

# Optical Network Unit (ONU)

----BDCOM P1501C1

## Overview

Abiding by IEEE802.3ah, BDCOM P1501C1 ONU meets relevant requirements of GEAPON ONU regulated in *Technical Requirements of YD/T1475-2006—Ethernet-Based EPON* and *China Telecom EPON Technical Requirement*. BDCOM P1501C1 ONU is widely used in the FTTH/FTTO/FTTB applications of the carriers, CATV system and power system.



P1501C1

## Main Strengths

- Supports the symmetric uplink/downlink 1Gbps PON transmission rate, efficient bandwidth usage and Ethernet services, helping carriers to provide reliable services to their users.
- Supports to establish a hybrid networking together with OLTs of mainstream manufacturers, minimizing the cost for the carrier to establish its network.
- Supports SLA and DBA.
- Occupies little space and consumes a little volume of power.

## Main Characteristics

- Adopt the point-to-multipoint network topology, effectively collect separate Ethernet services and aggregate them. They provide the standard fast-Ethernet interface (RJ45) on the user side and can be connected to the existing network smoothly.
- Dynamic bandwidth distribution mechanism enables all users to share the 1Gbps bandwidth reasonably, realizes reliable QoS and guarantees different services in a same network different qualities.
- Support the IGMP multicast and efficiently utilize the bandwidth.
- Support port isolation.
- Support the Ethernet loop detection, automatically judge whether the device-connecting network has Ethernet loopback interrupted, and resume the loop when the loop disappears.
- Support the multicast VLAN.
- Support remote loopback and remote diagnosis of the network state.
- Rich OAM function designs, including the configuration, alarm, performance monitoring, fault separation and security management. It not only provides the remote OLT management mode but also supports local console platform management.

## Technical Parameters

Attributes	P1501C1
<b>User interface</b>	One fixed 10/100、1000M BASE-T auto-adaptable RJ45 interface
<b>PON interface</b>	A 1Gbps transmission rate with downlink and uplink symmetry Network coverage diameter: 30 kilometers Type of the optical interface: SC/PC Hi-sensible optical receiver: Not less than -26dBm Radiation power: 2-7dBm Security: ONU authentication mechanism
<b>Standard</b>	IEEE 802.3ah PRC Community Industry Standard (YD/T 1475-2006) IEEE 802.1D, Spanning Tree IEEE 802.1Q, VLAN IEEE 802.1w, RSTP Ethernet – II, Ethernet-SNAP
<b>VLAN</b>	Port-based VLAN IEEE 802.1Q VLAN

<b>QoS</b>	Backpressure flow control (half duplex) IEEE 802.3x flow control (full duplex) Head Of Line (HOL) prevention mechanism IEEE p802.1p, CoS 4 transmission queues on each port are mapped to eight priority values of 802.1p. WR, SP and FIFO Rate control
<b>Reliability</b>	Unidirectional Link Detection (UDLD) Supporting the Dying-Gasp function
<b>Network security</b>	IEEE 802.1x, port-based access control Supporting the local and remote authentication, EAP termination or transparent transversal CHAP and EAP authentication Limiting the maximum number of users on each port Protecting the port Controlling the storm of packets
<b>Management configuration</b>	Various management modes such as CLI, Web, SNMP and TELNET Conducting software upgrade through TFTP and FTP Local or the server's syslog logs Network testing tools such as ping and traceroute
<b>Physical size</b>	132 mm(W) x 100 mm(D) x 28 mm(H)
	Installation: Plug and play
<b>Heat cooling</b>	The heat generated by the device in a long-time use (24 hours) cannot lead to the degrading of the performance and the deformation of the components.
<b>Environment requirements</b>	Working condition: 0°C-55°C; 10%-85% non-condensing
	Storage condition: -40°C to 80°C; 5%-95% non-condensing
<b>Power supply</b>	Type of the power adapter: the on-off power adapter
	Rated input voltage: 110V ~ 240V, 50/60Hz
	Fluctuated range of the input voltage: ±20% (domestic); ±10% (international)
	Fuse: Installing the irrecoverable temperature fuse (or temperature resistance) at the input terminal
	Power consumption: Up to 10W

## Ordering Information

Model	Description
BDCOM P1501C1	1 PON port (SC), 1 FE ports, plastic hull, AC220V outside adapter