

1.25Gbps  
Upstream

2.5Gbps  
Downstream



GPON/ITU-T G.984.x  
EPON /IEEE802.3ah  
Standard

1.25G upstream  
2.5G/1.25G  
downstream

RTL9601D  
Processor

Support  
PPPoE&TR069

802.1Q VLAN,  
802.1P QOS  
DBA

Datasheet V1.1.6

### SDN8601GR1B-V2 1GE G/EPON DUAL MODE ONU Description:

The SDN8601GR1B-V2 is ITU-T G.984.x based or IEEE802.3ah based dual mode ONU that supports 2.5G downstream and 1.25G upstream bandwidth for GPON, supports 1.25G downstream and 1.25G upstream bandwidth for EPON. It supports dual mode (EPON and GPON), can access EPON/GPON OLTs. It also comes with 1\*10/100/1000Base-Tx Gigabit Ethernet LAN port that supports 1Gbps downstream bandwidth.

### Main Features:

- Comes with 1G/EPON SC/UPC WAN port, support 1.25G upstream and 2.5G/1.25G downstream Built with
- the well-round Realtek 9601D chipset, low cost and high performances
- 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
- Max 1:128 Fiber ratio for GPON, max transmission distance can reach 20km
- Max 1:64 Fiber ratio for EPON, max transmission distance can reach 20km
- 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

**Hardware Features:**

- Fully compatible with ITU-T G.984.x, IEEE802.3ah CTC 2.1, CTC 3.0 standard
- Offers 1\*G/EPON SC/UPC port, 2.5G/1.25G Downstream, 1.25G Upstream
- Sensibility of G/Epon optical port: -2dBm to -30dBm
- LED Indicators for PWR, PON, LOS and GE
- Desktop and wall mount design, plastic housing
- Plug and play operation
- External Power Supply
  - Power Supply, AC 100V-240V input, DC 12V, 0.5A output, 4KV surge protection
  - Support Asia, Europe, U.S, U.K, AU standard power plugs

**Software Features:**

- 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 GPON OLT Models**

- CHIMA SGT8000A, SGT8016A, SGT8000B, SGT8016B, SGT9000B series GPON OLTs
- HUAWEI MA5680T, MA5606T, MA5683T GPON OLTs  
[\[Huawei R11/R13/R15/R17/R18 versions interoperable\]](#)
- ZTE C220, C300 GPON OLTs  
[\[All ZTE OLT firmware versions interoperable\]](#)
- Fiberhome AN5516-01, AN5516-02 GPON OLTs  
[\[Fiberhome RP700, RP1000 versions interoperable\]](#)
- ERICSSON BM1500 GPON OLTs
- Nokia 7360 ISAM GPON OLT
- ZHONG HONG MX-180/280, MXK 319, 819, 823, MXK-F1419, MXK-F1421 GPON OLTs


**Interoperable Gepon OLT Models**

- CHIMA SNA8400T, SNA8800T, SNA8816T, SNA9000 series GEAPON OLTs
- Huawei MA5680T, MA5683T OLTs  
[\[Huawei R11/R13/R15/R17/R18 versions interoperable\]](#)
- ZTE C200, C220, C300 series OLTs  
[\[All ZTE OLT firmware versions interoperable\]](#)
- Fiberhome AN5506, AN5516 OLTs  
[\[Fiberhome RP700, RP1000 versions interoperable\]](#)
- Furukawa, Corecess GEAPON OLTs

**Specifications:**

Standards	IEEE 802.3, IEEE 802.3u, IEEE802.3ab, IEEE802.3ah, IEEE 802.3x, IEEE802.1Q, IEEE802.1P, IEEE802.1D, IEEE802.11b/g/n, ITU-T G.984.1, ITU-T G.984.2, ITU-T G.984.3, ITU-T G.984.4		
Topology	Star Topology		
Uplink Ports	1*G/EPON port, SC/UPC connector		
Downlink Ports	1*10/100/1000Base-Tx Gigabit LAN Port		
Transmission Rate	1.25Gbps at upstream, 1.25/2.5Gbps at downstream		
Transmission Distance	Maximum 20Km		
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		
Product Measurement	8.8*8.6*3 cm		
Packaging Box Size	10.7*9.5*8.9 cm		
Power Supply	AC 100-240V, DC 12V, 0.5A, External Power Supply, 4KV Surge protection		
Temperature Humidity		Temperature	Humidity
	Working	0°C - 45°C	10% - 90%
	Standby	-40°C - 70°C	5% - 90% RH

**Order Information**

Product Family	Model No.	Product Description
	SDN8601GR1B-V2	1GE G/EPON DUAL MODE ONU Realtek RTL9601D 300MHz CPU Power Supply: DC12V, 0.5A, 4KV Surge Protection Power Consumption: 1.8W SC/UPC connector
		