards Support

- Standard support for 100Ghz spaced ITU C-Band channels 20-59

Protocol Support

- All channel spacings at 100Ghz using ITU C-Band 20-59
- MD100-40
 - Insertion Loss: <5.5 dB
 - Adjacent Channel Isolation: >25 dB
 - Passband Uniformity: <1 dB
- MD100-10
 - Insertion Loss: <5 dB
 - Pass-through Loss: 1 dB typical
 - Adjacent Channel Isolation: >25 dB
 - Passband Uniformity: <1 dB
 - Max Attenuation: >25 dB
- VOA set accuracy: +/- .5
- MD100-5
 - Insertion Loss: <4.5 dB
 - Pass-through Loss: 1 dB typical
 - Adjacent Channel Isolation: >25 dB
 - Passband Uniformity: <1 dB
 - Max Attenuation: >25 dB
- VOA set accuracy: +/- .5
- MD100-BD4
 - Insertion (Add/Drop) Loss: 3 dB
 - Pass-through Loss: N/A
- LXBP10
 - Insertion (Add/Drop) Loss: 1.5 dB
 - Pass-through Loss: 1 dB

Regulatory Compliance

- (When properly installed in a GigaMux Chassis)
- CE (GM 3234/3217/1608)
- Telcordia NEBS Level 3 Compliant (GM 3234/3217)
- OSMINE TIRKS and NMA
- Safety UL 1950, 3rd Edition
- IEC 60950, 3rd Edition
- (according to CB Scheme)
- EMC FCC Part 15 Class A (USA)
- EN 55022 Class A (Europe) GM 3234/3217
- EN 55022 Class B (Europe) GM 1608/1602
- VCCI Class A (Japan)
- EN61000-3-2/3
- Harmonics/Flicker
- Immunity EN61000-4-2/3/4/5/6/11
- ESD/EI/EFT/Surge/LFCI/VDS
- ENV50140-RI
- Telecom FCC Part 68 (USA)

Ordering Information

LX12259	40 Channel mux/demux linecard with 5% tap monitor
MD100-10-BAND2	10 Channel mux/demux with express - ITU 20-29
MD100-10-BAND3	10 Channel mux/demux with express - ITU 30-39
MD100-10-BAND4	10 Channel mux/demux with express - ITU 40-49
MD100-10-BAND5	10 Channel mux/demux with express - ITU 50-59
MD100-5-BAND2L	5 Channel mux/demux with express - ITU 20-24
MD100-5-BAND2H	5 Channel mux/demux with express - ITU 25-29
MD100-5-BAND2L	5 Channel mux/demux with express - ITU 30-34
MD100-5-BAND2H	5 Channel mux/demux with express - ITU 35-39
MD100-5-BAND2L	5 Channel mux/demux with express - ITU 40-44
MD100-5-BAND2H	5 Channel mux/demux with express - ITU 45-49
MD100-5-BAND2L	5 Channel mux/demux with express - ITU 50-54
MD100-5-BAND2H	5 Channel mux/demux with express - ITU 55-59
LXBP10-1	10 Channel trunk drop with express - ITU 20-29
LXBP10-2	10 Channel trunk drop with express - ITU 30-39
LXBP10-3	10 Channel trunk drop with express - ITU 40-49
LXBP10-4	10 Channel trunk drop with express - ITU 50-59
MD100-BD-4	4 X 10 Channel band drop filter. Support for Band 2, 3, 4, 5



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