MD26000

Motorola MD22000, MD24000, MD26000

GPON Ethernet Multi-Dwelling Units ONTs

Overview

The Motorola MD26000, MD24000 and MD22000 next generation indoor multi dwelling unit Optical Network Terminals (MDU-ONTs) deliver end-to-end Ultra-Broadband, providing service distribution points in buildings to deliver quality video and data to every subscriber. Designed to suit the service providers needs, the twenty-four-port MD26000, sixteen-port MD24000 and eight-port MD22000 deliver a full range of advanced data services over an all-fiber, network.

Using the MDU-ONTs, service providers can build upon the power of a fiber infrastructure to offer advanced in-home networking services In conjunction with the high-density Motorola AXS1800™ and AXS2200™ Optical Line Terminals, the MDU-ONTs becomes the next generation service delivery point into the building, enabling service providers to deliver multiple revenue generating services over a single fiber passive optical network (PON).

The MDU-ONTs are also the ideal choice for the advanced residential GPON consumer who desires high-speed data services without paying the premium for a separate wired line. Based on open standards and leveraging a highly flexible design, the MDU-ONTs address the demand for ultra-broadband services. Seamlessly delivering quality video and high speed Internet access – via a single fiber optic connection to the home.

Highlights include:

- Enable the delivery of multiple high-speed data-services over a single fiber GPON
- Easy to install leveraging pre-configured service profiles
- Deliver Internet access at sustained speeds up to 100Mbps over each Ethernet port and 1Gig symmetrical in aggregate
- Provide up to 24 Fast Ethernet ports
- Support 16 VLANs from the full 4095 range and 64 MAC addresses per port.
- Rack or wall mounted, indoor installation, perfectly suited for equipment closets, front connections
- Cooling via natural convection

Features and Benefits

Flexibility

Motorola's Ultra-Broadband Fiber-to-the-Premises (FTTP) network solutions fuel the delivery of rich consumer experiences into the home, easily satisfying the growing consumer demand for advanced services by enabling lightning fast throughput capacity while lowering the total cost of operations and maintenance. Motorola's FTTP platforms provide revenue generating services and allow service providers to take advantage of improved deployment economics and greater operational simplicity only all-fiber access networks can provide.

Interoperability:

The MD26000 is in compliance with industry standard ITU-T G.984 FSAN specifications to allow inter working with third party vendors and is also designed to inter operate with Motorola's line of IP set top terminals.

Management:

The AXS2200/AXS1800 Optical Access Platform and MD26000 are managed by AXSVision, a comprehensive Element Management System (EMS) that enables visibility into system performance, service continu¬ity, service provisioning, maintenance, and upgrades from a single operations center.

Specifications

Physical Description
- Height: 1 RU, 1.75 in (44.45mm). Width: 17 in (431.8mm). Depth: 9.5 in (241.3 mm)
- Weight: 5.5 lbs (2.495kg)
- Fits in 19.0 in rack, 48.26 cm);
- Mounting: Wall Mounted

Power Supply
- AC Input Voltage: 110 to 220 VAC, 50/60 Hz.
- Transportation conditions (optional): EN 300 019-2-2, specification T 2.3
- Storage: ETSI EN 300 019-2-1, Specification T1.2
- Sustainable development: WEEE 2002/96/EC, RoHS 2002/95/EC

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Network Interfaces
Optical:
- 1 ITU G.984 GPON
- 100M Downstream and Upstream per port / 1 Gigabit full-duplex in aggregate

Operating Wavelengths:
1490 +/- 10nm voice/data receive
1310 +/-50nm voice/data transmit
- SC/APC connector

Power Interface
- AC Power – Non-redundant 100-240VAC with IEC modular connector

Environmental
- Operating Temperature: 0 °C to +50 °C ambient
- Storage Temperature: -40 °C to +70 °C
- Operating Humidity: 5% to 95% RH

Regulatory Compliance
- US/Canada: UL 60950-1
- NRTL CSA Certified
- Europe: EN 60950-1
- CB: IEC 60950-1:2001
- Emission/Immunity: ETSI EN 300 386 Class B
- European Union CB Scheme CE Mark
- Stationary use: ETSI EN 300 019-2-3 Specification T 3.2
- Transportation conditions (optional): EN 300 019-2-2, specification T 2.3
- Storage: ETSI EN 300 019-2-1, Specification T1.2
- Sustainable development: WEEE 2002/96/EC, RoHS 2002/95/EC
- International Standards Compliance: EMEA: RoHS and WEEE, Uniquemarkings/labeling EMEA (ETSI), CE Mark, C-tick Mark, CCC Mark
- Laser Safety: 21CFR1040, EN60825-1/2
- FCC Part 68, Part 15, Class B
- UL Listed, CSA Approval
- European EMC and Immunity CE Mark
- Industry Canada/FCC Part 15, Class B

Protocols
- ITU-T G.984.1, G.984.2, G.984.3, G.984.4, GEM Mode
- IGMP v2 (RFC 2236) and IGMP v3 (RFC 3376)
- IEEE Std 802.1D bridging and learning, traffic class expediting & dynamic multicast filtering (Annex H)
- IEEE 802.1Q Virtual LAN with 8 levels of priority
- RFC 1886, RFC 2460, RFC 2463, RFC 2464, RFC 2474, RFC 3513, RFC 3587, RFC 3262, RFC 3263, RFC 3264, RFC 3265, RFC 3311, RFC 3325, RFC 3515, RFC 3840, RFC 3842, RFC 3891, RFC 3911, RFC 3959, RFC 3966, RFC 4028, RFC 4235, RFC 4412
- IEEE 802.3-2005
- IEEE 802.1ad Provider Bridges or routed Ethernet Encapsulation
- IEEE 802.1ag Connectivity Fault Management

Protocols and VLANs
- 802.1x EAPOL
- Virtual switch based on 802.1Q VLAN, Flexible VLAN tagging/de-tagging per Ethernet port , VLAN Translation
- DHCP snooping
- MAC address limiting
- QOS
- 802.1p priority handling/mapping and scheduling US; per port and per VLAN rate limiting upstream and downstream; multiple T-CONTS and GEM ports with flexible mapping; IP ToS/DSCP to 802.1p mapping; classification based on UNI, VLAN-ID, 802.1p bit, ToS/DSCP; Broadcast/ Multicast rate limiting

Interface Configuration
Data Interfaces:
MD22000:
Provides 8 10/100BaseT Ethernet switch ports with RJ45 connectors
MD24000:
Provides 16 10/100BaseT Ethernet switch ports with RJ45 connectors
MD26000:
Provides 24 10/100BaseT Ethernet switch ports with RJ45 connectors

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