PICOTEL

EPON ONU 1G+CATV

PU-E811

Brief Views

Picotel PU-E811 is fiber to the home multi service access EPON ONU. It's based on the mature, stable, high cost performance EPON technology and has gigabit Ethernet switching, WDM and HFC technology. Picotel PU-E811 has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee with technical performance of equipment meet the IEEE802.3ah requirements and have good compatibility with third party manufacturers OLT.

EPON technology is a kind of emerging technology which takes advantage of PON technology and Ethernet technology also is a kind of point to multi-point network technology. OLT through the passive optical network to connect multiple ONU with single fiber bidirectional technical can rarely used fiber resources to meet the operators of the multi-user access requirements.
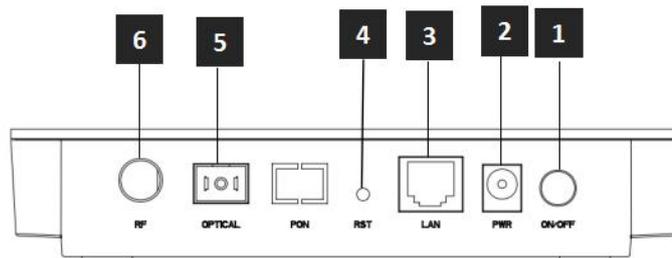
It adopts single fiber WDM technology with downlink wavelength 1550nm and 1490nm, uplink wavelength 1310nm . It only needs one-core fiber to transmit data and CATV service.
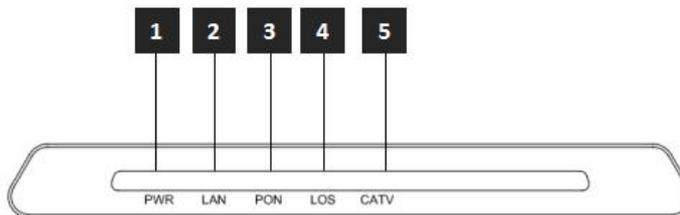
Functional Feature

- Support port-based rate limitation and bandwidth control;
- In compliant with IEEE802.3ah Standard
- Up to 20KM transmission Distance
- Support data encryption, group broadcasting etc.
- Support Dynamic Bandwidth Allocation (DBA)
- Support ONU auto-discovery/Link detection/remote upgrade of software;
- Support port mode of VLAN configuration
- Support power-off alarm function ,easy for link problem detection
- Support broadcasting storm resistance function

- Support port flow control
- Support ACL to configure data packet filter flexibly
- Specialized design for system breakdown prevention to maintain stable system
- Support software online upgrading
- EMS network management based on SNMP ,convenient for maintenance

Product interface and LED definitions

1	Power On/Off Button
2	DC Power Port
3	LAN Port
4	Reset
5	PON Optical Port
6	RF port

1	Power status
2	LAN port status
3	ONU Register
4	Optical signals status
5	CATV status

	Indicator		Description
1	PWR	Power status	On: The ONU is power on Off: The ONU is Power off
2	CATV	CATV status	On ：CATV optical normal Off ： The CATV signals are not received
3	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
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: Failed to register to OLT;

Specification

Item	Parameter
PON Interface	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC single-mode fiber split ratio: 1:64 Transmission distance 20KM
User Ethernet Interface	1*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance 1 RF output Female F-Type Connector
Power Interface	12V DC Power supply
PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0～4dBm Rx Sensitivity: -27dBm Saturation Optical Power: -3dBm Connector Type: SC Optical Fiber: 9/125Чm single-mode fiber
Data Transmission Parameter	PON Throughput: Downstream 980Mbps; Upstream 950Mbps Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Business Capability	Layer 2 wire speed switching Support VLAN TAG/UNTAG，VLAN translation Support Port-based speed limitation Support Priority classification Support storm control of broadcast Support loop detection
Network Management	Support IEEE802.3 QAM, ONU can be remotely managed by OLT Support Remote management through SNMP and Telnet Local management
Management Function	Status monitor, Configuration management, Alarm management, Log management
Shell	Plastic casing
Power	<5W,　12V/0.5A power supply adapter
Physical Specifications	Item Dimension：160mm(L)*120mm(W)*32mm(H) Item weight：0.3kg
Environmental Specifications	Operating temperature: 0 to 50ºC Storage temperature: -40 to 85ºC Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing)

CATV

Item	Parameter
Wavelength	1550nm
Optical return loss	>45dB
Input optical power	-18dBm～0dBm
RF frequency	47MHz~1000MHz
RF output lever	≥78dBuV (@-12~-2dBm@85MHz)
AGC control accuracy	<±1db
Flatness	<±1.5db
CNR	>41dB (@-10dBm@DS22 Channel)
CSO	>60dBc (@-10dBm@DS22 Channel)
CTB	>60dBc (@-10dBm@DS22 Channel)
RF output return loss	>14dB
RF impedance	75Ω
AGC function	Support

Network application

Typical Solution：FTTH

Typical Business：INTERNET