

WinkyLink

WLONYX1800

Wi-Fi 6 | XPON | 1800M



SMART CHOICE FOR NEXT-GEN NETWORKS

WLONYX1800 is a user terminal device designed for modern FTTH networking scenarios. It integrates advanced Layer 2 switching and Layer 3 routing functions in a compact, low-power design, delivering high performance with a sleek form factor. This optical network unit (ONU) is ideal for supporting a wide range of data services required by operators in FTTH deployments. As an XPON solution, the WLONYX1800 seamlessly adapts to both EPON and GPON networks without the need to replace hardware or upgrade firmware.



WI-FI 6 AX1800



XPON Compatible



Internet • Voice • TV



High Performance

External Ports:

RJ45 Gigabit LAN (4x), RJ11 VoIP (POTS), port, USB port, SC/APC Fiber (PON) port, DC Power jack

Antennas

- Dual-band Wi-Fi 6 (AX1800)
- 2x2 external antennas, 5 dBi gain



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Smart Choice for Next-Gen Networks

The WLONYX1800 brings together advanced fiber optics and Wi-Fi 6 technology in a compact, reliable design. It delivers powerful hardware features that support high-speed Internet, stable wireless coverage, triple-play services, and long-distance FTTH connectivity. Built to meet the demands of modern homes and businesses, this ONU is engineered for performance, efficiency, and flexibility.



High-Performance FTTH Connectivity

The WLONYX1800 is a next-generation FTTH optical network unit (ONU) designed for reliable home and business broadband. Supporting both EPON and GPON standards, it adapts seamlessly to different operator networks without replacing hardware or firmware. With dual-mode compatibility and future-ready architecture, it ensures flexible deployment across a variety of environments.

Wi-Fi 6 for Faster Wireless Networking

Equipped with Wi-Fi 6 (802.11ax), the device provides higher throughput, lower latency, and stronger performance than earlier Wi-Fi generations. Dual-band connectivity across 2.4 GHz and 5 GHz with 2x2 external antennas delivers stable, high-speed wireless coverage for multiple simultaneous devices.

Comprehensive Hardware Interfaces

The WLONYX1800 integrates four Gigabit Ethernet LAN ports, one VoIP port, one USB port, and a fiber SC/APC interface. This versatile combination enables Internet, voice, and video services in a single device, making it a true triple-play solution for modern households and enterprises.

Advanced Optical Performance

Built with Class B+ optics, the ONU supports transmission distances up to 20 km. Its high sensitivity and reliable optical design ensure consistent performance in FTTH deployments, providing uninterrupted connectivity for data, voice, and multimedia services.

Efficient, Compact, and Reliable

Measuring 260 × 160 × 50 mm and weighing only 460 g, the WLONYX1800 combines compact form with powerful performance. With low power consumption (<10W) and stable operation in a wide temperature and humidity range, it delivers dependable connectivity in diverse scenarios.

Hardware Specifications

Optical Signal Access	1 × GPON/EPON (SC/APC, Class B+)
User Interfaces	RJ45 Gigabit LAN (4x), RJ11 VoIP (1x), USB port (1x), SC/APC Fiber port, DC Power jack
Buttons	Power switch, Reset, WLAN, WPS
LED Indicators	POWER, PON, LOS, LAN1–LAN4, TEL1, USB, 2.4G, 5G, WPS
Power Supply	Input: 100–240V AC, 50–60Hz → Output: 12V DC, 1.5A
Power Consumption	< 10 W
Operating Temperature	–10°C ~ +45°C
Humidity	5% – 95% (Non-condensing)
Weight	460 g
Size	260 × 160 × 50 mm

Ethernet Interface	
Interface Type	4 × RJ45
Parameters	10/100/1000 Mbps auto-adaptive

PON Interface	
Module Type	Class B+, SC/APC
Working Wavelength	Upstream: 1310 nm, Downstream: 1490 nm
TX Optical Power	0.5 ~ 4 dBm
RX Optical Sensitivity	–28 dBm
Transmission Distance	0 ~ 20 km
Transmission Rate	GPON: Up 1.244 Gbps / Down 2.488 Gbps EPON: Up 1.244 Gbps / Down 1.244 Gbps

Wireless (Wi-Fi 6)	
Working Mode	IEEE 802.11 b/g/n/ac/ax
Antennas	External 2 × 2T2R
Antenna Gain	5 dBi
Bandwidth	20/40/80 MHz
Max Rate	1775 Mbps
SSID	Up to 4 SSIDs

Voice (POTS Interface)	
Interface Type	1 × RJ11
Protocol	SIP
Codecs	G.711, G.723, G.726, G.729
Compliance	GR-909

Advanced Software Capabilities

The WLONYX1800 is equipped with powerful software features that ensure seamless network performance, advanced management, and secure connectivity. From flexible EPON/GPON compatibility to robust security and QoS, this ONU delivers the intelligence required for modern FTTH environments.

Seamless EPON/GPON Compatibility

The WLONYX1800 automatically adapts between EPON and GPON networks, ensuring effortless deployment across diverse operator infrastructures. With compliance to ITU-T G.984.x and IEEE 802.3ah standards, it provides long-term flexibility and investment protection.

Advanced Routing and Switching

The device integrates Layer 3 routing with hardware NAT, supporting multi-WAN, Route/Bridge modes, and PPPoE/DHCP/Static IP. At Layer 2, it delivers VLAN tagging, QoS prioritization, bandwidth control, and Spanning Tree for efficient traffic management.

Secure and Reliable Networking

Equipped with a firewall engine, the WLONYX1800 offers URL/MAC/IP filtering, ALG, DMZ, and UPNP. Bi-directional FEC enhances data reliability, while IPv4/IPv6 dual-stack ensures future-proof connectivity.

Smart Multicast and QoS

The ONU supports IGMP v2 proxy/snooping and MLD proxy/snooping for efficient IPTV and video streaming. QoS scheduling with PQ, WRR, and CAR guarantees smooth service delivery even in high-demand environments.

Remote Management and Maintenance

With TR-069, OMCI (GPON), and OAM (EPON) support, operators can remotely configure, monitor, and upgrade the device. Features like auto-discovery, link detection, and remote firmware updates simplify large-scale deployments.

Software Specifications	
EPON/GPON Mode	Auto-switching between EPON and GPON
Standards	ITU-T G.984.x, IEEE 802.3ah compliant
OMCI/OAM	OMCI (GPON), OAM (EPON)
Remote Management	TR-069 remote configuration and maintenance

Advanced Software Features

Networking & Routing	Layer 3 Home Gateway with hardware NAT Multiple WAN, Route/Bridge mode IPv4/IPv6 dual stack PPPoE/DHCP/Static IP
Switching & Traffic Management	IEEE 802.1Q VLAN IEEE 802.1P QoS Bandwidth Control Spanning Tree Queue Scheduling (PQ, WRR, CAR)
Security	Firewall (URL/MAC/IP filtering), ALG, DMZ, UPNP, Bi-directional FEC
Wireless	IEEE 802.11 b/g/n/ac/ax (Wi-Fi 6) Dual-band 2.4/5 GHz Max 1775 Mbps 2T2R external antennas Up to 4 SSIDs
Multicast & IPTV	IGMP v2 proxy/snooping MLD proxy/snooping
Voice (VoIP)	1× RJ11 port, SIP protocol, Codecs: G.711, G.723, G.726, G.729, GR-909 compliance

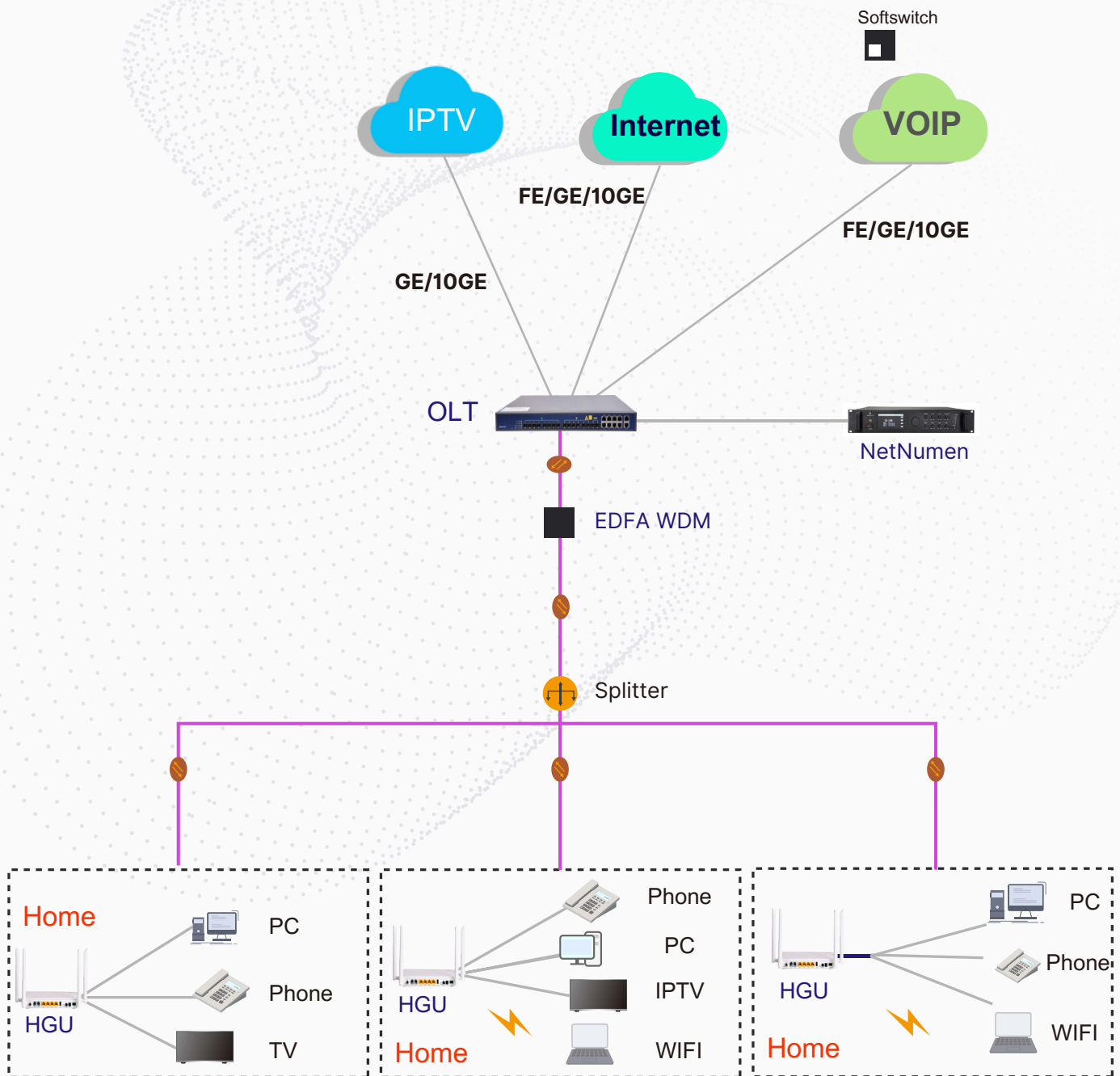


The WLONYX1800 provides multiple ports and buttons to support Internet, voice, video, and wireless services in FTTH scenarios.

1	Antennas (4x)	6	TEL
2	WPS	7	RES
3	WLAN	8	POWER
4	USB	9	DC
5	LAN (4x)	10	PON

With these versatile interfaces, the WLONYX1800 delivers Internet, Voice, and TV services through a single ONU device.

Networking application



The WLONYX1800 is designed for FTTH (Fiber-to-the-Home) deployments, delivering broadband Internet, Wi-Fi, voice, and video services over a single fiber connection. Through integration with the OLT and EDFA/WDM, multiple households can share high-speed access via optical splitters, ensuring efficient distribution of Internet, IPTV, and VoIP. At the customer premises, the ONU (HGU) provides seamless connectivity for PCs, phones, televisions, and wireless devices, making it an ideal solution for modern home and business environments.

WinkyLink

Connecting Homes and Businesses with Fiber & Wi-Fi 6

WLONYX1800



- Dual-Mode XPON (GPON/EPON auto-switching)
- Wi-Fi 6 AX1800, dual-band 2.4/5 GHz
- 4x Gigabit LAN, 1x VoIP (RJ11), 1x USB, SC/APC fiber port
- Triple-Play Support: Internet, Voice, TV
- Class B+ optics with up to 20 km transmission
- TR-069, OMCI, OAM remote management

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