

LGX DWDM Mux/Demux Module

100 GHz up to 48 Channels



DATASHEET

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Features

- Low Insertion Loss
- Low Polarization Loss
- High Channel Isolation
- Telcordia GR-1209 & GR-1221 compliant
- Telcordia GR-326 compliant connectors
- RoHS compliant
- Packaged with tamper-proof seal

Applications

- DWDM Network
- DWDM Ring Network
- Data Center Network

LGX DWDM is a passive module that requires no power or configuration, making it a plug-and-play solution. It is packaged in an LGX (Lucent Generic eXchange) industry-standard metal chassis or cassette designed to slide easily into rack-mount panels. Available in multiple sizes, it can also be custom-made to fit specific rack layouts. The LGX DWDM module comprises Telcordia®-compliant PLC components or thin film filters, depending on the channel count, with optimized low loss and high isolation performance. It offers wide channel bandwidth, flexible channel configurations, low insertion loss, and high isolation. Designed for both long-haul and metro access applications, this Mux/Demux module represents the state of the art in fiber optic design. It multiplexes and demultiplexes multiple DWDM wavelengths with 100GHz channel spacing into ring or point-to-point networks, making it ideal for telecommunications and networking applications. Once assembled and terminated, each module is fully tested for environmental, mechanical, and optical integrity.

Specifications

Parameter	Specification	Unit
Max Optical Channel Numbers	48	
Channel Spacing	100	GHz
Channel Frequency	± 12.5	GHz
Wavelength Accuracy	≤ 0.05	nm
Channel Insertion Loss	≤ 5.2	dB
Adjacent Channel Isolation Ratio	≥ 25	dB
Non-Adjacent Channel Isolation Ratio	≥ 30	dB
Total Isolation	≥ 23	dB
Flatness	≤ 1.5	dB
Return Loss	≥ 45	dB
Directivity	≥ 50	dB
Operating Temperature	-40 to +85	°C
Storage Temperature	-40 to +85	°C
Humidity Relative	< 90	%

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

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Rev 04/29/26

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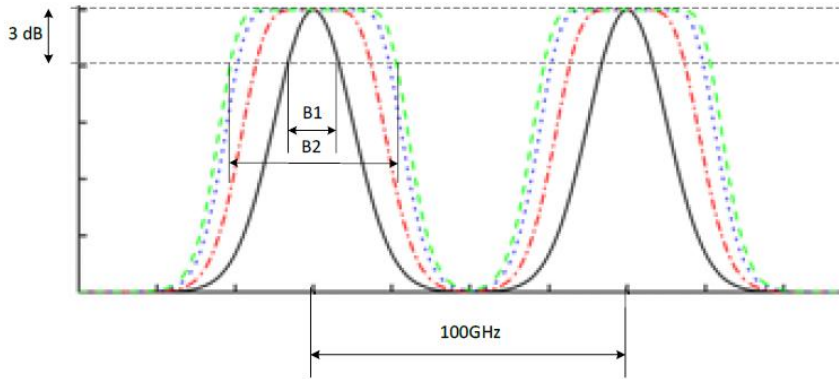
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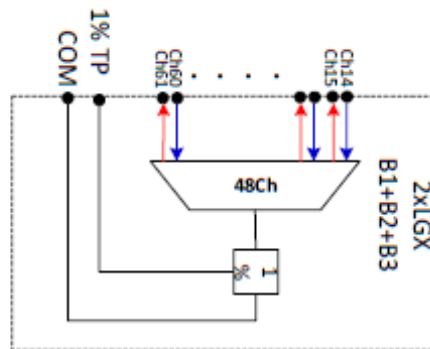


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Typical Passband Shape (75GHz with flat-top attenuation profile)



Application Example



Ordering Information (Part Number)

Prefix	Channels	Starting Channel	Peak Shape	Test Port	Connector Type	Package *
LGXW-	8 Ch = 08 40 Ch = 40 48 Ch = 48	C14 = C 14 C41 = C41	Flat-Top = 1 Gaussian = 2	1% = 1 3% = 3 None = N	LC/APC = 1 LC/PC = 2 SC/PC = 3 SC/APC = 4 Special = 0	Double LGX = 1 Customer = 2

[*]. The unit can be made to customer specification or drawing to better mate with customer rack.

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100 GHz ITU Channel

ITU Grid Channels (100 GHz Spacing)					
Channel	Frequency (GHz)	Wavelength (nm)	Channel	Frequency (GHz)	Wavelength (nm)
1	190,100	1577.03	38	193,800	1546.92
2	190,200	1576.20	39	193,900	1546.12
3	190,300	1575.37	40	194,000	1545.32
4	190,400	1574.54	41	194,100	1544.53
5	190,500	1573.71	42	194,200	1543.73
6	190,600	1572.89	43	194,300	1542.94
7	190,700	1572.06	44	194,400	1542.14
8	190,800	1571.24	45	194,500	1541.35
9	190,900	1570.42	46	194,600	1540.56
10	191,000	1569.59	47	194,700	1539.77
11	191,100	1568.77	48	194,800	1538.98
12	191,200	1567.95	49	194,900	1538.19
13	191,300	1567.13	50	195,000	1537.40
14	191,400	1566.31	51	195,100	1536.61
15	191,500	1565.50	52	195,200	1535.82
16	191,600	1564.68	53	195,300	1535.04
17	191,700	1563.86	54	195,400	1534.25
18	191,800	1563.05	55	195,500	1533.47
19	191,900	1562.23	56	195,600	1532.68
20	192,000	1561.42	57	195,700	1531.90
21	192,100	1560.61	58	195,800	1531.12
22	192,200	1559.79	59	195,900	1530.33
23	192,300	1558.98	60	196,000	1529.55
24	192,400	1558.17	61	196,100	1528.77
25	192,500	1557.36	62	196,200	1527.99
26	192,600	1556.55	63	196,300	1527.22
27	192,700	1555.75	64	196,400	1526.44
28	192,800	1554.94	65	196,500	1525.66
29	192,900	1554.13	66	196,600	1524.89
30	193,000	1553.33	67	196,700	1524.11
31	193,100	1552.52	68	196,800	1523.34
32	193,200	1551.72	69	196,900	1522.56
33	193,300	1550.92	70	197,000	1521.79
34	193,400	1550.12	71	197,100	1521.02
35	193,500	1549.32	72	197,200	1520.25
36	193,600	1548.51	73	197,300	1519.48
37	193,700	1547.72			