

# **1 CHANNEL DWDM OADM**

### **OVERVIEW**

DWDM Optical Add/Drop Multiplexers (OADM) allow for midspan access of DWDM channels along a single mode fiber route. 1 channel DWDM OADMs are commonly used at sites along a fiber route carrying 8 to 40+ DWDM channels and allow access to 1 channel while expressing the remaining channels through the site.

Plugin Optics DWDM OADM filter solutions are passive and require no power, or configuration. OADM filters are used to allow adding and dropping of DWDM wavelengths, West and East, along a single mode fiber route and provide a high quality, low loss, fiber capacity solution.

Plugin Optics LGX mounting solutions support controlled environment and I-Temp deployments.





#### FEATURES

1 Channel DWDM Configuration: OADM 40 Variants: ITU Ch 20-59 2% Monitor Port Form Factor: LGX Temp Range: I-Temp

## ENVIRONMENT Central Office Headend Remote Site

Cabinet Pedestal

#### CONFIGURATIONS

Point to Point Linear Chain Collapsed/Diverse Ring

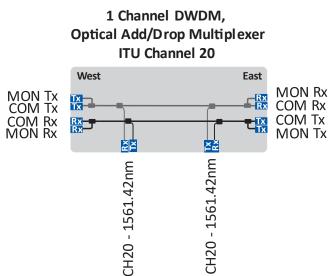


| TECHNICAL SPECIFICATIONS               |         |    |                     |      |  |
|--|---------|----|---------------------|------|--|
| PARAMETER                              | UNIT    |    | SPECIFICATION       |      |  |
| NUMBER OF CHANNELS                     | СН      |    | 1 DWDM, WEST & EAST |      |  |
| OPERATING WAVELENGTH                   | nm      |    | 1520-1570           |      |  |
| DWDM CHANNEL SPACING                   | GHz     |    | 100                 |      |  |
| PASSBAND: EXPRESS                      | nm      |    | 1520-1570           |      |  |
| PASSBAND: DWDM CHANNELS                | nm      |    | ITU ± .11           |      |  |
| INSERTION LOSS INCLUDING<br>CONNECTORS |         |    | DEMUX               | MUX  |  |
| EXPRESS LOSS, COM TO COM               | MAX.    | dB | 2.2                 | 2.2  |  |
| DWDM CHANNELS, COM TO DWDM CH          | MAX.    | dB | 1.5                 | 1.5  |  |
| MONITOR                                | MAX.    | dB | 19                  | 20.9 |  |
| ADJACENT AND 1310 CHANNEL<br>ISOLATION | MAX.    | dB | 30                  |      |  |
| NON-ADJACENT CHANNEL ISOLATION         | MAX.    | dB | dB 40               |      |  |
| PASS BAND RIPPLE / DWDM                | MAX.    | dB | 0.5                 |      |  |
| PDL /DWDM                              | MAX.    | dB | 0.2                 |      |  |
| PMD                                    | MAX.    | ps | 0.2                 |      |  |
| DIRECTIVITY                            | MIN.    | dB | 50                  | )    |  |
| RETURN LOSS                            | MIN.    | dB | 45                  | 5    |  |
| POWER HANDLING                         | MAX. mW |    | 300                 |      |  |
| DIMENSIONS (H X W): FACEPLATE          | mm      |    | 28.8 x 130          |      |  |
| DIMENSIONS (H X W X D): LGX BOX        | mm      |    | 28.8 x 100 x 76.2   |      |  |
| DIMENSIONS: NYLATCH SPACING            | mm      |    | 118                 |      |  |
| OPERATING TEMPERATURE                  | °C      |    | -40 ~ +85           |      |  |
| STORAGE TEMPERATURE                    | °C      |    | -40 ~ +85           |      |  |
| FIBER TYPE                             | /       |    | SMF 28              |      |  |
| CONNECTOR TYPE                         | /       |    | LC/UPC              |      |  |



## LOGICAL DIAGRAM

The logical diagram shows how the channels flow through the filter. In an OADM the channel ports will be added and dropped to/from the common (COM) fiber for each direction, where the channel on the West side of the filter only connect to the West COM ports and vice versa. While the specified channel adds and drops, at the channel ports, all other C-band channels will express through the filter (from COM to COM) from West to East and vice versa. This logical diagram shows a 1 channel OADM (ITU Channel 20) filter.



#### ORDERING INFORMATION

| PART NUMBER      | DESCRIPTION  |
|------------------|--|
| PLO-L3DT-A101-LC | LGX, 1 CHANNEL DWDM OADM, ITU C20, 1561.42, 2% MONITOR, LC-UPC |
| PLO-L3DT-A102-LC | LGX, 1 CHANNEL DWDM OADM, ITU C21, 1560.61, 2% MONITOR, LC-UPC |
| PLO-L3DT-A103-LC | LGX, 1 CHANNEL DWDM OADM, ITU C22, 1559.79, 2% MONITOR, LC-UPC |
| PLO-L3DT-A104-LC | LGX, 1 CHANNEL DWDM OADM, ITU C23, 1558.98, 2% MONITOR, LC-UPC |
| PLO-L3DT-A105-LC | LGX, 1 CHANNEL DWDM OADM, ITU C24, 1558.17, 2% MONITOR, LC-UPC |
| PLO-L3DT-A106-LC | LGX, 1 CHANNEL DWDM OADM, ITU C25, 1557.36, 2% MONITOR, LC-UPC |
| PLO-L3DT-A107-LC | LGX, 1 CHANNEL DWDM OADM, ITU C26, 1556.55, 2% MONITOR, LC-UPC |
| PLO-L3DT-A108-LC | LGX, 1 CHANNEL DWDM OADM, ITU C27, 1555.75, 2% MONITOR, LC-UPC |
| PLO-L3DT-A109-LC | LGX, 1 CHANNEL DWDM OADM, ITU C28, 1554.94, 2% MONITOR, LC-UPC |
| PLO-L3DT-A110-LC | LGX, 1 CHANNEL DWDM OADM, ITU C29, 1554.13, 2% MONITOR, LC-UPC |
| PLO-L3DT-A112-LC | LGX, 1 CHANNEL DWDM OADM, ITU C30, 1553.33, 2% MONITOR, LC-UPC |
| PLO-L3DT-A112-LC | LGX, 1 CHANNEL DWDM OADM, ITU C31, 1552.52, 2% MONITOR, LC-UPC |
| PLO-L3DT-A113-LC | LGX, 1 CHANNEL DWDM OADM, ITU C32, 1551.72, 2% MONITOR, LC-UPC |
| PLO-L3DT-A114-LC | LGX, 1 CHANNEL DWDM OADM, ITU-C33, 1550.92, 2% MONITOR, LC-UPC |
| PLO-L3DT-A115-LC | LGX, 1 CHANNEL DWDM OADM, ITU C34, 1550.12, 2% MONITOR, LC-UPC |
| PLO-L3DT-A116-LC | LGX, 1 CHANNEL DWDM OADM, ITU C35, 1549.32, 2% MONITOR, LC-UPC |
| PLO-L3DT-A117-LC | LGX, 1 CHANNEL DWDM OADM, ITU C36, 1548.51, 2% MONITOR, LC-UPC |
| PLO-L3DT-A118-LC | LGX, 1 CHANNEL DWDM OADM, ITU C37, 1547.72, 2% MONITOR, LC-UPC |
| PLO-L3DT-A119-LC | LGX, 1 CHANNEL DWDM OADM, ITU C38, 1546.92, 2% MONITOR, LC-UPC |
| PLO-L3DT-A120-LC | LGX, 1 CHANNEL DWDM OADM, ITU C39, 1546.12, 2% MONITOR, LC-UPC |
|                  |  |



| ORDERING INFORMATION (continued)                    |  |  |  |  |
|---|--|--|--|--|
| PART NUMBER   | DESCRIPTION  |  |  |  |
| PLO-L3DT-A121-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C40, 1545.32, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A122-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C41, 1544.53, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A123-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C42, 1543.73, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A124-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C43, 1542.94, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A125-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C44, 1542.14, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A126-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C45, 1541.35, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A127-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C46, 1540.56, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A128-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C47, 1539.77, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A129-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C48, 1538.98, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A130-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C49, 1538.19, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A131-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C50, 1537.40, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A132-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C51, 1536.61, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A133-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C52, 1535.82, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A134-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C53, 1535.04, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A135-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C54, 1534.25, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A136-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C55, 1533.47, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A137-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C56, 1532.68, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A138-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C57, 1531.90, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A139-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C58, 1531.12, 2% MONITOR, LC-UPC |  |  |  |
| PLO-L3DT-A140-LC                                    | LGX, 1 CHANNEL DWDM OADM, ITU C59, 1530.33, 2% MONITOR, LC-UPC |  |  |  |
| NOTE: SEE PLUGIN OPTICS LGX MOUNTING CHASSIS BELOW. |  |  |  |  |



# LGX MOUNTING CHASSIS

## **OVERVIEW**

Plugin Optics offers carrier grade, cost effective mounting solutions for LGX module deployments.

#### LGX Mount, 2-Slot "Universal Magnet Mount" Part#: PLO-0RU-UMC-2LGX

Designed for rack space limited deployments, for example pedestals, cabinets or MDU environments where rack space may not be available. The Universal Magnet Mount can be magnet mounted to the steel walls or screwed directly into a wall board. This chassis will hold two LGX modules.

### FEATURES:

- 2 LGX slots
- Magnet or Wall Mount



## LGX Chassis, 1RU, 3-Slot "Universal 1RU Chassis" Part#: PLO-1RU-LMC-3LGX

Designed for 1RU rack deployments, for example Central Office, Head End, Data Center, Cabinet and MDU. The Universal 1RU Chassis has reversible mounting brackets and can be mounted in 19" or 23" racks. The chassis has integrated fiber management and will hold three LGX modules.

### FEATURES:

- 1RU, 3 LGX slots
- 19" or 23" racks
- Integrated fiber management



#### LGX Chassis, 3RU, 14-Slot "Universal 3RU Chassis" Part#: PLO-3RU-LMC-14LGX

Designed for 3RU deployments, for example Central Office, Head End and Data Center. The Universal 3RU Chassis has reversible mounting brackets and can be mounted in 19" or 23" racks. The chassis has integrated fiber management and will hold fourteen LGX modules.

#### FEATURES:

- 3RU- 14 LGX slots
- 19" or 23" racks
- Integrated fiber management

