



High Availability Local Networks

HL-4BX3V-F

GPON Wireless Router

1xLAN 2.5Gbit

3xLAN 1Gbit

Wi-Fi6 AX3000

With VoIP



Product Description

HALNy GPON Gateway is an innovative and powerful product for business and residential subscribers.

All products within the GPON family comply with current ITU-T standards for gigabit passive optical networks (GPONs). The solution is designed to optimize the deployment and roll-out of the service provider. **HL-4BX3V-F** design offers multi-interoperability with several OLT vendors. The ONT/ONU products are tested and have proven interoperability with most major GPON OLT Vendors.

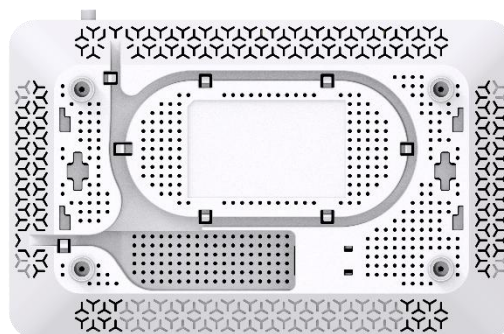
The solution is designed to optimize the deployment and roll-out of the service provider. This includes interoperability GPON ONT with advanced support for L2 VLANs and Multicast IGMP, L3 Routing with NAT, PPPoE, and easy-to-use Provisioning.

HALNy specializes in cost-effective designs and works closely with service providers to improve their business case through a comprehensive range of standard products, supporting the industry's common demands. HALNy also provides custom designs and services to meet unique customer needs.

Housing can be sold with the Operator logo on the top cover.



**DEVELOPED
IN POLAND**



All specifications are subject to change without notice. The above product picture is a sample for reference and may vary. Please check with your supplier for exact offers. Actual data throughput and Wi-Fi coverage will vary from network conditions and environmental factors, including the volume of network traffic, building material and construction, and network overhead, resulting in lower actual data throughput and wireless coverage. Quoted network speeds and bandwidth based on current IEEE specifications. Actual performance may be affected by network and service provider factors, interface type, and other conditions.

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Hardware Specification

Flash / RAM	256MB / 512MB	Storage Temp.	-10°C~60°C (14°F~140°F)
CPU	Dual Core 1GHz	Operating Temp.	0°C~45°C (32°F~113°F)
WAN Port	GPON B+ SC/APC 2.488Gbps Downstream 1.244Gbps Upstream	Operating Humidity	10% ~ 90% (non-condensing)
GPON Tx	0.5 ~ 5 dBm	Power Supply	DC +12V / 1.5A
GPON Rx	-10 ~ -27 dBm	Buttons	ON/OFF Power WPS, Wi-Fi, Reset
LAN Port	1 x 100/1000/2500Base-T 3 x 10/100/1000BASE-T Auto-sensing, auto-detection MDI/ MDI-X, RJ45	Dimension (W x D x H)	225 x 142 x 46mm
TEL Port	1 x FXS, RJ11	Operating Frequencies	802.11b/g/n/ax: 2401-2484 MHz 802.11a/n/ac/ax: 5170-5835 MHz
LED	POWER, PON, LOS, NET, WLAN 2.4G, WLAN 5G, WPS, LAN2.5G, LAN1-3, TEL	Maximum power of the transmitter	2.4 GHz: up to 20 dBm 5 GHz: up to 23 dBm Transmit power control
WI-FI	2T3R AX3000 2.4GHz & 5GHz MU-MIMO Internal antennas		

Frequency Band

2.4GHz	2412MHz – 2472MHz 2422MHz – 2462MHz Transmit Power: 0.0589W Modulation: DSSS/OFDM Channel Width: 20/40MHz	5GHz	5180MHz – 5240MHz 5260MHz – 5320MHz 5500MHz – 5700MHz Modulation: OFDM/BPSK/QPSK/16-QAM/64-QAM/ 256-QAM, 1024-QAM Transmit Power: 0.0769W Channel Width: 20/40/80/160MHz 5745MHz – 5825MHz 5755MHz – 5795MHz Modulation: OFDM/BPSK/QPSK/16-QAM/64-QAM/ 256-QAM, 1024-QAM Transmit Power: 0.0225W Channel Width: 20/40/80/160MHz
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Software Specification

GPON	ITU-T G.984.x and G.988 OMCI G.984.4 / G.988 AES / FEC / DBA Dying GASP Multicast GEM	L3 (HGU Mode)	Router / NAT / PAT PPPoE / DHCP Client Static IP DHCP Server IGMP Proxy VPN Pass-through UPnP DMZ / Port Forwarding IPv4 / IPv6 IPv6 Dual Stack IPv6 DS-Lite IPv6 Firewall RFC-6092 WAN bridge
Provisioning	Easy to use provisioning for all ONT configuration DOCSIS like provisioning over GPON/EPON TR-069 OMCI OTT Upgrade DHCP 66/67 XML RestAPI / JSON	Telephony	SIP, DTMF, Dial Plan
Management	WEB (two user accounts) Remote Syslog OMCI	EasyMesh	Controller and Agent

Interoperability Test Result

NOKIA (Alcatel-Lucent)	Cisco/Altice
DZS	FIBERHOME
ZTE	RAISECOM
HUAWEI	ZYXEL
CALIX	ZHONE
ADTRAN	ISKRATEL

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Ordering Information

**HL-4BX3V-F /
HL-4BX3V-F-EU**

HALNY NETWORKS GPON ONT 4-PORT LAN: 1x100/1000/2500 + 3x10/100/1000, B+ SC/APC, WIFI B/G/N/AC/AX 2.4GHZ/5GHZ AX:2X3, 1XPOTS, Router/Bridge, with European Power Adapter

HL-4BX3V-F-US

HALNY NETWORKS GPON ONT 4-PORT LAN: 1x100/1000/2500 + 3x10/100/1000, B+ SC/APC, WIFI B/G/N/AC/AX 2.4GHZ/5GHZ AX:2X3, 1XPOTS, Router/Bridge, with North America Power Adapter

HL-4BX3V-F-UK

HALNY NETWORKS GPON ONT 4-PORT LAN: 1x100/1000/2500 + 3x10/100/1000, B+ SC/APC, WIFI B/G/N/AC/AX 2.4GHZ/5GHZ AX:2X3, 1XPOTS, Router/Bridge, with United Kingdom Power Adapter

HL-4BX3V-F-NOPS

HALNY NETWORKS GPON ONT 4-PORT LAN: 1x100/1000/2500 + 3x10/100/1000, B+ SC/APC, WIFI B/G/N/AC/AX 2.4GHZ/5GHZ AX:2X3, 1XPOTS, Router/Bridge, without Power Adapter

HL-FIBER-TRAY

HALNY TRAY FOR ONT/CPE

Please **contact sales** for detailed order information



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