GT SERIES

Empowered by Innovation NEC

OPTICAL NETWORK Terminal (ONT)

GT5506-04

COST EFFECTIVE GPON CUSTOMER PREMISE DEVICE WITH LIVELINE SUPPORT, INTEGRATED VOIP, 10/100M BASE-T PORT SWITCH and OPTIONALY PROVIDE RF and WIFI INTERFACE

Market Requirement

FTTx (Fiber to the Node) solution helps operators to provide broader bandwidth and more services to the customers. By deploying FTTx, access network is no more bottle-neck and triple play may be integrated from several different networks.

A saving and reliable way of deploying FTTx is applying for PON (Passive Optical Network) technology which has the features of P2MP (Point-to-Multipoint) topology.

Solution/Product Overview

GT5506-04 small indoor type GPON ONT (Optical Network Terminal) is a kind of single-user type remote GPON equipment with one GPON up-interface connected to the Central Office equipment through optical fiber. GT5506-04 provides the users with GE/FE/POTS/CATV and WiFi services.

NEC also brings direct experience of operating networks in highly competitive markets. Operational streamlining is achieved by simple point - and - click functions within NEC's fully - featured subscriber and network management system.

Key Features

- **Comply to the Latest International ITU-T G.984 Standards and Related Recommendations.**
- **Support FTTH Solution**
- **Highly Integrated System Supports Triple-Play.**
- **Multiple T-CONT and Allocate FIVE Types T-CONT per ONT to Guarantee QoS**
- **Plug-and-Play via Auto-discovery and Configuration**
- **Support Encryption Techniques in Downstream Data Transmission with AES-128.**
- **Support Ease Backup Battery Solution**
- **Supports uplink and downlink FEC to improve bit error ratio**

Technical Summary

HARDWARE

Mechanical Parameter
- Dimension: 45 mm (H) x 190 mm (W) x 235 mm (D)
- Weight: about 650 g

GPON Interface
- Optical Fiber: G.652/G.657 Single Mode Fiber
- Connector: SC/PC
- Upstream / Downstream data rate: 1.244/ 2.488 Gbps
- Maximum Reach: 20 km
- Maximum Split ratio: 64
- Wavelength: TX 1310nm / RX 1490nm, RF 1550nm
- Average mean lunch power (maximum): +5 dBm
- Average mean lunch power (minimum): +0.5 dBm
- Minimum receiver sensitivity: -27 dBm
- Support Uplink and downlink FEC

User Interface
- Ethernet: RJ-45 interface supporting full duplex or half duplex, 10/100Mbps self adaption
- POTS: RJ-11
- RF: 75 ohm coaxial
- WiFi: 802.11b/g/n

Product Type
- GT5506-04-A1: 4 x FE
- GT5506-04-A1G: 4 x GE
- GT5506-04-B2: 4 x FE and 2 x POTS
- GT5506-04-B2G: 4 x GE and 2 x POTS
- GT5506-04-C2: 4 x FE, 2 x POTS, 1 x RF
- GT5506-04-F1: 4 x FE, 2 x POTS and WiFi
- GT5506-04-G1: 4 x FE, 2 x POTS, WiFi, and 1 x RF

POWER CONSUMPTION
- GT5506-04-A1/A1G: < 6 Watts
- GT5506-04-B2/B2G/C2: < 8 Watts
- GT5506-04-F1/G1: < 15 Watts

POWER SUPPLY
- DC 12V (attached DC12V to AC220V converter)

ENVIRONMENTAL SPECIFICATIONS
- Operating Temperature:: 0ºC to +45º C
- Relative Humidity: 10% to 90% non condensing
- Storage Temperature: -30 to +65 º C

ADVANCED FEATURES

LAYER 2 SWITCHING FUNCTIONS
- STP/RSTP
- IEEE802.1Q VLAN in tag or untag mode
- 64 VLAN per ONU
- 8K MAC addresses

Layer 3 FUNCTIONS
- DHCP Server
- DHCP Client
- PPPoE Client (RFC 2516)
- NAT/NAPT (RFC 1631)

VoIP
- Protocols: H.248, MGCP, SIP
- Coding: G.711a/u, G.723, G.729

QUALITY OF SERVICE (QoS)
- IEEE 802.1 p compliant 8 CoS queuing
- Classification based on port, MAC address, and VLAN ID and Priority re-tagging
- SP, WRR and SP + WRR congestion management

MULTICAST
- IGMPv2 Snooping

SECURITY
- Packet filtering
- AES 128 bit Encryption
- Anti DoS Attack Features
- Authentication modes: open, shared, WPA, WPAPSK, WPA2, WPA2PSK, WPA1WPA2, WPAPSKWPA2PSK, and 802.1x.
- Encryption modes: none, WEP, TKIP, AES, and TKIPAES

MANAGEMENT
- GUI and CLI Remote management through OLT
- ITU-T G.984.4 OMCI
- ONU Remote Firmware Upgrad

Standard Compliance
- ITU-T G.983.1/G.983.4/G.983.5 Standard
- ITU-T G.984 Series Standard
- IEEE 802.3u 100M Fast Ethernet Standard
- IEEE 802.3z Gigabit Ethernet Standard
- IEEE 802.3x Port Stream Control Standard
- IEEE 802.1d MAC bridging
- IEEE 802.1p Priority Standard
- IEEE 802.1q VLAN Protocol
- IEEE 802.1ad Q-in-Q
- IEEE802.11b/g/n
- IETF SIP/ H.248
- IETF RFC 2236 Internet Group Management Protocol v2
- ITU-T G.723 Voice Standard
- ITU-T G.729 Arithmetic
- ITU-T K.21

Application Scenario
- Support FTTH (Fiber to the Home) solution

Safety Precautions	★Before installing, connection or using this product, be sure to carefully read and observe the cautionary and prohibited matters provided in the instruction manual.

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