

## FTTx ONU Solution

### C1004W



### Features

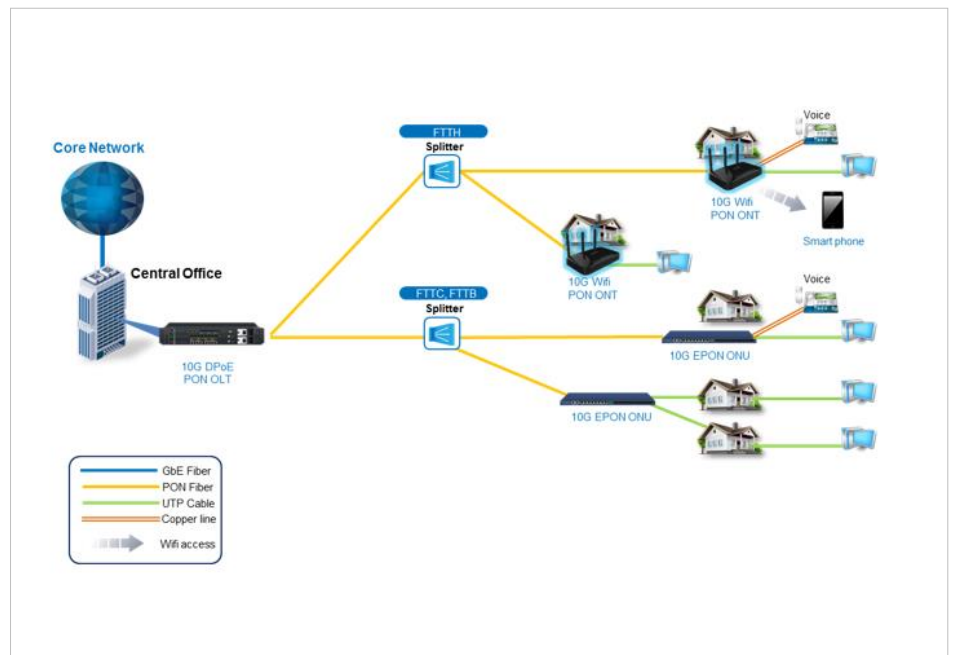
- Various speed combination supported
  - Diverse Down/Upstream speed sets for the uplink segment are available
    - : 10Gbps / 10Gbps
    - : 10Gbps / 1Gbps
  - Uplink segment means the portion between OLT and ONU.
- Compliant to cablelab's DPoE spec
  - Right for the MSOs who want to migrate to EPON technology
- Management via efficient OAM
  - EPON OAM
  - Authentication
  - Charging
- Dualband wireless access in concurrent manner
  - IEEE 802.11 ac as well as b/g/n
    - : At 2.4 GHz: IEEE 802.11 b/g/n
    - : At 5 GHz: IEEE 802.11 ac
- Local Configuration via web GUI
  - For monitoring and settings

### System Overview

C1004W is a single family unit type ONU which has a 10G EPON uplink and 4 Gigabit Ethernet ports for service as well as dual band WiFi interfaces. Each service port can support upto 1 Gbps bandwidth meanwhile WiFi interface supports IEEE 802.11 b/g/n/ac.

Besides, OAM functions like remote detection/configuration via ACS, web configuration and QoS control features are also obtainable for smoother operation and maintenance.

### Deployment Diagram



### ubiQuoss Inc.

68, Pangyo-ro, 255beon-gil,  
Bundang-gu, Seongnam-si,  
Gyeonggi-do, 463-400, Korea

TEL : +82-70-4865-0570

FAX : +82-31-8017-1184

URL : www.ubiquoss.com

oversea.group@ubiquoss.com

# Specification

## HW Specification

### System Architecture & Console

- PON interface
  - 10/10, 10/1, 1/1 Gbps supported
- User interface
  - Four 10/100/1000base-Tx, MDI/MDIX Auto-Negotiation
- Wi-Fi Interface
  - 802.11b/g/n/ac compliant

### Physical Dimension

- 288.50(W) x 186.60 (D) x 150.00(H) (incl. antenna)
- Desktop Type
- 820g

## Environment Condition

### Input power and frequency

- Input: 100 ~ 220VAC, 50~60Hz
- Output: 12VDC, 3A  
(The input terminal that a power adaptor is connected to)

### Power Consumption

- Max. 16.9 W

### Operating Temperature

- 0 ~ 50°C

### Storage Temperature

- -20°C ~ 60°C

## Service and features

### EPON

- IEEE802.3ah MPCP, OAM compliant
- 802.1Q VLAN
- Per LLID Filtering/Classification
- Supports up to four Logical Link IDs (LLID)
- AES-128 Downstream decryption
- Dying Gasp
- Automatic Plug and Play function for WAN PON Port (Discovery and Authorization)

### Layer 2

- IEEE802.1Q VLAN(Tagged, untagged by Port) for WAN Port
- Maximum 16 active VLAN
- VLAN ID range of 1~4094
- Support up to 64 MAC Address

### Layer 3

- DHCP Client/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
- Support DNS/DNS Proxy

### Multicasting

- IGMP v1/v2/v3
- IGMP proxy/snooping for IPTV service
- IGMP Immediate Leave on/off
- 32 Multicast Group entry
- Multicast throughput 1Gbps

### NAT/NAPT

- Selectable between NAT mode and bridge mode
- Dynamic/static private IP in NAT mode
- Port Forwarding and DMZ Host function
- Maximum 8K bi-directional concurrent sessions(full-wire-speed)

### QoS

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

### Security & Filtering

- Broadcast storm control
- MAC filtering
- IP filtering

### WiFi

- IEEE 802.11b/g/n/ac
- Automatic fallback
- Manual or automatic selectable channel
- Mixed use of 802.11b, 802.11g, 802.11n, 802.11ac
- Support 11n/11ac dual current mode
- Encryption (Keys such as Hex, ASCII, special character should be supported)
- 64/128bit Static WEP Key
- WPA/WPA2/WPA-PSK/ WPA2-PSK
- 4 or more Virtual AP (Multi SSID), and each SSID supports different encryption
- SSID should support alphabet, numeric, special character
- Hidden SSID
- Support WMM(Wireless LAN QoS function: IEEE 802.11e)
- IEEE 802.1x
- EAP MD5/EAP TTLS/PEAP
- RADIUS Client function
- Support TR-069
- WDS
- WMF
- Client isolation
- Support WPS with hardware PUSH button and 'configured' mode.

### IPv6

- Support Dualstack
- Support DHCP Server and IPv6 addressing type: SLAAC (Stateless Address)
- Using DHCP Server and IPv6 addressing type: Stateful
- Support ICMPv6
- Support IPv6 Filtering

**O&M**

- System or module LED.
- 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
- Setting and changing Config
- Firmware download only through Web Server by TR069
- Time sync through NTP Server
- Device status and performance management
- Support storage function and SAMBA by USB

**Link Measurement and diagnostic**

- Support OAM Remote Loop back test.
- OLT detects EPON Signal Strength to check the status of ONU signal received/transmitted based on

**Optical characteristics**

- Transmission distance: 10Km or 20Km(Optional)
- Transmission quality: BER 10-10 or lower
- Transmission level : -1~4dBm

**Dielectric resistance**

- 100Mohm or higher (based on DC 500V)

**ubiQuoss**

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Many Experience of System Deployment