



SA8457V

4GE+1POTS+AX1500 WIFI



Overview

To deliver triple-play services to the subscriber in Fiber-to-the-Home or Fiber-to-the-Premises application, the GPON RGU (Residential Gateway Unit) SA8457V incorporates interoperability, key customers' specific requirements and cost-efficiency.

Equipped with ITU-T G.984 compliant 2.5G Downstream and 1.25G Upstream GPON interface, SA8457V supports the full Triple Play of services including voice, video, and high speed internet access service.

Compliant with standard OMCI definition, SA8457V is manageable at remote side and supports the full range FCAPS functions including supervision, monitoring and maintenance.

SA8457V Highlights



AX1500 WIFI

AX1500 Wi-Fi Speed. 2.4GHz provides extremely long range, 5GHz reaches 1201 Mbps, ideal for gaming and 4K streaming

GPON/GEAPON auto-adaptive



The SA8457V is a GPON/GEAPON auto-adaptive ONU, which is working as FTTH Gateway Unit to help telecom operators to deliver triple-play services(Internet, Video, Voice) on one fiber



Rich Interfaces

SA8457V is built with the interfaces of 4GE+1POTS+Dual-Band WIFI +2USB, which meets the needs of all scenarios. OG-976VX is a dual-band WIFI GPON ONU

High gain external WI-FI antennas



SA8457V is an XPON ONU built with 4* 5dBi external WIFI antennas (7dBi Optional), providing the good WIFI signal strength and WIFI coverage.

SA8457V Main Specification



SA8457V Hardware

Interface Description

WAN (Fixed Optical Connector)	SC/APC or SC/UPC
LAN	4*10/100/1000 Base-T with RJ45 connectors
Voice	1* FXS voice ports with RJ11 connectors
USB	2*USB 2.0
WLAN	Dual-Band WIFI 2.4GHz MIMO 2*2, 5GHz MIMO 2*2 IEEE 802.11b/g/n/ac/ax Compliant
Antenna	4* 5dBi (7dBi Optional)External Wireless Antenna
WPS	1*WPS
Reset	1*Pinhole Reset Button
Power	+12V (external AC/DC adapter)

LED Indicator

Power LOS PON LAN1 LAN2 LAN3 LAN4 POTS1 POTS2 2.4G 5G WPS USB

GPON features

SFF type laser, SC/APC, or SC/UPC connector

Bosa onboard optical solution

Receiving sensitivity -27dBm (-33dBm optional), and -8dBm overload, Transmitting optical power: 0.5dBm~+4dBm

1.244 Gbps burst mode upstream transmitter; 2.488 Gbps downstream receiver

SA8457V Main Specification



Wavelengths: upstream 1310nm, downstream 1490nm
Ethernet features
4* 10/100/1000 Base-T MDI/MDIX RJ-45 port compliant
IEEE 802.3/802.3u
Hardware-based 10/100/1000, full/half, flow control auto-negotiation
Non-blocking wire-speed reception and transmission Full duplex IEEE 802.3x flow control and half-duplex backpressure flow control
WLAN features
Compliant with IEEE 802.11 b/g/n/ac/ax
2.4GHz, MIMO 2×2, transmission bandwidth up to 300Mbps 5GHz, MIMO: 2×2, transmission bandwidth up to 1200Mbps

SA8457V Main Specification



Power Supply

Power supply	External AC/DC power adapter 12V 1.5A
Power Consumption	less than 19W

Working Environment

Temperature	-10°C ~ 45°C
Humidity	8%~ 95% relative humidity

Installation

Desk	Desk-top
Wall	Wall-Mounted

Software

GPON

ITU-T G.984.X standard Complaint
Multiple T-CONTS& GEM ports
Flexible mapping between GEM Ports and T-CONT Support for Multicast GEM Port
AES-128 Decryption with key generation and switching
FEC (Forward Error Correction)
802.1p mapper service profile on U/S
Activation with automatic discovered SN and password in conformance with ITU-T G.984.3

SA8457V Main Specification



Support Multicast GEM port

Support loop detection

Gateway

Multiple WAN interfaces supporting

WAN Connection: PPPOE, DHCP, Static

Support IPV4/IPV6 dual-stack

Support port forwarding and DHCP server for LAN devices

Support NAT and NATP

Support ACL (Access Control List)

VPN pass-through PPTP, L2TP, IPSec

Support Firewall

Support ALG, DMZ, DDNS, UTP, UPNP

Ethernet/IP

802.1D bridging

VLAN tagging/detagging per Ethernet port

VLAN stacking (Q-in-Q) and VLAN Translation

IP ToS/DSCP to 802.1p mapping

Class of Service based on UNI, VLAN-ID, 802.1p bit, and combination

Marking/remarking of 802.1p

SA8457V Main Specification



IGMP v2/v3 snooping and IGMP snooping with a proxy report

Broadcast/Multicast rate limiting

VOIP

3-REN

Multiple Codecs: G.711 G.729, G.723.1

Multiple Protocol support: SIP (RFC3261), MEGACO v2 (H.248), SDP (RFC2327), RTP (RFC3550/3551)

T.38 FAX

Support various CLASS services – Caller ID, Call Waiting, Call Forwarding, Call Transfer, Call Toggle, Three-Way Calling, Distinctive Ringing, etc.

WLAN

Compliant to IEEE 802.11b/g/n/ac/ax

Support Multiple SSID, Support SSID hidden

Support WPA/WPA2/WPA3

MAC Filter based on each SSID

Management

Webpage management by default IP address

Remote access by WAN interface through HTTP, HTTPS, Telnet, SSH

Standard-compliant OMCI interface as defined by ITU-T G.984.4 and G.988

Compliant to TR-069, TR-098, TR-104

Support SNMP

Two software hold with integrity checking and automatic rollback