# **L2+ Industrial Ring Managed Gigabit POE+ Switch** 6-Port PoE+ Gigabit including 2\*2.5G SFP

**IGM-642POE-2.5G** 



Gigabit RJ45 802.3at & SFP 2.5G 30W

Managed PoE management L2+ Switch Watchdog L<sub>3</sub> Routing

IPv6/IPv4 VLAN

Redundant Network

**Ultra Fast Ring** recovering

**Dual Power inputs** 48~55Vdc

-40°C~85°C

IP40, Din-Rail & Wall-Mount

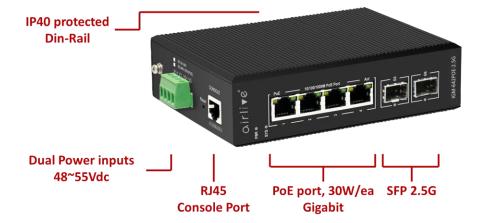
airlive

# **Overview**

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

The AirLive IGM-642POE-2.5G is a L2+ managed 6-port Gigabit PoE+ switch including 4 PoE ports and 2 Gigabit 2.5G SFP ports. Each PoE port is 802.3at/af compliant up to 30W, automatically adaptive. Made for extreme environments with its wide temperature range from -40°C~85°C and rugged IP40 metal housing. Dual power inputs using a 4pin terminal block (DC48~55V).

The 6-port Industrial Gigabit L2+ management switch offers comprehensive SNMP management functions including IGMP, VLAN, Port aggregation, QoS port mirroring, Bandwidth control and Ring Network Protocol ERPS are supported.



# **Features**

- All 6-port, each port delivers Gigabit high speed
- Extend the network further with 2x 2.5G SFP slots that accept fiber transceivers and go beyond the limits of Ethernet
- High PoE power, ensure full power for connected device
- 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 Statues display including traffic, CPU, Memory, POE consumption, per-port status
- Web-UI for easy management; CLI and Command Script for advance setting; SNMP used for popular network tools management.

# L2+ Industrial Ring Managed Gigabit POE+ Switch 6-Port PoE+ Gigabit including 2\*2.5G SFP

**IGM-642POE-2.5G** 

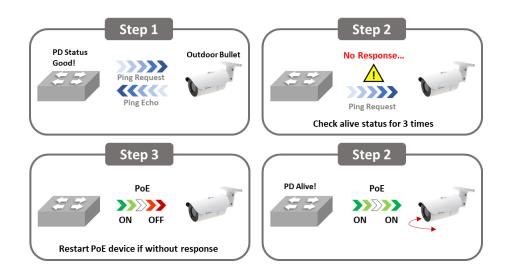


# **Efficient PoE Watch dog technology and PoE Management**

The Switch IGM-642POE-2.5G supports high Power and each port at 30W auto adaptively. With PoE management function you can 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.

After PoE Watchdog function enabled, the IGM-642POE-2.5G 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.



# Wide temperature coverage from -40°C ~ 85°C

The IGM-642POE-2.5G switch can operate from  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ . And each POE port has 6KV surge protection. It is the ideal solution for applications which work under hash environment and require stable network and PoE power, such as parking lot or IP surveillance. The IGM-642POE-2.5G has a rugged high strength compact size metal case which is rated at IP40 and has a DIN35 Rail connection making it ideal for network use in a heavy industry or factories. It can be placed in almost any harsh environment.



IGM-642POE-2.5G

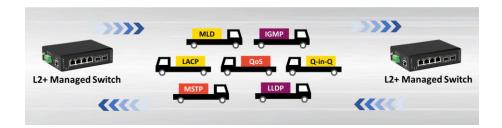
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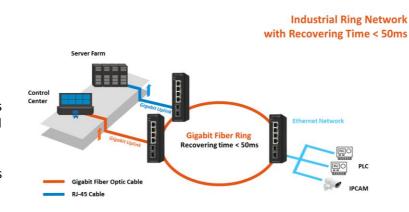
# Intelligence - Layer 2+ Manage Advanced Feature

The IGM-642POE-2.5G can be used for advanced switch management functions such as dynamic port link aggregation, Q-on-Q VLAN, rapid spanning tree protocol, QoS from layer 2 to layer 4, bandwidth control and IGMP inspection can be programmed. The switch offers VLANs with 802.1Q tags, and the permitted VLAN groups are up to a maximum of 255. By supporting port aggregation, the IGM-642POE-2.5G PoE enables the operation of a high-speed trunk that combines several ports. A maximum of 2 trunk groups with 2 ports trunk group and also supports failover.



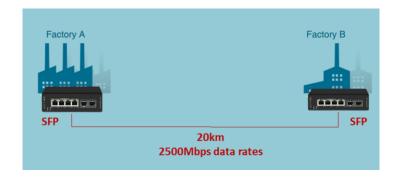
# **ERPS Ethernet Ring Protection**

ERPS is supported by the IGM-642POE-2.5G 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 backup, 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 with in 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.



# Fiber backbone for Long Distance

Extend the network further with SPF slots. Use the IGM-642POE-2.5G as a backbone of your network, can reach 20KM in speed 2500Mbps data transmission.



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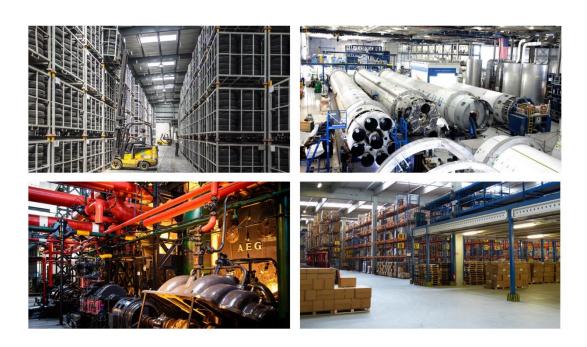
### **Dual Power Inputs**

The IGM-642POE-2.5G supports 2 DC power inputs for power redundancy. That greatly improves the reliability and uptime of a sensitive network in a harsh environment. When one of the DC power inputs fails, the second input will continue to power on the switch. The Switch supports an input of DC 48 ~ 55V. User can define policy for video conferring / voice data in high priority, to ensure your video meeting will not lag coursing by any networking jam.



# **Industrial Application Harsh Environment**

AirLive IGM-642POE-2.5G Industrial switch meets the high standard demands of providing reliable networking connectivity, able to withstand harsh industrial environment, and cost-effectively.



# Specification



#### Model

#### Hardware

#### **Device Interface:**

4 x 30W PoE 10/100/1000 RJ45

2 x ports Gigabit SFP 2.5G (compatible with 1.25G/155M)

6-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

IEEE802.1d 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 Bridge Operation

IEEE802.1x Client/Server Access control and

Authentication

IEEE802.3at/af PoE

IEEE802.3az Energy Efficient Ethernet

IEEE802.1ab LLDP/ Device Link Layer Discovery Protocol

#### LED Indicators:

PWR (power supply), SYS(System), 1-4 PoE, 1-4 Link & ACT, 5-6 Link & Act

### • Lighting Surge Protection:

6KV (general mode), 2KV (differential mode), FSD15KV

#### Mechanical

IP40 rugged high-strength metal case, DIN35 Rail Mounting

#### **Power and PoE**

- **Protocol**: IEEE802.3at (30W), IEEE802.3af (15.4W)
- PoE Port: 4
- PoE Power Output / PoE Port: 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

#### AirLive IGM-642POE-2.5G

#### Switching architecture: Store and Forward

Switch Capacity: Back-plan up to 18Gbps Switch packets Capacity; 13.39Mbps

MAC Address: 8K

Jumbo Frames: 9.6Kbytes

Packet Buffer: 4Mb

Flash Memory: 16MB

DDR SDRAM: 128MB

# L2 management Function

#### **Port Management**

Enable / Disable Port

Speed, Duplex, MTU setting

Flow-Control

Port Information Check

#### **Port Mirroring**

Support both side-way port

#### **Port Speed Limit**

Port-based input/output bandwidth management

#### **Port Isolation**

Support the downlink port isolation, and able to communicate with the uplink port

# **Storm Suppression**

Support unknown unicast, multicast, unknown multicast

Broadcast type storm suppression

Storm suppression based on bandwidth regulation and storm filtering

#### **Link Aggregation**

Support static manual aggregation Support LACP dynamic aggregation

#### **VLAN**

Support 4K VLAN

Access, Trunk, Hybrid

Support Port-based

Support Generic GVRP dynamic VLAN registration

Support static, dynamic, addition, deletion MAC address learning limit Dynamic aging time setting

### **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 protection

### **Multicast:**

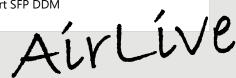
Support Static addition, deletion

Support IGMP-Snooping

Support MLD-Snooping

Support v1/2/3 dynamic multicast monitor

**DDM:** Support SFP DDM



<sup>\*</sup> Specification will be changed without prior notice

# **Specification**



#### Model

#### **L2 Management Extension Function**

ACL

Based on source MAC, destination MAC, Protocol type, source IP, destination IP, L4 port Support time-range time management

QoS

Based on 802.1p (CoS) classification
Based on DSCP Classification
Classification based on source IP, destination IP
and port number

Support SP, WRR, DRR scheduling strategy Support flow rate limit CAR

LLDP Discovery

Support LLDP discovery protocol

User Setting:

ADD/Delete users

· Log:

User login, operation, status, events

Anti-attack (Security):

DOS defense (port-based)

Support CPU protection and limits the rate of sending CPU packets

ARP binding (IP, MAC, PORT binding)

· Certification | Authentication

Support 802.1x port authentication Support AAA authentication Support TACAS+ authentication

· Network diagnosis

Support Ping, Telnet, Trace

System Management

Device reset, configuration save/restore, upgrade management, time setting, etc.

#### L3 ( Layer 3 Switching ) and Router Function

· Interface Configuration

Support virtual VLAN interface

ARP

Support check ARP

Router Function

Static Router

#### AirLive IGM-642POE-2.5G

#### **System Management**

- CLI: Support serial port command line management
- TELNET: Support serial command line management
- **SSH:** Support SSHv1/2 remote management
- **SNMP:** Support v1/2/3, support trap
- WEB: Support two layers setting
- PoE: Support PoE Power
- Other Functions

Support DHCP Snooping
Dying Gasp

#### **Power Supply**

- Input Voltage: DC48~55V
- Input Type: 4 Pin Terminal (block V1+V1- V2+ V1-Supports Dual Power Input

#### **Environment**

- Operating temperature:  $-40 \sim 85^{\circ}$ C
- Storage temperature: -40~85°C
- **Humidity:** 5%~95 % ( No condensation)

### Standard package of switch

Product size:

14.5 x 12.5 x 4 cm(L\*W\*H)

Package size:

 $25 \times 21 \times 6.5 \text{ cm}(L*W*H)$ 

Product Weight:

N.W: 0.6KGs; G.W: 0.8KGs

Package content:

1 x Switch, 1 x Serial Cable

### Standard carton package

- Standard packing(L×W×H): 60.8×50×43.5cm
- Standard packing quantity: 36 (PCS) / ctn

#### **Ordering Information**

Model:

IGM-642POE-2.5G

Name:

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