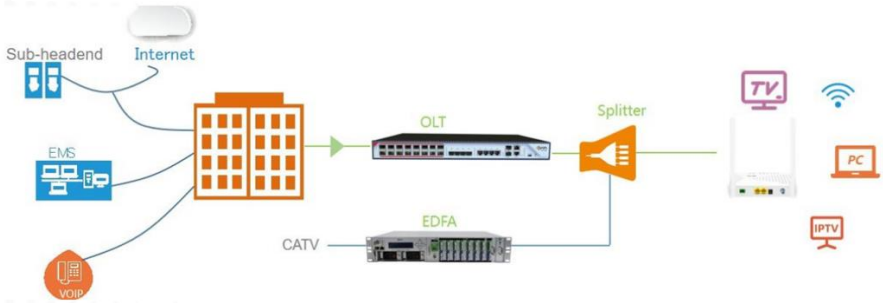
ONU XPON 1GE+1FE+2*5 WIFI + RF

SUX1G1F1RW

SUPREME

BRIEF VIEWS

FD514GD-R460 is an indoor fiber broadband access terminal. The device provides one GPON / EPON adaptive optical port and supports XPON mode. It can be used in connection with our company FD16 series GPON OLT or FD11 / 12 series EPON OLT. It can also interconnect with the mainstream manufacture (Huawei / ZTE / Fiberhome) GPON or EPON OLT to provide users with Internet and WIFI services basedon GPON and EPON technology.



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FUNCTIONALFEATURE

- In compliant with IEEE802.3ah and ITU - T G.984 standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Support SN and LOID+Password multiple registration methods
- Support port VLAN configuration
- Support port-based rate limitation and bandwidth control
- Support MAC address learning
- Support MAC address learning account limit
- Support VLAN transparent/tag/translate/trunk
- Support remote CATV port management
-
-
- Support broadcasting storm resistance function
- Support igmp transparent/snooping/proxy mode
- Support Dynamic Bandwidth Allocation (DBA)
- Support AES encryption and decryption
- EMS network management based on SNMP ,convenient for maintenance
- Support power-off alarm function ,easy for link problem detection
- Support Firewall
- Support MAC address/URL filter
- Support remote WEB/Telnet access control

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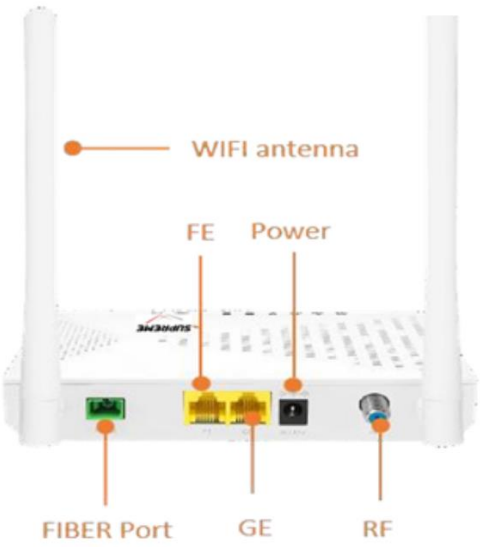
PRODUCT INTERFACE AND LED



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LED DEFINITIONS

Indicator		Description
PWR	Power status	On: The ONT is power on; Off: The ONT is Power off;
PON	ONT Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off:Failed to register to OLT or no normal optical signal input;
LOS	PON optical signals	On: Optical power lower than receiver sensitivity; Off: Optical in normal;
LAN	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
INT	Internet status indicator	On: The routed WAN Internet access service is normal. Off: The routed WAN Internet access service is abnormal.
WIFI	WIFI	Blinking :Data is being transmitted On:WIFI function Opens

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PRODUCT SPECIFICATION

Mechanics	
Dimensions	214mm(L)*139.5mm(W)*32mm (H)
Weight	About 0.228kg

Hardware	
User Port (LAN)	RJ-45 connector 4 *10/100/1000Mbps adaptive
Ethernet port	Full/half duplex Auto MDI/MDI-X
Indicators	PWR / PON / LOS / LAN / INT / WIFI

PONT Port Indicators
PWR / PON / LOS / GE / FE / INT / CATV /WIFI

PON Mode
EPON：1000BASE-PX20+ symmetric GPON：FSAN G.984.2 standard,Class B+

PON Rate
EPON：1.25Gbps downstream/upstream GPON：2.488Gbps/1.244Gbps downstream/upstream

Wavelength Transmit: 1310nm Receiver: 1490nm

Receiving sensitivity EPON：-27dBm GPON：-28dBm

Saturated power EPON：-3dBm GPON：-8dBm

Transmitting power EPON:0～4dBm GPON：0.5～5dBm

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WIFIperformance parameters
IEEE802.11b/g/n(2.4G) IEEE802.11a/n/ac(5G) Max rate: 300M(2.4G) Max rate: 867Mbps(5G) MAX TX power 2.4G:17dBm MAX TX power5G:17dBm
Environment
Working temperature 0 to 40°C Operating humidity 10% ~ 90% (Non-condensing)
Power
External 12VDC/1A power supply adapter Power consumption ≤9.7W
Power
Power External 12VDC/1A power supply adapter Power consumption ≤7.2W

ONU XPON 1GE 1FE WIFI 2.4 1RF GPNC0C

KINGTYPE

BRIEF VIEWS

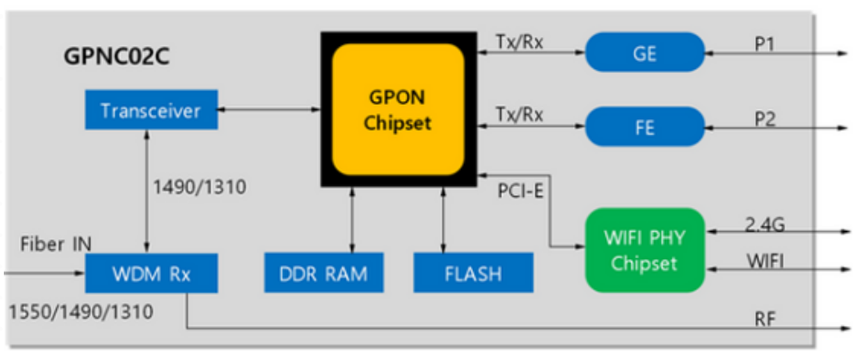
KT PON ONU GPNC0C is mainly designed for broadband application, it supports 1GE+1FE+WIFI antenna + Optical Receiver + WDM all with deliver a complete broadband solution and importantly compatible with all platform OLT, GPNC0C is comply with ITU-T and IEEE recommended standards.

FEATURES

Supports downstream 2.5Gbps upstream 1.25Gbps PON transmission rates.
Support QoS, SLA, DBA
1 core solution, In build WDM
Support RF Management, turn on/off the RF output
Support port isolation
Supports Ethernet loop detection
Support VLAN

ONU XPON 1GE 1FE WIFI 2.4 1RF GPNC0C

TECHNICAL SPECIFICATIONS



Chipset	Realtek(XPON)	
G/EPON Interface	Physical Interface	SC/APC, Class B+
Ethernet Interface	2*RJ45	1x10/100/1000M auto- negotiation
		1x100M auto-negotiation
Optical Receiver(TV)	Optical Input Range	-18 ~ 0 dBm, AGC -15 ~ -5 dBm
	RF Output Power	74 dBuV
	RF ON/OFF	55dBc
Wireless Interface	Wireless Standards	IEEE802.11b/g/n
	Power of transmitter	<50mW(13dBm)
	Frequency	2.412-2.462(11 channels)
	Rate	11n: Up to 300Mbps(dynamic)
		11g: Up to 54Mbps(dynamic)
	EIRP	<20dBm(EIRP)
	Reception Sensitivity	135M: -68dBm@10% PER
		54M: -70dBm@10% PER
	Wireless Functions	Enable/Disable Wireless Radio
	Wireless Security	64bit WEP / WPA / WPA2,WPA-PSK / WPA
	Antenna	5dBi Undetachable Omni Directional
Management	Antenna	
Standards	ITU-T G.984.X, ITU-T G.988	
Network Capability	Support VLAN TAG/UNTAG 802.1Q	
	Support IGMP v1 / v2 / v3.	
	Support IEEE 802.1p QoS classification policy	
	Support L2/L3 the wire speed forwarding	
Dimension	140 x 91 x 29mm	
Power Consumption	<7W	
Power Supply	External 12VDC, 0.7A	

ONU XPON 4GE WIFI 5G RF GPNC14C

5G

KINGTYPE

BRIEF VIEWS

KT's GPON ONU GPNC14 combination of Data ONU + WIFI + Optical receiver , which is mainly designed for Operator and fully complies with ITU-T 984 standards.

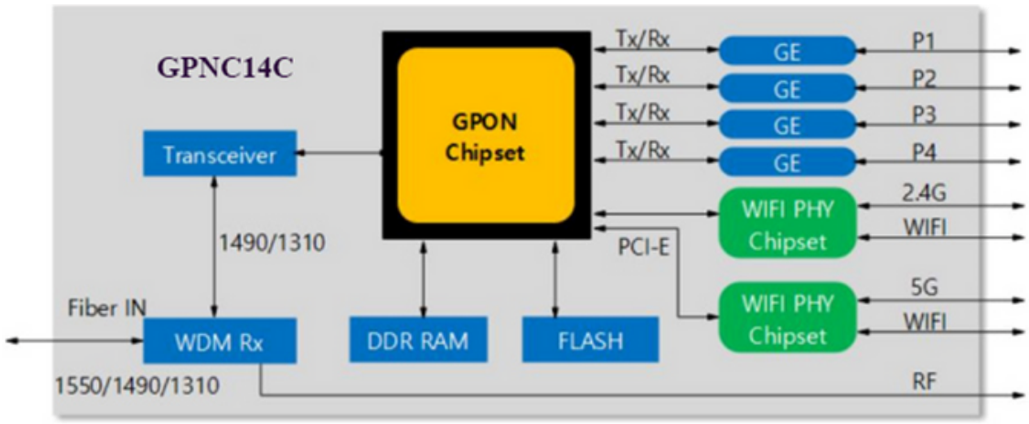
FEATURES

- 1 Core WDM solution
- Transmission rate: downstream 2.5 Gbps, upstream 1.25 Gbps
- Support OLT configure the ONU WAN interface and RF management
- Powerful wireless WIFI coverage. Support 802.11AC dual-band WiFi with high-performance data forwarding. External 2x2 MIMO (2.4G & 5G) antenna, Gain 5dBi, multi-SSID and WPS.
- QoS guarantees for Ethernet services, support for SLAs and DBAs
- Support IGMP multicast and effectively use broadband.
- Provide 4 GE thernet ports to support port isolation.
- Support Ethernet loop detection, automatically determine whether there is Ethernet loop blocking on the network connected to the device, and automatically recover when the loop disappears.
- Support VLAN function, support VLAN tag, transparent, etc.
- Rich OAM function design, including configuration, alarm, performance monitoring, fault isolation and security management, providing remote management through OLT and local console management.
- Low power consumption <7W.

ONU XPON 4GE WIFI 5G RF GPNC14C

5G

TECHNICAL SPECIFICATIONS



Parameter	Specifications	
GPON Interface	Physical Interface	Fiber 1 Input: SC/UPC
	Receive range	-8 ~ -28dB
RF Interface	Physical Interface	Fiber 2 Input: SC/APC WDM inside
	Range	-18~ 0dBm, -15 ~ 0dBm(AGC)
	Output	1 Port out, 74dBuV
	TV output ON/OFF	55dBc
Ethernet Interface	Interface Data Rate	4x10/100/1000M auto-negotiation
	Connector Type	RJ45
Wireless Interface	Wireless Standards	IEEE802.11b/g/n/ac
	Power of transmitter	<50mW(13dBm)
	Frequency	2.412-2.462(11 channels)
	Rate	11ac:Up to 786Mbps(dynamic)
		11n: Up to 300Mbps(dynamic)
		11g: Up to 54Mbps(dynamic)
	EIRP	<18dBm(EIRP)
	Reception Sensitivity	135M: -68dBm@10% PER
		54M: -70dBm@10% PER
	Wireless Functions	Enable/Disable Wireless Radio
	Wireless Security	64bit WEP / WPA / WPA2 WPA-PSK / WPA2-PSK
	Antenna	5dBi Undetachable Omni Directional
Management	SNMP(OMS), Web GUI, CLI, OMCI, TR069	
Standard	ITU-T G.984.x, ITU-T G.988	
Network Capability	Support VLAN TAG/UNTAG 802.1Q	
	Support IGMP v1 / v2 / v3	
	Support L2/L3 the wire speed forwarding	
	Support IEEE 802.1p standard	
	Support GEM/WIFI speed limitation	
	Support WAN configuration based on CLI	
	MAC address table:1024	
Dimension	210*180*28mm or 185*150*42mm,	
Operating temperature	-10~50 °C	
Storage temperature	-30~60 °C	
Environmental humidity	10% to 90%, non-condensing	
Power Consumption	<7W	
Power Supply	External 12V DC/ 1A	

1 Introduction

1.1 Product Description

G/EPON 1GE+1FE+WiFi+CATV ONU meets telecom operators FTTO (office), FTTD (Desk) ,FTTH (Home) broadband speed, SOHO broadband access, video surveillance and other requirements to design an EPON/GPON Gigabit Ethernet products. It is based on mature and stable, cost-effective EPON/GPON technology, high reliability, easy management, configuration flexibility and good quality of service (QoS) guarantees to meet the technical performance of IEEE802.3ah and ITU-TG.984.x , China Telecom EPON/GPON equipment technical require-ments and other specifications.

Figure 1 1GE+1FE+WiFi ONU Figure 2 1GE+1FE+WiFi+CATV ONU

1.2 Product categories

Product model	Product specification	Chipset	SDRAM Memory
RX8102W	1 G/EPON+1GE+1FE+WiFi	Realtek	64MB
RX8102WT	1 G/EPON+1GE+1FE+WiFi +CATV	Realtek	64MB

Table 1 Product categories

1.3 Product categories

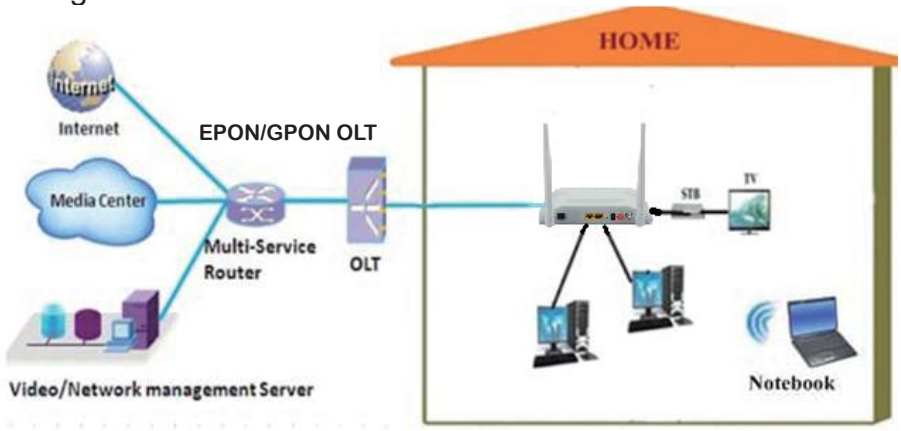


Figure 3 Application Chart

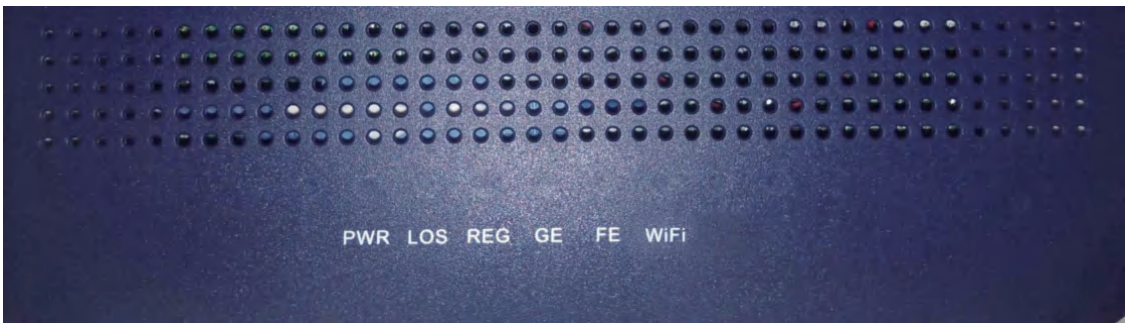
OPTICTIMES S.A.C
Tel:+51 932 411 092
E-mail:casildo@optictimes.com
https://optictimesperu.com/
Add:AV.GUARDIA CIVIL NRO.1321 INT.1803 URB.VILLA VICTORIA(EDIFICIO CONEXION

1.4 Technical parameters

Technical item	1GE+1FE+WiFi	1GE+1FE+WiFi+CATV
PON interface	1 G/EPON port(EPON PX20+ and GPON Class B+) Receiving sensitivity: ≤-28dBm Transmitting optical power: 0~+4dBm Transmission distance: 20KM	
Wavelength	Tx1310nm,Rx 1490nm	Tx1310nm,Rx 1490nm and 1550nm
Optical interface	SC/UPC connector	SC/APC connector(signal fiber with WDM)
WiFi interface	C1 x 10/100/1000Mbps and 1 x 10/100Mbps 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	
LED	6, For Status of POWER、LOS、PON、GE、FE、WiFi	7, For Status of POWER、LOS、PON、GE、FE、WiFi、CATV
Operating condition	Temperature: 0℃～+50℃ Humidity: 10%～90%（non-condensing）	
Storing condition	Temperature: -30℃～+60℃ Humidity: 10%～90%（non-condensing）	
Power supply	DC 12V/1A	
Power supply	≤6W	

Table 2 Technical parameters

1.5 Panel lights



RX8102W

RX8102WT

LED	Mark	Status	Description
Power	PWR	On	Device is powered up.
		Off	Device is powered down.
Optical signal loss	LOS	Blink	Device does not receive optical signals.
		Off	Device has received optical signal.
Registr-ation	REG	On	Device is registered to the PON system.
		Off	Device is not registered to the PON system.
		Blink	Device is registering.
interface	GE、FE	On	Port is connected properly.
		Off	Port connection exception or not connected.
		Blink	Port is sending or/and receiving data.
Wireless	WiFi	On	WiFi turned on.
		Off	Device is power off or WiFi turned off.
		Blink	WiFi data transmission.
CATV(for RX8102 WT)	CATV	On	1550nm wavelength power of input is in normal range.
		Off	1550nm wavelength power of input is too low or no input.
		Blink	1550nm wavelength power of input is too high.

Table 3 Panel lights on

1.6 Interface description

Port Type	Function
PON	RX8102W: SC/UPC type, single mode optical fiber cable RX8102WT: SC/APC type, single mode optical fiber cable with WDM
GE、FE	Connect device with ethernet port by RJ-45 cat5 cable.
RST	Press down reset button and keep1-5seconds to make the device restart and recover from the factory default settings.
DC12V	Connect with power adapter.
CATV★	RF connector.
Power On/OFF	Power turn on/off.

Table 4 Interface description

Note:
1.With ★ tags, it is only for RX8102WT.

1.7 Software feature

Software Key Feature	
EPON/GPON mode	Dual Mode , Can access EPON/GPON OLTs(HUAWEI、ZTE、FiberHome, etc).
Software mode	Bridging and Routing Mode.
Layer2	802.1D&802.1ad bridge,802.1p Cos,802.1Q VLAN.
Layer3	IPv4/IPv6 , DHCP Client/Server , PPPoE ,NAT , DMZ ,DDNS.
Multicast	IGMPv1/v2/v3 , IGMP snooping.
Security	Flow & Storm control, Loop Detection.
CATV management	Support CATV management.
WiFi	IEEE802.11b/g/n (TX power:17dBm/16dBm/15dBm),Up to 300Mbps Authentication : WEP/WAP-PSK(TKIP)/WAP2-PSK(AES).
Firewall	Filtering Based on ACL/MAC/URL.
O&M	WEB/TELNET/OAM/OMCI/TR069, Support private OAM/OMCI protocol and Unified network management of VSOL OLT.

Table 5 Software Key Feature