4CH WDM GPON XGS-PON NG-PON2 And OTDR Plug-in LGX Box 215*150*20MM

FW-3G-LGX02-GXNO

As emerging technologies like 5G, the Internet of Things (IoT), and cloud computing develop at a fast pace, there is a steady rise in bandwidth demand. To keep up with this demand, Passive Optical Network (PON) technologies are advancing as well. Currently, the primary PON technologies in use include GPON, XGS-PON, and NG-PON2; meanwhile, OTDR (Optical Time Domain Reflectometer) serves as a tool for diagnosing network faults and carrying out maintenance work. By leveraging 4CH WDM (Four-Channel Wavelength Division Multiplexing) technology, these various technologies can coexist on a single fiber—this not only boosts the network's bandwidth but also improves its flexibility.

GPON (Gigabit-Capable Passive Optical Network)

Features: GPON supports downstream rates of 2.5Gbps and upstream rates of 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: It is widely used in home broadband access, enterprise networks, and smart cities.

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: It is suitable for scenarios that require high-bandwidth symmetrical transmission, such as enterprise networks, data center interconnection, and 5G fronthaul.

NG-PON2 (Next-Generation PON2)

Features: NG-PON2 uses 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 suitable for enterprise networks, mobile backhaul and fronthaul, and scenarios that require high bandwidth and flexible wavelength allocation.

OTDR (Optical Time Domain Reflectometer)

Features: OTDR is a tool used for fiber optic network fault diagnosis and maintenance, capable of detecting breaks, losses, and reflection points in the fiber.

Application Scenarios: It is widely used in the installation, maintenance, and troubleshooting of fiber optic networks.

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, OTDR
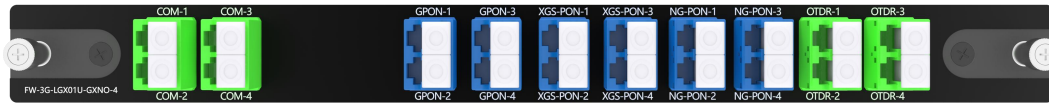
Application
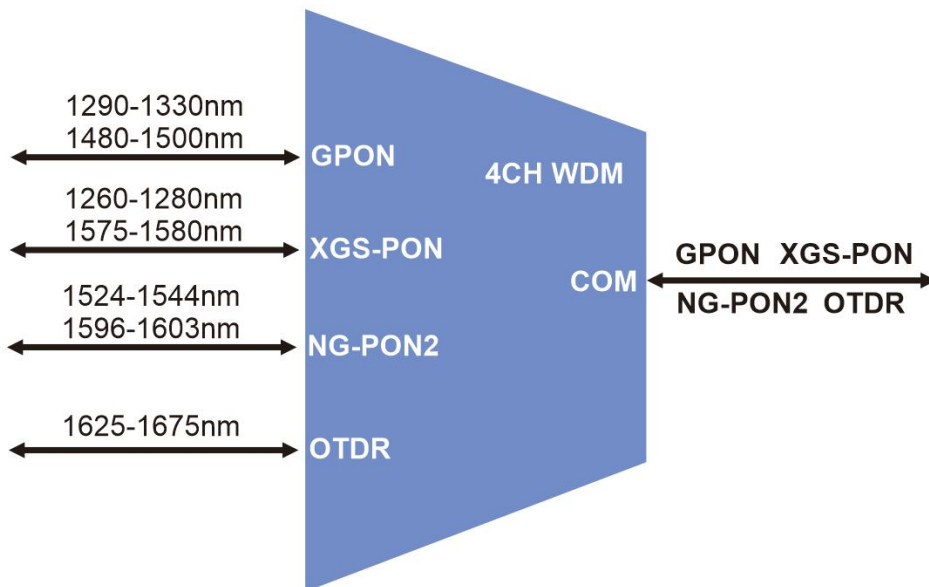
Product Panel

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

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

4X4CH WDM GPON XGS-PON NG-PON2 And OTDR, PON LC/UPC , COM AND OTDR 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
	OTDR	1625-1675	nm
Insertion Loss	COM - GPON	<0.9	dB
	COM - XGS-PON	<1.1	dB
	COM - NG PON2	<1.3	dB
	COM - OTDR	<1.6	dB
Wavelength Isolations	COM - GPON	>30	dB
	COM - XGS-PON	>30	dB
	COM - NG PON2	>30	
	COM - OTDR	>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	℃
Operating Relative Humidity		5 to 90	% RH
Storage Temperature		-40 to +85	℃
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

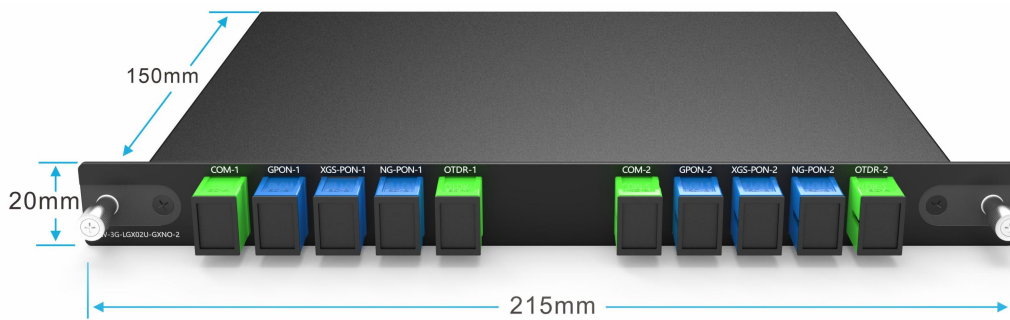Insertion Loss includes WDL, TDL and PDL WITH two sets of mated connectors at both ends.

Package Information

LGX BOX Plug in 4-Slot 1U Rack
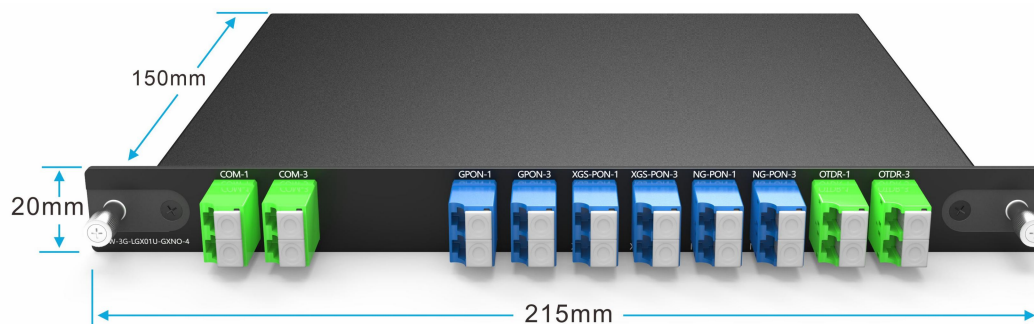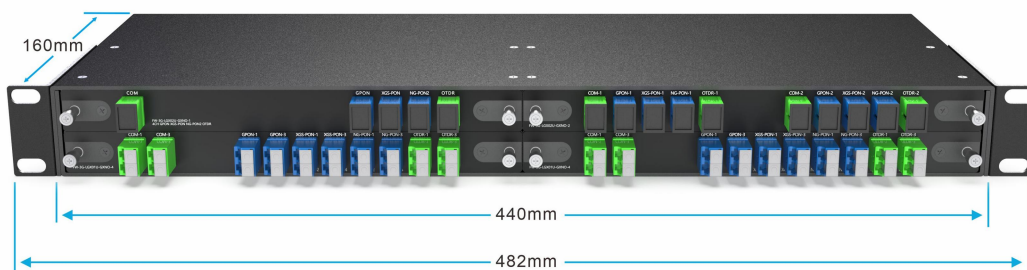
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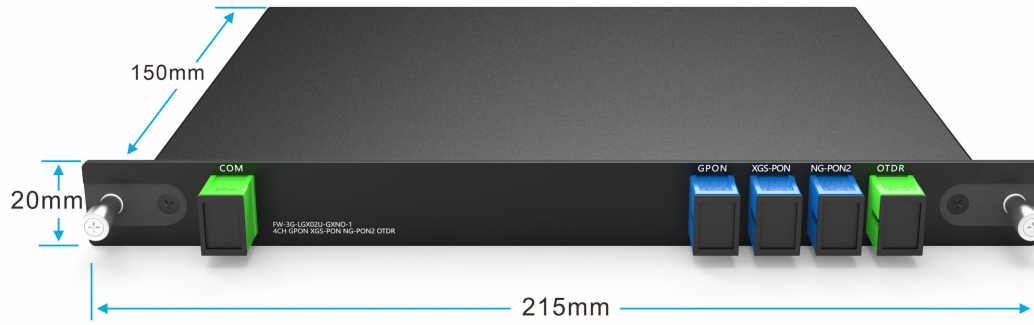
2x4CH WDM

4x4CH WDM

4-Slot 1U Rack for LGX BOX

Order Information

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