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ADTRAN

6304W

EPON Residential Gateway ONU

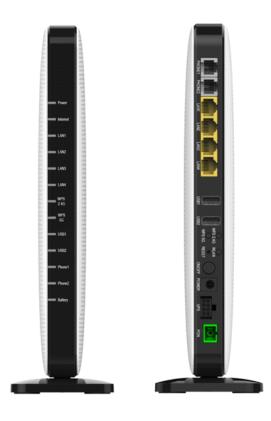| Gigabit	FTTH	Low TCO	Wi-Fi

Benefits

- IEEE 802.3ah GEPON port with 1.25Gbps bi-direction link speed
- 4x 10/100/1000BASE-T Ethernet RJ45 Ports
- 2x2 11n, up to 300Mbps wireless connectivity
- 3x3 11ac, up to 1200Mbps wireless connectivity
- 2x FXS for VoIP service
- 2x USB ports in Host mode
- Wall adaptor with 90~264VAC input, 12VDC output
- 0 to 40°C operating ambient temperature

Overview

The 6304W is an EPON Residential Gateway (RG) Optical Network Unit designed for use in home and small office environments. In connection with an EPON OLT, it delivers your subscriber with rich, individualized and comfortable triple-play services including IPTV as well as providing high-performance wireless device connectivity.

It supports 4 Gigabit Ethernet (UTP, RJ45) ports, 2 FXS (RJ 11) ports, 2 USB host ports and high speed Wi-Fi interfaces to the subscribers. Wifi interface supports dual-concurrent mode for 2x2 802.11n and 3x3 802.11ac that enables operator to provide high-speed wireless bandwidth service to the subscriber clients.

Product Specifications

Overview

- Type: EPON HGU (Home Gateway Unit)
- Part Name: 6304W (ubiQuoss Part Name: C924WGB)
- Main Chip: BCM68380M+BCM43217T+ BCM43602
- Downlink: 4x GE
- Operating Temperature: 0 - 40° C
- Operating Humidity: 10% - 90%, non-condensing
- Dimension: 247mm x 170mm x 35mm
- Installation: Wall mounting or desktop
- Weight: <500g
- Regulatory: Compliant with CE, UL/FCC (planned)

Layer2 Bridging

- MAC
  - Support the Ethernet data fram filtering based on port, SA/DA
  - Support 2000byte MTU, compliant with IEEE 802.1ad
- VLAN
  - Support SSID to VLAN mapping
  - Support 802.1p, 802.1d, 802.1q based on QoS
  - Support ingress/egress 802.1p tag based QoS on each port
  - Support double tagging, compliant with IEEE 802.1ad

Layer3 Routering

- Standard: RFC 2663, 3022, 3027, 3489
- IP
  - Support IPV4 & IPV6 dual stack
  - Support DHCP server/client & static IP address
- NAT/NAPT: Support NAT, NAPT, multi-NAT, transparent NAT
- DNS: Support DNS server, DNS relay, dynamic DNS
- Multicast: Support IGMP v2, v3, IGMP snooping
- Broadcast: Support broadcast storm suppression
- PPP
  - Support PPP associated with IETF RFCs 1332, 13334, 1661, 1887e, 1994
  - Support PPP encapsulated over Ethernet
  - Support PPP pass through

OAM, Security, Application

- Management: Support SNP, TR-069, Web GUI, CLI
- Image:
  - Support firmware upgrade via remote server
  - Hold a working image & a alternative image for image rollback

- QoS:
  - Support classify packets based on DSCP, IP, protocol
  - Support classify packets based on 5 classification combination
  - Support SP, WRR, SP+WRR scheduler
- Restore Default:
  - Press a hidden button for more than 10s to restore factory default
  - Use GUI Web, CLI, Telnet method to restore factory default
- Security:
  - Support Access Control List
  - Support IP, MAC, port, URL filtering
  - Support ddos firewall
  - Support DMZ

EPON Uplink

- Interface: 1x SC/APC connector, single mode fiber
  - Compliant with IEEE 802.3ah GEPON
  - Compliant with FDA 21 CFR 1040.10 and 1040.11
  - Compliant with laser safety standard IEC-60825 Class 1

Ethernet LAN

- Interface: 4x RJ45 connector
- Standard:
  - Compliant with IEEE 802.3, 802.3u, 802.3ab
  - Compliant with IEEE 802.3az, Green Ethernet
- Link:
  - Support Half-duplex & full-duplex operation
  - Support 10/100/1000Mbps auto-negotiation
  - Support MDI/MDIX auto detection

WiFi

- Antenna:
  - Internal antennas
  - 4dBi@2.4GHz, 3dBi@5GHz
- Standard:
  - Compliant with IEEE 802.11n, 2.4GHz, 20/40MHz bandwidth
  - Compliant with IEEE 802.11AC, 5GHz, 20/40/80MHz bandwidth
  - Back compliant to 802.11b/g
- Speed
  - Wirespeed is 300Mbps, 2.4 GHz
  - Throughput > 140Mbps at 40MHz bandwidth
  - Wirespeed is 1200Mbps, 5GHz
  - Throughput > 600Mbps at 80MHz bandwidth
- WiFi Security
  - Support WPA, WPA2 authentication
  - Hardware accelerated AES-128 encryption/decryption, coupled with TKIP & IEEE 802.1x

- Support PBC or PIN WPS method
- SSID: Max 4 SSID

FXS

- Interface: 2x RJ11 FXS port, each support up to 5 REN
- Standard: Support SIP, H.248, MGCP, SDP, RTP protocol
- CODEC: Support G.711, G.723, G.726, G.720(A/B) codec
- Call Service:
  - Support Call ID / Call waiting / Call forwarding / Call transfer / Call toggle / 3-way calling
  - Support T.38 FAX
- Feature:
  - Support echo cancellation, compliant with G.165, G.168
  - Support voice activity detection, comfort noise insertion

USB

- Interface: 2x USB host port, type A
- Standard: USB 2.0, with 480Mbps wirespeed

Power Solution

- Type: Wall adaptor + UPS (optional)
- Wall adaptor:
  - Input: 100VAC - 240VAC, 50/60Hz, Max 0.8A
  - Output: 12VDC, Max 2A
  - UL/FCC certified, US Type Plug
  - A standard barrel connector
- UPS:
  - 2x4 connector for external UPS
  - 12VDC out, 2A max
  - 4 alarm (on battery, battery failure, battery missing, battery low)

Compliance

- Regulatory:
  - CE Compliant
  - UL/FCC (planned)
- EMC/EMI:
  - Compliant with EN 55022, class B
  - Compliant with EN 300 386
  - Compliant with EN 61000-4-1-5
- Safety:
  - Compliant with IP20 mechanical design
  - Support fire resistance material, compliant with UL94-V1, V0 is optional
  - Compliant with IEC 60950
- ENV kindness:
  - Compliant with RoHS standard
  - Compliant with WEEE standard
  - Compliant with energy efficiency level V

Ordering Information

Hardware Options	Part No.
ADTRAN 6304W Residential Gateway ONU (power adaptor included)	1766304WF1