

HN8145X6 Datasheet 01

Huawei intelligent XG-PON and Wi-Fi 6 routing-type ONT

Overview

The OptiXstar HN8145X6 is an XG-PON and Wi-Fi routing-type ONT. It uses the XG-PON and Wi-Fi technologies to implement ultra-broadband access, high performance and wide coverage for users. The high forwarding performance ensures the user experience of voice and data services, and provides customers with an ideal all-optical access solution and future-oriented service support capability.

It provides 4 GE ports, 1 POTS port, 1 USB port and 1 2.4G&5G Wi-Fi port.

- Next generation Wi-Fi technology
- Smart service
- Smart interconnection
- Smart O&M



Device Parameters

Operating temperature	0°C to 40°C	NNI	XG-PON
Operating humidity	5% RH to 95% RH (non-condensing)	UNI	4*GE+1*POTS+2.4G/5G Wi-Fi 6+1USB
Power adapter input	100–240 V AC, 50/60 Hz	Optical connector	SC/UPC
System power supply	11–14 V DC, 1.5 A	Indicators	Power/PON/LOS/LAN/TEL/USB/WLAN/WPS
Static power consumption	8 W	Weight	About 400 g
Maximum power consumption	18 W	Dimensions (H x W x D) (without external antenna and pads)	40 mm x 185 mm x 120 mm
Memory	128M Flash, 256M RAM		

Interface Parameters

XG-PON port	POTS port
- Class N1/N2a/E1 - Receiver sensitivity: -28 dBm - Wavelengths: US 1260-1280 nm, DS 1575-1580 nm - Wavelength blocking filter (WBF) - Flexible mapping between GEM Port and TCONT - SN/Password/SN+Password/Bi-directional authentication based on OMCI - Upstream and downstream FEC - SR-DBA and NSR-DBA 2.5 Gbit/s upstream, 10 Gbit/s downstream	- Maximum REN: 4 - G.711A/μ, G.729a/b and G.722 encoding/decoding - T.30/T.38/G.711 fax mode - DTMF - Emergency calls (with the SIP protocol)
	USB port
	- USB2.0 - FTP-based network storage - File/Print sharing based on SAMBA - DLNA function
WLAN	Ethernet port
- IEEE 802.11 b/g/n (2.4G) - IEEE 802.11 a/n/ac (5G) 2 × 2 MIMO (2.4G)y 5G - WPA3 - Antenna gain: 5 dBi - WMM/Multiple SSIDs/WPS 2.4G&5G concurrent - Air interface rate: 574 Mbit/s (2.4G), 2402 Mbit/s (5G) - Beamforming - Band steering - DL OFDMA - DL MU-MIMO 1024QAM 160MHz frequency bandwidth	- Ethernet port-based VLAN tags and tag removal 1:1 VLAN, N:1 VLAN, or VLAN transparent transmission - QinQ VLAN - Limit on the number of learned MAC addresses - MAC address learning - Auto-adaptive 10 Mbit/s, 100 Mbit/s or 1000 Mbit/s

- WPA3

Product Function

Smart interconnection	Smart service	Smart O&M	Common O&M
• Smart Wi-Fi coverage • SIP/H.248 auto-negotiation • Any port any service • Parental control	• Scheduled Wi-Fi shutdown • Smart Wi-Fi sharing: Portal/802.1x authentication; SoftGRE-based sharing	• IPTV video quality diagnosis • eMDI • Rogue ONT detection and isolation from the OLT • Call emulation, and circuit test and loop-line test • PPPoE/DHCP simulation testing • WLAN emulation	• OMCI/Web UI/TR069 • Variable-length OMCI messages • Dual-system software backup and rollback
Multicast	Security	Layer 3 features	Home network feature
• IGMP v2/v3 proxy/snooping • MLD v1/v2 snooping	• SPI firewall • Filtering based on MAC/IP/URL addresses	• 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	• Visualized home network management • User-defined bandwidth allocation • Wi-Fi optimization & Wi-Fi roaming • Wi-Fi O&M • intelligent identification and anti-interference
Power saving	QoS		
• Indicator power saving • COC V7	• Ethernet port rate limitation • 802.1p priority • SP/WRR/SP+WRR • Broadcast packet rate limitation		

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.