SPU-G120-HZ
1GE GPON ONU

Overview

SPU-G120-HZ GPON ONU is one of the GPON optical network unit design to meet the requirement of the broadband access network. It apply in FTTH/FTTO to provide the data and video service based on the GPON network.

GPON is the latest generations of access network technology. ITU-T G.984 is the standard protocol of GPON. The GPON standard differs from other PON standards in that it achieves higher bandwidth and higher efficiency using larger, variable-length packets. GPON offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QOS) for delay-sensitive voice and video communications traffic. GPON networks provides the reliability and performance expected for business services and provides an attractive way to deliver residential services. GPON enables Fiber To The Home (FTTH) deployments economically resulting to accelerated growth worldwide.
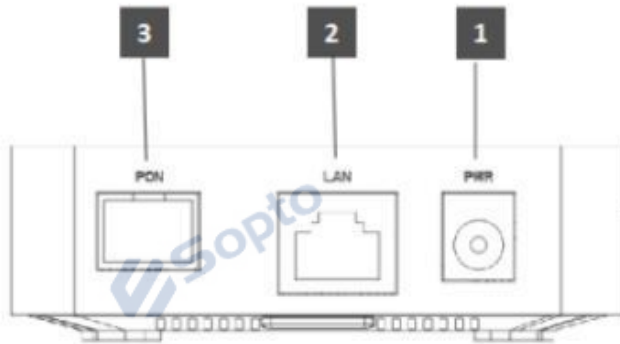
SPU-G120-HZ is based on ZTE high-performance xPON access chip. The chip supposes three mode：GPON/EPON/P2P, comply with the GPON standard of g.984, g.983, 802.3-2005, CTC EPON equipment technical requirements, have good xPON interoperability compatibility.

SPU-G120-HZ provide one GE auto-adapting Ethernet ports. The SPU-G120-HZ features high-performance forwarding capabilities to ensure excellent experience with Internet and HD video services. Therefore, the SPU-G120-HZ provides a perfect terminal solution and future-oriented service supporting capabilities for FTTH deployment. It has good third-party compatibility to work with the third party OLT, such as Huawei/ZTE/Fiberhome/Alcatel-Lucent.
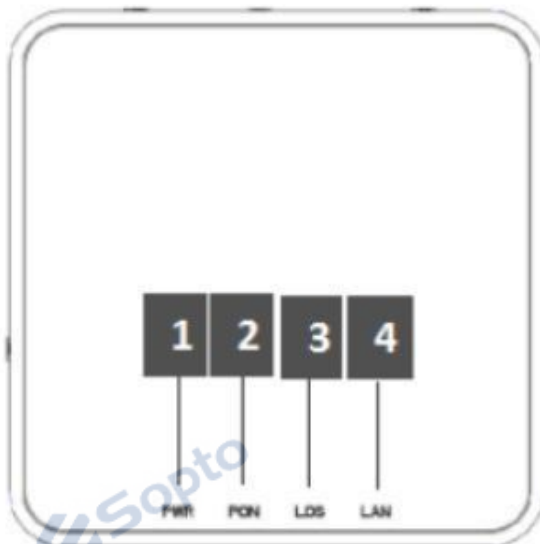
Features

- Fully compatible with ITU-T G.984.1/2/3/4
- Support downlink rate 2.448Gbit/s, uplink rate is 1.244Gbit/s
- Support 32 TCONU, 256 GEMPORT
- Support bidirectional FEC, supports the RS (255, 239) FEC decoding
- Support AES128 encryption and decryption functions with G.984 standard
- Support DBA bandwidth allocation
- Support PLOAM, embedded OMCI management with G.984 standard
- Support Dying-Gas detection and reporting
- Support rogue ONU detection
- Support GPON energy saving of G987.3 protocol
- Support Tag/Untag Ethernet frame of 802.1 and Q 802.3 standard, support QinQ
- Support CTC3.0, TR069 requirements of flexible tag processing
- Support for flexible flow classification, maximum 520 flow classification rules
- Support link error monitoring and loop monitoring
- Support a variety of multicast forwarding mode, support multicast replication
- Auto-negotiation and manual settings of Ethernet supporting rate, duplex mode
- UNI interface supports STP/RSTP protocol
- Provide QoS guarantees for different priority business through SLA restraining, Policing, queue management scheduling / congestion avoidance, discarding management mode
- Support flow control based on entrance , choose Pause frame reaction pressure to Packet loss for the business beyond
- Support QoS function
- Support DHCP
- Support PPPOE

Product interface and LED definitions

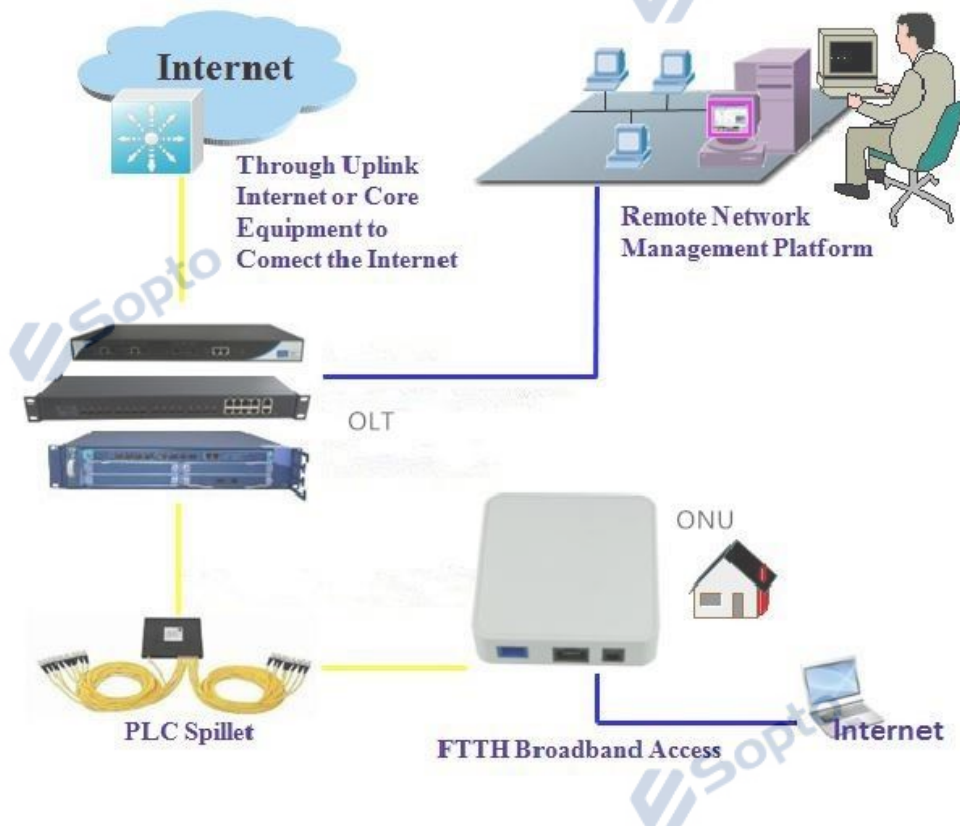| 1 | Power On/Off Button |
| 2 | LAN Port |
| 3 | Optical Port |

1	Power status
2	ONU Register
3	Optical signals status
4	LAN Status

Indicator			Description
1	PWR	Power status	On: The ONU is power on; Off: The ONU is Power off;
2	PON	ONU Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT;
3	LOS	GPON optical signals	Blinking: Optical power lower than receiver sensitivity; Off: Optical in normal
4	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;

Item	Parameters	Specification
Interface	PON Port	1*GPON port, FSAN G.984.2 standard, Class B+ Downstream Data Rate：2.488Gbps Upstream Data Rate：1.244Gbps SC/UPC single mode fiber 28dB Link loss and20KM distance with 1:128
	Ethernet Port(LAN)	1*GE Auto-negotiation RJ45 ports Full Duplex / Half-Duplex RJ45, Auto-MDI/MDI-X Transmission Distance 100 Meter
	Power Supply Port	12V DC input
Management	Network Management	①　Standard compliant OMCI interface as defined by ITU-T G.984.4 ONU can be remotely managed by OLT： Support OLT query ONU basic information; ONU link fault report; ONU Layer 2 switch configuration such as Vlan ②　Local Web management
	Management Function	Status monitor, Configuration management, Alarm management, Log management
Hardware	Shell	Plastic casing
	Power	External 12V 0.5A DC power supply adapter Power consumption: <3W
	Dimensions	78mm(L) x78mm(W) x25mm (H)
	Weight	0.1kg
Environmental Specification	Environment	Operating Temperature：0～50℃ Storage Temperature：-40～85℃ Operating Humidity：10%～90% (Non-condensing) Storage Humidity：10%～90% (Non-condensing)

Network Construction

Application

- Solution：FTTH

- Business：Broadband Internet、IPTV、VOD、IP Camera

Ordering information

Product Name	Product Model	Descriptions
SFU Type GPON ONU	SPU-G120-HZ	1*GE Ethernet interface, 1 GPON interface, plastic casing, external power supply adapter

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