A-GEAR World Wide Manufacturing

Product Specification
A-GEAR P1104B-O
Outside Optical Network Unit

1. Introduction

Abiding by IEEE802.3ah, A-GEAR P1104B-O meets relevant requirements of GEPON OUN regulated in Technical Requirements of YD/T1475-2006—Ethernet-Based EPON and China Telecom EPON Technical Requirements. This product supports AC60V power supply, which is privately used by the Broadcast, TV & Film industry. So it can meet the requirements of the bidirectional network of the Broadcast, TV & Film industry and the requirements of FTTO/FTTB 3-in-1 network services and outside installation.

2. 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 P1000 series ONU hybrid networking, minimizing the cost for the carrier to establish its network.
- Supports SLA and DBA.
- Adopting the outside hull design and industrial-level components.

3. Main Characteristics

- These EPON products 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.
- Their 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.

A-GEAR World Wide Manufacturing

- They support the IGMP multicast and efficiently utilize the bandwidth.
- They support port isolation.
- They support the Ethernet loop detection, automatically judge whether the device-connecting network has Ethernet loopback interrupted, and resume the loop when the loop disappears.
- They support the multicast VLAN.
- It supports remote loopback and remote diagnosis of the network state.
- It has 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.

4. Technical Parameters

Attributes	P1104B-O
User trial interface	4 fixed 10/100BASE-T interfaces Auto-adaptable RJ45 interface (water-proof column of cable)
PON interface	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
Standard	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
VLAN	Port-based VLAN GVRP IEEE 802.1Q VLAN
QoS	Backpressure flow control (half duplex) IEEE 802.3x flow control (full duplex) Head Of Line (HOL) prevention mechanism IEEE p802.1p, CoS Four transmission queues on each port are mapped to eight priority values of 802.1p. WR, SP and FIFO Rate control
Reliability	Unidirectional Link Detection (UDLD) Dying-Gasp

Attributes	P1104B-O
Network security	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
Management configuration	Various management modes such as CLI, Web, SNMP, TELNET and cluster RMONv1, group 1, group 2, group 3 and group 9 SSHv1/v2 Upgrading the software and the bootrom through TFTP and FTP Local or the server's syslog logs Command prompt in English or in Chinese Network testing tools such as ping and traceroute Debug output
Physical parameters	260mm(W) x 220 (D) x 85 mm(H) Weight: 2.5kg Outside wall-hanging installation mode
Heat cooling	Non-fan cooling design for the rib-shaped aluminum chassis
Hull: IP40 protection level	IP67
Environment requirements	Working condition: -40℃ ~ 75℃; 5%-95% no condensation Storage condition: -40℃ ~ 85℃; 5%-95% no condensation
Power Source	220VAC or 60VAC Fluctuated range of the input voltage: ±20% (domestic); ±10% (international) Power consumption: Up to 10W Authentication requirements: CCC authentication (domestic), CE authentication (international) or customer-specified authentication

5. Order Information

Model	Description
A-GEAR P1104B-O	ONU device with four 100M ports, aluminum hull and 220VAC power supply
A-GEAR P1104B-60VAC-O	ONU device with four 100M ports, aluminum hull and 60VAC power supply