

Industrial Ring Managed Gigabit Switch

10-Port Gigabit including 2x1.25G SFP Ports

IGM-1002R

airlive®



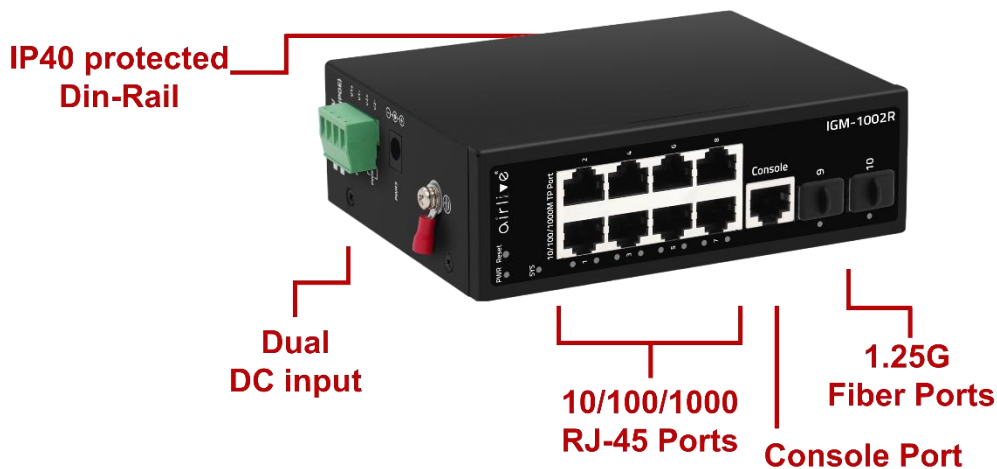
Gigabit RJ45 & SFP	L2 manage Switch L3 IPv4	IPv4 VLAN	IP40, Din-Rail & Wall-Mount
Redundant Network Ring	Ultra Fast Ring recovering	Dual Power inputs 12~55Vdc	-40°C~75°C

Overview

Reliable Industrial-grade Managed Switch for extreme environment With VLAN and QoS

The AirLive IGM-1002R is a L2 managed 8-port Gigabit switch with 8 10/100/1000BASE-T ports, and 2 fiber optic ports 100/1000/1250Mbps. Made for extreme environments with its wide temperature range from -40°C to 75°C and rugged IP40 metal housing; Dual power inputs using a 4pin terminal block (DC12~55V).

The 10-port Industrial Gigabit management switch offers comprehensive SNMP management functions including IGMP, VLAN, Port aggregation, QoS port mirroring, bandwidth control. Ring Network Protocol ERPS is supported. ERPS supports multi-ring and multi-domain structures. It supports main device backups, load sharing and other work methods in 50ms switching, making for one of the lowest fault recovery time and makes sure that your critical industrial network keeps working.



Features

- All 10-port, each port delivers Gigabit high speed
- Extend network further with 2x 1.25G SFP slots that accept fiber transceivers and go beyond the limits of Ethernet
- Support L2 SNMP and WEB Smart management function, including DHCP Snooping, VLAN, IGMP, QoS, Spanning Tree, MAC Binding and Bandwidth Control
- Clear Status display including traffic, per-port status
- Web-UI for easy management; CLI and Console for advance setting; SNMP for popular network tools management.

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Built for Harsh Environment

The IGM-1002R switch can operate from $-40^{\circ}\text{C} \sim 75^{\circ}\text{C}$. And each port has 6KV surge protection. It is the ideal solution for applications which work under harsh environment and require stable network such as parking lot or factory. The IGM-1002R has a rugged high strength metal case which is rated at IP40 and has a DIN35 Rail connection making it suitable for network use in a heavy industry or factories. AirLive Industrial switches can be placed in almost any harsh environment.

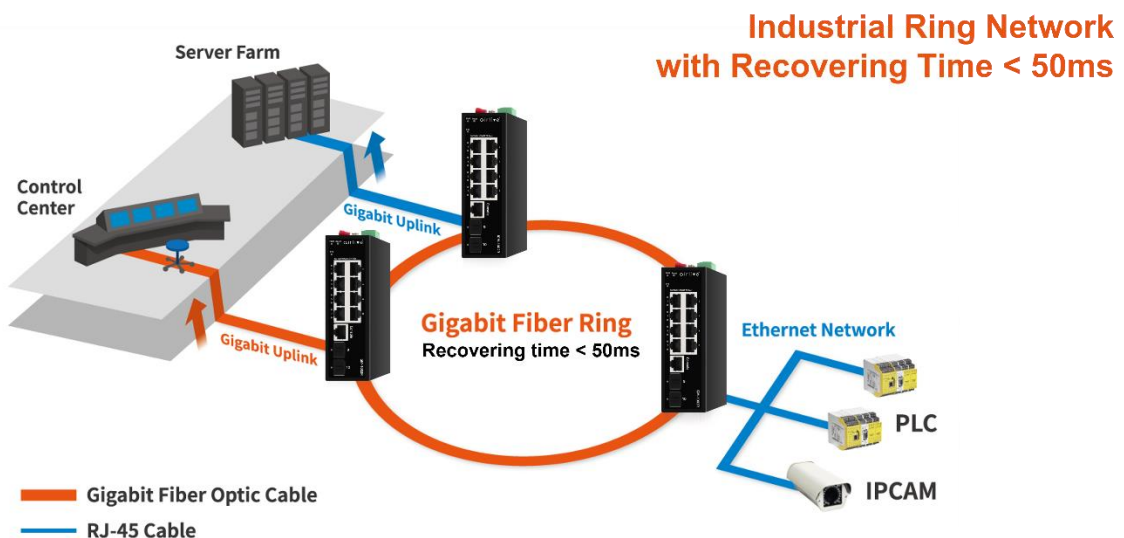


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ERPS Ethernet Ring Protection

ERPS is supported by the IGM-1002R Switch. ERPS supports multi-ring and multi-domain structures (master and sub rings) and optimizes the inspection mechanism in terms of two-way faults. In addition, it supports main device backups, load sharing and other work methods in $<50\text{ms}$ switching.

This means that when multiple switches have been placed in a Ring and the network work is interrupted, it will recover within 50ms or less. Meaning the critical network like in harsh environments or automated production lines and surveillance will be online again with minimum loss of time. The ring network is also protected again loops.



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IGM-1002R

VLAN, QoS and more

The IGM-1002R is a management switch which is packed with features and uses the many VLAN functions to separated the traffic on your network. Or use the QoS functions to stream your network in a smooth and non congested network these and many more functions can be found in the AirLive industrial Switch.

Fiber for Long Distance up to 120Km

Extend the network further with the 1.25G SFP slots. The SFP ports also supports DDM which offers more information about the fiber connection and makes it easier to find any faults or bad connections.

Factory Parking Control

IGM-1002R



Built-in SFP for long distance transition

Model	AirLive IGM-1002R
<p>Hardware</p> <ul style="list-style-type: none"> • Device Interface: 8 x 10/100/1000 RJ45 2 x ports Gigabit SFP 1.25G 10-port totally 1 x RJ45 console port • Standard IEEE802.3u 100Base-TX / 100Base-FX IEEE802.3ab Gigabit 1000Base-T IEEE802.3z Gigabit SX/LX (optical fiber) IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port Trunk with LACP IEEE802.1d Spanning Tree (STP) IEEE802.1w Rapid Spanning Tree (RSTP) IEEE802.1s Multiple Spanning Tree (MSTP) IEEE802.1p Class of Service (QoS / CoS) traffic Prioritization (Multicast filtering function) IEEE802.1Q VLAN Tagging IEEE802.1x Port Authentication Network Control IEEE802.3az Energy Efficient Ethernet IEEE802.1ab LLDP ITU-T G.8032 ERPS Ring • LED Indicators: PWR (power supply), SYS(System), 1-8 Link & ACT , 9-10 Link & Act • Lighting Surge Protection: 6KV General mode) 2KV Differential mode, Electrostatic ESD: Air 15KV, Contact 8KV. • Mechanical IP40 rugged high-strength metal case, DIN35 Rail Mounting <p>Switch Architecture Performance</p> <ul style="list-style-type: none"> • Fiber Medium: Multi-mode Fiber: 850nm, 1310nm Transmission Distance: 550m/2Km Single-mode Fiber: 1310nm, 1550nm Transmission Distance 20/40/60/80/100/120Km • Switching architecture: Store and Forward Switch Capacity: Back-plan up to 20Gbps Switch packets Capacity; 13.39Mpps MAC Address: 8K Jumbo Frames: 9.6Kbytes Packet Buffer: 4Mb Flash Memory: 16MB DDR SDRAM: 128MB 	<p>L2 Management Function</p> <ul style="list-style-type: none"> • Port Management: Port Switch, Port Description, Port Speed, Port Duplex, Port Flow Control, Jumbo, Up to 9600bytes EEE, Fiber Module(DDM) • Port Mirroring: One to one monitor, Many to one monitor Ingress/Egress/Both • Port Rate-limit • Port Isolation • Port Security: MAC Address Constraints Action: Trap/Shutdown • Loopback Detection • Storm Control: Broadcast Unknown Multicast, Unknown Unicast • Link Aggregation: Supports load balance policy; Based on SMAC/DMAC/IP and TCP/UDP port number Static and Dynamic Group Supports LACP • VLAN: Access/Trunk/Hybrid VLAN Tunnel (Q-in-Q Tunnel) Configurable VID from 1 - 4094; Max. 4K static VLAN groups Support GVRP • MAC: Support Dynamic Address Support Static Address • Spanning Tree Support STP 802.1d Spanning Tree protocol Support RSTP 802.1w Spanning Tree protocol Support MSTP 802.1s Spanning Tree protocol Support BPDU Filter, Guard Support Edge Port

* Specification will be changed without prior notice



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<p>L2 Management Extension Function</p> <ul style="list-style-type: none"> • Multicast: Support IGMP Snooping Support IGMP V1/V2/V3 Support Router Port Support Static IGMP group address IGMP groups filtering Querier MLD Snooping • ACL (Access Control List): Port ACL, MAC ACL, IPv4 ACL, IPv6 ACL • QoS: Traffic classification based, Strict priority and SP+WRR Port Priority 802.1P Priority IP DSCP Priority Supports up to 8 queues per port Port Shaping • LLDP Discovery: Support LLDP discovery protocol, • ERPS: Major and sub ring up to 16 rings <p>Security</p> <ul style="list-style-type: none"> • AAA: Support RADIUS Support TACACS+ Support 802.1X Base on port/MAC authentication • DHCP Snooping • IP Source Guard • Dynamic ARP Inspection • Permission level management <p>Services</p> <ul style="list-style-type: none"> • DHCP: DHCP Server, IP Pool Static Binding DHCP Relay • Access Protocol: HTTP, Telnet, SSH, Manager ACL <p>L3 Function</p> <ul style="list-style-type: none"> • IPv4: IPv4 VLAN Interface IPv4 Static Routes ARP 	<p>Diagnostics</p> <ul style="list-style-type: none"> • Syslog: Logging Message, Remote Server • Ping • Traceroute • Cable Diagnostics <p>System Management</p> <ul style="list-style-type: none"> • Manager Access: Console, HTTP, Telnet, SSHv2, SNMP • Manager IP: Static Address, DHCP Client, Supports IPv4 and IPv6 address, DNS • Time Synchronization: SNTP, Manual Time • SNMP: V1/V2C/V3, Community, V3 User, Group, Trap Host • SNMP MIB: RFC 1213 MIB-II, RFC 1493 Bridge MIB, RFC 1643 Ethernet MIB, RFC 2863 Interface MIB, Private MIB • User: Configurable user privilege level from 0 – 15 • Firmware: Double Image; Swap between Active and Alternate firmware image, Firmware update • Configuration: Upload and download, Save, Restart, Factory Defaults <p>Power Supply</p> <ul style="list-style-type: none"> • Input Voltage: DC 12~55V • Input Type: 4 Pin Terminal (block V1+V1- V2+ V1- Supports Dual Power Input) <p>Environment</p> <ul style="list-style-type: none"> • Operating Temperature: -40°C to +75°C • Storage Temperature: -40°C to +85°C • Humidity: 5%~95%, non-condensing <p>Standard package of switch</p> <ul style="list-style-type: none"> • Product size: 13.8 x 10.8 x 4.4 cm(L*W*H) • Package size: 24.5 x 19 x 6.0 cm(L*W*H) • Product Weight/Package Weight W: 0.57KGs; W: 0.75KGs • Package content: 1 x Switch, 1x Mounting <p>Standard carton package</p> <ul style="list-style-type: none"> • Quantity: 20 pcs / 1 carton • Dimensions: 52 x 32 x 40 cm • Carton Weight: 16.01KG <p>Ordering Information</p> <ul style="list-style-type: none"> • Model: IGM-1002R • Name: Industrial Ring Managed Gigabit Switch 10 Ports including 2-port SFP 1.25G fiber ports

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