GL5080XR-0412

12+4 Port Industrial 10G Managed L3 Ethernet Switch

The GL5080XR-0412 Industrial L3 Ethernet Switch from Actelis Networks® is a high density hardened, fanless fiber fed switch able to support 12 high speed 10GE interfaces and 4 gigabit interfaces per device.

The GL5080XR-0412 is part of Actelis' DIN Rail family of access switching products designed for industrial, intelligent traffic network, surveillance, pipeline and utility applications. The GL5080XR-0412 is a cost optimized, managed 10GE switch supporting multiple 1/10 gigabit Ethernet connections that allow multiple sensors or cameras at various locations to be connected in a linear chain, MSTP/RSTP/STP mesh or Fast healing ERPS ring configurations.

The GL5080XR-0412 offers wire-speed switching across 16 ports, featuring an extremely small factor, fanless design, and DIN rail mounting, the GL5080XR-0412 is ideal for deployment in almost any traffic, utility, or industrial networks.

The GL5080XR-0412 also supports L3 functionality including Static Routing, RIP, OSPF and VRRP.

Environmentally hardened with redundant power inputs, and featuring a robust, field-proven design, the unit is NEMA 4 extended temperature compliant and protected against over voltage and over current conditions, ensuring high reliability and trouble-free operation.

Interoperable with any standard Ethernet switch, router or hub the GL5080XR-0412 device seamlessly integrates into any Ethernet network. The GL5080XR-0412 is equipped with 12 10GE Small Form-Factor Pluggable (SFP+) ports, and 4 RJ45 GE ports. The GL5080XR-0412 allows assignment of a service/device per port.

The GL5080XR-0412 incorporates a comprehensive set of mechanisms that include high level authentication, advanced encryption capabilities, as well as sophisticated filtering and access control using layer 2 processes.

The GL5080XR-0412 provides 802.1q VLAN-aware wire-speed bridging, double tagging (VLAN stacking) for end-user VLAN transparency, L2 (Ethernet priority) classification with eight queues per port, fast healing rings, MSTP/RSTP/STP, Dynamic Link Aggregation, bandwidth monitoring, Multicast/Broadcast limiting, as well as IGMP bandwidth snooping for video distribution applications.

The GL5080XR-0412 can be managed through Actelis' MetaASSIST EMS multi-platform Element Management System. Various user interfaces/protocols are supported including a WEB based GUI, Cisco Like CLI as well as SNMP MIBs enabling seamless integration with third-party Network Management Systems (NMS).

Highlights

- **High Density Managed** 10GE switch – 16 ports
- **Industrial Design** - Harsh environments, wide temperature range compact IP30
- **Flexible Network Redundancy -** RSTP, MSTP, ERPS, LACP
- **Advanced Traffic Management** - QoS- CoS, DSCP, WRR/SPQ Queuing, Storm Protection
- **L2 wire speed switching** , 9K Jumbo frames
- **L3 Routing capabilities -** RIP, OSPF, VRRP
- **Multicasting** - IGMP Snooping - v1/v2/v3, up to 512 groups
- **Advanced Security:** IEEE 802.1x, RADIUS & TACACS+
- **SNMP** v1/v2c/v3
- **Easy Deployment / Configuration** - USB storage, configuration-free replacement
- **Industrial automation protocols** Ethernet/IP and Modbus TCP
- **Superior Reliability and Availability**

Actelis Networks™
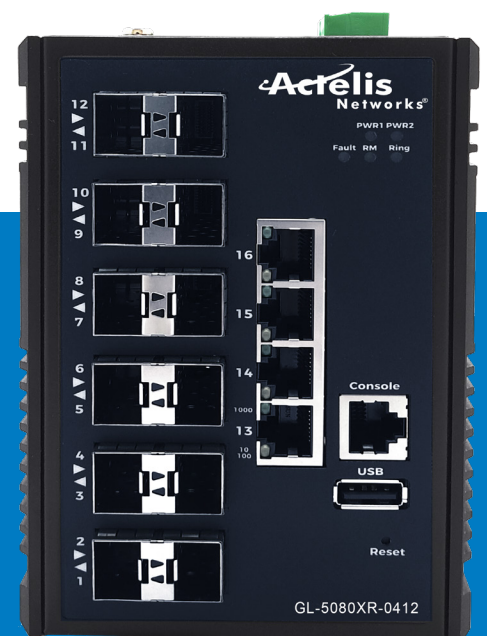
GL5080XR-0412

Specifications

Interfaces

Ethernet (Network/User) -
- **10/100/1000Base-T:** 4 ports
  Connector: RJ45, Auto-MDI/MDI-X
- **10GE SFP+:** 12 ports
  Connector: SFP, MSA compliant

Management (out-of-band)
- **Console/Craft:** RS-232
  Connector: RJ-45
- **Storage**- Firmware update, configuration backup, restore, boot up and syslog
  Connector: USB 2.0

Alarm Contacts
- Terminal Block, 1 input, 1 output

LAN Protocols
- **Ethernet operating mode: Store & forward, L2 wire-speed/non-blocking**
- **MAC addresses: 32K**
- **Jumbo frames: 9K Bytes**
- **Flow control: IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex)**
- **Max VLANs: 4094**
- **VLAN Types: Port-based VLANs**
- **VLAN Tagging:** IEEE 802.1Q
- **Double Tagging:** Q-in-Q **IEEE 802.1ad**
- **Multicast:** IGMP V1/V2 **up to 512 multicast groups, IGMP snooping and querying, Throttling and filtering.**
- **Discovery Mechanisms: LLDP** IEEE 802.1ab

Redundancy
- **Ring:**
  ERPSv2
- **Spanning Tree Protocol:**
  STP - IEEE 802.1D,
  RSTP IEEE 802.1w,
  MSTP IEEE 802.1s
- **Port Trunk with LACP:**
  Static or Dynamic

L3 Protocols
- **Static Routing**
- **RIP v1/v2**
- **RIPng**
- **OSPF v2/v3**
- **VRRPv2**

Traffic Management and QoS
- **Priority IEEE 802.1p QoS**
- **Queues per port: 8**
- **Traffic Shaper: port-based shaping**
- **Scheduler:** SPQ, WRR

Management Applications
- **EMS**: MetaASSIST EMS

Security Protocols
- **Port security:** IP and MAC-based access control
- **Authentication: I**EEE 802.1X
- **Storm Control:** Multicast/Broadcast/Flooding Storm Control

Management Protocols
User Management interfaces
- Command line interface: Cisco-like CLI
- WEB-GUI
- SNMP: V3, V2C, V1
- Telnet

Secure Access
- HTTPS, SSH, SSL, Radius, TACACS+

Configuration
- TFTP, USB

Diagnostic Syslog
- **Per VLAN mirroring**
- **Ethernet Copper connection diagnostic tool**

DHCP
- Client, Server, Snooping, Relay Agent with option Option 82

NTP

Physical
- **Dimensions :**
  Height: 5.7" / 145 mm,
  Depth: 5.5" / 140 mm, **Width:** 3.6" / 91 mm
- **Weight:** 2 lbs / 0.87 kg
- **Mounting**: Din Rails, Wall mounting (Optional)

Power
- Dual DC (integrated): 12-48VDC

Environmental
- **Operating Temp.** -40° to +75°C
- **Storage Temp.** -40° to +85°C
- **Relative humidity:** Up to 95%, non condensing

Regulatory Compliance/Certifications
Safety
- UL 60950, CSA C22.2, EN61010-1, UL 508

EMC
- FCC Part 15, CISPR 22 (EN55032) Class A
- IEC61000-4-2, -3, -4, -5, -6, -8

CE
- EMC and Safety

Vibration, shock & freefall
- IEC68-2-6, -27, -32

RoHS and WEEE
- RoHS (Pb free) and WEEE compliant