DWDM-LGX8M

DWDM MUX DEMUX

8ch, Dual Fiber, 1310 nm / MON, LC/UPC, LGX cassette for a 2-slot 1U rack



Overview

The 8-channel DWDM MUX DEMUX with line monitor keeps an existing 1310 nm service alive while adding eight lambdas to the same fiber pair. Whatever runs on that pair — 1G, 10G LR, 40G ER4, 100G ZR4 — crosses a bypass leg and never meets a filter, so the upgrade needs no service cut, no second fiber, no new cabinet. The eight C31–C38 channels take the filtered path on the 100 GHz grid; a 1 % monitor tap reads the span without pulling a connector, and two cassettes fill the 1U rack for 16 channels. The expansion port takes a second band when the eight fill.

Features

- 8-channel DWDM, C31–C38 on the 100 GHz ITU grid
- 1310 nm bypass keeps existing 1G to 100G grey optics in service
- Line-side monitor tap, plus an expansion port for a second band
- Two cassettes fill the 1U rack — 16 channels at full load
- Channel loss ≤2.4 dB, 1310 nm loss ≤0.8 dB
- Cassette 220 × 200 × 39 mm, 0.5 kg

Applications

- CWDM-to-DWDM migration that must not strand 1310 nm services
- CATV and RFoG headends mixing analogue video with data lambdas
- 5G mid-haul between distributed units and a small central office
- Sites with only one or two rack units left to give

Technical Specifications

Parameter	Value
Channel Count	8 (C31–C38)
Wavelength Range	1552.52 – 1546.92 nm
Channel Spacing	100 GHz (≈0.8 nm), ITU-T G.694.1
Channel Passband	±0.11 nm
Filter Technology	TFF — thin-film filter
Insertion Loss, channel ports	≤ 2.4 dB
Link Loss	≤ 3.2 dB
1310 nm Pass Band	1260 – 1360 nm
Insertion Loss, 1310 nm port	≤ 0.8 dB
Insertion Loss, MON port 1	≤ 26 dB (1 % tap)
Center Wavelength Accuracy	±0.05 nm
Return Loss	≥ 45 dB
Directivity	≥ 45 dB
Channel Isolation	Adjacent ≥30 dB / non-adjacent ≥45 dB
Polarization Dependent Loss	≤ 0.3 dB
Polarization Mode Dispersion	≤ 0.1 ps
Operating / Storage Temperature	−40 to +85 °C
Connector	LC/UPC duplex (other types on request)
Cassette Dimensions (H × W × D)	39 × 220 × 200 mm
Cassette Weight	0.5 kg
Rack (2-slot, 1U)	44 × 440 × 230 mm, 2.5 kg
Rack Capacity	2 cassettes — 16 channels at full load

Note: Specified with connectors.

Port functions

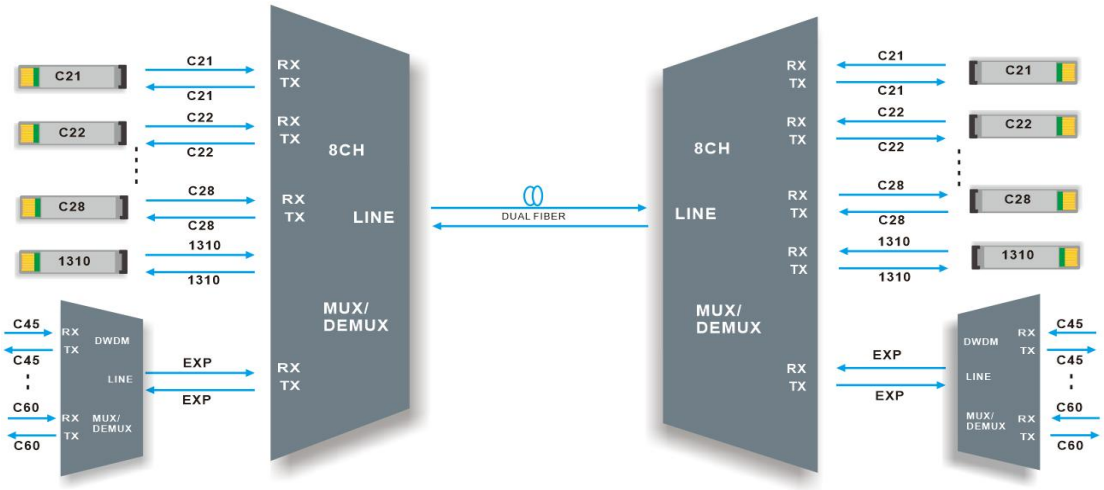
Port	Function
LINE	Trunk port. All 16 DWDM channels, bidirectional, over the paired fiber.
1310	1G LX/SX, 10G LR, 40G LR4/ER4, 100G LR4/ER4/ZR4.
MON	Power monitoring and fault finding, zero traffic interruption.
EXP	Expand with a second DWDM unit (different band) — no new fiber.

Channel Frequencies and Wavelengths

Ch.	Center λ (nm)	Center f (THz)	Ch.	Center λ (nm)	Center f (THz)
C31	1552.52	193.1	C32	1551.72	193.2
C33	1550.92	193.3	C34	1550.12	193.4
C35	1549.32	193.5	C36	1548.51	193.6
C37	1547.72	193.7	C38	1546.92	193.8

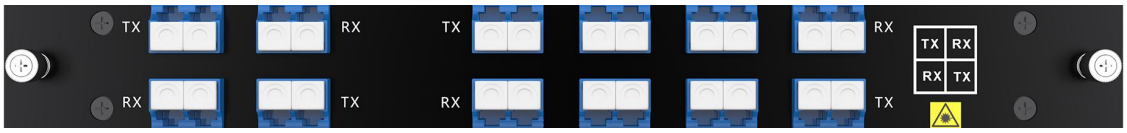
Center wavelengths are the ITU-T G.694.1 100 GHz reference values at f = 190.0 + 0.1 × n THz. C31–C38 is the standard build; other eight-channel windows are available to order.

Line Link



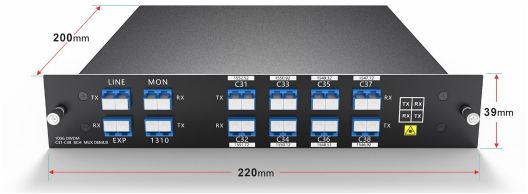
8CH DWDM MUX DEMUX Dual fiber transmission

Cassette Panel Layout



8CH DWDM MUX DEMUX Dual Fiber

Package Dimensions



LGX Cassette



2-Slot 1U Rack for LGX Cassette

Order Information

Product No.	Description
DWDM-LGX8M-C3138	DWDM MUX DEMUX, 8CH (C31-C38), with 1310 nm, EXP and monitor ports, dual fiber, LC/UPC, LGX cassette
DWDM-LGX8M-Cxxxx	DWDM MUX DEMUX, 8CH (Cxx-Cxx), with 1310 nm, EXP and monitor ports, dual fiber, LC/UPC, LGX cassette (Customized Channel)
DWDM-RACK-2LGX	19-inch 1U rack, 2 slots for LGX cassettes, 44 × 440 × 230 mm

Cassettes and racks are ordered separately: the rack is a one-off, the cassettes follow the traffic. Custom channel windows, connector types and port configurations are available on request.

For further information, please visit our website https://www.aoatech.com

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