

# 1G1F+WIFI+CATV+POTs

## QF-CX101WCP

### Overview

- 1G1F+WIFI+CATV+POTs is designed as HGU (Home Gateway Unit) in different FTTH solutions; the carrier-class FTTH application provides data service access.
- 1G1F+WIFI+CATV+POTs is based on mature and stable, cost-effective XPON technology. It can switch automatically with EPON and GPON mode when it access to the EPON OLT or GPON OLT.
- 1G1F+WIFI+CATV+POTs adopts high reliability, easy management, configuration flexibility and good quality of service (QoS) guarantees to meet the technical performance of the module of China Telecom EPON CTC3.0.
- 1G1F+WIFI+CATV+POTs is compliant with IEEE802.11n STD, adopts with 2x2 MIMO, the highest rate up to 300Mbps.
- 1G1F+WIFI+CATV+POTs is fully compliant with technical regulations such as ITU-T G.984.x and IEEE802.3ah.
- 1GE+1FE+WIFI+CATV+POTs is designed by Realtek chipset 9602C.

### Feature

- Supports Dual Mode (can access GPON/EPONOLT).
- Supports SFU and HGU of EPON CTC 3.0 standard
- Supports GPON G.984/G.988 standards and IEEE802.3ah.
- Support CATV interface for Video Service and remote control by Major OLT
- Support SIP Protocol for VoIP Service
- Integrated line testing compliant with GR-909 on POTS
- Support 802.11n WIFI (2x2 MIMO) function
- Support NAT, Firewall function.
- Support Flow & Storm Control , Loop Detection, Port Forwarding and Loop-Detect
- Support port mode of VLAN configuration

- Support TR069 Remote Configuration and maintenance
- Support Route PPPoE/DHCP/Static IP and Bridge mixed mode
- Support IPv4/IPv6 dual stack
- Support IGMPv2, IGMPv3, MLDv1, MLDv2, IGMP snooping/proxy
- Support LAN IP and DHCP Server configuration
- Compatible with popular OLT(HW, ZTE, FiberHome...)

## Specification

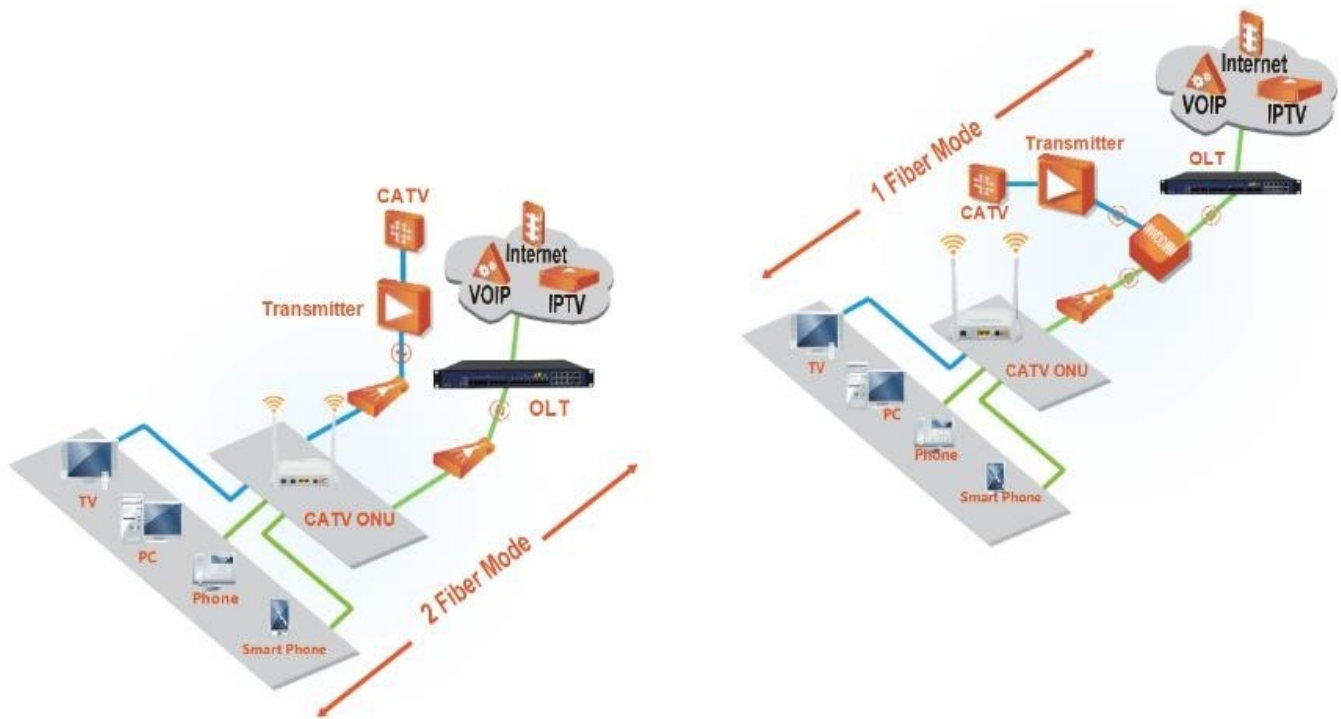
Technical Item	Details
PON interface	1 G/EPON port(EPON PX20+ and GPON Class B+) Upstream: 1310nm; Downstream: 1490nm SC/APC connector Receiving sensitivity: $\leq -28\text{dBm}$ Transmitting optical power: $0\sim +4\text{dBm}$ Transmission distance: 20KM
LAN interface	1x10/100/1000Mbps and 1x10/100Mbps auto adaptive Ethernet interfaces. Full/Half, RJ45 connector
WIFI Interface	Compliant with IEEE802.11b/g/n Operating frequency: 2.400-2.4835GHz support MIMO, rate up to 300Mbps 2T2R, 2 external antenna 5dBi Support: Multiple SSID Channel: 13 Modulation type: DSSS, CCK and OFDM Encoding scheme: BPSK, QPSK, 16QAM and 64QAM
CATV Interface	RF, optical power : $+2\sim -18\text{dBm}$ Optical reflection loss: $\geq 45\text{dB}$ Optical receiving wavelength: $1550\pm 10\text{nm}$ RF frequency range: 47~1000MHz, RF output impedance: $75\Omega$ RF output level: $\geq 82\text{dBuV}$ ( $-7\text{dBm}$ optical input) AGC range: $+2\sim -7\text{dBm}/-4\sim -13\text{dBm}/-5\sim -14\text{dBm}$ MER: $\geq 32\text{dB}$ ( $-14\text{dBm}$ optical input), $> 35$ ( $-10\text{dBm}$ )
LED	10 LED, For Status of WIFI、WPS、PWR、LOS、PON、LAN1~LAN2、WORN、NORMAL(CATV), FXS
Push-Button	4, for Function of Power on/off, Reset, WPS, WIFI
Operating condition	Temperature : $0^{\circ}\text{C}\sim +50^{\circ}\text{C}$ Humidity : $10\%\sim 90\%$ (non-condensing)
Storing Condition	Temperature : $-40^{\circ}\text{C}\sim +60^{\circ}\text{C}$ Humidity : $10\%\sim 90\%$ (non-condensing)
Power supply	DC 12V/1A
Power Consumption	$< 6\text{W}$
Net Weight	$< 0.3\text{kg}$

## Panel lights and Introduction

Pilot Lamp	Status	Description
WIFI	On	The WIFI interface is up.
	Blink	The WIFI interface is sending or/and receiving data (ACT).
	Off	The WIFI interface is down.
WPS	Blink	The WIFI interface is securely establishing a connection.
	Off	The WIFI interface does not establish a secure connection.
PWR	On	The device is powered up.
	Off	The device is powered down.
LOS	Blink	The device does not receive optical signals or with low signals.
	Off	The device has received optical signal.
PON	On	The device has registered to the PON system.
	Blink	The device is registering the PON system.
	Off	The device registration is incorrect.
LAN1~LAN2	On	Port (LANx) is connected properly (LINK).
	Blink	Port (LANx) is sending or/and receiving data (ACT).
	Off	Port (LANx) connection exception or not connected.
FXS	On	Telephone has registered to the SIP Server.
	Blink	Telephone has registered and data transmission (ACT).
	Off	Telephone registration is incorrect.
Worn (CATV)	On	Input optical power is higher than 3dbm or lower than -15dbm
	Off	Input optical power is between -15dbm and 3dbm
Normal (CATV)	On	Input optical power is between -15dbm and 3dbm
	Off	Input optical power is higher than 3dbm or lower than -15dbm

## Application

- Typical Solution: FTTO(Office)、FTTB(Building)、FTTH(Home)
- Typical Service: Broadband Internet access, IPTV, VOD, video surveillance, CATV, VoIP etc.



## Product Appearance





## Ordering information

Product Name	Product Model	Descriptions
1G1F+WIFI+CATV+POTs XPON	Model Name: QF-CX101WCP Model Series No.: CX1112R002	10/100/1000Mbps auto adaptive Ethernet (RJ45) ,1 SC/APC Connector, Plastic Casing, VoIP(voice over internet protocol), External power supply adapter
1G1F+WIFI+CATV+POTs EPON	Model Name: QF-CE101WCP Model Series No.: CE1112R002	10/100/1000Mbps auto adaptive Ethernet (RJ45) ,1 SC/APC Connector, Plastic Casing, VoIP(voice over internet protocol), External power supply adapter