

## LGX BASED COEXISTENCE MODULES (CEM)

### OVERVIEW

Optical Coexistence Element Modules (CEM) unleash the locked in potential of fiber cable in use for passive optical networking (PON) architectures. CEM modules allow for overlay of complimentary wavelengths to be transported on the same single fiber that is used to transport PON services. CEM modules can be used to overlay wideband wavelengths like 1310nm or 1550nm, discrete wavelengths like CWDM or DWDM or simply allow the coexistence of multiple different PON technologies like GPON, XGS-PON, NG-PON2, 25GS-PON and 50G-PON.



PLO-LFFT-01W5-SA

PLO-LFFT-02W2-SA

PLO-LFFT-02W3-SA

PLO-LFFT-02W4-SA

PLO-LFFT-02W5-SA

### FEATURES

- Industry Standard LGX
- SC or LC Connectors
- APC or UPC
- I-Temp

### ENVIRONMENT

- Central Office
- Headend
- Remote Site
- Cabinet
- Pedestal

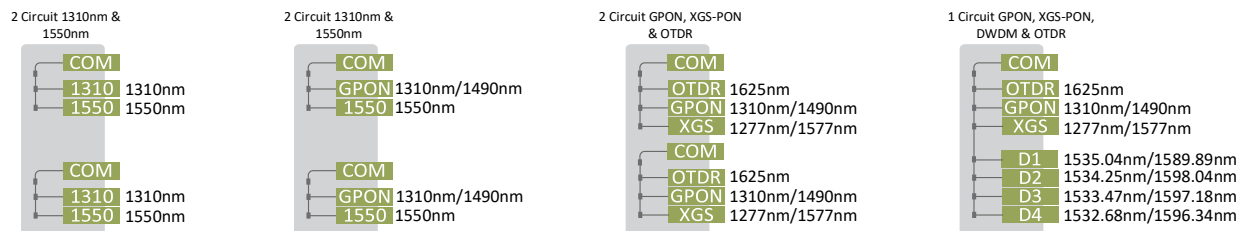
### CONFIGURATIONS

- Customizable
- GPON, XGS-PON
- 25G PON, 50G PON, NG-PON2
- 1310nm & 1550nm Wideband

| TECHNICAL SPECIFICATIONS        |      |    |                                 |
|---------------------------------|------|----|---------------------------------|
| PARAMETER                       | UNIT |    | SPECIFICATION                   |
| APPLICATION                     | --   |    | SINGLE FIBER BIDIRECTIONAL      |
| OPERATING WAVELENGTH            | nm   |    | 1260-1360, 1520-1570            |
| 1310                            | nm   |    | 1290-1320                       |
| 1550                            | nm   |    | 1530-1550                       |
| GPON (1310NM/1490NM)            | nm   |    | 1290-1330 / 1480-1500           |
| XGS-PON (1270NM/1577NM)         | nm   |    | 1260-1280 / 1575-1580           |
| DWDM (8 CHANNELS)               | nm   |    | 1532-1540 / 1595-1603 ITU ± .11 |
| OTDR                            | nm   |    | 1625-1675                       |
| <b>INSERTION LOSS</b>           | --   |    | <b>BIDIRECTIONAL</b>            |
| 1310                            | MAX. | dB | 1.0                             |
| 1550                            | MAX. | dB | 1.0                             |
| GPON (1310NM/1490NM)            | MAX. | dB | 1.0                             |
| XGS-PON (1270NM/1577NM)         | MAX. | dB | 1.2                             |
| DWDM (8 CHANNELS)               | MAX. | dB | 1.2                             |
| 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                              |
| 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, SC/APC, LC/APC          |

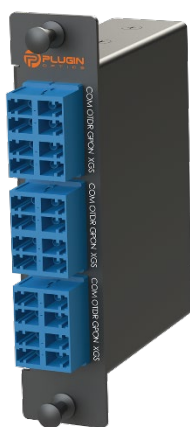
## LOGICAL DIAGRAMS

The logical diagrams below represent some of the filters included in the ordering information table below. Custom CE modules can be configured in a way that best fits your application.

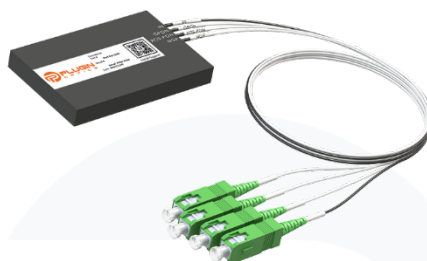


| ORDERING INFORMATION                                |                                                                                                                                                                                                  |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PART NUMBER                                         | DESCRIPTION                                                                                                                                                                                      |
| PLO-LFFT-02W1-SA                                    | LGX, FWDM, SF, 2 CIRCUITS, 1310NM, 1550NM, SC APC                                                                                                                                                |
| PLO-LFFT-02W2-SA                                    | LGX, FWDM, SF, 2 CIRCUITS, GPON (1310NM/1490NM), 1550NM, SC APC                                                                                                                                  |
| PLO-LFFT-02W3-SA                                    | LGX, FWDM, SF, 2 CIRCUITS, GPON (1310NM/1490NM), XGS-PON (1270NM/1577NM), SC APC                                                                                                                 |
| PLO-LFFT-02W4-SA                                    | LGX, FWDM, SF, 2 CIRCUITS, GPON (1310NM/1490NM), XGS-PON (1270NM/1577NM), OTDR (1625NM-1675NM), SC APC                                                                                           |
| PLO-LFFT-01W5-SA                                    | LGX, FWDM, SF, 1 CIRCUIT, GPON (1310NM/1490NM), XGS-PON (1270NM/1577NM), OTDR (1625NM-1675NM), DWDM (1535.04NM/1589.89NM, 1534.25NM/1598.04NM, 1533.47NM/1597.18NM, 1532.68NM/1596.34NM), SC APC |
| NOTE: SEE PLUGIN OPTICS LGX MOUNTING CHASSIS BELOW. |                                                                                                                                                                                                  |

Plugin Optics offers CE modules in LGX, ABS Pigtailed and Universal NID box form factors. CE modules are customizable, can be built and deployed very quickly, and available in many different variations covering just about any single mode wavelength application you may have.



LGX Based CEM with LC-UPC Connectors



ABS Pigtail CEM with SC-APC Connectors



Universal NID Box CEM with SC-APC Connectors

## LGX MOUNTING CHASSIS

### OVERVIEW

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

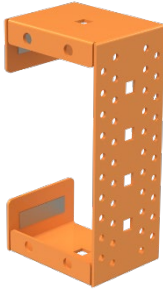
#### LGX Mount, 2-Slot “Universal Magnet Mount”

**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, 3-Slot, 1RU “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

