

## FD512XW-E-R310 1GE+1FE+WIFI Data Type ONU



### Brief Views

FD512XW-E-R310 is passive optical network terminal produced by C-Data for broadband access market based on EPON technology. It's are used together with EPON OLT to provide a complete broadband access solution.

EPON technology is an emerging technology which takes advantage of PON technology and Ethernet technology. It's also point to multi-point network technology, and combined with single-fiber bidirectional technology. OLT device interconnected with multiple ONU through the passive optical network . EPON network system can use fewer fiber cable to meet the multi-user access needs of operators.

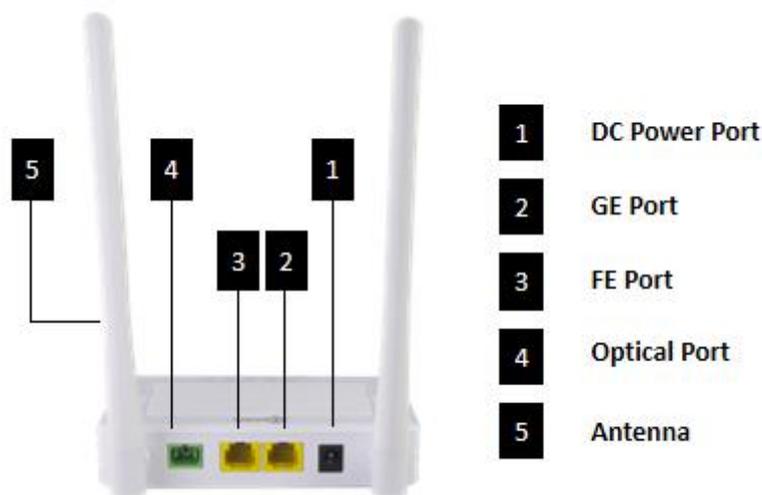
FD512XW-E-R310 fully meets IEEE802.3ah and CTC3.0 standard protocol. It has good third-party compatibility to work with the third party OLT, It supports 1Gbps transmission rate up and down and provides users with good QOS, flexible bandwidth allocation of Ethernet services and IP integrated service.

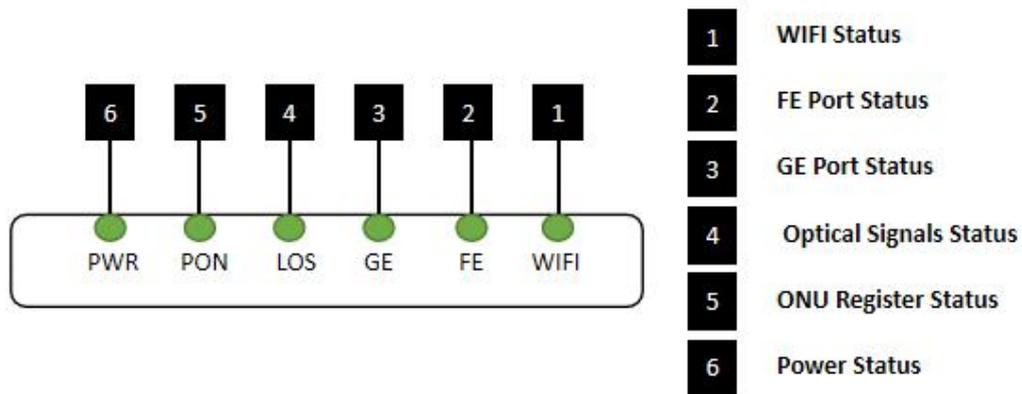
FD512XW-E-R310 integrates wireless function which meets 802.11 b/g/n technical standards. It has two external high gain omnidirectional antennas, the wireless transmission rate up to 300Mbps. It has the characteristics of strong penetrating power and wide coverage. It can provide users with more efficient data transmission security.

## Functional Feature

- In compliant with IEEE802.3ah Standard
- Support ONU auto-discovery/Link detection/remote upgrade of software
- Meet 802.11 b/g/n technical standards
- Support VLAN transparent, tag configuration
- Support multicast function
- Support DHCP/Static/PPPOE internet mode
- Support port-binding
- Support OAM+TR069 remote management
- Support data encryption and decryption function
- Support Dynamic Bandwidth Allocation (DBA)
- Support MAC filter and URL access control
- Support power-off alarm function ,easy for link problem detection
- Specialized design for system breakdown prevention to maintain stable system
- EMS network management based on SNMP ,convenient for maintenance

## Product Interface and LED Definitions





Indicator		Description	
1	WIFI	WIFI	Blinking: Data is being transmitted On: WIFI function Open Off: WIFI function Close
2	FE	FE Port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
3	GE	GE Port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;
4	LOS	EPON optical signals	On: Optical power lower than receiver sensitivity ; Off: Optical in normal
5	PON	ONU Register	On: Success to register to OLT Blinking: In process of registering to OLT; Off: In process of registering to OLT;
6	PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;

## Specification

Item		Parameter
Interface	PON Interface	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC/UPC single-mode fiber split ratio: 1:64 Transmission distance 20KM
	Ethernet Interface	1*10/100/1000M and 1*10/100M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance
	Power Interface	12V DC power supply

<b>Performance Parameters</b>	PON Optical Parameter	Wavelength: Tx:1310nm, Rx:1490nm Tx Optical Power: 0~4dBm Rx Sensitivity: -27dBm Saturation Optical Power: -3dBm
	Data Transmission Parameter	PON Throughput: Downstream 980Mbps; Upstream 950Mbps Ethernet: 100Mbps or 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
<b>Network Management</b>	Management Mode	QAM, TR069, WEB, Telnet
	Management Function	Status monitor, Configuration management, Alarm management, Log management
<b>Physical Features</b>	Power	<4W, 12V/0.5A power supply adapter
	Physical Specifications	Item Dimension: 228mm(L) x108mm(W) x 28mm (H) Item Net Weight: about 136g
	Environmental Specifications	Operating temperature: 0 to 40°C Operating humidity: 10% to 90%(Non-condensing)

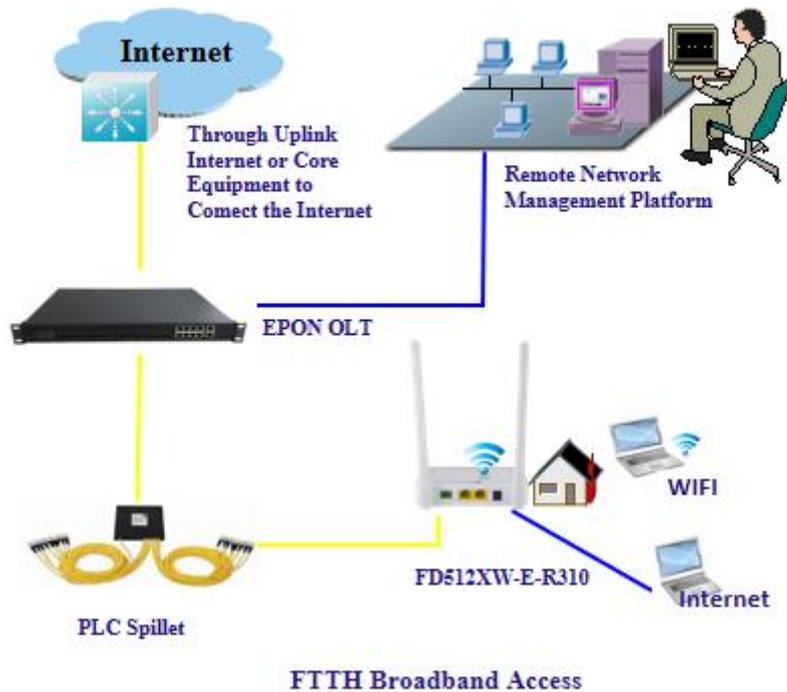

**WIFI Specification**

Item	Parameter	
<b>Performance parameters</b>	Operating mode	Router or bridge
	Technical standard	IEEE802.11b/g/n
	Frequency	2.412 ~ 2.472 GHz
	Antenna gain	5dBi
	Support rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 24, 36, 48, 54Mbps 802.11n: max rate 300Mbps
	Channel	2.4GHz Channel: 1,2,3,4,5,6,7,8,9,10,11,12,13
	Modulation mode	11b: DSSS: DBPSK(1Mbps),DQPSK(2Mbps),CCK(5.5/11Mbps) 11g: OFDM:BPSK(6/9Mbps), QPSK(12/18Mbps),16QAM(24/36Mbps) Q64QAM(48/54Mbps) 11n: MIMO-OFDM:BPSK,QPSK,16QAM,64QAM
	Receive sensitivity	11Mbps: ≤-90dBm 54 Mbps: ≤-76dBm HT20 MCS7: ≤-73dBm HT40 MCS7: ≤-70dBm
	Transmit power	802.11n: 17dBm
	Encryption mode	AES, TKIP, WPA, WPA2, WPA-PSK/WPA2-PSK

## Network Application

Typical Solution: FTTH

Typical Business: INTERNET, WIFI



## Ordering Information

Product Name	Product Model	Descriptions
1GE+1FE+WIFI	FD512XW-E-R310	1*10/100/1000M and 1*10/100M Ethernet interface, 1 EPON interface, support WIFI function, plastic casing, external power supply adapter