Nitrotel Manufacturing
Low Voltage Products & Fiber Optic

Part No.
NTFGN-01G03F-TW

PRODUCT DATA SHEET

XPON ONU 1G3F+WIFI+CATV

Overview

TNTFGN-01G03F-TW is designed as HGU (Home Gateway Unit) in different FTTH solutions. The carrier-class FTTH application provides different services access.

NTFGN-01G03F-TW is based on mature and stable, cost-effective XPON technology.

NTFGN-01G03F-TW adopts high reliability, easy management, configuration flexibility and good quality of service guarantees to meet the technical performance of EPON Standard of China Telecom CTC3.0 and GPON Standard of ITU-TG.984.X

Functional Features

Support EPON/GPON mode and switch mode automatically
Support Route mode for PPPoE/IPoE/Static IP and Bridge mode
Support IPv4 and IPv6 Dual mode
Support 2.4G WIFI and 2*2 MIMO
Support CATV interface for Video Service and remote control by Major OLT
Support LAN IP and DHCP Server configuration
Support Port Mapping and Loop-Detect
Support Firewall function and ACL function
Support IGMP Snooping/Proxy multicast feature
Support TR069 remote configuration and maintenance
Specialized design for system breakdown prevention to maintain stable system

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Hardware Specification

Technical item	Details
PON Interface	1 GPON BOB（ Class B+/Class C+）
	Receiving sensitivity: =-27dBm/=-29dBm
	Transmitting optical power: +0.5~+5dBm/+2~+7dBm
	Transmission distance: 20KM
Wavelength	TX: 1310nm, RX: 1490nm
Optical Interface	SC/APC Connector
Design Scheme	RTL9603C+RTL8192FR BOB(i7525BN)
Chip Spec	CPU 950MHz, DDR2 128MB
Flash	SPI Nor Flash 16MB
LAN Interface	1 x 10/100/1000Mbps (GE) and 3 x 10/100Mbps (FE) auto adaptive Ethernet interfaces. Full/Half, RJ45 connector
Wireless	Compliant with IEEE802.11b/g/n,
	Operating frequency: 2.400-2.4835GHz
	support MIMO, rate up to 300Mbps,
	2T2R,2 external antenna 5dBi,
	Support: Multiple SSID
	Channel: Auto
	Modulation type: DSSS, CCK and OFDM
	Encoding scheme: BPSK, QPSK, 16QAM and 64QAM
CATV Interface	RF, WDM, optical power: +2~-15dBm
	Optical reflection loss: =45dB
	Optical receiving wavelength: 1550±10nm
	RF frequency range: 47~1000MHz, RF output impedance: 75O
	RF output level: 78dBuV
	AGC range: -13~+1dBm
	MER: =32dB@-15dBm
LED	11 LED, For Status of WIFI? WPS? PWR? LOS? PON? LAN1~LAN4? Worn? Normal (CATV)
Push-Button	3, For Function of Reset, WLAN, WPS
Operating Condition	Temperature: 0? ~+50?
	Humidity: 10%~ 90%（ non-condensing）
Storing Condition	Temperature: -30? ~+60?
	Humidity: 10%~90%（ non-condensing）
Power Supply	DC 12V/1A
Power Consumption	=6W
Dimension	180mm×107mm×28mm（ L×W×H）
Net Weight	0.2Kg

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Panel lights Introduction

Pilot Lamp	Status	Description
WIFI	On	The WIFI interface is up.
	Blink	The WIFI interface is sending or/and receiving data (ACT).
	Off	The WIFI interface is down.
WPS	Blink	The WIFI interface is securely establishing a connection.
	Off	The WIFI interface does not establish a secure connection.
PWR	On	The device is powered up.
	Off	The device is powered down.
LOS	Blink	The device doses do not receive optical signals or with low signals.
	Off	The device has received optical signal.
PON	On	The device has registered to the PON system.
	Blink	The device is registering the PON system.
	Off	The device registration is incorrect.
LAN1~LAN4	On	Port (LANx) is connected properly (LINK).
	Blink	Port (LANx) is sending or/and receiving data (ACT).
	Off	Port (LANx) connection exception or not connected.
Worn (CATV)	On	Input optical power is higher than 3dbm or lower than -15dbm
	Off	Input optical power is between -15dbm and 3dbm
Normal (CATV)	On	Input optical power is between -15dbm and 3dbm
	Off	Input optical power is higher than 3dbm or lower than -15dbm

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Application
Typical Solution: FTTH (Fiber To The Home)
Typical Business: INTERNET, IPTV, WIFI, CATV etc