Actelis Networks
ML530

Accelerate Everything

The Actelis Networks ML530 fiber-based Ethernet Access Device (EAD) complements Actelis' industry-leading EFM over bonded copper solutions, offering the most intelligent Ethernet service delivery on the market. The ML530 EAD can be used to deliver fully managed, very high bandwidth Ethernet-based service for a variety of network applications, including business-class services, traffic and surveillance, backhaul, and campus and enterprise applications.

The ML530 EAD is interoperable with any standard Ethernet switch, router or hub. Compliant with Metro Ethernet Forum (MEF) specifications, ML530 EADs seamlessly integrate into carrier Ethernet networks, offering five fast Ethernet interfaces and two fiber optical Gigabit Ethernet ports.
The ML530's Small Form Factor (SFP) ports support a large variety of optical interfaces to accommodate short and long distances as needed per applications, with speeds of 100Mbps and up to 1,000Mbps. DS3/E3 uplinks can be used to connect to legacy networks, offering Ethernet over DS3 utilizing a 100/1000Base-FX SFPs port, as well.

The ML530 EAD can be deployed back-to-back in a Point-to-Point topology or in Multipoint topologies with Actelis' Ethernet aggregation switches or any other standard Ethernet switch. The ML530 offers superior performance, extensive functionality and low cost, allowing for advanced Ethernet service distribution.

The ML530 EAD enables service providers to create a complementary, cost-effective, intelligent fiber-based Ethernet access edge with advanced bandwidth control and traffic management features, fully compliant with the MEF 9 and 14 specifications. The ML530 EAD provide 802.1q VLAN-aware wire-speed bridging, double tagging (VLAN stacking) for end-user VLAN transparency, L2 (Ethernet priority) and L3 (ToS/Diff-Serv) classification with four traffic classes, RSTP/STP, bandwidth monitoring, and Multicast/Broadcast limiting. The Actelis ML530 EAD can be effectively used by service providers to safely aggregate multiple services or multiple subscribers on the same Ethernet access uplink.

The ML530 is a hardened, RoHS 6 compliant compact unit that is ideal for deployments in outside plants, remote cabinets, basements, as well as customer locations and central offices. Flexible installation options include rack mount, desktop, wall mount, and self-contained NEMA-3 enclosures for pole/wall-mounted or strand-mount applications, and offers remote powering.

The ML530 EADs provide proactive and dynamic tools for enhanced trouble shooting and monitoring capabilities. Advanced Carrier-class EFM OAM, including 802.3ah, CFM (802.1ag) and Y.1731 (ITU), are incorporated, offering both physical link as well as service level end-to-end advanced troubleshooting mechanisms.

The Actelis ML530 EAD ensures a high level of security, enabling safe and protected communication that supports SSH, Radius and additional advanced capabilities.

The ML530 EADs can be managed In- and Out-of-Band by the MetaASSIST™ View graphical craft application and via the multi-platform Element Management System, MetaASSIST EMS. The management protocols include standard command line interface and SNMP using standard MIBs for seamless integration with third-party Network Management Systems (NMS).

Actelis Networks
XLR8

Highlights

- Standards-based IEEE 802.3ah Ethernet in the First Mile (EFM) transport over Fiber
- MEF 9 and MEF 14 Carrier Ethernet Switch
- Multiple fiber connection types
- Long-haul Optics for up to 120Km
- Enhanced Security capabilities
- OSMINE, NEBS III, FCC, UL, CE
- Environmentally Hardened

Applications

- Transparent LAN Service
- Fast Internet Access
- Metro Ethernet Extension
- Private Campus Network Intra-Connection
- MDU/MTU Backhaul
- DSLAM Backhaul
- WiFi and Cellular Backhaul (Radio Access Network)
- Leased Lines Replacement

Markets Served

- RBOCs, PTTs, Independent Operators, Competitive Operators
- Federal, State and Local Government Agencies
- Education, Health Care, Utilities, Private Campuses

mobotreX™
MOBILITY & TRAFFIC EXPERTS

Specifications

Interfaces

Ethernet (Network/User)
- 10/100Base-T   4 ports
  - Connector: RJ45, Auto-MDIX
- 100/1000Base-FX   2 ports
  - Connector*:   SFP Based, MSA compliant

Management (Out-of-Band)
- 10/100Base-T
  - Connector: RJ45, Auto-MDIX
- Craft   EIA RS-232 (DCE)
  - Connector: DB9

LAN Protocols
- Dynamic Bridging   IEEE 802.1, 8K MAC addresses
- Discovery Mechanisms   LLDP
- VLAN Tagging   IEEE 802.1Q
- Double Tagging   Q-in-Q
- RSTP, STP   IEEE 802.1d
- Link Aggregation   IEEE 802.3ad
- Provider Bridges   IEEE 802.1ad
- OAM   IEEE 802.3ah clause 57 (EFM OA&M)
  - IEEE 802.1ag, ITU Y.1731

Management

Protocols
- SNMP   SNMP v1 and v2c
- Command Line Interface   TL1, CLI
- Remote Access   Telnet
- Secure Access (option)   SSH v2
- Time Synchronization   SNTP v3
- Web Access   HTTP
- File transfer   FTP, TFTP
- IEEE 802.3ah EFM OAM   Dying Gasp
- User Authentication   RADIUS and/or local passwords

Applications
- EMS   MetaASSIST™ EMS
- Craft GUI   MetaASSIST™ View

Metro Ethernet Forum – Advanced Service Provisioning and Traffic Management

Quality of Service
- Classes of Service   4
- Scheduler   WFQ, SP
- Classification   L2 802.1p/Q priorities
  - L3 ToS/DiffServ

Front Panel Indicators (LEDs)
- Power
- Status
- Alarm
- ACT (Activity)
- LNK (Link) per Ethernet

Alarm Contacts
- Terminal Block   2 Input, 1 Output

Physical
- Dimensions   Height: 1.6" / 40mm (1U)
  - Depth: 11.0" / 280mm
  - Width: 8.4" / 213mm
- Weight   3.75 lbs / 1.7 Kg
- Mounting   Rack: 2 units in 19", 23" or ETSI racks
  - Desktop, Wall Mount
- Power   DC: -48/-60 VDC nominal, 11 Watt
  - AC: 90-264 VAC, 47-63 Hz, 17-21 Watt

Environmental
- Operating Temp.   -40° to +74°C*
- Storage Temp.   -40° to +74°C*
- Relative humidity   Up to 95%, non-cond.

Regulatory Approval/Certifications

Metro Ethernet Forum
- MEF 9, 14

Safety
- UL 60950, CSA C22.2 60950
- EN 60950, IEC 60950

EMC
- FCC Part 15 Class B
- ICES-003 Class B
- ETSI EN 300 386 Class B
- ETSI ETS 300 132-2
- ITU-T

NEBS
- Level III (GR-1089-CORE, GR-63-CORE)

CE
- EMC and Safety

Environmental
- GR-63-CORE
- ETSI ETS 300 019

* Tested in accordance with NEMA requirements.