Huawei OptiXstar W826P Datasheet

Wi-Fi 6 ONU for Campus 10G Optical Access

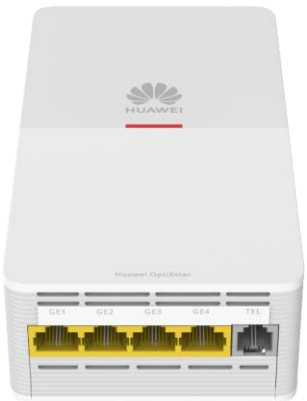
Overview

Huawei OptiXstar W826P is an XGS-PON 10G upstream panel-type Wi-Fi 6 ONU that provides four GE electrical ports, one POTS port, one USB port, and 2.4 GHz. 5 GHz Wi-Fi 6. It can be used for wired access, voice access, and Wi-Fi coverage in hotels, apartments, schools, enterprises, and governments.

- Provides a hybrid SC port that supports remote power supply using a PoF cable and local power supply using a power adapter.
- Supports junction box (86 mm) installation or wall-mounted installationwith fall-proof design.
- Supports the FIT and FAT management modes.
- Supports 2.4 GHz (2x2 MIMO) and 5 GHz (2x2 MIMO) dual-band Wi-Fi 6, with an air interface rate up to 2.976 Gbit/s.
- Supports radio calibration and roaming between Wi-Fi 6 ONUs.
- Multi-network convergence, supporting ONU port-level hard-isolated. Different ports of an ONU can be securely connected to multiple networks through the hard-isolated technology.

DC type

AC type (with power bracket)



NOTE

- The W826P has two types: AC type and DC type. The AC type needs to be installed with a power bracket.
- The schematic diagram in this document may differ from the actual product.

Device Parameters

Dimensions (H x W x D)	• DC type: 160 mm x 86 mm x 45 mm • AC type: 160 mm x 86 mm x 70 mm (including the power bracket)	**Weight (without adapter)**	About 354g
Power supply to the entire system	• Adapter: 12V DC, 2A • PoF: 48 V DC, 0.5 A **NOTE** The copper cable in the optical/electrical composite cable uses the PoE protocol to supply power and does not transmit data.	**Rated input range of the power adapter (AC configuration)**	100 - 240V AC, 50/60 Hz
Power consumption	• Static power consumption: 6.5W • Maximum power consumption: 18.5W	**Buttons**	Reset button
Optical fiber interface	SC/UPC	**Antenna Type**	Built-in antenna
Storage	256MB FLASH, 1GB RAM	**Installation Mode**	• DC type: indoor junction box (86 mm) or wall-mounted installation • AC type: indoor junction box (86 mm) installation
Operating Ambient Temperature	0°C - 40°C	**Operating ambient humidity**	5% RH to 95% RH, non-condensing
Degree of protection	IP20	**Surge Protection Specifications**	• PoF: 4 kV in common mode, 2 kV in differential mode • LAN: 2.5 kV in common mode, 0.5 kV in differential mode • POTS: common mode 2.5 kV • AC power supply: 6 kV in common mode and 4 kV in differential mode
Interface	• Network side: XGS-PON • User side: 4*GE+1*POTS+2.4GHz&5GHz Wi-Fi 6	**Indicators**	Power/PON and LOS indicator/WLAN/GE1-GE4/TEL
Certification	• SRRC/CQC/MIIT Network Access • CE/RCM • Wi-Fi Alliance		

Wi-Fi Specification

Support Protocols	• IEEE 802.11 b/g/n/ax(2.4GHz) • IEEE 802.11 a/n/ac/ax(5GHz)	**MIMO**	2×2 MIMO (2.4GHz&5GHz)

Antenna gain	2dBi	**Air interface rate**	574 Mbps (2.4GHz) 2402 Mbps (5GHz)
Maximum number of SSIDs on the radio	4	**Maximum number of users on the radio**	A maximum of 64 per frequency band
Maximum transmit power on the radio	2.4GHz: 23dBm 5GHz: 28dBm	**Others**	1024-QAM, 160MHz bandwidth, WPA3, DL MU MIMO

Interface Parameter

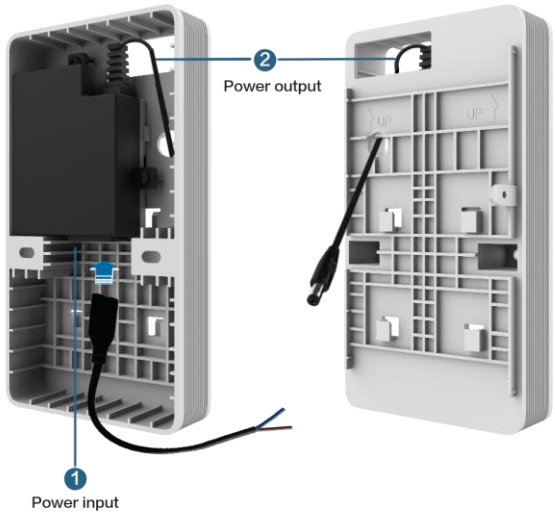
XGS-PON port	**Gigabit Ethernet port**
• Interface type: Hybrid SC (compatible with SC/UPC) • Transmission rate: 9.953 Gbit/s in the downlink and 9.953 Gbit/s in the uplink • Receiver sensitivity: -28 dBm • Overload optical power: –9 dBm • Type B (single-homing&dual-homing) **NOTE** If the optical power is greater than the overload optical power, the device may be damaged. In this case, connect an optical attenuator.	• MAC address limit • MAC address learning • Gigabit Ethernet ports support 10 Mbit/s, 100 Mbit/s, and 1000 Mbit/s auto-sensing
	POTS port
	• Maximum REN: 4 • G.711A/μ, G.722 and G.729a/b encoding/decoding • T.30/T.38/G.711 fax mode • DTMF • Emergency calls (with the SIP protocol)
	USB port
	USB2.0

Product Function

Network management			**Layer 3 features**
• Visualized management • User-defined bandwidth allocation • Wi-Fi Optimization & Wi-Fi Roaming • Wi-Fi O&M • Intelligent identification and anti-jamming • Tunnel data forwarding using control and provisioning of wireless access points (CAPWAP) in FIT mode • Centralized Wi-Fi 6 ONU management and maintenance using the built-in AC of an OLT in FIT mode			• PPPoE/Static IP/DHCP • NAT/NAPT • Port forwarding • ALG, UPnP • DDNS/DNS server/DNS client • IPv6/IPv4 dual stack, DS-Lite and IPv6 SPI • Static/Default routes • Multiple services on one WAN port
Smart service	**Smart interconnection**	**Smart O&M**	
• Anti-squatter • Scheduled Wi-Fi shutdown • Smart Wi-Fi sharing: Portal/802.1x authentication;	• Smart Wi-Fi coverage • SIP/H.248 auto-negotiation • Any port any service	• IPTV video quality diagnosis (VMOS&eMDI) • Rogue ONT detection and isolation from the OLT • Call emulation, and circuit test and loop-line test	

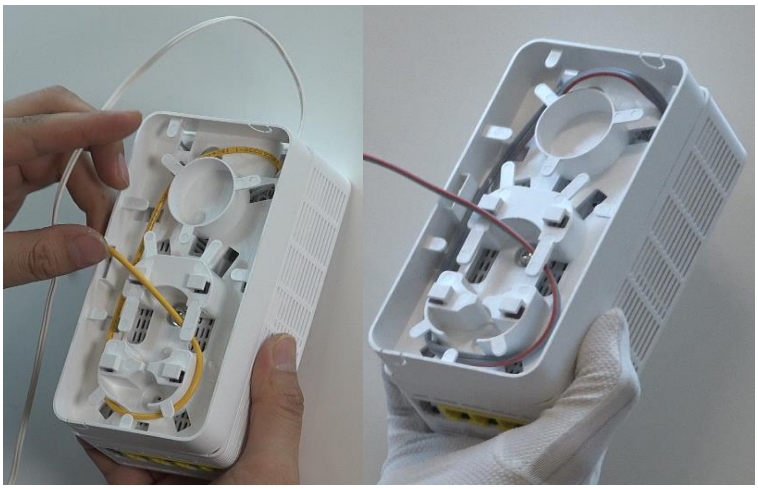
SoftGRE-based sharing		• PPPoE/DHCP simulation testing • One-click diagnosis (Web)	
Multicast	**QoS**	**Common O&M**	**Security**
• IGMP v2/v3 snooping • IGMP v2/v3 proxy • MLD v1/v2 snooping	• Priority-based data processing and forwarding based on the mapping and priority scheduling rules of Wi-Fi Multimedia (WMM) standards • Supports WMM power saving mode and Airtime scheduling • Supports Airtime scheduling	• OMCI/Web UI/TR069 • Variable-length OMCI messages • Dual-system software backup and rollback	• SPI firewall • Anti-DoS attack • Filtering based on MAC/IP/URL addresses • ONU Port-Level Hard-Isolated
WLAN Security			**Power saving**
• Open system authentication • WEP authentication/encryption is supported. The encryption word length is 64-bit or 128-bit • WPA2-PSK authentication/encryption (WPA2 Personal Edition) • WPA2-802.1X authentication/encryption (WPA2 Enterprise Edition) • WPA3-SAE authentication and encryption (WPA3 personal edition) • WPA3-802.1X authentication/encryption (WPA3 Enterprise Edition) • Supports WPA-WPA2 hybrid authentication • Supports WPA2-WPA3 hybrid authentication • Supports 802.1X authenticationand MAC address authentication • Supports Wi-Fi management frame encryption			• Indicator power saving • COC V8

Power Bracket

Item	Specification
Power bracket appearance (including the adapter)	

Item	Specification
Power parameters	1. 1-channel power input: 100–240 V AC, 50/60 Hz 2. 1-channel power output: 12 V DC, 2 A
Power	24 W
Dimensions of power bracket (H x W x D)	160 mm x 86 mm x 25 mm (excluding screw holes)

Fiber Management Tray

Item	Specification
Appearance	
Dimensions (H x W x D)	160 mm x 86 mm x 25 mm
Usage scenario	Used together with a W826P of the DC junction box (86 mm) type to coil the fiber or PoF cable routed in concealed mode. 

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