

# L2+ Industrial Ring Managed Gigabit POE+ Switch

## 4 PoE\*30W plus 2 SFP Gigabit ports

IGM-642POE-1.25G

airlive®

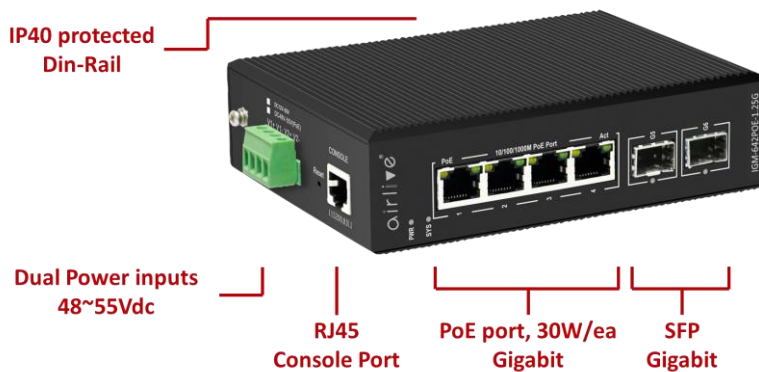


802.3at 30w	Gigabit RJ45 & SFP	Managed L2+ Switch L3 Routing	PoE management Watchdog	IPv6/IPv4 VLAN
Redundant Network	Ultra Fast Ring recovering	Dual Power inputs 48~55Vdc	-40°C~85°C	IP40, Din-Rail & Wall-Mount

## Overview

### Advanced Gigabit manage PoE solution for hardened environments

AirLive IGM-642POE-1.25G L2+ industrially managed PoE+ switch is equipped with 4 PoE+ port at 10/100/1000Mbps, compliant with 802.3at standard for up to 30watts of power each PoE port, and 2 fiber optic Gigabit ports 100/1000/1250Mbps in an IP40 robust compact housing to be installed in any harsh environment without space restrictions. The industrial switch offers extended and user-friendly IPv6/IPv4 management interfaces, L2/L3 switching functions, layer static routing function 3 and extended ITU G.8032 ERPS Ring technology to improve self-healing capabilities and intelligent PoE functions from AirLive to control the IP outdoor monitoring and wireless network applications. PoE can operate reliably, stably and quietly in the temperature range of -40°C to 85°C.



## Features

- Intelligence L2+ Advanced Manage Industrial PoE solution for harden environment
- 4-PoE port @30W/each, 802.3at, 10/100/1000Mbps
- 2-SFP port for Fiber long distance connectivity, 100/1000/1250Mbps
- L2+ manage, ERPS Ring technology compliant, providing ultra fast recovery -0.05/s for critical network, Redundant Ring
- Supports basic Layer 3 manage router IPv4 and IPv6 VLAN management
- Built-in unique PoE functions for PoE devices (PD) such as PoE Watchdog / Status / Schedule Support
- Automatically detect and restart power for connected PD
- Dual Power inputs 48V ~ 55 Vdc, power redundancy
- Lighting surge protection : General mode 6KV, Differential mode: 2KV, ESD: 15KV/the switch
- FAN-Less design
- -40°C~85°C operating temperature
- IP40 rugged metal housing
- DIN-Rail and Wall-Mount

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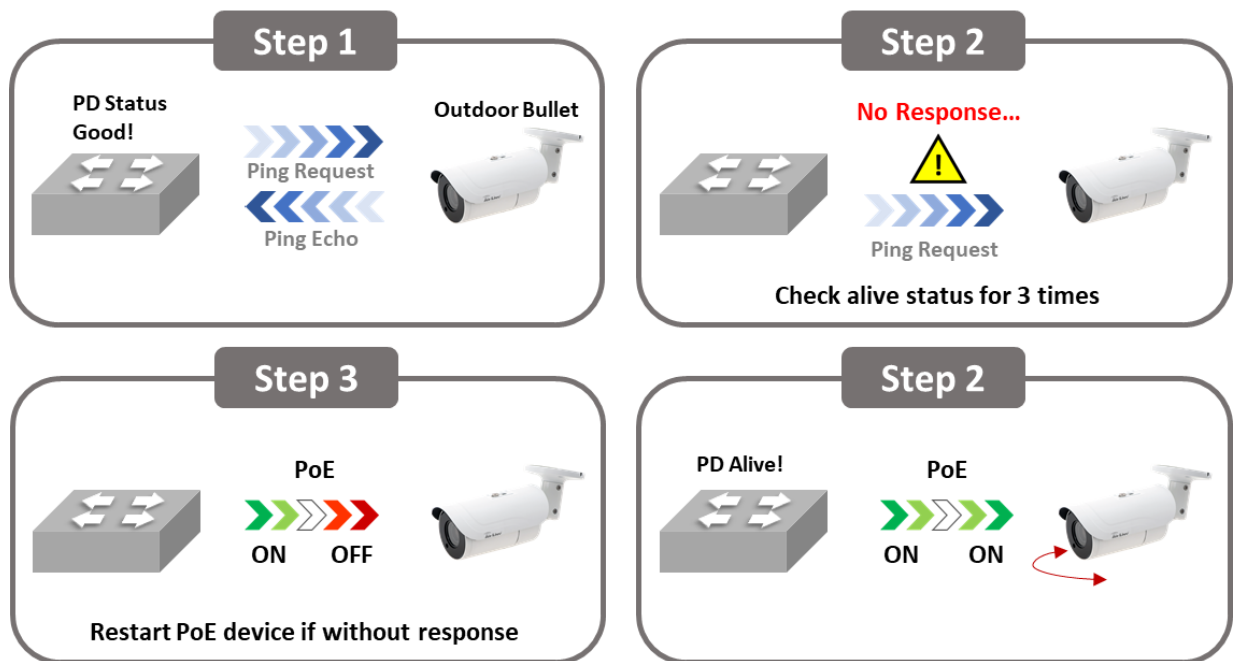
## Built-in Unique PoE function for PoE Devices

The AirLive IGM-642POE-1.25G can be an ideal PoE managed Switch for various of networking connectivity, such as surveillance, outdoor wireless, outdoor IP-phone networks.

It supports unique PoE management functions including

- PoE Device Alive check
- PoE Port Timer
- PoE Port Timer Reboot
- PoE Port Usage monitoring

## PoE Watchdog management – 24/7 secure guard



## Layer 3 Manage Router IPv4 and IPv6 VLAN Management

The IGM-642POE-1.25G not only offers extremely high transmission performance and excellent layer 2 technologies, but also an IPv4/IPv6 software VLAN routing function, with which different VLANs and IP address can be crossed to create a highly secure and maintain a flexible system, easier network application and management.

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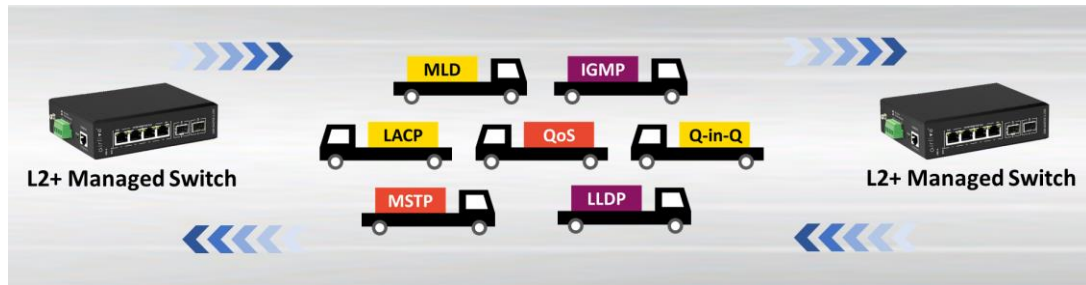
## 4 PoE\*30W plus 2 SFP Gigabit ports



IGM-642POE-1.25G

### Intelligence - Layer 2+ Manage Advanced Feature

The IGM-642POE-1.25G 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-1.25G 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.

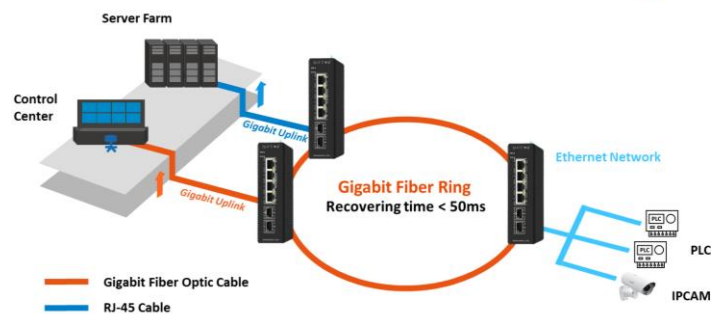


### ERPS Ethernet Ring Protection

ERPS is supported by the IGM-642POE-1.25G 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.

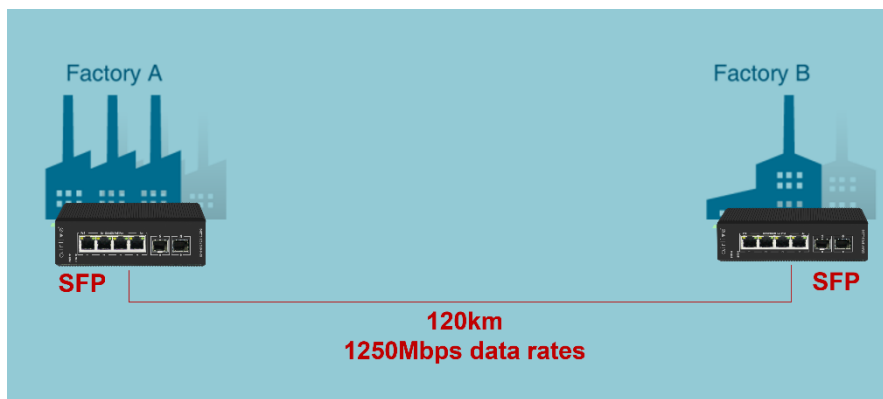
This means that when multiple switches have been placed in a Ring and the network work is interrupted, it will recover within 50ms or less. Meaning the critical network like in harsh environments or automated production lines or surveillance will be online again with minimum loss of time. The ring network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

Industrial Ring Network with Recovering Time < 50ms



### Fiber backbone for Long Distance

Extend the network further with SFP slots. Use the IGM-642POE-1.25G as a backbone of your network, which can reach up to 120KM in distance and 1250Mbps data transmission. (Depending on the SFP module used.)



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## Dual Power Inputs

The AirLive IGM-642POE-1.25G supports 2 DC power inputs, DC48~55V, for power redundancy. Which 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.



Dual Power inputs  
DC48~55V POE

## Industrial Application Harsh Environment

AirLive IGM-642POE-1.25G Industrial switch meets the high standard demands of providing reliable networking connectivity, able to withstand harsh industrial environment, and cost-effectively.



Model	AirLive IGM-642POE-1.25G
<p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>• <b>Device Interface:</b> 4 x 30W PoE 10/100/1000 RJ45 2 x Gigabit SFP 1x Console Port 6-port totally</li> <li>• <b>Device Parameters:</b> Bandwidth: 12Gbps Packet Forwarding Rate: 8.928Mpps RAM:128MB Flash:16MB Packet Buffer Memory: 4M Jumbo frame: 9.6Kbytes VLANs:4096 MAC:8K Forwarding Mode: Store-And-Forward</li> <li>• <b>Standard</b> 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 IEEE802.3at/af PoE IEEE802.3az Energy Efficient Ethernet</li> <li>• <b>LED Indicators:</b> PWR (power supply), 1-4 Link(Green), PoE(Yellow)</li> <li>• <b>Lighting Surge Protection:</b> General Mode 6KV, Differential Mode 2KV,ESD:15KV, Touch 8KV</li> <li>• <b>Mechanical</b> Solid metal desktop design, fan-less</li> </ul> <p><b>Power and PoE Parameters</b></p> <ul style="list-style-type: none"> <li>• <b>Protocol:</b> IEEE802.3at (30W), IEEE802.3af (15.4W)</li> <li>• <b>Power Input:</b> Input Voltage: DC48~55V</li> <li>• <b>Type of input:</b> 4 PIN Industrial Terminal ( block V1+V1- V2+ V2- )</li> <li>• <b>Single PoE Port Power Output:</b> Max: 15.4 W (IEEE 802.3af) Max: 30 W (IEEE 802.3at)</li> <li>• <b>PoE Compatibility:</b> IEEE 802.3af / at adaptive</li> <li>• <b>POE Power Output:</b> DC 48-55V</li> <li>• <b>POE Power Pin:</b> 1/2-/3/6+</li> </ul> <p><b>Fiber Media</b></p> <ul style="list-style-type: none"> <li>• <b>Multi-mode :</b> 850nm · 1310nm</li> <li>• <b>Transmission Distance:</b> 550m/2Km</li> <li>• <b>Single-mode :</b> 1310nm · 1550nm</li> <li>• <b>Transmission Distance:</b> 20/40/60/80/100/120Km</li> </ul>	<p><b>Physical Structure</b></p> <ul style="list-style-type: none"> <li>• <b>Protect grade :</b> IP40</li> <li>• <b>Installation :</b> DIN Rail</li> </ul> <p><b>Industry Standard</b></p> <ul style="list-style-type: none"> <li>• <b>EMI:</b> FCC Part 15, CISPR (EN55032) class A</li> <li>• <b>EMS:</b> EN61000-4-2 (ESD) EN61000-4-4 (EFT) EN61000-4-5 (Surge)</li> <li>• <b>Shock:</b> IEC 60068-2-27</li> <li>• <b>Free fall:</b> IEC 60068-2-32</li> <li>• <b>Vibration:</b> IEC 60068-2-6</li> <li>• <b>MTBF:</b> 100,000 hours</li> </ul> <p><b>L2 management Function</b></p> <ul style="list-style-type: none"> <li>• <b>Port Management</b> Support for enabling/disabling ports Support speed, duplex, MTU settings, etc. Support flow control flow control settings Support port mirroring, etc. Support port access direction</li> <li>• <b>STP</b> Standard Spanning Tree (STP) 802.1d Rapid Spanning Tree (RSTP) 802.1w Multiple Spanning Tree (MSTP) 802.1s</li> <li>• <b>Ring Network Protocol</b> ERPS</li> <li>• <b>Link Aggregation</b> Support static manual aggregation Support LACP dynamic convergence</li> <li>• <b>VLAN</b> Support VLAN and IEEE 802.1Q VLAN</li> <li>• <b>GVRP</b> Global configuration, port configuration</li> <li>• <b>IGMP Snooping</b> Support static add / delete</li> <li>• <b>MAC</b> Support static add / delete MAC address learning limit Support dynamic aging time settings</li> </ul>

\* Specification will be changed without prior notice



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<p><b>L3 ( Layer 3 Switching ) and Router Function</b></p> <ul style="list-style-type: none"><li>• <b>Interface Configuration</b> Support virtual VLAN interface</li><li>• <b>ARP</b> Support check ARP</li><li>• <b>Router Function</b> Static Router</li></ul> <p><b>Extended Function</b></p> <ul style="list-style-type: none"><li>• <b>ACL:</b> Based on the source MAC, destination MAC, protocol type, source IP, destination IP, L4 port number, Support time-range time management</li><li>• <b>QoS:</b> Based on 802.1p (COS) classification Based on DSCP classification Based on the source IP, destination IP, port number classification Support SP, WRR, DRR scheduling strategy Support traffic speed limit CAR</li><li>• <b>LLDP:</b> Support LLDP</li><li>• <b>User Setting:</b> Support add/delete user</li><li>• <b>Log:</b> User login, operation, status, event log</li><li>• <b>Port security:</b> Dying Gasp, SNMP Trap</li><li>• <b>Prevent Attack:</b> DOS defense Support for CPU protection, limited to send CPU message rate ARP binding (IP, MAC, PORT binding)</li><li>• <b>System Management:</b> Device reset, configuration save/restore, upgrade management, time setting, etc.</li></ul> <p><b>Management Function:</b></p> <ul style="list-style-type: none"><li>• <b>CLI:</b> Support serial command line management</li><li>• <b>TELNET:</b> Support serial command line management</li><li>• <b>SSH:</b> Support SSHv1/2 remote management</li><li>• <b>SNMP:</b> Support v1/2/3</li><li>• <b>WEB:</b> Support two layers of settings</li><li>• <b>PoE:</b> PoE Power management</li></ul>	<p><b>Environment</b></p> <ul style="list-style-type: none"><li>• <b>Operating temperature:</b> -40~85°C</li><li>• <b>Storage temperature:</b> -40~85°C</li><li>• <b>Humidity:</b> 5%~95 % ( No condensation)</li></ul> <p><b>Standard package of switch</b></p> <ul style="list-style-type: none"><li>• <b>Product size:</b> 14.5 x 12.5 x 4 cm(L*W*H)</li><li>• <b>Package size:</b> 25 x 21 x 6.5 cm(L*W*H)</li><li>• <b>Product Weight:</b> N.W: 0.6KGs ; G.W: 0.7KGs</li><li>• <b>Package content:</b> 1 x Switch, 1 x Serial Cable</li></ul> <p><b>Standard carton package</b></p> <ul style="list-style-type: none"><li>• <b>Standard packing(L×W×H) :</b> 50.5×32×40cm</li><li>• <b>Standard packing quantity :</b> 20 (PCS) / ctn</li></ul> <p><b>Ordering Information</b></p> <ul style="list-style-type: none"><li>• <b>Model:</b> IGM-642POE-1.25G</li><li>• <b>Name:</b> L2+ Industrial Ring Managed Gigabit POE+ Switch 4 PoE*30W plus 2 SFP Gigabit ports</li></ul>

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