GPON OPTICAL NETWORK UNIT [ONU1-G-1C-4L-SA-x-x]
Fiber Products, Premise

Taikan

Description

Gigabit Passive Optical Network (GPON) provides unprecedented bandwidth (up to 2.5 Gbps downstream rate, shared by up to 128 premises), and a greater distance allowing service providers to enable bandwidth-intensive applications and establish a long-term strategic position in the broadband market.

Taikan's GPON ONU is a high performance, economical terminal device that has four 10/100/1000M Ethernet Ports, one CATV port and one PON port to transmit voice, data and video services for full triple play service support.
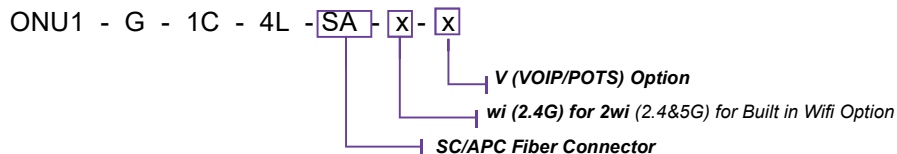
Features

- Adheres to ITU-T G984 GPON standards

- Ethernet service Layer 2 switching and wire-speed forwarding of uplink and downlink services

- Integrated OAM remote configuration and maintenance functionality

- High rate PON: up/down – 2.5 Gbps Downstream 1.2 Gbps Upstream data, VOIP, and IPTV

- ONU subscriber authentication, auto-identification, plug and play, DBA dynamic bandwidth distribution

- QoS support including traffic flow classification, priority marking, queue and dispatch, traffic shaping and traffic control,

- Wifi supports advanced 2T2R MIMO technology to enhance the throughput and coverage range for high speed data rates of up to 300Mbps

- Dual GPON ports option for increased network reliability

- Power failure alarm

Ordering Information

ONU1 - G - 1C - 4L - SA - x - x

V (VOIP/POTS) Option

wi (2.4G) for 2wi (2.4&5G) for Built in Wifi Option

SC/APC Fiber Connector

Model Number	Description	Box Weight
ONU1-G-1C-4L-SA-x-x	GPON Optical Network Unit, 1 CATV Port 1 GHz, 4 LAN Interface Ports	.5kg / 1.1 lb

General Specifications

Power Supply	12 VDC 1 A
Maximum Power Consumption	$\leq$ 7 W
Working Temperature	-5 ºC ~ +55 ºC
Storage Temperature	-30 ºC ~ +70 ºC
Relative Humidity	10% ~ 85% (Non-Condensing)
Dimensions	7.3"x 4.9"x1.3" / 18.5cm x12.5cm x3.2 cm

GPON Specifications

Interface Type	SC/APC single mode single fiber RX 2.488 Gbps / TX 1.244 Gbps
Maximum Splitting Ratio	1:128
Speed	2.5 Gbps Downstream 1.2 Gbps Upstream
Sent Wavelength	1310 nm
Received Wavelength	1490 nm
Down-Link Data Interface	4*10/100/1000M Auto Negotiation Ethernet Interface, RJ45 Interface
Optical Output Power	0 ~ + 4 dBm
Receiving Sensitivity	< -28 dBm
Optical Link Budget Loss	29 dB
Farthest Distance Between OLT and ONU	20 km

Network Specifications

Subscriber Identification	ONU IEEE802.1x
Service Quality	QoS IEEE802.1p, 1GMP Snooping, Ethernet port rate limit loop detection
Dynamic Bandwidth Allocate	DBA The largest bandwidth of every ONU subscriber and assures proper allocation quality
L2 Switch Function	MAC address management: IEEE802.1q VLAN and supports 4094 VLANs, Frame filtering and suppression, Network Address Translation & Network Address Port Translation (NAPT) IP sharing
Management Mode	Web Server, SNMP data collection
WAN Protocols	PPPoE/StaticIP/PPTP/DHCP
LAN Interface	Standard Appliance: IEEE802.310Base-T, IEEE802.3u 100Base-Tx/Fx IEEE802.3x Electrical Type and Quantity: 4 RJ45, 10M/100M Ethernet network ports

CATV Specifications

Receiving Optical Wavelength	1100~1650 nm (Dual Fiber), 1540~1560 nm (Single Fiber)
Receiving Optical Power	-15 ~ 0 dBm
Optical Return Loss	$\geq$ 45 dB
Interface Type	1 RF Output Female F Type Connector
Output Level	$\geq$ 75 dBuV
RF Frequency	45~1000 MHz
RF Output Return Loss	$\geq$ 14 dB
Flatness	+/- 1 dB
Automatic Gain Control Range	0 ~ -14 dBm
RF Impedance	75 Ohm
CNR	$\geq$ 50 dB
CTB	$\geq$ 60 dB
CSO	$\geq$ 60 dB

VoIP Specifications

Voltage & Current Monitoring	Continuous Monitoring of TIP, RING, Battery Voltage and Currents
Protocol	Protoco: SIP/ Coec Type Selection: G722, G729, G711A, G711U/ Fax T38
Thermal Overload Shutdown	When On-Die Termperature Exceeds the Maximium Junction Temperature Threshold, The ONU Shuts Sown

Wifi Specifications

Antenna	2T2R Mode ; Gain 5dBi
Data Transfer Rate	300 Mbps IEEE 802.11n 866 Mbps IEEE802 11ac The number of Channel; 13 for wifi4; 12 for wifi5
Encryption Methods	WFA, WPA, WPA2, WAPI
Tx Power	17 dBm for 2.4 GHz; 19 dBm for 5 GHz
RX Sensitivity	WiFi 4: -59 dBm @ channel 11 MCS7 WiFil5: -50 dBm@ channel 155 AC80