

SANDLIGHT

SA8458VX

4*GE+1*FXS+1*USB3.0+ WIFI 6



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) **SA8458VX** 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, **SA8458VX** supports the full Triple Play of services including voice, video, and high speed internet access service.

Compliant with standard OMCI definition, **SA8458VX** is manageable at remote side and supports the full range FCAPS functions including supervision, monitoring and maintenance.

SA8458VX Highlights



WIFI 6 AX3000

SA8458VX is the Dual-band WIFI 6 GPON Gateway , 5GHz throughput up to 2400Mbps; 2.4GHz up to 600Mbps

GPON/GEAPON auto-adaptive



The SA8458VX is a PON/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

SA8458VX is built with the interfaces of 4*GE+1*FXS+1*USB3.0+Dual-Band WIFI, which meets the needs of all scenarios. SA8458VX is a dual-band WIFI GPON ONU

4XFEM Signal Boost (2×2.4GHz + 2×5GHz)



SA8458VX features 4 high-performance FEMs (Front-End Modules) to strengthen wireless signal transmission. The optimized FEM allocation ensures superior coverage and stability.

SA8458VX Main Specification



SA8458VX 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	1*USB 3.0
WLAN	Dual-Band WIFI 2.4GHz MIMO 2*2, 5GHz MIMO 2*2 IEEE 802.11b/g/n/ac/ax Compliant
Antenna	4* 5dBi 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 POTS 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

SA8458VX Main Specification



1.244 Gbps burst mode upstream transmitter; 2.488 Gbps downstream receiver	
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 600Mbps 5GHz, MIMO: 2×2, transmission bandwidth up to 2400Mbps	
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

SA8458VX Main Specification



SA8458VX Software

GPON

ITU-T G.984.X standard Complaint

32 T-CONTs & 256 GEM Ports per device

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

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 NAPT

Support ACL (Access Control List)

VPN pass-through PPTP, L2TP, IPSec

Support Firewall

Support ALG, DMZ, DDNS, UTP, UPNP

SA8458VX Main Specification



Ethernet/IP

802.1D bridging

VLAN tagging/detagging per Ethernet port

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

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

SA8458VX Main Specification



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.978

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

Support SNMP

Two software hold with integrity checking and automatic rollback