

GL5070X

10-20 Port Industrial Managed Ethernet Switch with 10G Uplink

The GL5070X Industrial Ethernet Switches from Actelis Networks® are high density hardened, fanless fiber fed switches able to support two to four 10G interfaces and up to 16 high speed gigabit interfaces per device.

The GL5070X is part of Actelis' DIN Rail family of access switching products designed for industrial, intelligent traffic network, surveillance, pipeline and utility applications. The GL5070X is a cost optimized, managed 10G switch supporting multiple ten and one 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 GL5070X offers wire-speed switching across a maximum of 20 ports, featuring an extremely small factor, fanless design, and DIN rail mounting, the GL5070X is ideal for deployment in almost any traffic, utility, or industrial networks.

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

Interoperable with any standard Ethernet switch, router or hub GL5070X devices seamlessly integrate into any Ethernet network. The GL5070X--082F is equipped with two 1/10G Small Form-Factor Pluggable (SFP/SFP+) uplinks whilst the GL5070X-8J4F and GL5070X-8J12F support four 1/10G SFP

uplinks. All GL5070X models support 8x 10/100/1000Base-T copper RJ45 ports, and the GL5070X-8J12F supports an additional 8x 100/1000 SFP ports. The GL5070X allows assignment of a service/device per port.

GL5070X 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 GL5070X 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 GL5070X 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** 10G switch – up to 20 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
- **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**



GL5070X

Specifications

Interfaces

Ethernet (Network/User) -

- **10/100/1000Base-T**: 8 ports
Connector: RJ45, Auto-MDI/MDI-X
- **100/1000Base-FX (GL5070X-8J12F only)**: 8 ports
Connector: SFP, MSA compliant
- **1/10G Base-X**: 4 ports
(Except GL5070X-8J2F which has 2 ports)
Connector: SFP/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: 16K
- 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

Traffic Management and QoS

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

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

Management Applications

- **EMS**: MetaASSIST EMS

Security Protocols

- **Port security**: IP and MAC-based access control
- **Authentication**: IEEE 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

Time Sync

- NTP
- IEEE1588v2 OC (Software Timestamp)
- TC (Hardware Timestamp)

Physical

- **Dimensions** :
Height: 5.7" / 145 mm,
Depth: 4.6" / 118 mm, **Width**: 3.6" / 91 mm
- **Weight**: 3 lbs / 1.38 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

- IEC62368, UL62368

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

