

OPTICAL NETWORK UNIT (ONU)

ONU 804i

COST EFFECTIVE GEPON CUSTOMER PREMISE DEVICE WITH LIVELINE SUPPORT, INTEGRATED VOIP , 10/100M BASE-T 4-PORT SWITCH AND RF OVERLAY



KEY FEATURES

FULL IEEE 802.3/802.3AH COMPLIANCE

RX SENSITIVITY OF -25.5 DBM

TX POWER OF -1 TO +4 DBM

PLUG AND PLAY

ADVANCED L2 FUNCTIONALITY

ADVANCED QUALITY OF SERVICE (QOS) SUPPORT ENABLE SLA BASED BILLING

IGMP SNOOPING SUPPORT

INTEGRATED VOIP FUNCTIONALITY

MGCP AND SIP VOIP SUPPORT

PER PORT INGRESS RATE LIMIT

RF OVERLAY SUPPORT

REMOTE MANAGEMENT

NEC ONU 804i is a cost-effective GEPON customer premise device designed for indoor residential and Single Office/Home Office (SOHO) installation. It supplies Gigabit broadband service to a connected subscriber's gateway and/or computers. ONU 804 receives 1490nm digital signal, 1550nm video optical signal in downstream direction, and transmit 1310nm digital signal in upstream direction.

ONU 804i provides four 10/100M Base-T Ethernet ports with advanced L2 functionality for Data and IPTV video services. ONU 804i also provides two FXS Voice over IP (VoIP) ports and one lifeline (FXO) port for voice communications. In typical CPE devices, VoIP communications are provided via VoIP protocol by way of FXS ports. However, unlike traditional VoIP equipment, when the ONU 804i is powered off, an active Lifeline port remains enabled and traditional PSTN service is delivered. In addition, ONU804i provides one "F" type RF connector for CATV video, which covers 54MHz -870 MHz frequency range. The ONU 804i is configured and managed remotely via NEC's ME product family (OLT).

APPLICATIONS

ONU804i is suited for residential and SOHO market segments. It provides an uplink to the central office through its GEPON port, and a downlink to the individual residential user or SOHO through four Ethernet ports, two VoIP ports and one lifeline port. A future-proof solution enabling FTTx, ONU 804i delivers voice, high rate data and IPTV and RF Video over a single fiber.

Technical Specifications

STANDARDS

- IEEE 802.3ah

OPTICAL CHARACTERISTICS

- Optical Fiber: Single SMF fiber
- Connector type: SC/UPC connector
- Max split: 32
- Data rate: 1 Gbps up and down stream
- Operation Tx wavelength: 1310 nm
- Operation Rx wavelength: 1490 nm
- Output Power: -1~ +4 dBm
- Receiver Sensitivity: -25.5dBm(1490nm), -9dBm(1550nm)

L2 CAPABILITIES

- IEEE 802.1q Port based 256 VLANs
- MAC Address Management, 8K MAC addresses
- STP support
- Per port ingress rate limiting
- IEEE 802.3x Flow Control
- IGMP Snooping: 16 address per LAN port
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L3 CAPABILITIES

- DHCP Server and Client
- NAPT (RFC 1631)
- ALG for VoIP, Data and Internet application
- PPPoE Client

QoS CAPABILITIES

- IEEE 802.1p, IPv4 ToS and Diffserv
- Traffic Classification based on MAC, LAN Port and VLAN ID
- Traffic IEEE 802.1p Remarking
- 4 egress queues for LAN and WAN port
- SP/WRR/SP+WRR Scheduling

VOICE FUNCTION

- 2*FXS(RJ11) for VOIP phone
- 1*FXO(RJ11) for lifeline when ONU is powered down
- VoIP protocol: MGCP and SIP
- VoIP codes:G.711,G.729a,G.168,RFC2833 (DTMF Relay)
- FAX: T.38
- VAD and CNG.G168 Echo Cancellation

RF CHARACTERISTICS

- Connector 75W, F type (CATV connection)
- Output Level (per channel): >15 dBmV, with level tilted up

2.5dB Bandwidth: 47MHz ~ 870 MHz

- Drive capability: 4 TV sets CSO > 55dB CTB > 55dB

- Carrier-to-Noise (CNR) level: 46 dB @ -6dBm optical input

For typical 80 analog PAL channels

MANAGEMENT

- Remote Management through OLT, SNMP, SNMPv2
- Remote firmware upgrade
- WEB based management

FRONT INTERFACE

- POWER – LED indication of power status
- LAN1 to LAN4-LED indication of FE1-4 link operation status
- GEAPON-LED indication of PON link operational status
- ALARM-LED indication of module alarm status

REAR INTERFACES

- 1 power connector
- 4RJ-45 10/100M Ethernet
- 3RJ-11 for voice
- 1 GEAPON SC connector
- 1 Reset button for factory defaults setting
- 1 "F" RF type interface

HARDWARE

DIMENSION

- (H x W x D) 38mm x 226mm x 152mm

WEIGHT

- 0.6 kg

MTBF

- 405,259 hours

POWER CONSUMPTION

- External power supply with 100-240V AC input & 12V DC/2A output
- 18W Max
- UPS interface

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE

- 0°C to +40° C

RELATIVE HUMIDITY

- 5% to 90% non condensing

STORAGE TEMPERATURE

- -40 to +75° C

STORAGE HUMIDITY

- 75% (maximum)

STANDARDS AND REGULATORY COMPLIANCE

CERTIFICATIONS

- CE, ROHS6, CCC



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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