



PMG5617GA

Dual-band Wireless AC/N GPON HGU with 4-port GbE LAN

The Zyxel PMG5617GA is a dual-band wireless ONT Home Gateway Unit (HGU) fully compliant with ITU-T G.984 and Wireless IEEE 802.11ac/n that provides ultra high-speed fiber access along with 4-ports GbE LAN for wired connection, 2-port FXS for VOIP services, one USB 2.0 port and 2x2 11AC and 2x2 11N Wireless LAN configuration.

With years of Zyxel's worldwide GPON end-to-end experience in the field, the PMG5617GA is flexible to fit into various deployment environments based on unique network topology requirements from customers. Furthermore, the Zyxel CPE OPAL trunk contains a rich software feature set that substantially help the GPON PMG product series to accelerate the time-to-market speed and to become more powerful on delivering customization software features to operators.

Apart from adopting the latest 802.11ac technology to expand dual-band concurrent wireless connections, the Zyxel PMG5617GA enhances its WiFi circuit design to ensure superior, stable wireless performance on both 2.4 GHz and 5 GHz bands while maintaining backward compatibility with any IEEE 802.11 b/g/n WiFi-certified device. Besides, the Zyxel PMG5617GA further incorporates Front-end Module (FEM) into its hardware design to eliminate most possible dead zones in any environment for end users to enjoy a seamless wireless experience everywhere with this standalone ONU home gateway.



Unlimited possibility with GPON fiber



Lower OPEX with Zyxel OMCI & APS



Superior coverage with concurrent dual-band unique wireless circuit design



Zyxel OPAL firmware offers better flexibility and faster time to market

Keeping the same Web GUI and management interface, such as CLI command set that makes it extremely easy for Telco operators to migrate from the existing wireless N300 ONT to the new dual-band wireless PMG5617GA that provides outstanding triple-play experience without huge investment on operating expenses. Moreover, the ultra-

thin hardware design significantly minimizes the housing height to 32mm with brushed finish on surface makes the PMG5617GA not only an advanced optical terminal Home Gateway Unit, but also a delicate, elegant decoration for the interior space.

Benefits

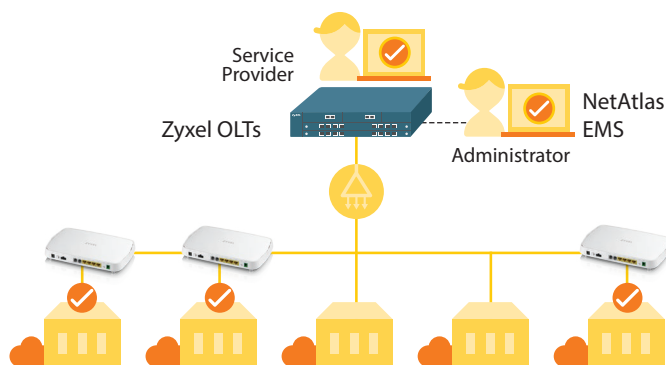
Unlimited possibility with GPON fiber

Internet evolves rapidly as more and more services and applications keep on their pace of innovation. With the continuous growth of smart homes, high-definition TV, virtual reality and augmented reality, the need for higher transmission speed is growing quickly as well. To meet the bandwidth demand, GPON is an essential technology to help service providers satisfying bandwidth demands not only for now, but also for the future. With the one-time investment on fiber, service providers can deploy future-proof, all IP-based networks with lower management cost.

Lower OPEX with Zyxel OMCI & APS

The Zyxel PMG5617GA Dual-Band Wireless AC/N GPON HGU with 4-port GbE LAN comes with the Zyxel-specific OMCI parameter that works perfectly with Zyxel's own EMS and OLT systems. With the E2E-capable parameters, Zyxel provides not only the standard parameters defined by OMCI, but also some specific parameters that help service providers to diagnose, operate and manage their fiber networks.

Together with Zyxel's E2E EMS & OLT system, the Zyxel ONT supports a unique auto-provisioning feature that helps service providers to easily provision WAN and VoIP configurations without sending technicians to the field for configuration setups.



Zyxel OPAL firmware offers better flexibility and faster time to market

By adopting same OPAL firmware trunk applied in the Zyxel CPE, the Zyxel PMG5617GA inherits a rich, field-proven feature set such as TR-069, VoIP and more. Service providers can now expect the same user experience when they migrate from the original DSL CPE to Fiber devices. Furthermore, the lab qualification time can be substantially reduced by using the same OPAL firmware trunk.

CPE is pivotal for many service providers to provision value-added services as more and more applications are coming to home and business environments. As a flexible, future-proof software platform, OPAL is a modular software architecture and open framework that provides the flexibility for easy feature tailoring to assure all the application requests can be addressed.



Superior coverage with unique concurrent dual-band wireless circuit design

As the number of wireless home devices increases, wireless LAN is becoming the key of resident connectivity and the major factor for service providers to differentiate their services. Since access data rate of the WAN is no longer a bottleneck for end users with GPON technology, operators are looking for higher WiFi transmission speeds to ensure high-speed data and multimedia applications can reach every corner in homes or offices.

Leveraging the expertise from the development of Zyxel's professional wireless AP, Zyxel's PMG5617GA not only adopts the latest 802.11ac technology, but also comes with optimized WiFi circuit design to ensure superior, stable wireless performance on both 2.4 GHz and 5 GHz bands. With Front-end Module (FEM) on board, the PMG5617GA can further enhance the transmission power and receiver linearity to improve the overall wireless coverage for guaranteed seamless WiFi experience that leads to better customer satisfaction.



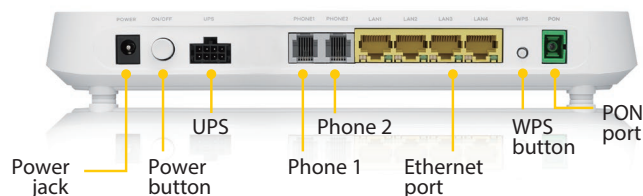
Side Panel



Front Panel



Rear Panel



Specifications

System Specifications

GPON Compliance

- Comply ITU-T G.984.1/G.984.2/G.984.3/G.984.4/G.988 GPON standard
- Comply with class B+ type PMD
- DS/US speed: 2.488/1.244 Gbps
- Wave length: 1490 nm (DS) & 1310 nm (US)
- Physical distance reach to 20 km
- Dynamic Bandwidth Allocation (DBA)
- Configurable AES DS and FEC DS/US
- GEM supports Ethernet packet
- GEM SAR
- 8 priority queues (US) on each GPON T-CONT

Ethernet (LAN) Features

- Full duplex IEEE 802.3x
- MAC address learning
- IPv6 address transparent

Networking Features

- IEEE 802.1d Transparent bridge
- IPv4 NAT/Routing
- Static Routing, Dynamic Routing (RIP)
- IPv6 with IPv6 Routing
- IPv6 DualStack/DS-Lite
- NAT/NAPT
- Port forwarding
- PPPoE client
- DHCP Client/Server
- ALG (SIP,RTSP), UPnP
- DDNS/DNS server/DNS client

VLAN Functional Specifications

- VLAN IEEE 802.1q
- CoS IEEE 802.1p
- 1:1 VLAN, N:1 VLAN, VLAN transparent transmission
- VLAN tag add/translation/removal
- QinQ VLAN

QoS

- Traffic classification and tagging via DSCP/VLAN/802.1P-bit
- Per-port QoS and CoS mapping according to IEEE 802.1q and IEEE 802.1p priority
- SP/WRR/SP+WRR

Multicast

- IGMP v1/v2/v3
- IGMP proxy/snooping
- IGMP Fast Leave
- IPv6 MLD v1/v2/proxy/snooping

WLAN

- 802.11 ac/a/n (5 GHz, 2x2 MIMO, up to 866 Mbps)
- 802.11 b/g/n (2.4 GHz, 2x2 MIMO, up to 300 Mbps)
- WiFi Multimedia (WMM)
- Advanced Encryption Standard (AES), Temporary Key Integrity Protocol (TKIP)
- Wireless Protected Setup (WPS)
- WPA-PSK/WPA2-PSK (WiFi protected access)
- Support Multiple SSID (up to 4)
- Up to 32 devices can accessed simultaneously (2.4 GHz: 32 clients; 5 GHz: 32 clients)

VoIP

- Voice Functionality:
 - Codec: G.711 a/u, G.722, G.726
 - DTMF tone: detection and generation
- Phone Features:
 - Internal call
 - T.30/T.38/G.711 fax mode Call waiting
 - Call forwarding (No condition, Busy, No answer)
 - Call transferring (Blind, Consult OnHold, Attendant)
 - Call hold/call retrieve
 - Three-way conference
 - Second call/adding an outgoing call
 - Switch between 2 active calls

USB

- USB2.0; backward compatible to USB 1.1 (FS/LS)
- FTP-based network storage
- DLNA/UPnP media server
- File sharing

Security

- Static Packet Inspection (SPI) firewall
- Parental control (website blocking and network access period control)
- MAC/IP/URL addresses filtering

Management

- Web (HTTP/HTTPS)/Telnet (CLI)
- OMCI (G.984.4)/TR-069 CWMP Client
- PLOAM
- Firmware upgrade via FTP/HTTP/TR-069/OMCI
- Support Zyxel Auto-Provisioning

Hardware Specifications

- WAN: One Giga optical interface SC/APC
- Phone: Two FXS RJ-11 ports
- LAN: Four 10/100/1000 Mbps Ethernet RJ-45 ports
- UPS: Power input: DC 12 V, 8 pin connector
- USB: One USB 2.0 hosts
- WPS button: A tact switch
- Reset: A tact switch. One reset/restore factory default button
- Power button: Power On/Off switch (2-stage lockable pushbutton)
- LEDs indicators:
 - Power*1
 - PON*1
 - Internet*1
 - WLAN 2.4 G/WPS*1
 - WLAN 5 G/WPS*1
 - Phone*2
 - USB*1
 - UPS*1
 - LAN*4 (on connector)

Power Consumption

- Power supply: DC 12 V/2 A
- Power consumption: Max. 17 W

Physical Specifications

- Product dimensions (WxDxH): 250 x 160 x 35 mm (9.84" x 6.29" x 1.37")
- Product weight: 447 g (0.98 lb.)
- Packing dimensions (WxDxH): 370 x 200 x 50 mm (14.56" x 7.87" x 1.96")
- Packing weight: 656 g (1.45 lb.)

Environmental Specifications

Operating Environment

- Temperature: 0°C to 45°C (32°F to 113°F)
- Humidity: 10% to 90% RH (Non-condensing)

Storage Environment

- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 10% to 95% RH (Non-condensing)

Certification

- EMC: CE
- Safety: CE LVD
- Energy Saving: CE ErP

Package Contents

- Device
- Power adaptor
- Ethernet cable
- RJ-11 cable
- Quick start guide
- Warranty card

Application Diagram

