Industrial Ring Managed Gigabit PoE++ Switch
10-Port PoE++ Gigabit including 2x1.25G SFP Ports

IGM-1082RBT

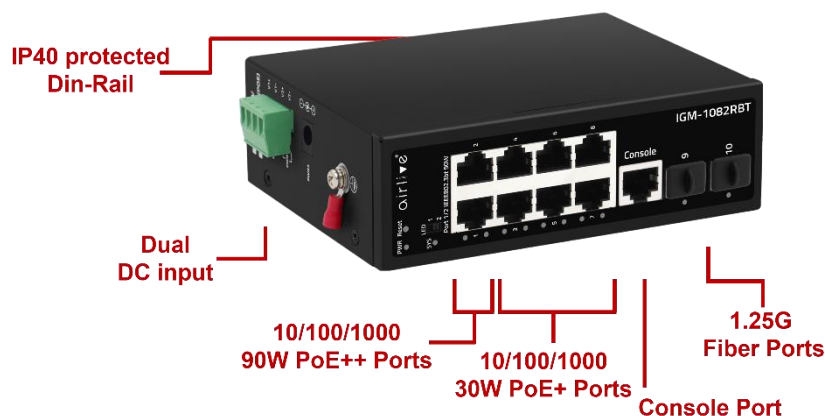**airlive®**

802.3at/af/bt 90w	Gigabit RJ45 & SFP	L2 manage Switch L3 IPv4	Advanced PoE management	IPv6/IPv4 VLAN
Redundant Network Ring	Ultra Fast Ring recovering	Dual Power inputs 48~55Vdc	-40°C~75°C	IP40, Din-Rail & Wall-Mount

Overview

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

The AirLive IGM-1082RBT is a L2 managed 8-port Gigabit PoE++ switch with 2 PoE++ ports, 6 PoE+ ports. Port 1~2 are 10/100/1000BASE-T 802.3bt (90W) compliant and port 3~8 are 10/100/1000BASE-T 802.3at/af (30W) compliant automatically adaptive, 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 (DC48~55V).

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.

IP40 protected Din-Rail

Dual DC input

IGM-1082RBT

10/100/1000 90W PoE++ Ports

10/100/1000 30W PoE+ Ports

Console Port

1.25G Fiber Ports

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
- Supports PoE++ up to 90W (Port 1~2 90W per port), (Port 3~8 30W per port)
- Automatically detect and offer power for connected PD
- Support L2 SNMP and WEB Smart management function, including DHCP Snooping, VLAN, IGMP, QoS, Spanning Tree, MAC Binding and Bandwidth Control
- Support PoE management
- Support PoE watchdog to automatically detect and restart crashed PD
- Clear Status display including traffic, POE consumption, per-port status
- Web-UI for easy management; CLI and Console for advance setting; SNMP for popular network tools management.

Efficient PoE Watch Guard
PoE Watch dog technology and PoE Management

The Switch IGM-1082RBT supports high power on port 1~2 at 90W and 30W on ports 3 ~8 auto adaptively. With PoE management function to control PoE port setting, Timer setting and Timer reboot setting, and PoE watchdog. All the PoE management functions ensure full power for the connected PD and great reliability for the whole system. PoE 90W supports devices which need more power, this can be for example a POS system, Digital Signage, or LED lighting. .

After PoE Watchdog function enabled, the IGM-1082RBT switch works as a virtual security guard. When the POE port is continuously powered but there is no traffic, the POE watchdog will be triggered. After 2 minutes of detection, the power supply will be stopped and then powered on. PoE Watchdog is especially helpful for camera. For example, when turning on the function, the switch will detect the front-end camera for 24/7. If there is no traffic output from the camera, it is judged that the camera is frozen, and the front-end camera will be restarted through PoE power failure to solve the problem.

Automatic restart
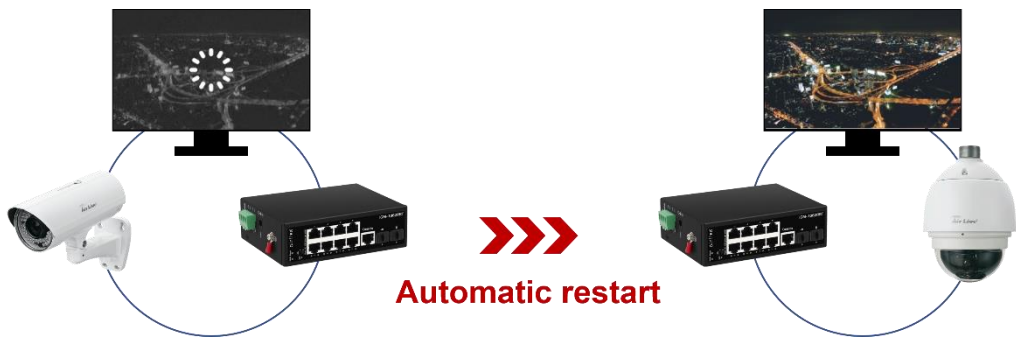
802.3BT High Power PoE

Airlive Power over Ethernet (PoE) products are suitable for commercial and industrial applications which provide highly reliable power and data transmission in compliance with the 802.3bt standard, industrial design, long-distance PoE technology, and The unique intelligent PoE watchdog control function can meet all the requirements of IP surveillance, IP communications, POS systems, PoE lighting and other applications.

AirLive IGM-1082RBT Industrial switch supports the high-power output PoE++ at 90W for ports 1 and 2. This higher output allows it to power more device than just an IP camera or Access point. The 90W PoE can be used to power on high power needed PoE Systems, Digital Signage or even PoE LED lighting and much more. Giving you much more flexibility on the usage, as you are no longer restricted to only 30W.
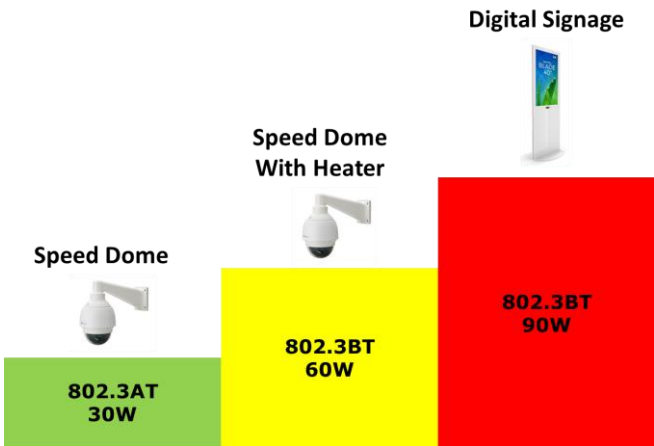
Digital Signage

Speed Dome With Heater
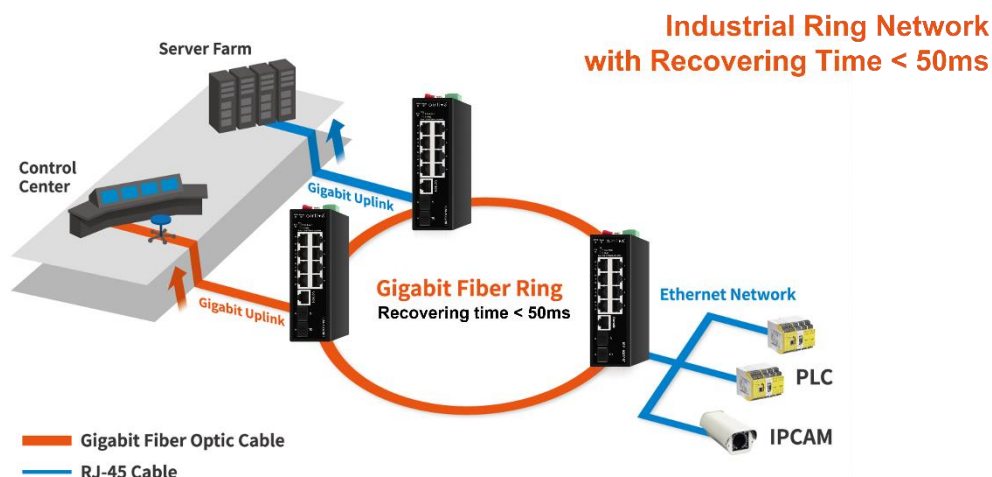
Speed Dome

802.3BT 90W

802.3BT 60W

802.3AT 30W

ERPS Ethernet Ring Protection

ERPS is supported by the IGM-1082RBT 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 <50ms 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.

Industrial Ring Network with Recovering Time < 50ms

Server Farm

Control Center

Gigabit Uplink

Gigabit Fiber Ring
Recovering time < 50ms

Gigabit Uplink

Ethernet Network

PLC

IPCAM

▬ Gigabit Fiber Optic Cable
▬ RJ-45 Cable

VLAN, QoS and more

The IGM-1082RBT 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-1082RBT

Built-in SFP for long distance transition

Built for Harsh Environment

The IGM-1082RBT switch can operate from -40°C ~ 75°C. And each POE port has 6KV surge protection. It is the ideal solution for applications which work under harsh environment and require stable network and PoE power such as parking lot or IP surveillance. The IGM-1082RBT 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.

IGM-1082RBT

Industrial Application Harsh Environment

AirLive IGM-1082RBT Industrial switch meets the high standard demands of providing reliable networking connectivity, able to withstand harsh industrial environment, and cost-effectively.

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Specification

Model	AirLive IGM-1082RBT

Hardware

- **Device Interface:**
  2 x 90W PoE 10/100/1000 RJ45 (Port 1~2)
  6 x 30W PoE 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
  IEEE802.3at/af/bt PoE
  IEEE802.3az Energy Efficient Ethernet
  IEEE802.1ab LLDP
  ITU-T G.8032 ERPS Ring
- **LED Indicators**:
  PWR (power supply), SYS(System), 1-8 PoE, 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

Power and PoE

- **Protocol**: IEEE802.3bt (90W), IEEE802.3at (30W),
  IEEE802.3af (15.4W)
- **PoE Port**: 8
- **PoE Power Output / PoE Port 1~2:** max. 90 watts
- **POE Power Output / PoE Port 3~8:** max. 30 watts

Switch Architecture | Performance

- **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

POE

- **PoE Configuration:**
  PoE Temperature, PoE Type/Level/Power/Current, PoE
  Switch, PoE Watchdog, Total PoE power budget control,
  PoE power management, PoE port priority, Per PoE port
  power limit, PoE Schedule, PoE Port Timer Reboot

L2 Management Function

- **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 802.1w Spanning Tree protocol
  Support BPDU Filter, Guard
  Support Edge Port

* Specification will be changed without prior notice

AirLive

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L2 Management Extension Function

- **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

Security

- **AAA:**
  Support RADIUS
  Support TACACS+
  Support 802.1X
  Base on port/MAC authentication
- **DHCP Snooping**
- **IP Source Guard**
- **Dynamic ARP Inspection**
- **Permission level management**

Services

- **DHCP:**
  DHCP Server, IP Pool
  Static Binding
  DHCP Relay
- **Access Protocol:**
  HTTP, Telnet, SSH, Manager ACL

L3 Function

- **IPv4:**
  IPv4 VLAN Interface
  IPv4 Static Routes
  ARP

Diagnostics

- **Syslog:** Logging Message, Remote Server
- **Ping**
- **Traceroute**
- **Cable Diagnostics**

System Management

- **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

Power Supply

- **Input Voltage:** DC 48~55V
- **Input Type:** 4 Pin Terminal (block V1+V1- V2+ V1-Supports Dual Power Input

Environment

- **Operating Temperature:** -40°C to +75°C
- **Storage Temperature:** -40°C to +85°C
- **Humidity**: 5%~95%, non-condensing

Standard package of switch

- **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: 0.68KGs; W: 0.87KGs
- **Package content**:
  1 x Switch, 1x Mounting

Standard carton package

- **Quantity:** 20 pcs / 1 carton
- **Dimensions:** 52 x 32 x 40 cm
- **Carton Weight:** 18.4KG

Ordering Information

- **Model:**
  IGM-1082RBT
- **Name:**
  Industrial Ring Managed Gigabit PoE++ Switch 10 Ports including 2-port SFP 1.25G fiber ports

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