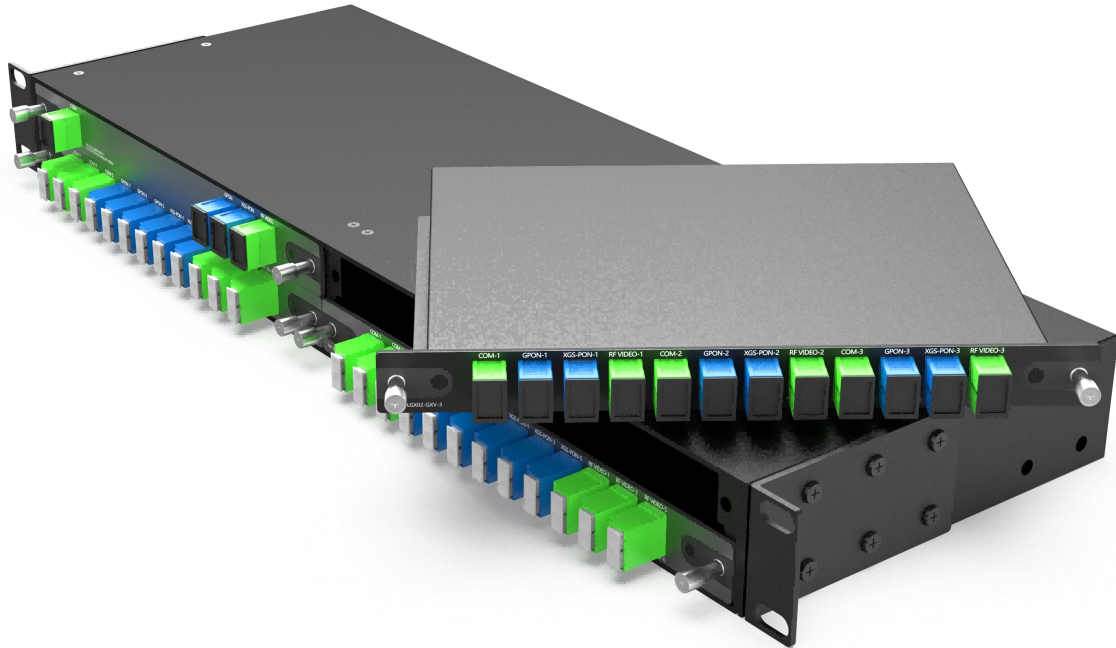


**3CH WDM GPON XGS-PON And RF Video Plug-in LGX Box 215\*150\*20MM**  
**FW-2G-LGX02-GXV**



In the era of digital transformation, the demand for high-speed, reliable, and flexible communication networks has never been higher. Passive Optical Networks (PON) have become a cornerstone of modern communication infrastructure, supporting a wide range of applications from home broadband to enterprise networks and beyond. To meet the growing bandwidth needs and ensure future-proof network deployments, the integration of 3CH WDM (Four-Channel Wavelength Division Multiplexing) with GPON, XGS-PON, and RF Video technologies offers a comprehensive solution that maximizes fiber utilization and enhances service delivery capabilities.

**GPON (Gigabit-Capable Passive Optical Network)**

Features: GPON supports downstream rates of up to 2.5Gbps and upstream rates of up to 1.25Gbps, with split ratios ranging from 1:16 to 1:128. It uses WDM technology to simultaneously transmit video, data, and voice over the same fiber.

Application Scenarios: Ideal for home broadband access, GPON is widely deployed in residential areas to provide reliable internet services. It is also used in enterprise networks and smart city applications, offering a cost-effective solution for high-speed data transmission.

**XGS-PON (10G Symmetric PON)**

Features: XGS-PON supports symmetrical 10Gbps uplink and downlink rates, with split ratios ranging from 1:16 to 1:256. It uses Time and Wavelength Division Multiplexing (TWDM) technology to coexist with GPON on the same fiber.

Application Scenarios: XGS-PON is designed for applications requiring high-bandwidth symmetrical transmission, such as enterprise networks, data center interconnection, and 5G

fronthaul. It is particularly useful in scenarios where both high-speed data and low-latency services are critical.

### RF Video

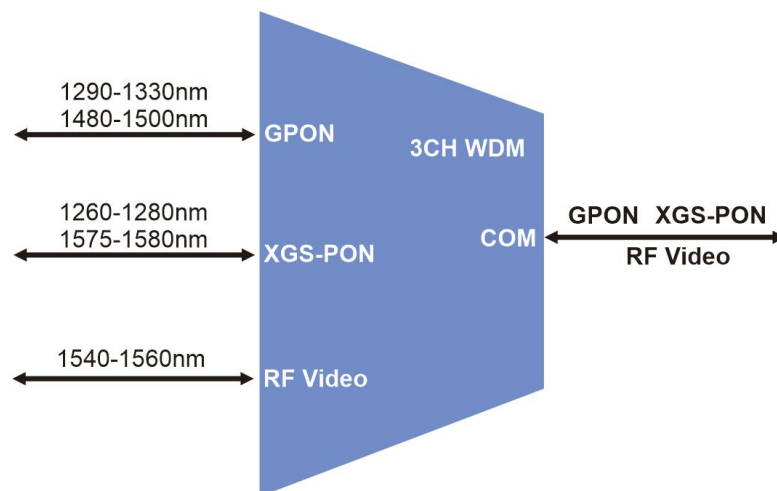
**Features:** RF Video technology allows the transmission of analog video signals over fiber, enabling the delivery of high-quality video content. It is often used in conjunction with PON technologies to provide integrated video services.

**Application Scenarios:** RF Video is commonly used in cable TV networks, video-on-demand services, and other applications where high-quality video delivery is essential. It can be seamlessly integrated with PON networks to offer a comprehensive solution for both data and video services.

### Advantages

- ◆ **Bandwidth Increase:** By adding wavelength channels, the transmission bandwidth of the fiber is significantly increased.
- ◆ **Cost-Effective:** It increases network capacity without adding extra fibers, reducing deployment costs.
- ◆ **Flexibility:** It supports the coexistence of multiple PON technologies, such as GPON, XGS-PON, RF Video

### Application



### Product Panel



**3CH WDM GPON XGS-PON And RF Video, PON SC/UPC, COM RF Video SC/APC Plug-in LGX Box**  
**215\*150\*20MM**



**3X3CH WDM GPON XGS-PON And RF Video, PON SC/UPC, COM RF Video SC/APC Plug-in LGX Box 215\*150\*20MM**



**6X3CH WDM GPON XGS-PON And RF Video, PON LC/UPC, COM RF Video LC/APC Plug-in LGX Box 215\*150\*20MM**

## Specifications

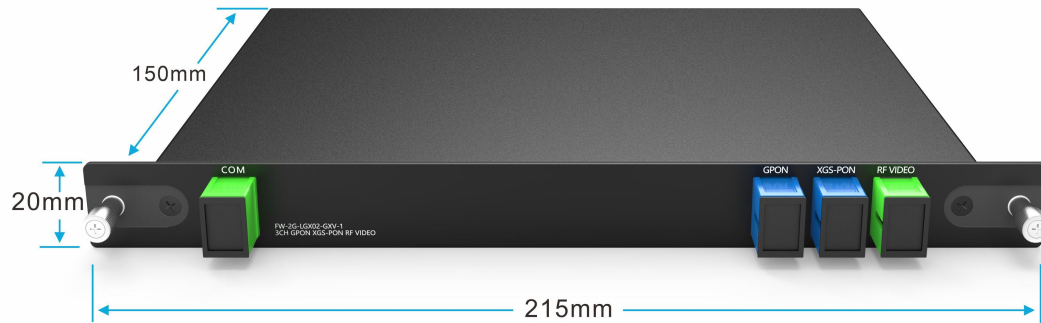
| Parameter                         |                | Specification                                   | Unit |
|-----------------------------------|----------------|-------------------------------------------------|------|
| Bandpass                          | GPON           | 1290-1330/1480-1550                             | nm   |
|                                   | XGS-PON        | 1260-1280/1575-1580                             | nm   |
|                                   | RF-Video       | 1540-1560                                       | nm   |
| Insertion Loss                    | COM - GPON     | <0.9                                            | dB   |
|                                   | COM - XGS-PON  | <1.1                                            | dB   |
|                                   | COM - RF Video | <1.3                                            | dB   |
| Wavelength Isolations             | COM - GPON     | >30                                             | dB   |
|                                   | COM - XGS-PON  | >30                                             | dB   |
|                                   | COM - RF Video | >30                                             | dB   |
| Unifomit                          |                | <0.8                                            | dB   |
| Return Loss                       |                | >55                                             | dB   |
| Directivity                       |                | >55                                             | dB   |
| PDL (Polarization Dependant Loss) |                | <0.3                                            | dB   |
| (Polarization Mode Dispersion)    |                | <0.2                                            | PS   |
| Optical Power Handling            |                | <300                                            | mW   |
| Operating Temperature             |                | -40 to +85                                      | °C   |
| Operating Relative Humidity       |                | 5 to 90                                         | % RH |
| Storage Temperature               |                | -40 to +85                                      | °C   |
| Operating Relative Humidity       |                | 5 to 90                                         | % RH |
| Net Weight                        |                | LGX Box: 0.5KG<br>2slot 1U Rack: 2.5KG          | KG   |
| Dimensions                        |                | LGX Box: 215*150*20mm<br>1U Rack : 440*160*44mm | mm   |

**Insertion Loss includes WDL, TDL and PDL WITH two sets of mated connectors at both ends.**

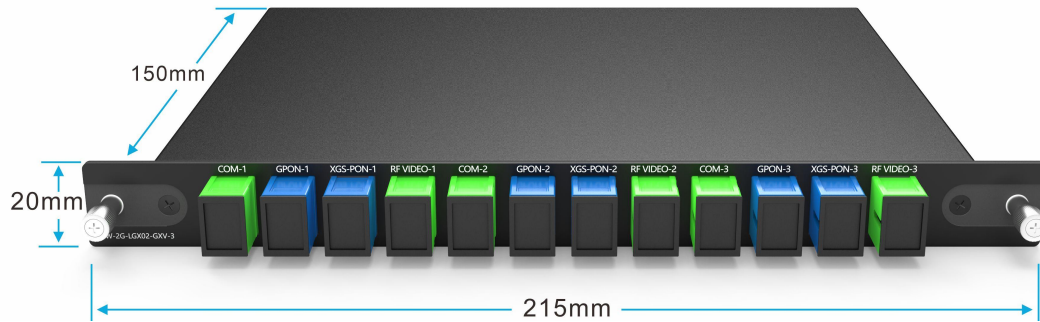
## Package Information

### LGX BOX Plug in 4-Slot 1U Rack

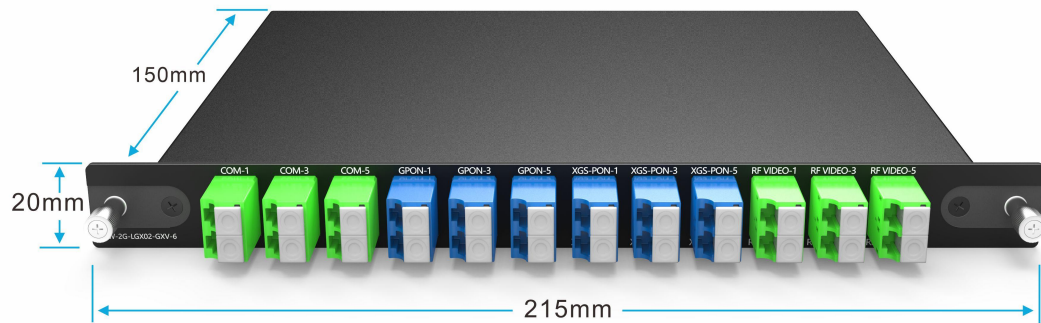
#### 3CH WDM



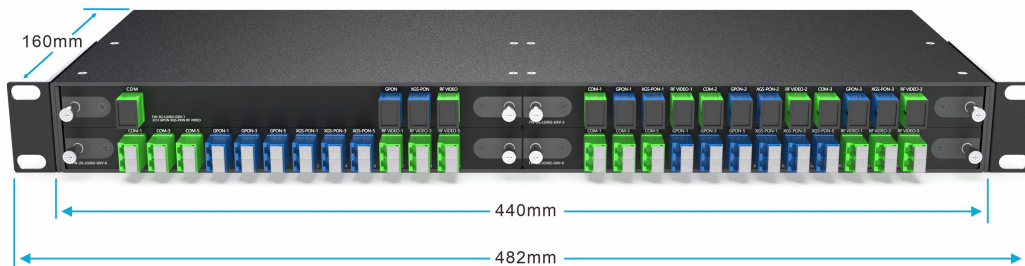
#### 3x4CH WDM



#### 6x3CH WDM



### 4-Slot 1U Rack for LGX BOX



## Order Information

| Product No.       | Product description                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------|
| FW-2G-LGX02-GXV-1 | 3CH WDM GPON XGS-PON And RF Video , PON SC/UPC, COM RF Video SC/APC<br>Plug-in LGX Box 215*150*20MM   |
| FW-2G-LGX02-GXV-3 | 3x3CH WDM GPON XGS-PON And RF Video , PON SC/UPC, COM RF Video SC/APC<br>Plug-in LGX Box 215*150*20MM |
| FW-2G-LGX01-GXV-4 | 6x3CH WDM GPON XGS-PON And RF Video , PON LC/UPC, COM RF Video LC/APC<br>Plug-in LGX Box 215*150*20MM |
| 1U02-4LGX         | 19" inch 1U rack with 4 slot for Plug-in LGX box, 440*160*44mm                                        |

**Note: We Support Customized Design, please contact us by email.**