MetroStar 2016 OLT

GPON Optical Line Terminator

Low power, high density Optical Line Terminator for GPON

Key benefits:

- High density, low power consumption
- Redundant 10 Gbit/s uplink
- Redundant power
- Compact size, ETSI 300 mm
- Up to 1024 ONTs on 16 GPON segments
- Command line interface and Layer 2 feature set
- Cost-efficiently controlled by BECS™

Gigabit Ethernet Passive Optical Networks (GPON) allow efficient utilization of the fiber plant and central-office (CO) rack space. In densely populated areas, the physical space available in the central office is a very high cost. The MetroStar 2016 OLT is designed for compact installations in dense area locations. Despite its minimal 1 rack unit (RU) height and a mere 300 mm in depth, the MS2016 hosts 16 ITU G.984 compatible GPON interfaces for connecting 1024 ONT/ONUs. A standard 42 RU rack filled with MS2016 units can therefore connect up to 40,000 customers – more than four times the density of competing solutions.

Low power consumption

The MS2016 OLT offers redundant power supplies in both AC and DC versions. The MS2016 also requires very little power per connected ONT. As energy costs increase, network operators also need to consider the environmental impact of the telecommunication network. With as little as 0.1 W per connected ONT of power consumed (roughly 33% of competitor solutions), the MS2016 series is the cornerstone of low power, high density GPON deployments. Due to its low power consumption, the MS2016 directly cuts the energy bill, as well as producing less heat and therefore lower cooling costs in the central office providing a further OPEX reduction.

10G Ethernet uplinks

The MS2016 OLT has two slots for uplink modules to facilitate customization for specific network needs. Uplink modules for both Gigabit Ethernet and 10 Gigabit Ethernet are available. With two 10 Gigabit Ethernet modules installed, the system offers a redundant connection to the network that can also be used for load sharing traffic, and thereby providing abundant bandwidth for today's demanding triple play applications.

Full Layer 2 feature set

The MS2016 series OLT operating system provides a complete Layer2 feature set including Q-in-Q (Queue-in-Queue) and IGMP snooping for advanced IPTV services. This allows the MS2016 to be used for any type of FTTH deployment with customer, service, and service provider VLANs.

Integrated with BECS and BBE

The PacketFront BECS™ control and provisioning system also operates as an element manager for the MS2016 OLT. Centralized control of ONT registration and service provisioning reduces the cost of operating the network and allows flexible fiber-plant deployment. When combined with the DRG Ease Access ONT, the CAPEX investment in the network is dramatically reduced, or even postponed until customers actually sign-up for services.

Furthermore, the optional Broadband Business Engine (BBE) provides a feature-rich and fully integrated suite of tools for managing:

- Subscribers
- Helpdesk
- Ticketing

PacketFront®
The Future of Broadband. Today

MS2016 OLT

GPON

GPON	ITU G.984 compliant, G.974 OMCI support
Performance	80Gbit/s internal switching capacity, 16K MAC addresses, 4K VLANs (MAC, protocol, IP based), 2K L2 multicast, 1K IP multicast groups, Jumbo-frames (up to 12Kbyte)

Quality of Service

Packet queueing algorithms	Weighted round robin (WRR), Weighted Fair queueing scheduling (WFQ scheduling), Strict priority queueing
Queuing	8 priority queues per port, L1-L4 packet classification
Management	SNMPv1 and v2, Telnet, Industry standard CLI, Remote software upgrade (TFTP, FTP), RS232 serial console port
Security	Port storm control, L2-L4 packet filtering, Max MAC address control, ARP spoofing protection, DHCP snooping

Features

IGMP snooping and proxy	
Ethernet and Bridging	IEEE 802.1p and 802.1Q with full VLAN range and Q-in-Q, Spanning-tree, Rapid spanning-tree, Multiple spanning-tree, IEEE 802.3ad link aggregation (128 trunk groups), Per VLAN learning

Physical

Ports	1 RJ-45 serial console interface, 1 RJ-45 Ethernet management interface, 4, 8 or 16 SFP-based Gigabit PON ports, 2 uplink module ports
Dimensions	430 mm (W) x 44 mm(H) x 330 (D) mm (16.93” x 1.73” x 12.99”)
Weight	5.1kgs (16 lbs)
Indicators	1 link indicator per GPON segment Management port link status and activity LED Uplink module per interface link and activity LED
Acoustic	Max 50dBA noise level
Cooling	Redundant fans

Environmental

Operating temperature	0 to 40°C, 32 to 104°F
Operating humidity	10% to 90%, non condensing
Storage temperature	-10 to 70°C, 14 to 158°F
Storage humidity	5% to 95%, non condensing
Rack mounting	Standard 19” rack mountable
Heat dissipation	See power consumption

Power and safety

AC model	Redundant power input 100-240V, 50-60 Hz, compliant with ETSI EN 300132 V2.1.1 Part1
DC model	1 redundant power input 48V, compliant with ETSI EN300132 V2.1.1 Part2
LED indicators	Power LED and A and B for power indication/power failure
Power consumption	110W

Regulatory Compliance

EU directives for CE mark	CE and ETL-mark,
Safety	IEC/EN/UL 60950, IEC/EN/UL 60825
Environmentals	RoHS directive 2002/95/EC
Emission	ETSI EN 300386, FCC Part 15 Subpart B,

For more information go to:
www.packetfront.com