

HALNY

High Availability Local Networks



DESIGNED AND DEVELOPED
IN POLAND

by **FIBRAIN**



HALNY NETWORKS

Best-in-class independent vendors
GPON / XGS-PON ONTs and Ethernet
Routers (CPE)

→ halny.com

GPON and XGS-PON

- Customized CPEs and ONTs (hardware and software)
- Interoperable ONTs with adaptive OMCI stack
- Proven interoperability with over 11 OLT vendors
- Universal provisioning methods (XML / TR-069 / DHCP / OTT / API) same for ONTs and CPEs
- EtherWAN support (change mode between PON and Ethernet) to simplify migration to GPON
- 2.5 Gigabit Ethernet LAN port



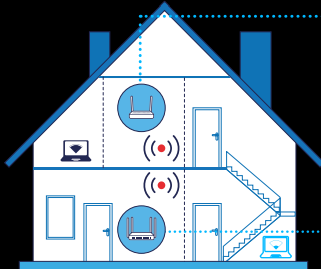
SUPPORT

- Free of charge
- New firmware versions free of charge (no licence needed)
- Knowledge base
- Helpdesk system

1 Extend WIFI network with HALNy EasyMESH

Concept to extend WIFI network:

- GPON ONT as EasyMESH Controller
- HALNy CPE as EasyMESH Agent

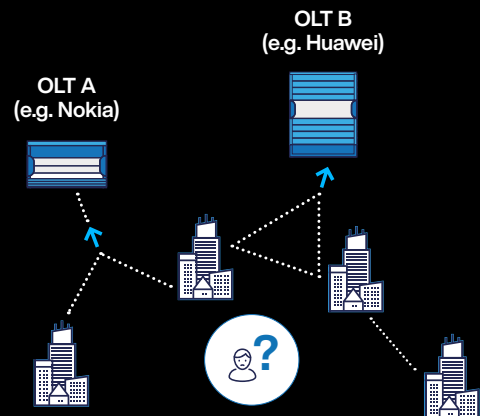


MESH NODE

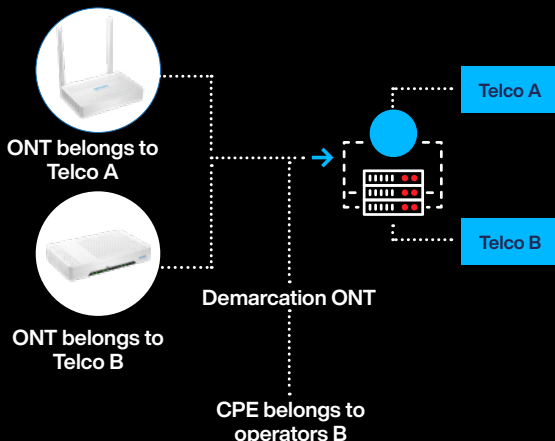


GPON ONT MESH

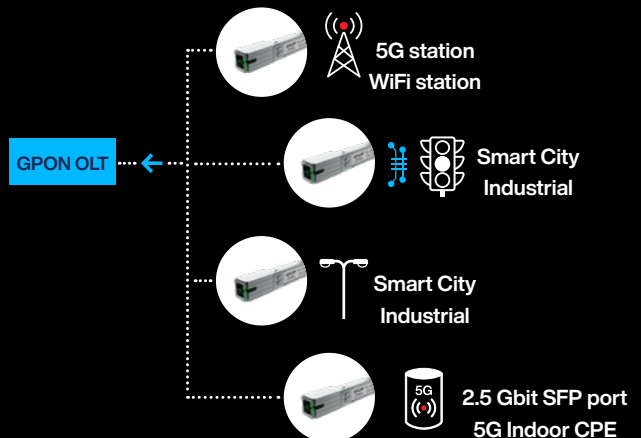
2 Interoperable GPON ONTs



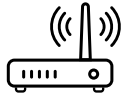
3 Fixed Broadband Sharing Infrastructure operator responsibility



4 Industrial HALNy ONT HL-GSFP as Demarcation Device



HALNy



GPON ONT



HL-GSFP

GPON ONU SFP with 2.5Gb SFP port and embedded chipset, industrial temperature



HL-1GE / HL-1GC

GPON ONT with 1x Gigabit LAN port and SFU/HGU mode support



HL-1GR

GPON ONT with 1x Gigabit LAN port and RF port for CATV/DVB overlay



HL-1B

GPON ONT with 1x 2.5Gigabit LAN port and SFU/HGU mode support

NEW +



HL-2BV

GPON ONT with 1x 2.5Gigabit LAN, 1x Gigabit LAN port, 1x VoIP FXS port and SFU/HGU mode support



HL-4G2

GPON ONT with 4x Gigabit LAN ports and SFU/HGU mode support

NEW +



HL-4GMV2

GPON ONT with 4x Gigabit LAN ports, Wi-Fi 2x2 5GHz, 2x2 2.4GHz and 2x VoIP FXS ports



HL-4GMVR

GPON ONT with 4x Gigabit LAN ports, Wi-Fi 2x2 5GHz, 2x2 2.4GHz, 1x VoIP FXS port and RF port for CATV/DVB overlay



HL-4GXV-F

GPON ONT with 4x Gigabit LAN ports, Wi-Fi 6 (AX1800), 2x2 2.4GHz and 2x2 5GHz, 1x VoIP FXS port, mode button



HL-4BX3V-F

GPON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x3 5GHz and 1x VoIP FXS port

NEW +



HL-4GX3VR

GPON ONT with 4x Gigabit LAN ports, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x2 5GHz, 1x VoIP FXS port and RF port for CATV/DVB overlay

NEW +



HL-4BY3V-F

GPON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 7 Dual Band and 1x VoIP FXS port

coming soon

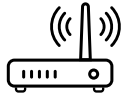


HL-4BY7V-F

GPON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 7 Dual Band 4x4 and 1x VoIP FXS port

coming soon

HALNy



XGS-PON ONTs



HLX-SFPX

coming soon

XGS-PON ONU with 10GB SFP+ port and embedded chipset



HLX-1B

coming soon

XGS-PON ONT with 1x 2.5Gigabit LAN port and SFU mode support



HLX-1TL

coming soon

XGS-PON ONT with 1x 10Gigabit LAN port and SFU mode support



HLX-TGV

XGS-PON ONT with 1x 10Gigabit LAN port, 1x Gigabit LAN port, 2x VoIP FXS ports and SFU/HGU mode support



HLX-4BYV-F

coming soon

XGS-PON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 7 TriBand and 1x VoIP FXS port

HALNy CPE



HLE-3GM

HALNy Ethernet Gateway with 3x Gigabit LAN ports, 1x Gigabit WAN port, Wi-Fi 2x2 5GHz and 2x2 2.4GHz, Wi-Fi 2x2 5GHz, 2x2 2.4GHz, Wi-Fi 5



HLE-3GX-F

HALNy Ethernet Gateway with 3x Gigabit LAN ports, 1x Gigabit WAN port, Wi-Fi 2x2 5GHz and 2x2 2.4GHz, Wi-Fi 6



HLE-4BX3V-F

HALNy Ethernet Gateway with 3x Gigabit LAN ports, 1x 2.5Gigabit WAN port, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x3 5GHz and 1x VoIP FXS port

Active Ethernet (SFP WAN)



HLS-4BX3V-F

coming soon

Active Ethernet Router with 1xSFP port, 1x 2.5Gigabit LAN, 3x Gigabit LAN ports, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x3 5GHz and 1x VoIP FXS port

HALNy accessories



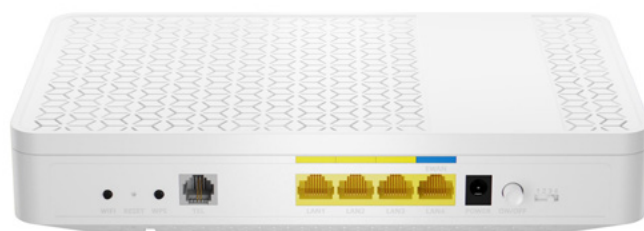
HL-FIBER-TRAY

HALNy customer splice outlet with 2x adapters SC/LC/SCA/LCA, 1x Optical patch cord reserve holder, possibility to mount optical splitters

HALNy



HALNy Customized Housing



Features

- Possibility to use LAN4 port as an Ethernet WAN port, like a normal Ethernet router
- The only thing to use this mode is to switch the transfer mode button on the device
- Same housing for new generation GPON / XGS-PON ONTs and CPE
- All functionality like VLAN, VOIP and others remain
- Based on one-touch provisioning. You can easily migrate from your actual technology (for example DOCSIS) to GPON, without visits to the subscriber

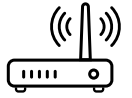
Top cover housing available in additional colors



HALNy Customized software:

- HALNy WEB interface with ISP logo and colours
- WIFI Prefix with ISP name
- Possibility to customize device with ISP default settings (like ACS, WAN, VLANs etc.)
- Device ready OUT-OF-THE-BOX to install
- Possibility to provision customization by ISP

HALNy



Partnered Integrated NMS

OPENOLT → OpenOLT.com



A Multivendor PON and Rest API cloud Network Management & Provisioning System for GPON



WIFI DASHBOARD

Optimize subscriber's Wi-Fi network and identify devices that are hogging more bandwidth.



PROVISIONING

ONT XML Generator with simple steps.



EASY TO USE

We hide complexity of GPON Networks into easy to use web interface.



SUPER FAST

Get information about the situation in field in seconds right from your browser. No java clients needed.



VIRTUALIZATION

Fixed Access Broadband Sharing included, share infrastructure with others and increase your penetration.



SAVES TIMES ON SUPPORT CALLS

Subscribers will get what they want in seconds, don't lose precious time.



SOFTWARE UPDATES

Having up to date device reduce successful attacks on your network. You can perform or schedule update in the way to prevent failures. Upgrade can be performed during recommended off-peak time.



API AND MANAGEMENT

JSON or XML Rest API for super easy integration with billing and CRM's.



LOWER TRUCK ROLLS

Dispatching a technician takes valuable time for you and your subscriber. We help to reduce network outage and provide tools to remotely recover the service in the shortest time.



INNOVATION

Game-changing features allow you to unleash full potential of your network.



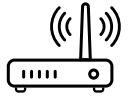
VOTDR

Virtual OTDR helps to identify issues with the passive network.



AUTCARE

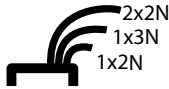
Schedule task or perform recommended action during problem detection. With self-learning platform you can apply proven solution right away.



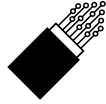
FIBRAIN GPON Comprehensive Passive components



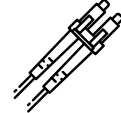
**APT®
technology**



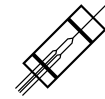
**1x2N /
1x3N / 2x2N**



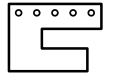
**Fiber Optic
Cables**



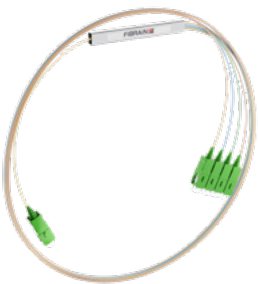
Connectivity



**Passive Optical
Network**



Distribution



Alubox splitter



Blackbox splitter



FIBRAIN Drop Cables D_{CA} CPR
1-4F Single-Mode Fiber



Asymmetrical 1x5 Splitters
for FTTH network with cascaded star topology



Symmetrical Splitter
for FTTH network 1x2N or 1x3N











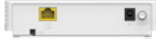


FIBRAIN Drop Cable Patchcords
1-4F Single-Mode Fiber












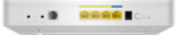


SCAB-19-X
self-supporting outdoor OLT cabinet,
12U, 15U or 18U

→ Possibility to customize variants/height






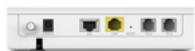
HALNy GPON ONTs

MODEL NAME	HL-GSFP	HL-1GE / HL-1GC	HL-1GR	HL-1B	HL-2BV	HL-4G2
DEVICE VIEW						
REAR VIEW						
DESCRIPTION	GPON ONU SFP with 2.5Gb SFP port and embedded chipset, industrial temperature	GPON ONT with 1x Gigabit LAN port and SFU/HGU mode support	GPON ONT with 1x Gigabit LAN port and RF port for CATV/DVB overlay	GPON ONT with 1x 2.5Gigabit LAN, 1x Gigabit LAN port, 1x VoIP FXS port and SFU/HGU mode support	GPON ONT with 1x 2.5Gigabit LAN, 1x Gigabit LAN port, 1x VoIP FXS port and SFU/HGU mode support	GPON ONT with 4x Gigabit LAN ports and SFU/HGU mode support
MODE	SFU (Bridge only)	"SFU (bridge) HGU (router NAT)	SFU (bridge) HGU (router NAT)	SFU (bridge) HGU (router NAT)	SFU (bridge) HGU (router NAT)	SFU (bridge) HGU (router NAT)
LAN	1x1000/2500	1x10/100/1000	1x10/100/1000	1x100/1000/2500	1x100/1000/2500 1x10/100/1000	4x10/100/1000
VOIP	-	-	-	-	1	-
WIFI	-	-	-	-	-	-
WIFI 5GHZ SPEED	-	-	-	-	-	-
CATV / RF	-	-	1	-	-	-
USB	-	-	-	-	-	-
ETHERWAN (LAN4 AS WAN PORT)	-	-	-	-	-	-
MODE BUTTON	-	-	-	-	-	-
FIBRAIN NEW UNIFIED HOUSING CUBE FIBERTRAY SUPPORT	-	-	-	-	-	-
OPTICAL CLASS	B+	B+ or C+(HL-1GC)	B+	B+	B+	B+







PRODUCTS PRESENTATION

HL-4GMV2	HL-4GMVR	HL-4GXV-F	HL-4BX3V-F	HL-4GX3VR	HL-4BY3V-F	HL-4BY7V-F
						
					coming soon	coming soon
GPON ONT with 4x Gigabit LAN ports, Wi-Fi 2x2 5GHz, 2x2 2.4GHz and 2x VoIP FXS ports	GPON ONT with 4x Gigabit LAN ports, Wi-Fi 2x2 5GHz, 2x2 2.4GHz, 1x VoIP FXS port and RF port for CATV/DVB overlay	GPON ONT with 4x Gigabit LAN ports, Wi-Fi 6 (AX1800), 2x2 2.4GHz and 2x2 5GHz, 1x VoIP FXS port, mode button	GPON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x3 5GHz and 1x VoIP FXS port	GPON ONT with 4x Gigabit LAN ports, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x2 5GHz, 1x VoIP FXS port and RF port for CATV/DVB overlay	GPON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 7 Dual Band and 1x VoIP FXS port	GPON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, Wi-Fi 7 Dual Band 4x4 and 1x VoIP FXS port
HGU (router NAT)	HGU (router NAT)	HGU (router NAT)	HGU (router NAT)	HGU (router NAT)	HGU (router NAT)	HGU (router NAT)
4x10/100/1000	4x10/100/1000	4x10/100/1000	1x100/1000/2500 3x10/100/1000	4x10/100/1000	1x100/1000/2500 3x10/100/1000	1x100/1000/2500 3x10/100/1000
1 or 2	1	1	1	1	1	1
2T2R Wi-Fi 5	2T2R Wi-Fi 5	2T2R AX1800 Wi-Fi 6	2T3R AX3000 WiFi6	2T2R AX3000 Wi-Fi 6	Wi-Fi 7 Dual-Band 2.4/5	Wi-Fi 7 Dual-Band 2.4/5 4x4
1166Mbs (2.4G / 5G)	1166Mbs (2.4G / 5G)	1800Mbs (2.4G / 5G)	3000Mbs (2.4G / 5G)	3000Mbs (2.4G / 5G)	BE3600	BE7200
-	1	-	-	1	-	-
-	-	optional	-	-	-	-
●	●	●	●	●	●	●
-	-	●	-	-	-	-
-	-	● white top panel	● white top panel	-	● white top panel	● white top panel
B+	B+	B+	B+	B+	B+	B+

HALNy XGS-PON ONTs

MODEL NAME	HLX-SFPX	HLX-1B	HLX-1TL	HLX-TGV	HLX-4BYV-F
DEVICE VIEW					
REAR VIEW		coming soon	coming soon		coming soon
DESCRIPTION	XGS-PON ONU with 10GB SFP+ port and embedded chipset	XGS-PON ONT with 1x 2.5Gigabit LAN port and SFU mode support	XGS-PON ONT with 1x 10Gigabit LAN port and SFU mode support	XGS-PON ONT with 1x 10Gigabit LAN port, 1x Gigabit LAN port, 2x VoIP FXS ports and SFU/HGU mode support	XGS-PON ONT with 1x 2.5Gigabit LAN port, 3x Gigabit LAN ports, WI-FI 7 TriBand and 1x VoIP FXS port
MODE	SFU (bridge only)	SFU (bridge only)	SFU (bridge only)	SFU (bridge) HGU (router NAT)	HGU (router NAT)
LAN	1x1000/10000	1x100/1000/2500	1x1000/2500/10000	1x1000/2500/10000 1x10/100/1000	1x100/1000/2500 3x10/100/1000
VOIP	-	-	-	2	1
WIFI	-	-	-	-	„WIFI 7 TriBand 2.4/5/6GHz”
CATV / RF	-	-	-	-	-
USB	-	-	-	-	-
MODE BUTTON	-	-	-	-	●
FIBRAIN NEW UNIFIED HOUSING CUBE	-	-	-	-	● white top panel
OPTICAL CLASS	B+	B+	B+	B+	B+

HALNy CPE

MODEL NAME	HLE-3GM	HLE-3GX-F	HLE-4BX3V-F	HLS-4BX3V-F
DEVICE VIEW				
REAR VIEW				coming soon
DESCRIPTION	HALNy Ethernet Gateway with 3x Gigabit LAN ports, 1x Gigabit WAN port, Wi-Fi 2x2 5GHz and 2x2 2.4GHz, Wi-Fi 2x2 5GHz, 2x2 2.4GHz, Wi-Fi 5	HALNy Ethernet Gateway with 3x Gigabit LAN ports, 1x Gigabit WAN port, Wi-Fi 2x2 5GHz and 2x2 2.4GHz, Wi-Fi 6	HALNy Ethernet Gateway with 3x Gigabit LAN ports, 1x 2.5Gigabit WAN port, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x3 5GHz and 1x VoIP FXS port	Active Ethernet Router with 1xSFP port, 1x 2.5Gigabit LAN, 3x Gigabit LAN ports, Wi-Fi 6 (AX3000), 2x2 2.4GHz, 2x3 5GHz and 1x VoIP FXS port
WAN	1x10/100/1000	1x10/100/1000	1x100/1000/2500 Ethernet	1x100/1000/2500 SFP
LAN	3x10/100/1000	3x10/100/1000	3x10/100/1000 1x100/1000/2500	3x10/100/1000 1x100/1000/2500
VOIP	-	-	1	1
WIFI	2T2R Wi-Fi 5	2T2R WiFi6	2T2R WiFi6	2T3R Wi-Fi 6
WIFI 5GHZ SPEED	1166Mbs (2.4G / 5G)	1800Mbs (2.4G / 5G)	WiFi6 AX3000	3000Mbs (2.4G / 5G)
USB	no	no	no	no
FIBRAIN NEW UNIFIED HOUSING CUBE FIBERTRAY SUPPORT	-	● grey top panel	● grey top panel	● grey top panel

The HALNY logo features the word "HALNY" in a bold, white, sans-serif font. The letter "A" is stylized with a diagonal slash through it. The logo is set against a dark blue rectangular background.

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by

FIBRAIN 



DESIGNED AND DEVELOPED
IN POLAND

**Where ultrafast
broadband is needed
– we can help!**

→ halny.com