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**FTTH Solutions >> GE-PON Solution >> C504W****GEPON ONT 4-port FE + Wi-Fi (n) + EPON (Routing mode)****Overview**

The C504W is an EPON Optical Network Terminal designed for SFU (Single Family Unit) used in home and small office environment. It provides subscriber with rich, individualized, and comfortable triple-play services including video (IPTV), voice and high speed internet access. It has a glossy appearance and green, energy-saving advantage.

It supports 4 Fast Ethernet (UTP, RJ45) ports and Wi-Fi (802.11 b/g/n) interface to the subscriber. It is connected to GEAPON OLT and RN (Remote Node) via a fiber optic cable to provide TPS (Triple Play Service).

By adopting the state-of-the-art E-PON technology, C504W supports various features including Quality of Service (QoS) function, management function enabling prompt reactions against the problems in the system or a subscriber line, security function protecting subscriber information safe, and subscriber management function sheltering user information from illegal users.

**Features**

- 4FE Downlink Interface
- Wireless LAN
- NAT/NAPT
- DHCP Function
- Multicast Function
- QoS Features
- IPv4/IPv6 Compatibility

**Specification**

Item		Description
Type		Standalone type LED: Power,PON,DATA,LAN1,LAN2,LAN3,LAN4,Wireless
Interface	PON	1000Base-PX20
	LAN	10/100BaseTx (RJ-45: 4port), MDI/MDIX Auto-Negotiation
	Power Switch	On/Off
	Power(DC)	DC 5V 2A
	Reset Switch	Return to initial factory settings
	WPS Switch	Wi-Fi Protected Setup
	ANT	Fixed Wireless LAN Antenna
Front Panel LED	Power	Power On/Off status
	PON	Logical Link status of PON, Loss of Optical Signal
	DATA	PON Link and Data Transmission status
	LAN	LAN Link and Data Transmission status
	Wireless	WLAN Link and Data Transmission status
Accessories		UTP Cat.5 Ethernet Cable(RJ-45, Straight) Power Adaptor (Input - AC: 100 ~ 220V (± 20%)) User Manual

**Network Features**

- Wire-speed WAN and LAN
- Full-duplex Mode WAN and LAN
- Auto MDI/MDIX (Medium Dependent Interface Cross) WAN and LAN
- IEEE 802.1q VLAN(Tagged, untagged by port) for WAN port
- Maximum 16 Active VLAN
- VLAN ID range of 1~4094
- 4K MAC Address

**Multicast Features**

- IGMPv2
- IGMPv3
- IGMP Snooping
- IGMP Join/Leave Suppression
- IGMP Fast Leave
- IGMP Proxy
- 32 Multicast Group entry

**DHCP Feature**

- DHCP Client
- DHCP Server
- In NAT mode, IP will be assigned from the IP Pool of the device, and in Bridge mode, the IP will be assigned from the DHCP server in the network

**NAT/NAPT**

- Selectable between NAT mode and bridge mode
- Dynamic/static private IP in NAT mode
- Wire-speed for bi-directional packets of more than 256 Byte in NAT/NAPT.
- Port Forwarding and DMZ Host function
- Minimum 500 bi-directional concurrent sessions

### QoS Feature

- Rate limiting ( $\pm 10\%$ )
- QoS for both upstream and downstream

Item	Detail	Remark
Classification	Physical port 802.1p SRC/DST IP address TOS/DSCP TCP/UDP SRC/DST port	Layer 1, 2, 3, 4
Marking	802.1p DSCP	Layer 2, 3
Scheduling	SPQ	3 Queues per interface

### Security

- Broadcast storm control
- MAC filtering

### WiFi Features

- IEEE 802.11b/g/n
- Functional condition
- Automatic Fallback
- 4-level adjustable channel Transmission Output
- Manual or automatic selectable channel
- Setting and changing of number of CPEs that can access at one time.
- Mixed use of 802.11b, 802.11g, 802.11n
- Encryption (Keys such as Hex, ASCII, special character should be supported).
- 64/128bit Static WEP Key
- WPA
- WPA2
- WPA-PSK
- WPA-PSK2(Optional)
- 4 or more Virtual AP (Multi SSID), and each SSID supports different encryption.
- SSID should support alphabet, numeric, special character
- Hidden SSID
- Wireless LAN QoS function: IEEE 802.11e(WMM)
- Traffic classification by 802.1p and DSCP field value
- IEEE 802.1x
- EAP MD5/EAP TTLS
- PEAP
- RADIUS Client function
- TR-069
- Session Timeout function.
- Upon re-authentication due to Session Timeout, it should be managed by the same Session ID.
- Idle Timeout
- Session Timeout value and Idle Timeout value shall be obtained from Authentication system.
- Web Redirection upon authentication failure
- Session termination upon wireless link down
- Account termination transmission function

Acct-Terminate-Cause	Value	Description
User Request	1	User logoff
Lost Carrier	2	Wireless link down for specific time period
Lost Service	3	When the previous AP sends Acct-stop in roaming mode
Idle Timeout	4	Idle Timeout termination

Session Timeout	5	Session Timeout termination
Admin Reset	6	When admin stops specific Session
Admin Reboot	7	When admin reboots the AP

**Operating & Management**

- OAM
- System or module LED.
- SNMP v1, v2 MIB.
- Memory structure that allows to save or modify Configuration File
- Memory should keep the contents of the memory even when power supply is stopped.
- Local and remote Firmware Upgrade(The existing Image should be kept when upgrade fails).
- Normal session for system management even when CPU overload
- Remote Management
- Remote access through Telnet(RFC 854, 855)
- CPE Management Server
- Device Reset
- LAN port reset
- Setting and changing Config
- Firmware download Only through Web Server by TR069
- VLAN ID change
- MAC Filtering
- Time sync through NTP Server
- Device status and performance management

**Interface Configuration**

Name	Spec.	Description
ON/OFF	-	Power On / Off
Power Jack DC 5V2A	-	The input terminal that a power adaptor is connected to.
LAN1/2/3/4	RJ-45	Connected through a LAN port UTP cable.
WiFi	802.11b/g/n	Wi-Fi Interface with WPS button
Line	SC/APC	EPON port (need to be kept clean)