Datasheet

G3100-CF GPON ONT

1GE+CATV SingleFiber

Overview

G3100-CF is a residential gateway device with routing functions for xPON ONU and LAN Switch for residential and SOHO users, which is in line with ITU-T G.984 and IEEE802.3ah.

The uplink of G3100-CF provides one PON interface, while downlink provides one Ethernet and RF interface. It can realize optical access solutions such as FTTH (Fiber To The Home) and FTTB (Fiber To The Building). It fully integrates the reliability, maintainability and security design of carrier-grade equipment, and provides customers with the last kilometer of broadband access to residential and corporate customers.

Service

Data

The G3100-CF xPON ONT is delivered with 1GE interface, supporting:

- Auto-negotiation and MDI/MDIX auto-sensing

- Built-in layer-2 switch

- Built-in layer-3 routing and residential gateway

- Advanced data features such as VLAN tag manipulation, classification, and filtering

- Docking compatibility with OLT of various manufacturers

- Automatically adapt to the EPON or GPON mode used by the peer OLT

Video

The G3100-CF ONT supports video contents delivered in the form of data (by multicast or unicast). Support IGMP Snooping function for further application optimization.When IGMP Snooping is enabled, members joining and leaving a multicast group are monitored on the Ethernet port, selectively transferring multicast data streams.

The gateway features

- Multiple WAN with Route/Bridge mode

- Support multiple WAN configuration

- Support WAN PPPoE/IPOE/Static IP/Bridge mode.

- Automatic address assignment is supported on the LAN side

- Network Address Translation (NAT)/Network Address Port Translation (NAPT)

- Support Layer 2 802.1Q VLAN, 802.1P QoS,ACL etc

- Support DDNS, ALG, DMZ, Firewall and UPNP service

- Support NTP protocol

- IGMP agent

Operation, management and maintenance

- Remote software image download, activation and restart via OAM/OMCI

- It has two software mirror partitions, supporting software integrity checking and automatic rollback after upgrade

- Develop TR-069 remote management function according to user requirement

CATV

The G3100-CF ONT supports CATV module,it can convert CATV optical signals

into electrical RF signals.

Specification

Item		unit	indicators
Optical SPEC	Working wavelength	nm	PON: TX1310, RX1490;CATV: 1150～1600
	The light emitting power	dBm	1 ~ +4(xPON)
	Transmission distance	km	0~20
	Transmission rate	Gbps	GPON: Up 1.244Gbps; Down 2.488Gbps EPON: Up 1.244Gbps; Down 1.244Gbps
	The light receiving sensitivity	dBm	≥ -27
	Optical fiber connector	/	SC/APC (Optional SC/APC)
	CATV optical power range	dBm	+2～-18
	CATV optical reflection loss	dB	≥45
	CATV responsivity	A/W	≥0.9 @1550nm
RF SPEC	Broadband/roughness	MHz/dB	45～1000/≤ ±1.5 (@-15～-10dBm)
	Output level	dBuv	≥80 (@-12～-2dBm, 3.5%)
	Reflection loss	dB	≥14 (75Ω)
	CNR/MER	dB	≥45/32 (-9dBm, PAL-D 60CH, OMI3.8%)
	CTB/CSO/HUM	dB	≥60/≥60/≥46
Other Port	The user side Ethernet ports	/	1GE
	RF output interface	/	F head metric or inch
KEY/Button	/	/	Reset Key
Other	power supply	V/A	AV110～255V→DC12V 1A

	Working Environment	℃	-10℃ ~ 45℃
	Environment humidity		5% ~ 95%

IC

- RTL9601D

Power Supply

- +12V/1A (feed via external AC/DC adapter)

- 2-PIN power adaptor input

- Dying Gasp support

PON Interface

- Compliance with IEEE 802.3ah(EPON) & ITU-T G.984.x(GPON) standard

- BoSA on board optical solution

- 1.244 Gbps Burst Mode Upstream Transmitter

- 2.488 Gbps Downstream Receiver

- Compliant with ITU-T G.984.2 Amd1, Class B+

- Wavelengths: US 1310nm, DS 1490nm

- Multiple T-CONTs per device

- Multiple GEM Ports per device

- Flexible mapping between GEM Ports and T-CONT

- Activation with automatic discovered SN and password in conformance with ITU-T G.984.3

- AES-128 Decryption with key generation and switching

- FEC (Forward Error Correction) in both directions

- DBA reporting by piggyback reports in the DBRu (mode 0 and mode 1)

- Mapping of GEM Ports into a T-CONT with priority queues based scheduling

- Support Multicast GEM port and incidental broadcast GEM port.

Ethernet Interface

- 10/100/1000BASE-T

- Ethernet port auto negotiation or manual configuration

- MDI/MDIX automatically sense

- Virtual switch based on 802.1Q VLAN

- VLAN tagging/detagging Ethernet port

LED

- PWR

- PON

- LOS

- LAN

- RF

OAM

- Standard compliant OMCI (the embedded operations channel) interface as defined by ITU-T G.988(GPON)

- Alarming and performance monitoring

- Remotely software image download over OMCI, as well as activation and rebooting

- Hold two software sets with software image integrity checking and automatic rollback

Application

PON & CATV

1310/1490nm+1550nm

GE1

PC

RF

CATV