

Product Specification

Model Name: TEWA-1008V

(Use Broadcom XG-PON solution BCM68552C platform)

XG-PON 4GE + Dual band Wi-Fi6

Tianyi Comheart Confidential



Version:1.0

Revision History

Revision	Date	Revison	Description
1.0	2024/9/20	Steven.Gao	First drafted

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1. Product Descriptions

TEWA-1008V is a highly integrated XG-PON integrated access equipment. The device provides high performance Data, Voice and Video services for individual users, SOHO (small office or family office), small businesses, etc.

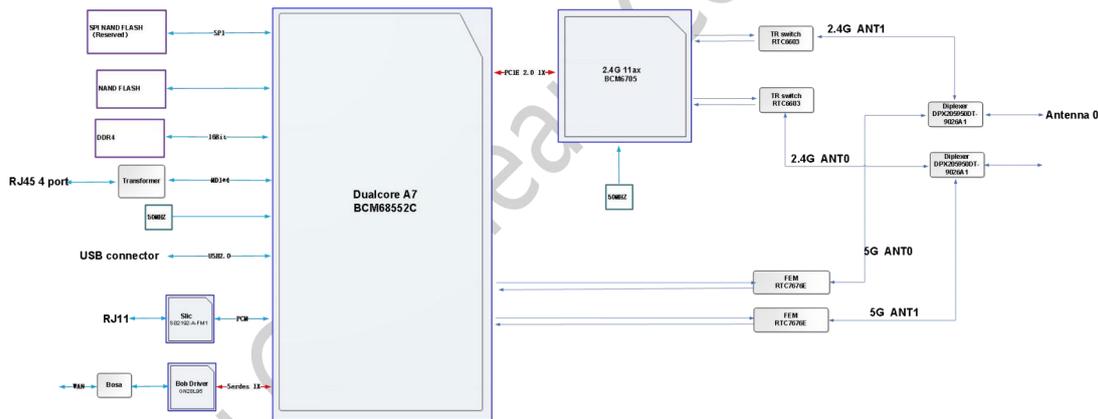
TEWA-1008V ONU features intelligent routing functionality compare to ordinary CPEs. This user friendly device can easily allow the users to control the bandwidth, number of online users, online duration etc.

TEWA-1008V ONU complies with the ITU-T G.987/G.988 standard, provides 9.95Gbps downlink and 2.488Gbps uplink at network side, and provides four GE ports, one POTS port, dual band Wi-Fi 6

(2T2R 802.11ax@2.4GHz and 2T2R 802.11ax@5GHz), and one USB2.0 interface at user side.

2. Product Specifications and Features

2.1. Block Diagram



2.2. Specification

Key Components/Connectors/Performance	
PON Chipset	BCM68552C
2.4G Wi-Fi chipset	BCM6705
5G Wi-Fi chipset	BCM68552C
Voice chipset	Si32192
Flash	128MB NandFlash
SDRAM	512MB DDR4
Interfaces	
WAN	1 *XG-PON port (SC/APC); Data Rate:Downstream: up to 9.95Gbps; Upstream: up to 2.488Gbps; Receiving wavelength: 1,577 nm;

	Transmitting wavelength: 1,270 nm; Optical Range: Class N2a;
LAN	1*2.5GLAN 3*10/100/1000 Base-T MDI/MDIX RJ-45 port compliant with following standards: 1. IEEE 802.3/802.3u 2. Hardware based 10/100/1000, full/half, flow control auto negotiation 3. Non-blocking wire speed reception and transmission 4. Full duplex IEEE 802.3x flow control and half duplex back-pressure flow control
2.4G Wi-Fi	IEEE 802.11ax, backward Compatible with 802.11b/g/n; Up to 600Mbps PHY rate;
5G Wi-Fi	IEEE 802.11ax, backward Compatible with 802.11a/n/ac; Up to 2400Mbps PHY rate;
FXS	1 * FXS
USB	1 * USB 2.0 Host
Buttons	
Reset	Reset to factory default by pushing button for 5sec.
Wi-Fi	Turn on/off WLAN.
WPS	Start pairing with STA.
Others	
Dying Gasp	Supported
Power Switch	Push button power on or off

2.2.1. LED indicators

LED Indicator	Color	Status	Description
Power	Green	Green on	ONU is powered on
		Off	Power supply is cut off
Optical	Green	Green on	ONU has been authenticated by OLT (O5)
		Flashing	ONU is not authenticated yet.
		Off	No optical signals
LOS	Red	Off	In case of optical power normal
		Red on	In case of LOS/LOF alarms
Internet	Green	Green on	IP connected and no traffic detected
		Flashing	IP connected and internet traffic detected
		Off	No WAN IP connected.

USB	Green	Green On	The device has successful USBfunction
		Flashing	The device is receiving or sending data
		Off	The USB connection is down
WiFi 2.4G	Green	Green On	The device has successful WLAN function
		Flashing	The device is receiving or sending data
		Off	The WLAN is disabled
WiFi 5G	Green	Green on	The device has successful WLAN function
		Flashing	The device is receiving or sending data
		Blue on	The WLAN is disabled
LAN1~LAN4	Green	Green on	Port has successful connection.
		Flashing	LAN Activity present
		Off	Port is not connected.
FXS	Green	Green on	The device has successful voice connection
		Flashing	The device is using voice service
		Off	The voice connection is down

2.3. S/W Features

Feature Item	Feature	Detailed Description
GPON Compliance	ITU-T G.984.4	
	Support 40 TCONTS and 256 GEM Ports	
	Support for Multicast GEM Port	
Network Protocol	PPPoE	
	PPPoE passthrough	
	IGMP v1/v2/v3 Proxy	
	IGMP v1/v2/v3 snooping	
	DHCP server/client/relay	
	DNS Proxy/Relay	
ALGs	FTP	
	TFTP	
	RTSP	
	Port Triggering	
	PPTP	
	IPSec/VPN and IPSec/L2TP	
	Stateful Inspection Firewall	
	Stateless Packet filtering	

Firewall/Filtering	TCP/IP/Port/Interface Filtering Rules support Both Incoming and Outgoing Filtering	
NAT/PAT	NAT Loopback	
	Full Cone NAT	
	Port Triggering	
	Port Forwarding (Virtual Server)	
	DMZ	
QoS	IP/Bridge/802.1p	
	Rate Control on upstream traffic	
	Support SP, WRR, WFQ priority	
Routing	RIP v1/v2	
	Static Route	
IPv6	IPv6 Firewall	
	MLD	
	IPv6 capable apps	telnetd, ftpd, sshd, httpd
TR-069	TR-098	
	TR-111 (part 1)	
	TR-104	
	TR-140	
Other Features	Dynamic DNS	
	UPnP	
	SNTp	
Wi-Fi	WPA/WPA2/WPA3	
	MAC Filter base on each SSID	
	Multiple SSID	
	Support SSID hidden	
	SSID User Isolation	

3. Mechanic & ID Design

3.1. Power Adapter

- Input: 110-220VAC, 50/60Hz
- Output: 12VDC, 2A

3.2. Physical & Environment

3.2.1. Temperature

- Operation: 32°F to 104°F (0°C to 40°C)
- Storage: -4°F to 158°F (-20°C to 70°C)

3.2.2. Humidity

- Operation: 10% ~ 90% (non-condensing)
- Storage: Max. 5% ~ 95% (non-condensing)