

1.25Gbps  
Upstream



1Gbps  
Downstream



IEEE802.3ah  
GEAPON ONU

1\* 1.25G  
GEAPON SC  
Uplink port

1\*1GE LAN  
PPPOE/DHCP

1:64 Fiber  
Splitting  
Ratio

802.1Q VLAN,  
802.1P QOS  
DBA

Datasheet V1.1.6

### SON6511GZ 1GE GEAPON ONU Description:

The SON6511GZ is a Single family Gepon ONU based on IEEE802.3ah standard. It is built with a Gepon SC port that supports 1.25Gbps upstream bandwidth. It also comes with 1\*10/100/1000Base-Tx Gigabit Ethernet LAN port that supports 1Gbps downstream bandwidth. It is a 1GE ONU that supports router functions, such as PPPOE, Static IP, Firewall, etc.

### Main Features:

- Comes with 1\*1.25Gbps Gepon SFF Transceiver built on-board (Optional : GPON Bosa on board, BOB hardware) offering 1.25Gbps upstream bandwidth
- Comes with 1\*10/100/1000Base-Tx Gigabit LAN port, offers 1Gbps downstream bandwidth
- Built with the ZTE chipset, supports router functions, e.g. PPPOE, Static IP, Firewall, etc.
- Thoroughly tested with CHIMA, Huawei, ZTE, Fiberhome, etc Gepon OLTs, superb interoperability
- Support Rich layer 2 Management features, applicable to the biggest ISP networks
- Built based on WDM, transmitting Data/IPTV/Voice over a Single fiber, max transmission distance can reach 20Km
- Support 1:64 fiber splitting ratio, one PON port can connect up to 64 subscriber ONUs
- Support FBA (Flexible Bandwidth Assignment), dynamic assign bandwidth automatically
- High security, data encrypted at upstream and downstream directions
- Support Multicast, end users can optionally apply for VOD, Video conferencing, etc.
- Easy installation and Maintenance, support remote failure detect and locate. Saving your maintenance costs
- Support Dynamic Bandwidth Allocation (DBA), Smarter bandwidth assignment and usage
- Support OMCI Management, manage subscribers remotely
- Supports IPv4 and IPv6, highly applicable in both IP type based networks

**Hardware Features:**

- Built with ZTE ZX279125 600Mhz processor, 64Mb Flash, 256Mb RAM
- Fully Compatible with IEEE802.3ah, CTC 2.1, CTC 3.0 standard
- Offers 1\*1.25Gbps Gepon SC port for upstream
- Offers 1\*10/100/1000Base-Tx Gigabit Ethernet LAN for downstream
- Sensibility of Gepon Optical port: -2dBm to -27dBm
- Support 1:64 Optic fiber splitting ratio
- Support 2Gbps Backplane bandwidth
- live LED Indicators for Power, PON, LOS and LAN
- Desktop design, Plastic housing,
- Plug and Play operation
- External Power Supply
  - Impulse Power Supply, AC 96V-260V input, DC 12V, 0.5A output
  - Support Asia, Europe, U.S, U.K, AU standard power plugs

**Software Features:**

- Support WAN connection in Route or Bridge mode
- Support Static IP, PPPOE, Firewall
- Support IEEE802.1Q VLAN, Port Based VLAN
- Support IEEE802.1P QOS, TOS, COS
- Support IEEE802.1d Spanning Tree
- Support IEEE802.1W Rapid Spanning Tree
- Support MAC address translation and MAC addresses limitation
- Support IGMP V1, V2 and IGMP Snooping for multicast
- Support IEEE802.3X full duplex, half duplex backpressure flow control
- Support MAC, IP, or TCP/UDP protocol based ACLs (Access Control protocol)
- Support Bandwidth Control
- Support CLI management, SNMP based NMS management and Monitor

**Interoperable Gepon/GPON OLT Models**

- **CHIMA** SNA8800T, SNA9000T series Gepon OLT
- **HUAWEI** MA5680T, MA5606T, MA5683T GEPON OLT
- **ZTE** C220, C300 GEPON OLT
- **Alcatel Lucent** 7342, 7360 ISAM GEPON OLT
- **Fiberhome** AN5516-01, AN5516-02 GEPON OLT
- **Ericsson** BM1500 GEPON OLT
- **Aurora** Trident7, T7-PIM-8802/COLT GEPON OLT
- **Dlink** DPN-3012-E GEPON OLT
- **Ubiquoss** C9500, C9516, C9016, C9264 GEPON OLT
- **Raisecom** ISCOM5508, ISCOM5800E, ISCOM6800 GEPON OLT
- **H3C** S3600-2P-OLT, S7502E, S7503E, S7506E, S7510E, S7506E-V GEPON OLT

**Specifications:**

Star Topology  
 1 Gepon SC port,  
 1\* 10/100/1000Base-Tx Gigabit LAN Port  
 1.25Gbps  
 Maximum 20Km  
 Link, activity, Full/half duplex, speed, and power on diagnostic function  
 10Base-Tx: UTP category 3, 4,5, up to 100m  
 100Base-Tx: UTP category 5, up to 100m  
 1000Base-Tx: UTP category 5, 5E, 6, up to 100m  
 8.3μm, 8.7μm, 9μm and 10μm single mode fiber cable  
 9.2\*7.5\*2.7 cm  
 10\*13.8\*7 cm  
 AC 96-260V, DC 12V, 0.5A, External Power Supply

|         |              |             |
|---------|--------------|-------------|
|         | Temperature  | Humidity    |
| Working | 0°C - 45°C   | 10% - 90%   |
| Standby | -30°C - 60°C | 5% - 90% RH |

**Order Information**

| Model NO. | Description   |
|-----------|---|
| SON6511GZ | 1GE GEAPON ONU, GEAPON SFF Transceiver built on board |
| SON6501GZ | 1GE GEAPON ONU, GEAPON Bosa on Board (BOB)            |