

MANAGED INDUSTRIAL ETHERNET SWITCH 8-PORT 10/100BASE-TX + 2 GIGABIT MULTI-RATE SFP PORTS GGM INS8R2LCA



8-port 10/100Base-TX

2-port SFP (10/100)

Manageable SWMP

Redundancy ethernet

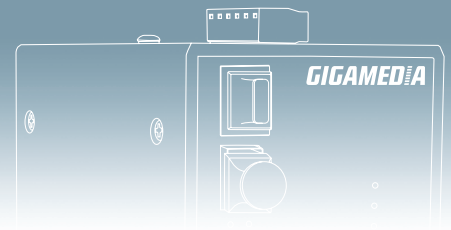
The **GGM INS8R2LCA** is a managed industrial switch specifically designed to suit your heavy industrial environments and contains all the standard features to deploy in automation systems. Engineered with hardened components and enclosed in a rugged IP30 metal case, the **GGM INS8R2LCA** can operate in temperatures from 0 °C to 70 °C and also has excellent tolerance capability to high vibration and shock.

Despite the fact that the **GGM INS8R2LCA** is perfectly designed to operate in extreme industrial conditions; the switch is also equipped with a variety of management functions that let you configure communication parameters as you desire and monitor the network behavior in number of different simple ways. In addition, the switch is built with dual redundant power inputs to ensure reliability and maximize network up time. Other integrated features of the switch such as auto-negotiation, rate limitation, port isolation etc., optimizes your network performance and provide a secure network, offering a cost-effective solution in a small but powerful package.

MAIN FEATURES

• ROBUST SWITCH PERFORMANCE

GGM INS8R2LCA is built with IP30 metal case, surge and ESD protection to deliver robust performance and withstand extreme conditions in Industrial environments. The SFP ports support 100/1000Mbps for high bandwidth transmissions and the SFP DDM feature enables service providers to monitor SFP parameters. In case of any abnormal hardware condition, the switch automatically sends warnings through email and relay output with real-time alarm messages. This assists the system administrators to immediately react to emergency events and diagnose the faults more efficiently for smoother network operations.



• PORT-BASED VLAN, IEEE 802.1Q VLAN, GARP AND GVRP TO EASE NETWORK PLANNING

Planning, designing and managing complex networks is now simplified with **GGM INS8R2LCA**. The switch supports VLANs which segment large networks into smaller parts and organize them into separate broadcast domains. This helps the administrators to control the traffic patterns, limit broadcast traffic and reduce broadcast storms. As the network expands, to provide control of increased VLANs, the switch offers GVRP feature, an application protocol of GARP, which registers and deregisters devices and its ports depending on their availability. This feature prevents unnecessary network traffic transmitted by unregistered users and simplifies the network design irrespective of its size.

• CODE REDUNDANCY

The configuration file of the switch may be lost due to various reasons such as upgrading to a new firmware or power fluctuations and can lead to network down situation. To avoid such situations, the **GGM INS8R2LCA** provides a perfect alternate solution using its code redundancy feature with its dual flash. The dual flash memory allows the switch to store a backup file of primary configuration on one flash space. Even if the primary configuration file is lost, the backup file will enable the switch and ensure that your network is running continuously.

• REDUNDANT POWER SYSTEM

Mission-critical industrial applications need to operate without any interruptions because even a minimum network downtime can hugely impact the overall output. Providing continuous power and as well as data to such applications is now made easy with **GGM INS8R2LCA**'s redundant power system. The switch is designed with standard industrial terminal block for redundant power. In case the primary power supply fails, the secondary power will power up the switch and enables switch to provide continuous services.

• EFFICIENT NETWORK MONITORING AND PROACTIVE CAPABILITY

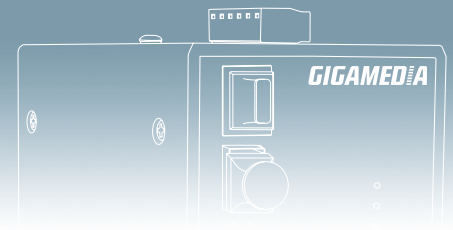
In a network, the issues that impact network performance can be quickly resolved with the **GGM INS8R2LCA**'s most accepted and enhanced traffic management, monitoring and analysis protocols such as SNMP and SFP DDMI. SNMP allows to centrally manage different levels in a network and SFP DDMI (Digital Diagnostics Monitoring Interface) enabled on the switch, administrators can easily monitor and troubleshoot SFP parameters such as temperature, voltage, laser bias current and evaluate SFP's working condition. User can ensure a reliable network by identifying connectivity and performance issues and isolating the problem remotely on individual switches.

• COMPREHENSIVE QOS MECHANISMS TO ASSIGN PRIORITY

Industrial applications need different levels of services delivered to them reliably without any transmission delays and interruptions. The **GGM INS8R2LCA** has comprehensive QoS mechanisms which assign priority to applications and sends only specific dedicated traffic to them. In addition, its 2-slot Gigabit multi-rate SFP for real-time network applications that need extended reach and flexible operating bandwidths. With full control of limiting the bandwidth, the administrators can prevent unpredictable errors and utilize the bandwidth more effectively.

• PROPRIETARY TECHNOLOGY DELIVERS REDUNDANT RING AND FAST RECOVERY

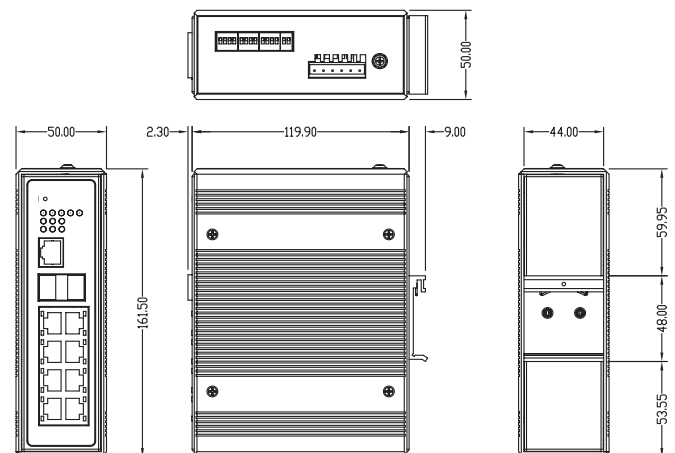
Even a few seconds of missed communications due to link failures can cause inconvenience, and recovery can become critical. The redundancy in **GGM INS8R2LCA** rapidly reacts to such link failures and recovers in less than 50ms, a much faster fail-over time to support nonstop transmissions. This is critical for networks handling heavy video and data traffic. In addition, Dual Homing, LACP and RSTP provide a highly reliable network with redundancy connections whenever required and guarantee continuous network uptime.



PRODUCT SPECIFICATIONS

| STANDARDS | |
|--------------------|---|
| IEEE 802.3 | 10BASE-T |
| IEEE 802.3u | 100BASE-TX/FX |
| IEEE 802.3z | 1000BASE-SX/LX |
| IEEE 802.3x | Flow control |
| IEEE 802.3ad | Link aggregation |
| IEEE 802.1d | STP |
| IEEE 802.1w | RSTP |
| IEEE 802.1p | CoS prioritization |
| IEEE 802.1q | VLAN tagging |
| IEEE 802.1x | Port authentication |
| IEEE 802.1ab | LLDP |
| NETWORK MANAGEMENT | |
| Configuration | Command line interface, Telnet, Web GUI, SNMP v1/v2c, Management VLAN, System log, Firmware upgradable, Configuration upload/download |
| VLAN | IEEE 802.1Q, GARP/GVRP support, Port-based VLAN, 4K active VLAN support |
| Redundancy | Xpress Ring, Dual Homing, STP/RSTP |
| Security | Access control list, SSH, Port security, 802.1x port authentication, DHCP snooping, MAC limitation |
| Traffic control | IGMP snooping/Querier, MVR, Link aggregation, QoS, Flow control, Abnormal traffic detection, Rate limitation, Storm control, Port isolation, Loop detection |
| Diagnostics | LED status, SNMP trap, E-mail alarm, SFP DDMI, Port Mirroring, Real-time Statistic Traffic, STNP, RMON, Syslog |
| POWER | |
| Input Voltage | Primary Inputs: 12~60 V DC Redundant Inputs: 12~60 V DC |
| Power Consumption | 12 W Support overload current protection Power reverse polarity protection Power voltage drop alarm One removable 6 Pin 90° terminal block |

| INTERFACE | |
|---|---|
| Ports | 8x 10/100Base-TX (RJ-45) 2x GbE multi-rate SFP 1x RJ-45 console port (female) |
| MECHANICAL AND ENVIRONMENT | |
| Housing | IP30 Protection |
| Din-Rail | Metal |
| Operating temperature | -40°C~70°C |
| Storage temperature | -40°C~80°C |
| Operating humidity | 10 to 95% RH (non-condensing) |
| Storage humidity | 5 to 95% RH (non-condensing) |
| Weight | 780 g |
| Dimensions | 50x161.5x119.9 mm (WxHxD) |
| STANDARDS AND CERTIFICATIONS | |
| EMI | FCC Part 15 Subpart B Class A EN55022 : class A EN 55011 : 2009 class A EN 61000-6-4 |
| EMS | EN 55024 EN 61000-6-2 IEC 61000-4 |
| APPROVAL & TEST | |
| DNV 2.4, IEC-60945, IACS E10 IEC 60068-2 | |



OPTIONAL ACCESSORIES

| P/N | DESCRIPTION |
|--------------|--|
| GGM IAL12048 | 120 W single output industrial DIN Rail power supply 2,5 A / 48 V DC |
| GGM IAL7524 | 75 W single output industrial DIN Rail power supply 3,2 A / 24 V DC |
| GGM MSFPSX | SFP Module 1000Mbps-SX LC connector, multimode, 550 m |
| GGM MSFPLX | SFP Module 1000Mbps-LX LC connector, singlemode, 10 km |
| GGM MSFPFX2 | SFP Module 100Mbps-FX LC connector, multimode, 2 km |
| GGM MSFPFXSM | SFP Module 100Mbps-FX LC connector, singlemode, 40 km |