



Lighitem DWDM Mux and Demux are designed to multiplex multiple DWDM channels into one or two fibers. The common configuration is 4, 8, 16 and 32 channels. Available in Standalone, 19" Rack Mount or LGX module packaging. Optional wide band port for existing 1310nm, 1550nm or CWDM is available to multiplex with these DWDM Channels, fully utilise with the existing equipments. Together with our DWDM Transceiver series, the bandwidth of the fiber can be utilized in a cost effective way

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| DWDM 100G Mux/Demux | 4Ch | 8Ch | 16Ch | 32Ch |
|-------------------------------------------------|-------------------|-------|---------------------|---------------------|
| Parameter | MUX | | DEMUX | |
| Channel Wavelength (nm) | ITU 100 GHz Grid | | | |
| Center Wavelength Accuracy (nm) | ± 0.1 | | | |
| Channel Spacing (GHz) | 100 (0.8nm) | | | |
| Channel Passband (@-0.5dB bandwidth) | 0.22 | | | |
| Max Insertion Loss (dB) | ≤ 3.0 | ≤ 4.0 | ≤ 6.0 | ≤ 8.0, |
| | | | Mux/Demux pair <7.5 | Mux/Demux pair <9.5 |
| Channel Uniformity (dB) | ≤ 1.5 | | | |
| Channel Ripple (dB) | < 0.3 | | | |
| Isolation @Add/Drop | Adjacent | N/A | >25 | |
| Channel (dB), | Non-adjacent | N/A | >35 | |
| Insertion Loss Temperature Sensitivity (dB/°C) | <0.005 | | | |
| Wavelength Temperature Shifting (nm/ °C) | <0.002 | | | |
| Directivity (dB) | >50 | | | |
| Return Loss (dB) | >45 | | | |
| Maximum Power Handling (mW) | 300 | | | |
| Operating Temperature (°C) | 0 ~+65 | | | |
| Storage Temperature (°C) | -40 ~+85 | | | |
| Package Dimension (mm) | L110 x W95 x H7.5 | | | |

| DWDM 200G Mux/Demux | 4Ch | 8Ch | 16Ch | 32Ch |
|--------------------------------------|------------------|-------|--------------------|---------------------|
| Parameter | MUX | | DEMUX | |
| Channel Wavelength (nm) | ITU 200 GHz Grid | | | |
| Center Wavelength Accuracy (nm) | ± 0.1 | | | |
| Channel Spacing (GHz) | 200 | | | |
| Channel Passband (@-0.5dB bandwidth) | 0.5 | | | |
| Max Insertion Loss (dB) | ≤ 2.2 | ≤ 3.5 | ≤ 5.5 | ≤ 7.5 |
| | | | Mux/Demux pair<7.0 | Mux/Demux pair <8.0 |
| Channel Uniformity (dB) | ≤ 1.5 | | | |
| Channel Ripple (dB) | < 0.5 | | | |

| | | | |
|------------------------------------------------|--------------|-----|-------------------|
| Isolation @Add/Drop Channel (dB), | Adjacent | N/A | >30 |
| | Non-adjacent | N/A | >40 |
| Insertion Loss Temperature Sensitivity (dB/°C) | | | <0.005 |
| Wavelength Temperature Shifting (nm/°C) | | | <0.002 |
| Directivity (dB) | | | >50 |
| Return Loss (dB) | | | >45 |
| Maximum Power Handling (mW) | | | 300 |
| Operating Temperature (°C) | | | 0 ~+65 |
| Storage Temperature (°C) | | | -40 ~+85 |
| Package Dimension (mm) | | | L110 x W95 x H7.5 |

| Channel | Frequency (GHz) | Wavelength (nm) | Channel | Frequency (GHz) | Wavelength (nm) |
|---------|-----------------|-----------------|---------|-----------------|-----------------|
| 1 | 190100 | 1577.03 | 37 | 193700 | 1547.72 |
| 2 | 190200 | 1576.2 | 38 | 193800 | 1546.92 |
| 3 | 190300 | 1575.37 | 39 | 193900 | 1546.12 |
| 4 | 190400 | 1574.54 | 40 | 194000 | 1545.32 |
| 5 | 190500 | 1573.71 | 41 | 194100 | 1544.53 |
| 6 | 190600 | 1572.89 | 42 | 194200 | 1543.73 |
| 7 | 190700 | 1572.06 | 43 | 194300 | 1542.94 |
| 8 | 190800 | 1571.24 | 44 | 194400 | 1542.14 |
| 9 | 190900 | 1570.42 | 45 | 194500 | 1541.35 |
| 10 | 191000 | 1569.59 | 46 | 194600 | 1540.56 |
| 11 | 191100 | 1568.11 | 47 | 194700 | 1539.77 |
| 12 | 191200 | 1567.95 | 48 | 194800 | 1538.98 |
| 13 | 191300 | 1567.13 | 49 | 194900 | 1538.19 |
| 14 | 191400 | 1566.31 | 50 | 195000 | 1537.4 |
| 15 | 191500 | 1565.5 | 51 | 195100 | 1536.61 |
| 16 | 191600 | 1564.68 | 52 | 195200 | 1535.82 |
| 17 | 191700 | 1563.86 | 53 | 195300 | 1535.04 |
| 18 | 191800 | 1563.05 | 54 | 195400 | 1534.25 |
| 19 | 191900 | 1562.23 | 55 | 195500 | 1533.47 |
| 20 | 192000 | 1561.42 | 56 | 195600 | 1532.68 |
| 21 | 192100 | 1560.61 | 57 | 195700 | 1531.9 |
| 22 | 192200 | 1559.79 | 58 | 195800 | 1531.12 |
| 23 | 192300 | 1558.98 | 59 | 195900 | 1530.33 |
| 24 | 192400 | 1558.17 | 60 | 196000 | 1529.55 |
| 25 | 192500 | 1557.36 | 61 | 196100 | 1528.77 |
| 26 | 192600 | 1556.56 | 62 | 196200 | 1527.99 |
| 27 | 192700 | 1555.75 | 63 | 196300 | 1527.22 |
| 28 | 192800 | 1554.94 | 64 | 196400 | 1526.44 |
| 29 | 192900 | 1554.13 | 65 | 196500 | 1525.66 |
| 30 | 193000 | 1553.33 | 66 | 196600 | 1524.89 |
| 31 | 193100 | 1552.52 | 67 | 196700 | 1524.11 |
| 32 | 193200 | 1551.72 | 68 | 196800 | 1523.34 |
| 33 | 193300 | 1550.92 | 69 | 196900 | 1522.56 |
| 34 | 193400 | 1550.12 | 70 | 197000 | 1521.79 |
| 35 | 193500 | 1549.32 | 71 | 197100 | 1521.02 |
| 36 | 193600 | 1548.52 | 72 | 197200 | 1520.25 |

* for 200G spacing, please choose either odd or even no. spacing

Packaging

There are three packaging options available for 1xN CWDM Mux, include

1. 19" Rack Mount Closure
2. LGX Module with 19" Rack Chassis
3. Standalone module

19 Rack Mount Packaging



Scalable Module with 19" Rack Chassis *suitable for certain design only



19" Rack Mount Chassis for Modules



Module format

19 Rack Mount Front View

16Ch DWDM over two Fibers System



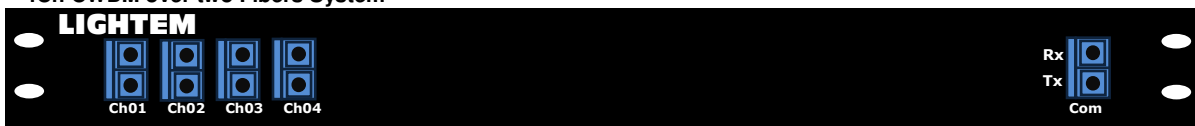
1U 19" Rack Mount - 16 Duplex LC Adaptors (Mux + Demux) + 1 Duplex LC Common port

8Ch CWDM over two Fibers System



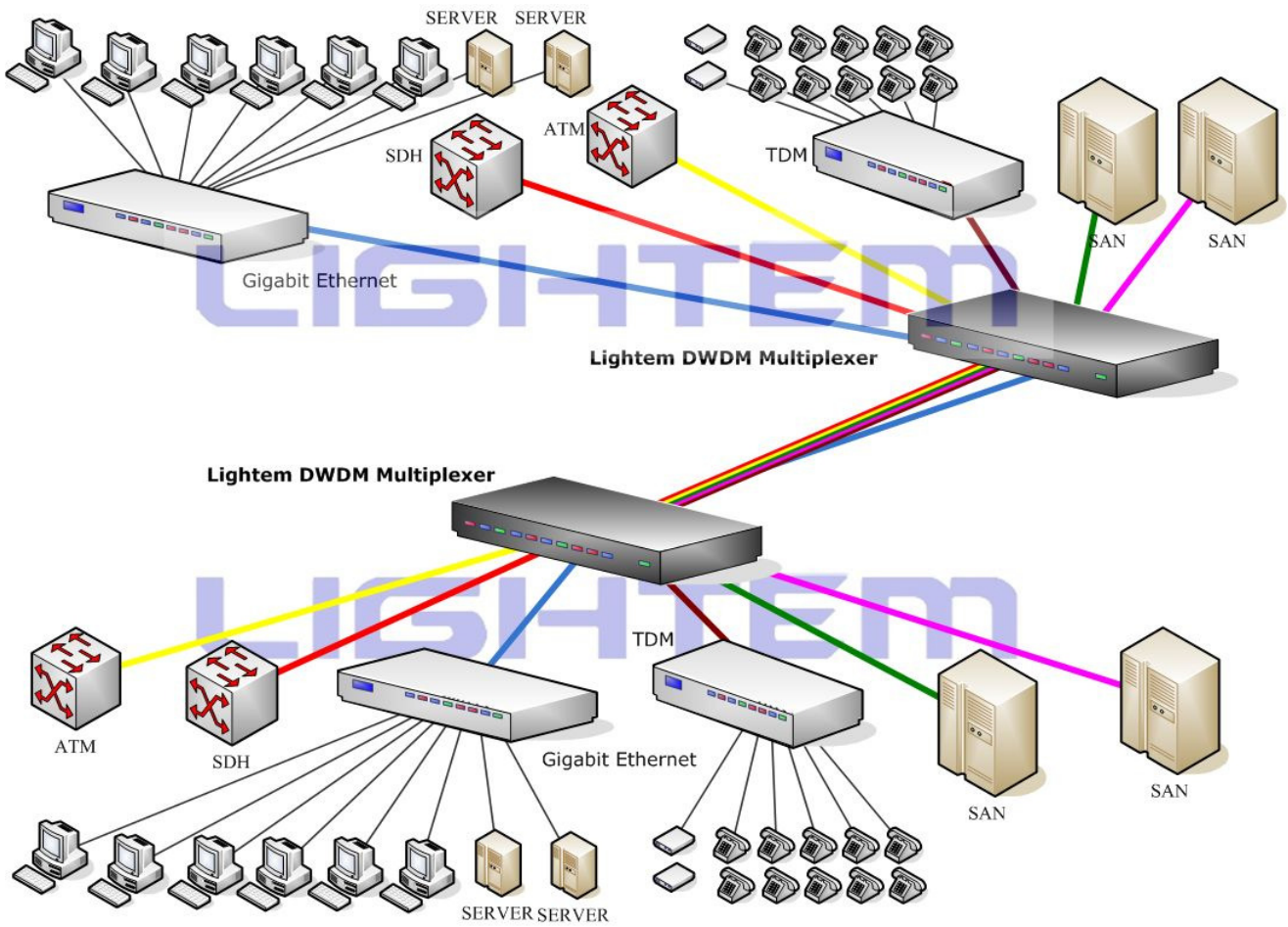
1U 19" Rack Mount - 8 Duplex LC Adaptors (Mux + Demux) + 1 Duplex LC Common port

4Ch CWDM over two Fibers System

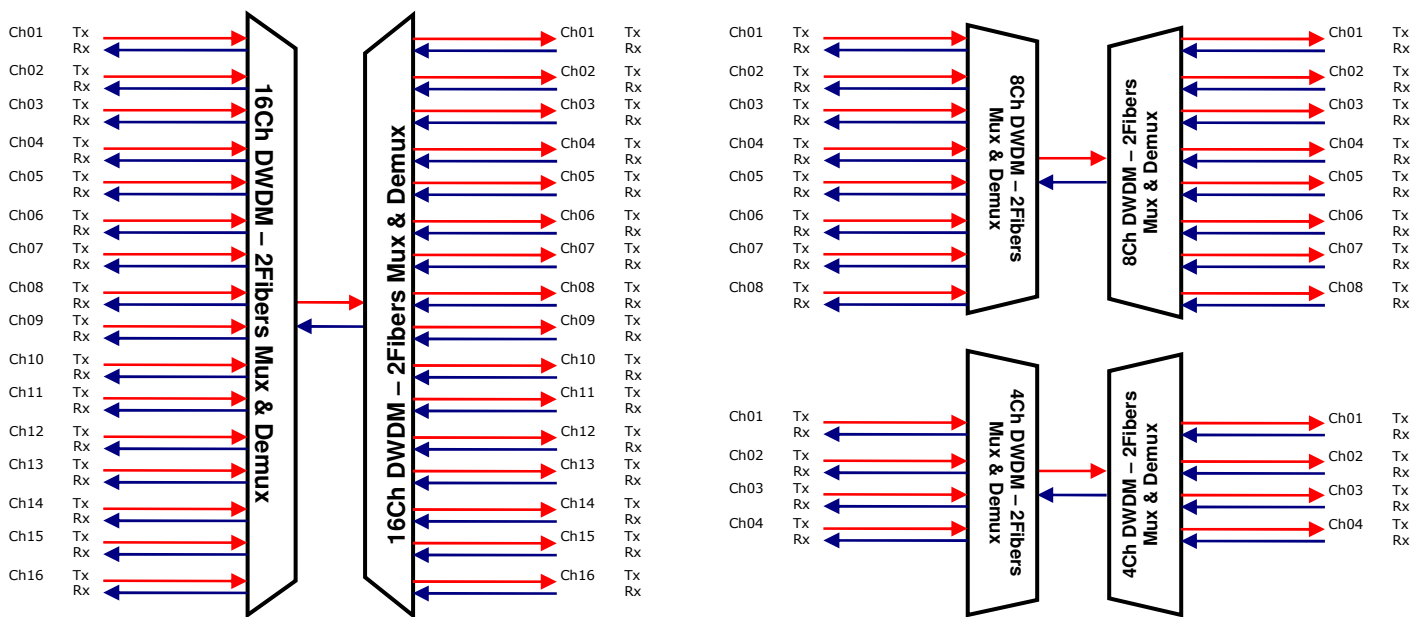


1U 19" Rack Mount - 4 Duplex LC Adaptors (Mux + Demux) + 1 Duplex LC Common port

DWDM Mux + Demux in Point to Point application



Logical diagram for Standard 4, 8 & 16Ch Mux+Demux



Ordering information
LDWDM-AAA-BB-CCCC-O

| | | |
|------|-------------|-------------------------------------------------|
| AAA | 041 | 4 DWDM Ch 100G |
| | 081 | 8 DWDM Ch 100G |
| | 161 | 16 DWDM Ch 100G |
| | 321 | 32 DWDM Ch 100G |
| | 042 | 4 DWDM Ch 200G |
| | 082 | 8 DWDM Ch 200G |
| | 162 | 16 DWDM Ch 200G |
| | 322 | 32 DWDM Ch 200G |
| BB | LU | LC/UPC (for 4, 8, 16Ch) |
| | CU | SC/UPC (for 4, 8Ch) |
| | CA | SC/APC (for 4, 8Ch) |
| CCCC | 19RM | 19" Rack Mount 1U unit |
| | MOD | Module type (fiber or connector interface) |
| | LGM | LGX Module type (adaptor interface) |
| O | 0 | No Option |
| | 3 | Optional 1310nm Wide band Port |
| | 5 | Optional 1550nm Wide Band Port |
| | C | Optional CWDM Upgrade Port |
| | D | Optional DWDM Port |
| | M | Optional Monitor Port for Com Port, 2% |
| | BD | 1Fiber Bidirectional |
| | BD3 | 1Fiber Bidirectional with 1310nm Wide Band Port |
| | BD5 | 1Fiber Bidirectional with 1550nm Wide Band Port |
| | BDC | 1Fiber Bidirectional with CWDM Upgrade Port |
| | BDD | 1Fiber Bidirectional with DWDM Upgrade Port |
| | BDM | 1Fiber Bidirectional with 2% Monitor com Port |