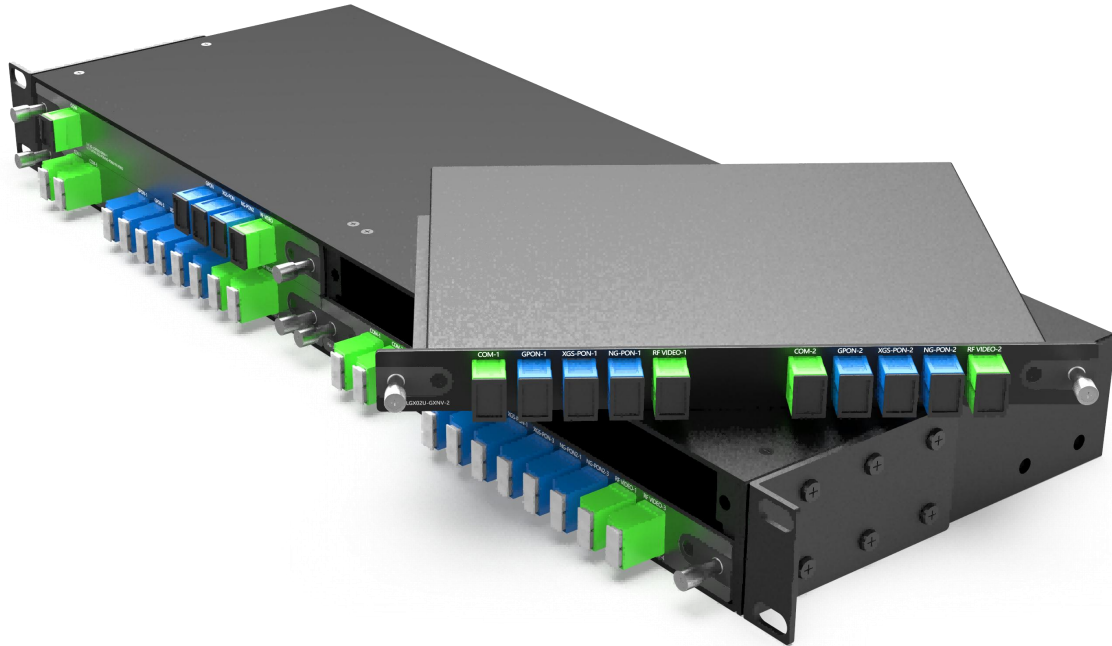


**4CH WDM GPON XGS-PON NG-PON2 And RF Video Plug-in LGX Box 215*150*20MM
FW-3G-LGX02-GXNV**

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 4CH WDM (Four-Channel Wavelength Division Multiplexing) with GPON, XGS-PON, NG-PON2, 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.

NG-PON2 (Next-Generation PON2)

Features: NG-PON2 leverages WDM technology to create up to eight wavelength-separated PON trees on the same fiber. It supports uplink and downlink rates of up to 10Gbps, with split ratios ranging from 1:16 to 1:256. It supports TWDM-PON and point-to-point WDM-PON, making it suitable for a variety of new use cases.

Application Scenarios: NG-PON2 is ideal for enterprise networks, mobile backhaul and fronthaul, and scenarios requiring high bandwidth and flexible wavelength allocation. It is also well-suited for future-proofing networks to support emerging technologies like 5G and IoT.

RF Video

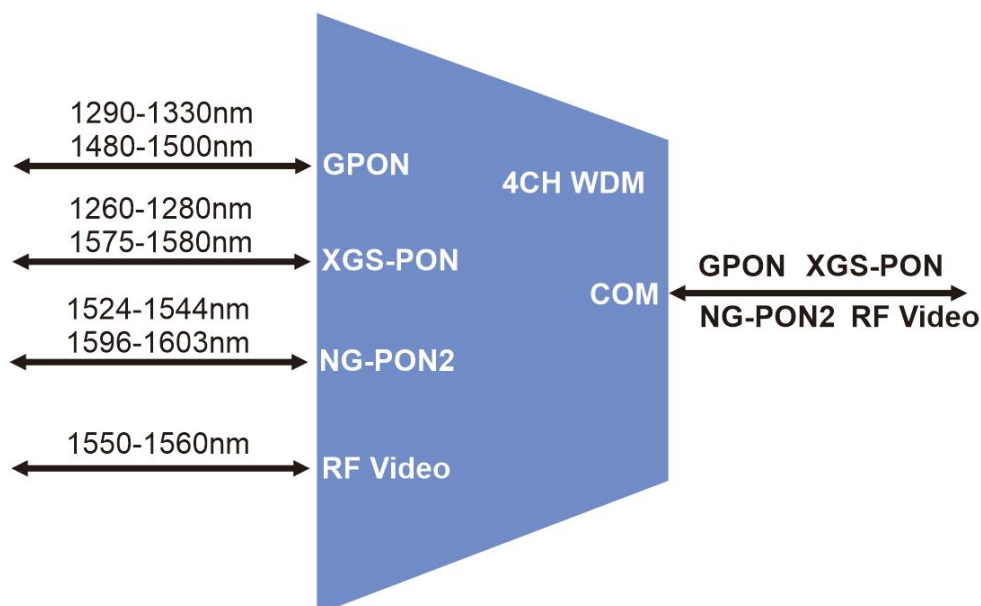
Features: RF Video technology allows the transmission of analog video signals over fiber, enabling the delivery of high-quality video content. It is often used in conjunction with PON technologies to provide integrated video services.

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, NG-PON2, RF Video

Application



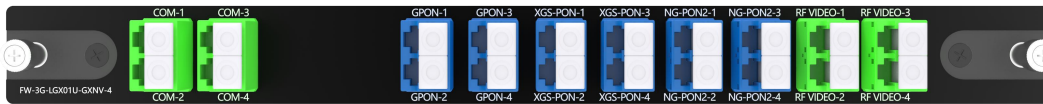
Product Panel



4CH WDM GPON XGS-PON NG-PON2 And RF Video, PON SC/UPC, COM RF Video SC/APC
Plug-in LGX Box 215*150*20MM



2X4CH WDM GPON XGS-PON NG-PON2 And RF Video, PON SC/UPC, COM RF Video SC/APC
Plug-in LGX Box 215*150*20MM



4X4CH WDM GPON XGS-PON NG-PON2 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
	NG-PON2	1524-1544/1596-1603	nm
	RF-Video	1550-1560	nm
Insertion Loss	COM - GPON	<0.9	dB
	COM - XGS-PON	<1.1	dB
	COM - NG PON2	<1.3	dB
	COM - RF Video	<1.6	dB
Wavelength Isolations	COM - GPON	>30	dB
	COM - XGS-PON	>30	dB
	COM - NG PON2	>30	
	COM - RF Video	>30	dB
Unifomit		<0.8	dB
Return Loss		>55	dB
Directivity		>55	dB
PDL (Polarizarion Dependant Loss)		<0.3	dB
(Polarization Mode Dispersion)		<0.2	PS
Optical Power Handing		<300	mW
Operating Temperature		-40 to +85	°C
Operating Relative Humidity		5 to 90	% RH

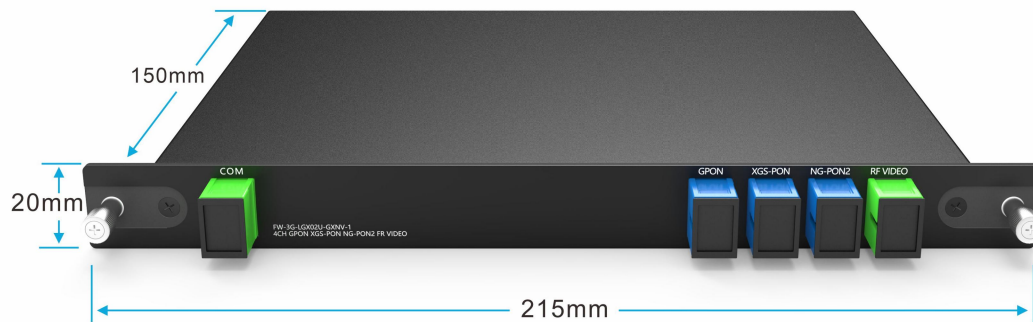
Storage Temperature	-40 to +85	°C
Operating Relative Humidity	5 to 90	% RH
Net Weight	LGX Box: 0.5KG 2slot 1U Rack: 2.5KG	KG
Dimensions	LGX Box: 215*150*20mm 1U Rack : 440*160*44mm	mm

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

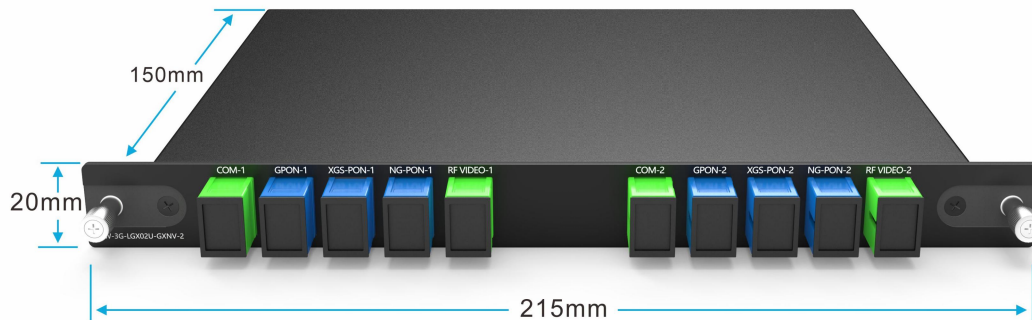
Package Information

LGX BOX Plug in 4-Slot 1U Rack

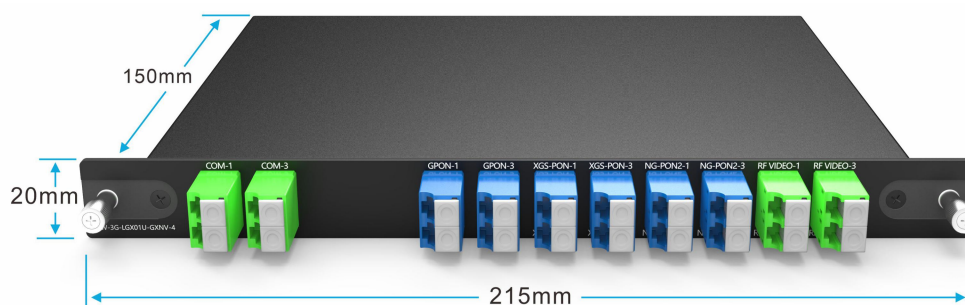
4CH WDM



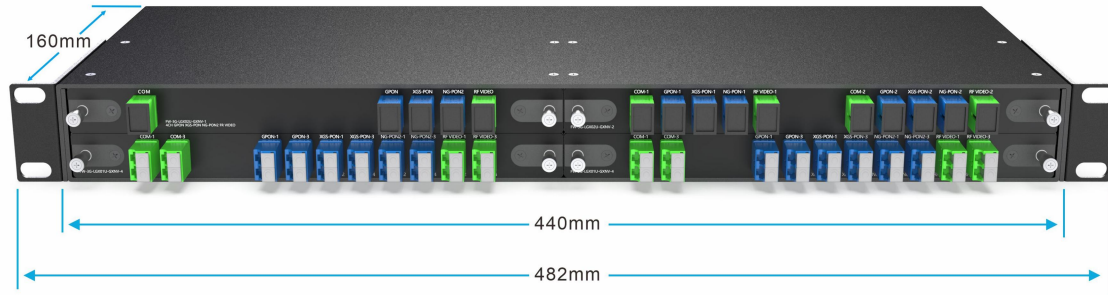
2x4CH WDM



4x4CH WDM



4-Slot 1U Rack for LGX BOX



Order Information

Product No.	Product description
FW-3G-LGX02-GXNV-1	4CH WDM GPON XGS-PON NG-PON2 And RF Video , PON SC/UPC, COM RF Video SC/APC Plug-in LGX Box 215*150*20MM
FW-3G-LGX02-GXNV-2	2x4CH WDM GPON XGS-PON NG-PON2 And RF Video, PON SC/UPC, COM RF Video SC/APC Plug-in LGX Box 215*150*20MM
FW-3G-LGX01-GXNV-4	4x4CH WDM GPON XGS-PON NG-PON2 And RF Video , PON LC/UPC, COM RF Video LC/APC 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.