DWDM-LGX8

DWDM MUX DEMUX

8ch, Dual Fiber, LC/UPC, LGX cassette for a 4-slot 1U rack



Overview

The 8-channel DWDM MUX DEMUX in LGX cassette form takes one slot of a 1U rack that holds four, so a node reaches 32 channels one cassette at a time, not one chassis at a time. The rack is bought once and stays passive — no power, no cooling, no firmware — while the cassettes follow the traffic. Three slots stay open until a new span needs lambdas; adding them means sliding the next cassette in and patching out, with no cable re-terminated and no second chassis ordered. The eight channel ports carry C21–C28 on the 100 GHz grid, and the expansion port puts a second band on the same fiber pair once the eight are full.

Features

- 8-channel DWDM, C21–C28 on the 100 GHz ITU grid
- LGX cassette — four cassettes fill one 1U rack
- Channel loss ≤2.4 dB, link loss ≤3.2 dB with connectors
- Expansion port adds a second band on the same fiber pair
- Passive TFF filter — no power feed, no cooling, no firmware
- Cassette 214 × 150 × 20 mm, 0.5 kg; rack 440 × 160 × 44 mm

Applications

- Metro access nodes that grow one service at a time
- CCTV and traffic-surveillance aggregation along a single route
- Campus links between two buildings on owned fiber
- A CWDM ring that has run out of channels but still has rack space

Technical Specifications

Parameter	Specification
Channel Count	8 (C21–C28)
Wavelength Range	1554.94 – 1560.61 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
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)	20 × 214 × 150 mm
Cassette Weight	0.5 kg
Rack (4-slot, 1U)	440 × 160 × 44 mm, 2.5 kg
Rack Capacity	4 cassettes — 32 channels at full load

Note: Specified with connectors.

Port functions

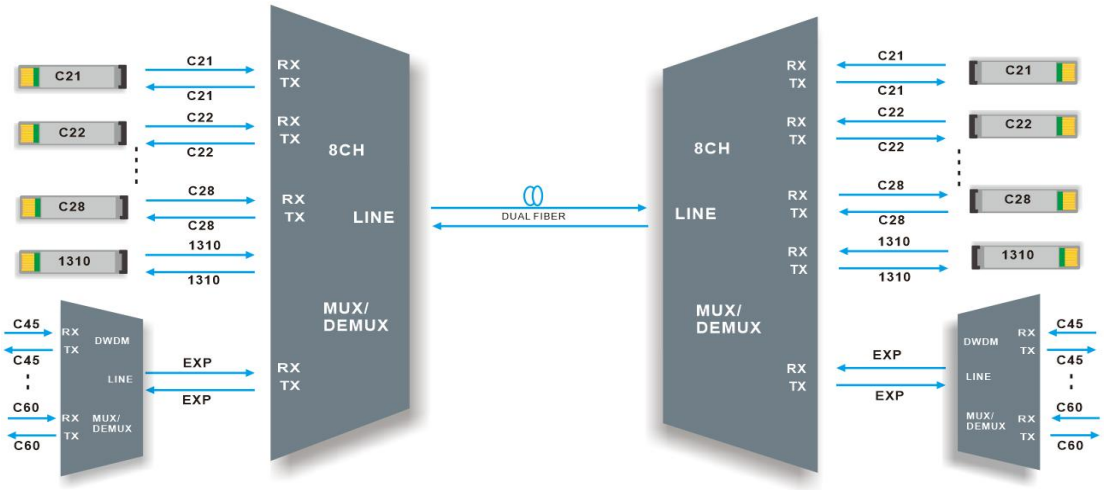
Port	Function
LINE	Trunk port. All 8 DWDM channels, bidirectional, over the paired fiber.
EXP	Expand with a second DWDM unit (different band) — no new fiber.

Channel Frequencies and Wavelengths

Ch.	Center λ (nm)	Center f (THz)	Ch.	Center λ (nm)	Center f (THz)
C21	1560.61	192.1	C22	1559.79	192.2
C23	1558.98	192.3	C24	1558.17	192.4
C25	1557.36	192.5	C26	1556.55	192.6
C27	1555.75	192.7	C28	1554.94	192.8

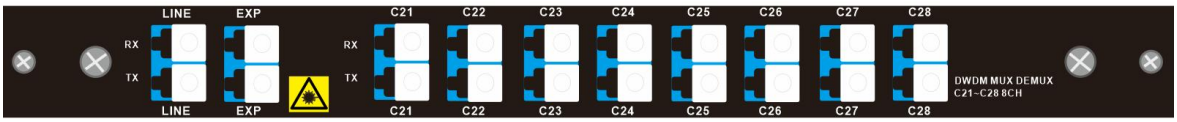
Center wavelengths are the ITU-T G.694.1 100 GHz reference values at f = 190.0 + 0.1 × n THz. C21–C28 is the standard build; other eight-channel windows are available to order.

Line Link



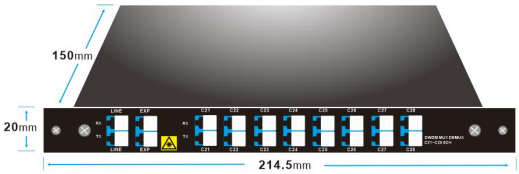
8CH DWDM MUX DEMUX Dual fiber transmission

Cassette Panel Layout

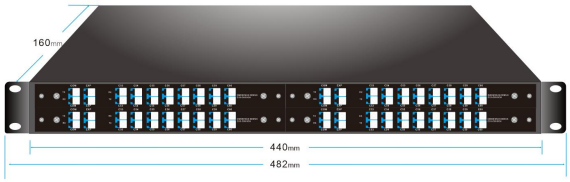


8CH DWDM MUX DEMUX Dual Fiber

Package Dimensions



LGX Cassette



4-Slot 1U Rack for LGX Cassette

Order Information

Product No.	Description
DWDM-LGX8-C2128	DWDM MUX DEMUX, 8CH (C21-C28), with EXP, dual fiber, LC/UPC, LGX cassette
DWDM-LGX8-Cxxxx	DWDM MUX DEMUX, 8CH (Cxx-Cxx), with EXP, dual fiber, LC/UPC, LGX cassette (Customized Channel)
DWDM-RACK-4LGX	19-inch 1U rack, 4 slots for LGX cassettes, 440 × 160 × 44 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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