EasyMesh Technology

AX3000 GPON ONU

Mesh Controller	1*GPON WAN 4*1GE LAN	802.11AX 3000M WIFI 6	Multi-WAN Route/Bridge	IPv4 & IPv6

V1.0.2

SGN3000M EasyMesh 3000M WiFi 6 GPON ONU

The SGN3000M is standards based on CPE designed for advanced triple-play deployments. The compact package contains many features including QoS, VoIP and multicast video support.

The SGN3000M is ideal for triple-play service deployments in FTTH/FTTB application. Industry standard SIP voice signaling provides reliable voice services. The Ethernet ports can be separated into different services allowing the configuration of dedicated ports for IP video and data. Compliant with standard OMCI definition, The SGN3000M is manageable from remote side and supports the full range FCAPS functions including supervision, monitoring and maintenance.

Main Characters

- Support both ITU-T G.984.x GPON
- Compatible with Huawei, ZTE, Fiberhome, Nokia, CHIMA GPON OLTs.
- 1* SC/APC GPON WAN port, 2.5G download and 1.25G upload
- 4 * Gigabit Ethernet LAN ports max, wire-speed data transmission
- Max 1:128 Fiber ration, max transmission distance can reach 20km
- 1*FXS port for high quality Voice over IP deployments.

- AX3000 WiFi 6 router, support 2402Mbps on 5GHz band and 574Mbps on 2.4 GHz band
- Simultaneously communicate more data to more devices using revolutionary OFDMA technology.
- EasyMesh Technology, Mesh Controller and Agent universal
- Can cover an area of 1500 square meters with the max capacity of agents meshed
- Supports IPv4 and IPv6, ideal for both IP type based networks.
- Support OMCI and TR069 Management, manage subscribers remotely.

Technical Parameters

GPON Parameters

ITU-T G.984.x GPON, built-in with a -30dBm Optical BOSA ,
SC/APC connector optional
1310nm upstream & 1490nm downstream
Support G.984.1 General Characteristics
Support G.984.2 Physical Media Dependent (PMD) layer Specification
Support G.984.3 Transmission convergence layer Specification
GPON transceiver transmitting power: 0.5-5dbm,
Optical receiving sensitivity: -28dBm~-8dBm
Transmission wavelength: Upstream: 1310nm / Downstream: 1490nm
Support 1:128 Fiber Ratio at 20km transmission distance.
Fiber Transmission cable: G.652 Single mode optical fiber cable
Configurable AES decryption on downstream payload.
Configurable FEC on both upstream and downstream payloads.
Multi-Application Processor queues for dedicated connections for in-band.
Enhanced GPON debug and diagnostic functions.
Support up to 40 Transmission Container (T-Cons)
Support 256 bidirectional GEM port IDs
Support NSR/SR Dynamic Bandwidth Allocation (DBA)
Support Forward Error Correction (FEC), Support Dying Gasp
Maximum 2.5Gbps Downlink/1.25 Gbps Uplink
Support Dying Gasp

VoIP Parameters

Offers 1* FXS port for Phone connections
1 Call can be made/received simultaneously
SIP V1, V2 (RFC3261, RFC3262, RFC3264, RFC3265)
Call waiting/ Incondition Call Forward/
Call Forward Busy/ Call Forward No Reply/ Three-party calls
G711A/G711U/G729/G722
SDP protocol (RFC 2327 & RFC 4566)
T.30/T.38/G.711 FAX mode
DTMF & RFC2833

Networking Features

WAN Type: IPoE / Static IP / PPPoE / Bridge
Protocols: IPv4 / IPv6 dual stack
Support VLAN 1-4094
IGMP v2 (RFC 2236) & IGMP v3 (RFC 3376)
Support IGMP Snooping & Proxy
Application: DDNS/ NAT/ VPN/ UPnP/ SNTP
Support WAN/LAN access the Telnet & HTTP
Support Parental Control
Security: Firewall, IP/ MAC /URL Filter
Support TR-069 Remote Management Protocol
Support mirror port

Interoperable GPON OLT Models

CHIMA SGT8000A, SGT8016A, SGT8000W,SGT8016W series GPON OLTs
HUAWEI MA5680T, MA5606T, MA5683T GPON OLTs
[Huawei R11/R13/R15/R17/R18 versions interoperable]
ZTE C220, C300, C320 GPON OLTs[All ZTE OLT firmware versions interoperable]
Fiberhome AN5516-01, AN5516-02 GPON OLTs
[Fiberhome RP700, RP1000 versions interoperable]
Alcatel Lucent 7342, 7360 ISAM GPON OLTs
Nokia 7360 ISAM GPON OLT
LSCABLE LST20016 GPON OLT
ERICSSON BM1500 GPON OLT
AURORA Trident7, T7-PIM-8802/COLT GPON OLT
ZHONE MX-180/280, MXK 319, 819, 823, MXK-F1419, MXK-F1421

Qos

IEEE802.1P QoS, DSCP, TOS:
SP, WRR, SP+WRR dispatching Algorithm
Source & DST-MAC based
QoS VLAN ID, VLAN Priority
based QoS Source DST-IP

CHIMA
赤马

3000M Mesh Wi-Fi6 Router Features

5*5dBi Internal antennas

IEEE 802.11 b/g/ax 2x2,MU-MIMO

IEEE 802.11 a/n/ac/ax 2x2,MU-MIMO (160MHz)

2.4G : 574Mbps, 5G : 2402Mbps

Enable/Disable Wireless Radio

Support WPA/ WPA2/ WPA3

Support EasyMesh R2

EasyMesh Parameters

Complies with IEEE802.11s, IEEE802.11k/v/r Mesh protocols

EasyMesh Controller

EasyMesh pairing with 3rd party Routers [On demand]

A maximum of 8 mesh agents through Ethernet cable and WiFi

WiFi coverage up to 1500 square meters with a max mesh capacity

Mesh Backhaul through WiFi or Ethernet cable

Available Mesh Kits:

1 SGN3000M Mesh Controller+ max 8* SAX3000Z Agents

1 SGN3000M Mesh Controller+ max 8* SAX3000S Agents

Automatic Mesh pairing through WiFi beacon [Pending]

Management with HTTP Web and MESH button [Pending]

Hardware Parameters & Interfaces

WAN interface	1*SC/APC GPON WAN port
LAN interfaces	4*10/100/1000Base-Tx GE LAN ports
WiFi antennas	5*5dBi Internal antennas
VoIP	1*RJ11
Buttons and sockets	1*PWR 1*RESET 1*WIFI 1*WPS
Power Supply	DC 12V, 1.5A, with 5Kv surge protection
LEDs	POWER,PON,LOS,NET,LAN1-4,2.4G,5G,TEL,WPS
SOCs	EN7529+MT7916+MTK7976
FLASH	2Gbit
DDR	4GBit
Size	200mm*125mm*36mm

Specification Table

Protocols	ITU-T G.984.1/2/3/4 , ITU-T G.987.3, ITU-T G.989.3,IEEE802.11a/b/g/n/ac/ax，IEEE802.3u/ab, IEEE 802.3x, IEEE802.1Q, IEEE802.1P, IEEE802.1D, IEEE802.11k, IEEE802.11r, IEE802.11s, IEEE802.11u, IEEE802.11v, IEEE802.11w, IEEE802.11x		
Ethernet Cable	10Base-Tx: UTP category 3, 4,5, up to 100m 100Base-Tx: UTP category 5, up to 100m 1000Base-Tx: UTP category 5, 5E, 6, up to 100m		
Temperature & Humidity		Temperature	Humidity
	Operating	-10 to 55℃	10% - 93% RH
	Storage	-40 to 70℃	5% - 95% RH

Order Information

Product Picture	Model No.	Description	Certificate
	SGN3000M	**SGN3000M AX3000 EasyMesh WiFi 6 GPON ONU** AX2.4G 2T2R, AX5G 2T2R Mu-mimo, 1*SC/APC GPON WAN PORT, 4*1GE LAN, 5*5dBi directional External antennas, -5Kv surge protected power supplies. CPU: EN7529 1000MHz Dual core Power Supply: DC 12V, 1.5A	Anatel CE/Rohs