

Ultimate-300

1GE+1FE+WIFI XPON ONU



Product Overview

Ultimate-300 is a high-performance indoor fiber broadband terminal equipped with a GPON/EPON adaptive optical port, supporting XPON mode for flexible deployment. It ensures seamless interoperability with major OLT vendors such as Huawei, ZTE, and FiberHome. Designed for residential and small business environments, it delivers high-speed Internet, Wi-Fi, and VoIP services over both GPON and EPON networks.



Functional Feature

Standards Compliance

- Fully compliant with IEEE 802.3ah (Ethernet in the First Mile) and ITU-T G.984 (GPON) standards, ensuring robust performance and interoperability.

Advanced Network Management

- Supports automatic ONU discovery, link status detection, and remote firmware upgrades for streamlined deployment and maintenance.
- Offers EMS-based network management via SNMP, enabling centralized and efficient monitoring.
- Provides remote access control through Web GUI and Telnet, enhancing operational flexibility.
- Integrated power-off alarm function for rapid fault detection and troubleshooting.

Enhanced Security

- Built-in AES encryption/decryption for secure data transmission.
- Comprehensive firewall capabilities with MAC address and URL filtering to safeguard network integrity.
- Multiple ONU authentication methods supported, including SN and LOID + Password.

Triple-Play Service Delivery

- Provides single-fiber access supporting Internet, VoIP, and Wi-Fi services simultaneously.
- Utilizes Dynamic Bandwidth Allocation (DBA) to optimize bandwidth distribution based on real-time demand.

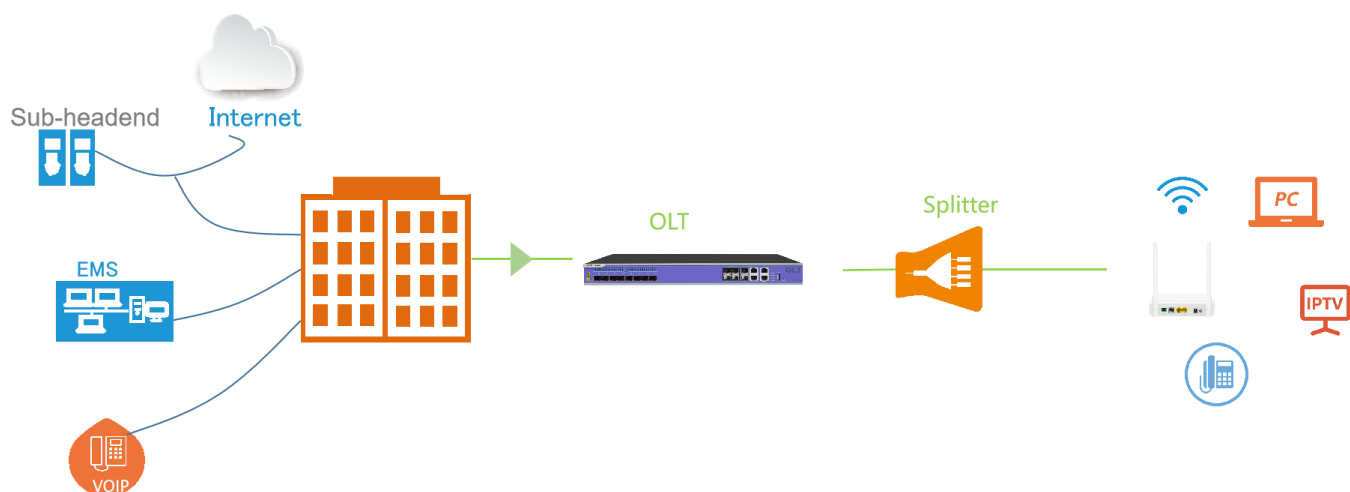
Port & Traffic Management

- Configurable port-based VLAN, rate limiting, and bandwidth control for granular traffic shaping.
- Supports MAC address learning with configurable limits to enhance network security and performance.
- Advanced VLAN handling including transparent, tag, translation, and trunk modes.

Multicast & Broadcast Optimization

- Supports IGMP in transparent, snooping, and proxy modes for efficient multicast traffic management.
- Built-in broadcast storm control to prevent network congestion and maintain stability.





Product Interface and LED



Indicator		Description
PWR	Power status	On: The ONT is power on;
		Off: The ONT is Power off;
PON	ONT Register	On: Success to register to OLT;
		Blinking: In process of registering to OLT;
		Off: Failed to register to OLT or no normal optical signal input;
LOS	PON optical signals	On: Optical power lower than receiver sensitivity;
		Off: Optical in normal;
GE/FE	LAN port status	On: Ethernet connection is normal;
		Blinking: Data is being transmitted through the Ethernet port;
		Off: Ethernet connection is not set up;
INT	Internet status indicator	On: The routed WAN Internet access service is normal.
		Off: The routed WAN Internet access service is abnormal.

Product Specification

Mechanics	
Dimensions	214*139.5*32mm
Weight	About 300g

Hardware		
User Port (LAN)		RJ-45 connector
		1*10/100 and 1*10/100/1000Mbps adaptive Ethernet port
		Full/half duplex
		Auto MDI/MDI-X
Indicators		PWR / PON / LOS / GE / FE / INT / TEL / WIFI
PON Port	PON Mode	EPON : 1000BASE-PX20+ symmetric
		GPON : FSAN G.984.2 standard, Class B+
	PON Rate	EPON : 1.25Gbps downstream/upstream
		GPON : 2.488Gbps/1.244Gbps downstream/upstream
	Wavelength	Transmit: 1310nm Receiver: 1490nm
	Receiving sensitivity	EPON : -27dBm GPON : -28dBm
	Saturated power	EPON : -3dBm GPON : -8dBm
	Transmitting power	EPON: 0~4dBm GPON : 0.5~5dBm

WIFI	
IEEE802.11b/g/n(2.4G)	
Max rate: 300M(2.4G)	
MAX TX power 2.4G:17dBm	

Environment	
Working temperature	0 to 40° C
Operating humidity	10% ~ 90% (Non-condensing)

Power	
External 12VDC/1A power supply adapter	
Power consumption	<9W

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