Empowered by Innovation

NEC

OPTICAL LINE TERMINAL (OLT)

ME2200

CARRIER GRADE OPTICAL ACCESS PLATFORM

COMPACT GIGABIT ETHERNET PASSIVE OPTICAL NETWORK (GEPON) PLATFORM DELIVERS HIGH-SPEED VOICE, DATA AND VIDEO SERVICES TO RESIDENTIAL AND BUSINESS SUBSCRIBERS

NEC's ME2200 Optical Line Terminal (OLT) provides a direct optical interface to the Ethernet/IP network core. Together with NEC's Optical Network Unit (ONU), it completes the end-to-end FTTx with up to 1 Gbps of bandwidth to residential and business customers. Combining the economic benefits of Ethernet Passive Optical Network (GEPON) with built-in L2/L3 switching and routing functionalities, ME2200 is the ideal carrier class optical access and transport platform for FTTx (FTTB, FTTH, FTTC).

KEY BENEFITS

Flexible and Cost-effective Triple Play Transport

ME2200 supports up to 44 OLT EPON interfaces, each of which delivers 1 Gbps of shared bandwidth for up to 32 subscribers, serving a maximum of 1408 GEPON subscribers via an 9U chassis. High subscriber density combined with the operational cost savings of GEPON technology make ME2200 a compelling alternative to legacy, last-mile access solutions. It supports flexible concentration ratio between OLT and GE uplink modules thus providing wide variety of Service deployment option.

Customized Broadband Service Offerings

ME2200 QoS features allow operators to oversubscribe bandwidth while protecting delay-sensitive traffic based on individualized Service Level Agreement (SLA). Dynamic bandwidth allocation enables operators to bill bandwidth in 1 Mbps increments. For video services, multicast handling with IGMP proxying and snooping ensures efficient utilization of network infrastructure.

Easy Provision, Rapid Revenue Generation

Powerful OAM functions enable remote diagnostics, flexible provisioning, and reconfiguration of the ME2200 platform.

Cost-effective Layer3 Ethernet Switching

CSM with GEM04A modules offers stable and cost-effective 48GE full-duplex wire speed LAN switching functionality.

KEY FEATURES

IEEE 802.3AH GEPON

COMPACT 9U CHASSIS

32 SPLITS, 20KM REACH

MAXIMUM 1408 SUBSCRIBERS

ADVANCED L2/L3 FUNCTIONS

DYNAMIC BANDWIDTH ALLOCATION

INDIVIDUALIZED BILLING PER SERVICE LEVEL AGREEMENT

MULTICAST SUPPORT FOR VIDEO STREAMING

REMOTE PROVISIONING AND MANAGEMENT

ADVANCED SECURITY

Technical Summary

HARDWARE

PHYSICAL DIMENSION
• Chassis: 482.6 mm (W) x 415mm (D) x 399.2 mm (H)

WEIGHT
• Chassis (FAN+backplane): 12.5kg
• CSM module: 0.7kg
• GEM04B module: 0.5kg
• GEM04A module: 0.5 kg
• EPM04BA module: 0.5kg
• Power module: 0.3kg
• Full load configuration (2 CSMs, 11 EPM04B modules, 1 GEM04B, 2 PWRs): 20.5kg

MTBF
• CSM Module: 248,169 Hours
• GEM04B Module: 358,454 Hours
• GEM04A module: 498,732 Hours
• EPM04B Module: 393,615 Hours
• Power Module: 1,342,237 Hours
• FAN tray Module: 698,768 Hours

POWER CONSUMPTION
• CSM Module: 50 Watts
• GEM04B Module: 10 Watts
• GEM04A module: 12 Watts
• EPM04B Module: 20 Watts
• Power Module: 10 Watts
• Fan Tray: 36 Watts
• Full load power consumption (2 CSMs, 11 EPM04B, 1 GEM04B, 2 PWRs): 458Watts

POWER SUPPLY
• DC -32V to -72V, 2 power modules redundancy

ARCHITECTURE
• 19" rack chassis, Total 15 vertical slots
• 2 slots for 1+1 Redundant CSM
• 12 slots for line cards
• Two Half Slot 1+1 Redundant Power Supply
• Three Field Replaceable Fans

CONSOLE PORT RJ45/RS232
LAN MANAGEMENT 1 RJ45 10/100Base-T Fast Ethernet
UPLINK INTERFACE SFP type port; 1000Mbps Ethernet; 10/100/1000Mbps RJ45
GEPON INTERFACE SFP type OLT port
OPTICAL FIBER Single SMF Fiber
MAXIMUM OLT PORT Up to 44 OLT port
SPLITS PER OLT PORT 1:32 (1:64 Future S/W Upgrade)
GEPON BANDWIDTH PER PORT 1Gbit optical bandwidth
OPTICAL LOSS BUDGET 29 dB for PON link
WAVELENGTH Tx: 1490 nm, Rx: 1310 nm

ADVANCED FEATURES

LAYER 2 SWITCHING FUNCTIONS
• 48 Gbps Non-blocking wire speed switching
• STP/RSTP/MSTP
• IEEE802.1Q with 4K VLANs handling
• IEEE 802.3ad link aggregation
• VLAN Q in Q
• 16K MAC addresses

LAYER 3 SWITCHING & ROUTING
• Static Routing with up to 8K host routes
• Routed Interfaces, Super VLAN Interface (RFC 3069) DHCP Relay (Option 82) and Server
• ARP support(static ARP, proxy ARP per RFC1027,ARP per RFC826)

QUALITY OF SERVICE (QoS)
• 8 CoS queuing
• IEEE 802.1 p
• IPv4 Diffserv/TOS
• SP and WRR congestion management
• Classification based Traffic Metering, Shaping and Marking
• Dynamic Bandwidth Allocation (DBA)

MULTICAST
• 1K Multicast Groups Support
• IGMPv2 Proxy and Snooping
• Support for Fast Leave

SECURITY
• ACL and Packet filtering
• IEEE 802.1x with RADIUS or Local authentication
• Logon Security
• AES 128 bit Encryption (Future)
• Per VLAN and Global User Isolation
• MAC Filtering and Limit
• Anti DoS Attack Features

SYSTEM MANAGEMENT
• CLI via console or telnet
• SNMP v1 & v2c agent and proxy
• FTP/TFTP supporting
• ONU Remote Upgrade and Management

SUBSCRIBER MANAGEMENT
• ONU Authentication via IEEE 802.1X
• DHCP Plus Host Routes Management
• PPPoE and BPDU Transparency

CERTIFICATION
• UL, VCCI ,CE, FCC Part 15 ClassA, CE, 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.

For inquiries, contact :