

Photo



General Description

The GP-1001F1 is an ITU-T G.984.x based GPON ONT that supports 2.5G downstream and 1.25G upstream bandwidth. It offers 1*Gigabit Ethernet LAN port for Internet outputs. The GP-1001F1 is a single family ONU, it supports 8 T-counts and up to 32 Gempport IDs. It is a 1GE GPON ONT for ISPs integrating high speed Internet services over single fiber.

Key Features

- Complies with ITU-T G.984.x GPON standard;
- Offers 1 GPON WAN Port, support 1.25G upstream and 2.5G downstream;
- Offers 1*10/100/1000Base-Tx Gigabit LAN port, support Network bridge;
- Max 1:128 Fiber ration, max transmission distance can reach 35km;
- Support AES 128-bit encrypted and key switching, enhancing transmission security;
- Support 8 Tconts and 32 GEM Port IDs, enabling multiple services on a single Subscriber CPE;
- Support FEC (Forward Error Correction), ensures high reliable and precise data transmission;
- Support Rich layer 2 Management features, applicable to the biggest ISP networks;
- Support FBA (Flexible Bandwidth Assigantion), dynamic assign bandwidth automatically;
- Support Dynamic Bandwidth Allocation (DBA), smarter bandwidth assignment and usage;
- High security, data encrypted at upstream and downstream directions;
- Support L2 Switching features, such as IEEE802.1Q VLAN, 802.1P QOS, etc;
- Support OMCI and TR069 Management, manage subscribers remotely;
- Supports IPv4 and IPv6, highly applicable in both IP type based networks.



GPON Parameters

- ITU-T G.984.x GPON, Class C+ 2*10 SFF GPON transceiver, SC/UPC 1310nm upstream & 1490nm downstream;
- Support G.984.1 General Characteristics;
- Support G.984.2 Physical Media Dependent (PMD) layer Specification;
- Support G.984.3 Transmission convergence layer Specification;
- Support G.988 OMCI protocol;
- GPON transceiver sending power: 0.5-5dbm, receiving sensitivity: -27dbm;
- Transmission wavelength: Upstream: 1310nm / Downstream: 1490nm;
- Support 1:128 Fiber Optic Ratio at 35km transmission distance;
- Fiber Transmission cable: G.652 Single mode optical fiber cable;
- Configurable AES decryption on downstream payload;
- Configurable FEC on both upstream and downstream payloads;
- Multi-Application Processor queues for dedicated connections for in-band;
- Enhanced GPON debug and diagnostic functions;
- Support up to 8 Transmission Container (T-Cons), 32 GEM Port IDs;
- Support NSR/SR Dynamic Bandwidth Allocation (DBA);
- Support Forward Error Correction (FEC);
- Maximum 2.488 Gbps Downlink/1.244 Gbps Uplink;
- Support Dying Gasp.

Hardware Features

- ITU-T G.984.x GPON standard;
- Realtek RTL9601B Single Core 550Mhz processor;
- Offers 1*GPON SC port, support 2.5G at downstream and 1.25G at upstream;
- Offers 1*10/100/1000Base-Tx Gigabit Ethernet LAN port;
- Support 2Gbps Backplane bandwidth;
- Live LED Indicators for Power, PON, LOS and LAN;
- Desktop design, plastic housing;
- Plug and Play operation;
- Impulse Power Supply, AC 96V-260V input, DC 12V, 0.5A output.



Software Features

- ITU-T G.984.x GPON standard;
- 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.

LED Indicator

Indicator		Description
GE	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up.
LOS	EPON optical signals	On: Optical power lower than receiver sensitivity; Off: Optical in normal.
PON	ONU register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: In process of registering to OLT.
PWR	Power status	On: The ONT is power on; Off: The ONT is Power off.



Specification

Item	Specification		
Standards	ITU-T G.984.1, 984.2, 984.3, 984.4 GPON, ITU-T G.988 OMCI, IEEE 802.3, IEEE802.3u, IEEE802.3ab, IEEE 802.3x, IEEE802.3z, IEEE802.1d, IEEE802.1P, IEEE 802.1Q, IEEE 802.1X		
Topology	Star topology		
Uplink ports	1 GPON port, SC/UPC connector		
Downlink ports	1* 10/100/1000Base-Tx Gigabit LAN Port		
Transmission rate	1.25Gbps at upstream, 2.5Gbps at downstream		
Transmission distance	Maximum 35Km		
LED indicators	PWR, PON, LOS, GE		
Ethernet cable	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		
Fiber cable	8.3μm, 8.7μm, 9μm and 10μm single mode fiber cable		
Dimensions	9.2 x 7.5 x 2.7cm		
Power supply	AC 96-260V, DC 12V, 0.5A, External Power Supply		
Temperature humidity		Temperature	Humidity
	Working	0°C - 45°C	10% - 90%
	Standby	-30°C - 60°C	5% - 90% RH

Order Information

Product Name	Product Model	Description
SFU GEPON ONU	FORA EP-1001F1	1*10/100/1000M Ethernet interface, 1 GPON interface (BOB - Bosa on board), plastic casing, external power supply adapter