Empowered by Innovation NEC

OPTICAL NETWORK UNIT (ONU)

GT5006-20

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COST EFFECTIVE MDU Type CUSTOMER PREMISE DEVISE
Supports flexible configuration to provide ADSL2+, VDSL2 PORTS, 10/100BASE-T PORTS, POTS PORTS and E1 PORTS
Suitable for FTTB/C SOLUTION.

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

The GT5006-20 GPON MDU Optical Network Unit is an MDU-type of ONU equipment. It is large/middle capacity carrier class MDU, providing ADSL2+/VDSL2, Ethernet, POTS and E1 interfaces. Targeted at subscribers in residential communities and enterprises, the GT5006-20 GPON MDU offers information, communication and entertainment services, including data, voice and video.

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

Extended Availability & Compliance

- **Targeting wide range of central-office environments, the system comply to the Latest International ITU-T G.984 series Standards and Related Recommendations**

Flexible Configuration

- **Provide four slots for subscriber interface cards:**
  Max. 128 ADSL2+ users
  Max. 96 VDSL2 users
  Max. 256 POTS users
  Max. 64 Ethernet users
  Max. 4 E1 users

Integrated EMS/NMS platform

- **All the FTTx equipments covering GPON/EPON/ NG PON can be managed in Single GTM2000 platform and provide various NBI with NMS.**

Compact Design

- **2U rack size and high density supporting front wiring for ease installation, and auto- discovery & activation by OLT**

Technical Summary

HARDWARE

PHYSICAL DIMENSION
- Chassis: 440 mm (W) x 250 mm (D) x 88 mm (H)

ARCHITECTURE
- 19” rack chassis, Total 5 slots
- One slot for Core Switching Module + GPON uplink
- Four universal slots for service card
- One power module
- Total 18Gbps backplane

GPON Interface (Core switching Module)
- 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
- Average mean lunch power (maximum): +5 dBm
- Average mean lunch power (minimum): +1 dBm
- Minimum receiver sensitivity: -28 dBm

xDSL Interfaces (Service card)
- ADSL interfaces
  ITU-T G.992.1 (G.dmt), G.992.2 (G.lite) and ANSI T1.413
- ADSL2+ interfaces
  ITU-T G.992.3, G.992.5 and ANSI T1.413
- VDSL2 interfaces
  ITU-T G.993.2, G>992.1, G.992.3 and G.992.5

POWER SUPPLY
- DC -48V or AC 220V

POWER CONSUMPTION
- Full load power consumption: 200 Watts

ENVIRONMENTAL SPECIFICATIONS
- Operating Temperature:: -30ºC to +55º C
- Relative Humidity: 10% to 90% non condensing
- Storage Temperature: -40 to +65 º C

ADVANCED FEATURES

LAYER 2 SWITCHING FUNCTIONS
- STP/RSTP
- IEEE802.1Q VLAN in tag or untag mode
- 4k VLAN per ONU
- 8K MAC addresses
- Port mirroring / trunking

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

MULTICAST
- IGMPv2 Proxy and Snooping
- Support 1k multicast groups
- Support fast-leave

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

SECURITY
- MAC address filtering / binding
- IP address filtering
- ACL
- AES 128 bit Encryption
- Anti DoS Attack Features

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
- ITU-T G.723 Voice Standard
- ITU-T G.729 Arithmetic
- IETF RFC 2236 Internet Group Management Protocol v2

Application Scenario
- Support FTTC/FTTB solution
- Mobile Backhaul

CARD TYPE

Type	Name	Function
Control Card	MCU	Control and Management card with single-port GPON uplink
		Control and Management card with two-port GPON uplink
Service Card	AD32	32 ADSL2+ interfaces with a built-in splitter
	VD24	24 VDSL2 interfaces with a built-in splitter
	POTS	64 POTS interfaces
		32 POTS interfaces
	ETH	16 Ethernet interfaces
	4E1	Four 75 ohm E1 interfaces
		Four 120 ohm E1 interfaces

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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