

# Product Specification

Model Name: TG6241

(Use Broadcom GPON solution BCM68252C platform)

GPON 4GE + Dual band Wi-Fi6

Version: 1.0

## Revision History

Revision	Date	Revisor	Description
1.0	2022/8/26	Steven.Gao	First drafted

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## 1. Product Descriptions

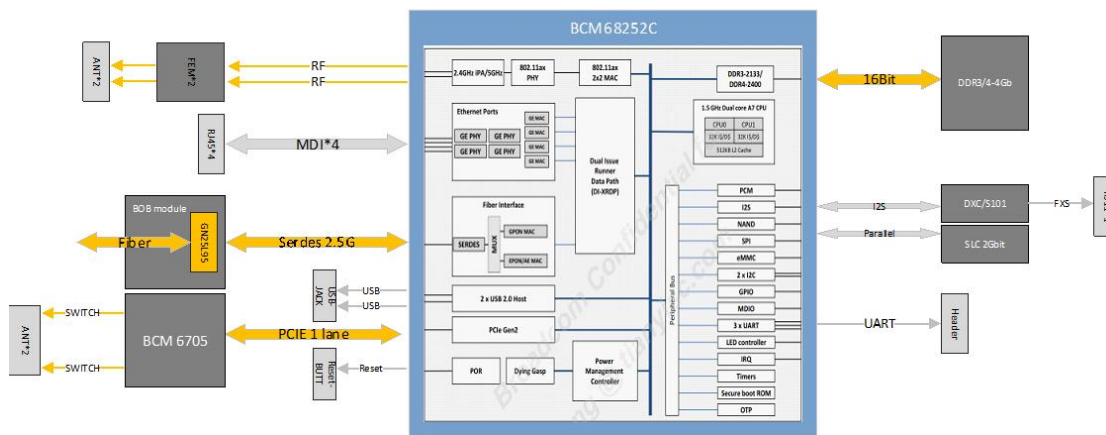
TG6241 ONU is a highly integrated GPON integrated access equipment. The device provides high performance Data, Voice and Video services for individual users, SOHO (small office or family office), small businesses, etc.

TG6241 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.

TG6241 ONU complies with the ITU-T G.984 standard, provides 2.488 Gbps downlink and 1.244 Gbps uplink at network side, and provides four GE ports, one FXS, one USB2.0 and dual band Wi-Fi 6 (2T2R 802.11ax@2.4G Hz and 2T2R 802.11ax@5GHz) at user side.

## 2. Product Specifications and Features

### 2.1. Block Diagram



### 2.2. Specification

Key Components/Connectors/Performance	
GPON Chipset	BCM68252C
2.4G Wi-Fi chipset	BCM6705
5G Wi-Fi chipset	BCM68252C (integrated)
Flash	128MB Nand Flash
SDRAM	512MB DDR4
Interfaces	
WAN	1* GPON port (SC/APC);

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	Data Rate: Downstream: up to 2.488Gbps; Upstream: up to 1.244Gbps; Receiving wavelength: 1,490 nm; Transmitting wavelength: 1,310 nm; Optical performances Class B+;
LAN	4x 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	External 2 antennas (shared with 5G Wi-Fi); IEEE 802.11ax, backward Compatible with 802.11b/g/n; Up to 574Mbps PHY rate;
5G Wi-Fi	External 2 antennas (shared with 2.4G Wi-Fi); IEEE 802.11ax, backward Compatible with 802.11a/n/ac; Up to 2400Mbps PHY rate;
FXS	1 * FXS
USB	1 ~ 2 * USB2.0
<b>Buttons</b>	
Reset	Reset to factory default by pushing button for 5 sec.
Wi-Fi/WPS	Turn on/off WLAN.
WPS	Push button to start WPS pairing
<b>Others</b>	
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
GPON	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.

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USB	Green	Green on	There is USB access to this device
		Flashing	Data transfer in progress
		Off	There is no USB connection
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	
Firewall/Filtering	Stateful Inspection Firewall	
	Stateless Packet 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.Outlook





### 3.2. Case

(TBD)

### 3.3. Power Adapter

- Input: 110-240VAC, 50/60Hz
- Output: 12V DC, 1.5A

### 3.4. Physical & Environment

#### 3.4.1. Temperature

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

#### 3.4.2. Humidity

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