

L2+ Industrial Ring Managed Gigabit POE++ Switch

6-Port PoE++ Gigabit including 2*2.5G SFP

IGM-642BT-2.5G

airlive®



802.3bt 90w	Gigabit RJ45 & SFP 2.5G	Managed L2+ Switch L3 Routing	PoE management Watchdog	IPv6/IPv4 VLAN
Redundant Network	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

AirLive IGM-642BT-2.5G is a managed L2 + 6-port Gigabit PoE++ switch, including 4 PoE ports and 2x 2.5 Gbit/s SFP ports. Each PoE port supports 802.3bt/at/af up to 90W, Automatic Adjustment, -40°C to 75°C wide temperature range, IP40 metal shell extreme conditions through 4-pin terminal block (DC48 ~ 55V). Industrial 6-port L2 + Gigabit Switch provides comprehensive SNMP management functions, supports VLAN, port aggregation, QoS port mirroring, bandwidth control and token ring ERPS.

IP40 protected
Din-Rail



Dual Power inputs
48~55Vdc

RJ45
Console Port

PoE port, 90W/ea
SFP 2.5G
Gigabit

Features

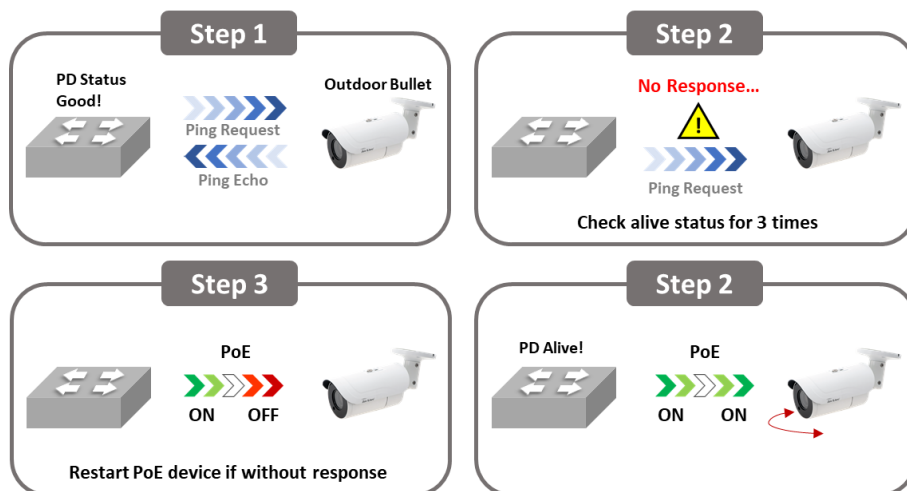
- All 6-port, each port delivers Gigabit high speed
- Extend the network further with 2x 2.5G SFP slots that accept fiber transceivers and go beyond the limits of Ethernet
- High PoE power, supports 802.3bt/at/af PoE++ up to 90W per port to ensure full power for connected device
- Automatically detect 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 for popular network tools management.

Efficient PoE Watch dog technology and PoE Management

The Switch IGM-642BT-2.5G supports high Power and each port at 90W 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. PoE 90W supports devices which need more power, this can be for example a POS system, Digital Signage, or LED lighting.

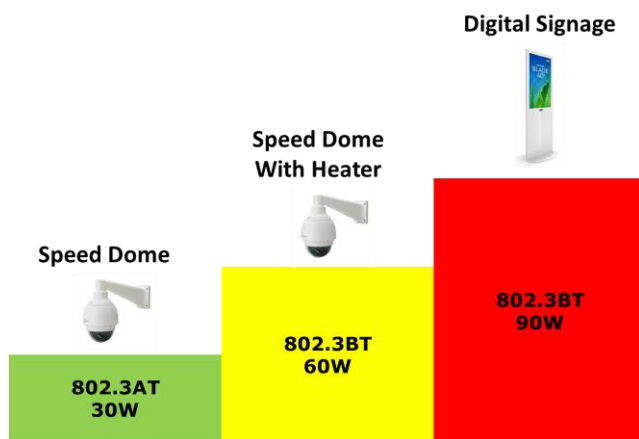
After PoE Watchdog function enabled, the IGM-642BT-2.5G switch works as a virtual security guard. When the PoE port is continuously powered but there is no traffic, the PoE watchdog will be triggered. After 2 minutes of detection, the power supply will be stopped and then powered on.

The PoE Watchdog is particularly useful for cameras. For example, when the switch is turned on, it will recognize the camera 24 hours a day, 7 days a week. If there is no data traffic from the camera, the camera is considered to be frozen, and the PoE watchdog is used to restart the camera to solve the problem.



802.3BT 90W High Power output

AirLive IGM-642BT-2.5G Industrial switch supports the high-power output PoE++ at 90W per port. 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.



L2+ Industrial Ring Managed Gigabit POE+ + Switch

6-Port PoE+ + Gigabit including 2*2.5G SFP



IGM-642BT-2.5G

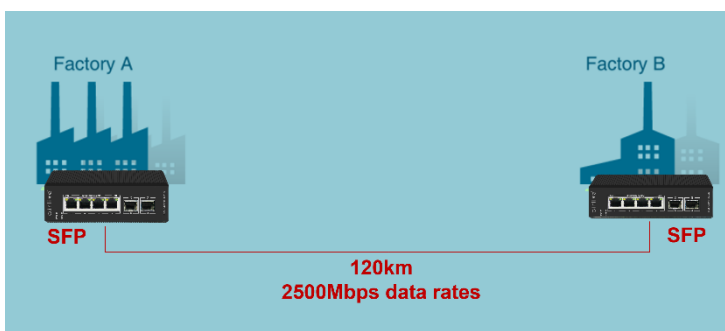
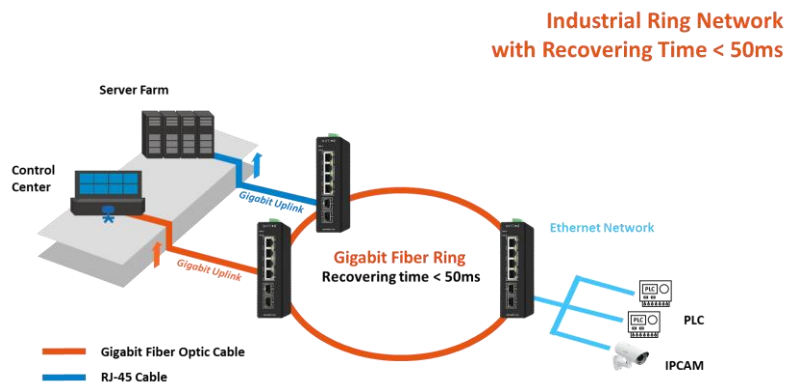
Intelligence - Layer 2+ Manage Advanced Feature

The IGM-642BT-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-642BT-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-642BT-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-642BT-2.5G as a backbone of your network, which can reach up to 120KM in distance and 2500Mbps data transmission. (Depending on the SFP module used.)

Dual Power Inputs

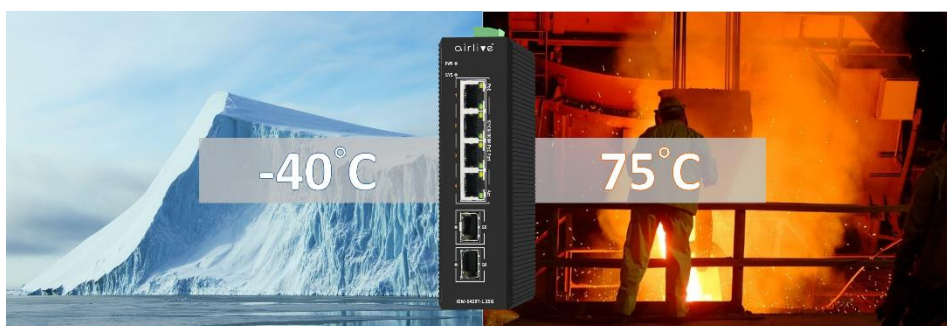
The IGM-642BT-2.5G supports 2 DC power inputs for power redundancy. That greatly improves the reliability and uptime of a sensitive network in a harsh environment. When one of the DC power inputs fails, the second input will continue to power on the switch. The Switch supports an input of DC 48V ~ 55V. 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.



Dual Power inputs
DC48~55V POE

Wide temperature coverage from -40°C ~ 75°C

The IGM-642BT-2.5G 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 hash environment and require stable network and PoE power, such as parking lot or IP surveillance. The IGM-642BT-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-642BT-2.5G

Industrial Application Harsh Environment

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



Model	AirLive IGM-642BT-2.5G
Hardware <ul style="list-style-type: none"> • Device Interface: <ul style="list-style-type: none"> 4 x 90W 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 <ul style="list-style-type: none"> 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 IEEE802.3bt/at/af PoE IEEE802.3az Energy Efficient Ethernet IEEE802.1ab LLDP/ Device Link Layer Discovery Protocol • Lighting Surge Protection: <ul style="list-style-type: none"> Port Surge: Common mode 6KV, Differential mode 2KV. Electrostatic ESD: Air 15KV, Contact 8KV • LED Indicators: <ul style="list-style-type: none"> PWR (power supply), SYS (System), Port 1~4: Green LED ON: 1G Link normal, PoE Yellow LED ON: PoE powered on, Port 5~6: Green LED ON: SFP Link normal • Mechanical <ul style="list-style-type: none"> IP40 rugged high-strength metal case, DIN35 Rail Mounting Power and PoE <ul style="list-style-type: none"> • Protocol: IEEE802.3bt (90W), IEEE802.3at (30W), IEEE802.3af (15.4W) • PoE Port: 4 • PoE Power Output / PoE Port: max. 90 watt • PoE Power Budget: According to the adapter (Not included). Switch Architecture Performance <ul style="list-style-type: none"> • Switching architecture: Store and Forward <ul style="list-style-type: none"> Switching Bandwidth: 18Gbps Packet Forwarding Rate: 13.39Mpps MAC Address: 8K Jumbo Frames: 9.6Kbytes Packet Buffer: 4Mbit Flash Memory: 16MB DDR SDRAM: 128MB • Fiber Medium <ul style="list-style-type: none"> Multi-mode Fiber: 850nm, 1310nm Transmission Distance: 550m/2km Single-mode Fiber: 1310nm, 1550nm Transmission Distance 20/40/60/80/100/120km 	L2 management Function <ul style="list-style-type: none"> • IPv4 <ul style="list-style-type: none"> IPv4 VLAN Interface, IPv4 Static Routes, ARP • Port Management <ul style="list-style-type: none"> Port Switch configuration, Port Description configuration, Port Speed configuration, Port Duplex configuration, Port Flow Control configuration, Max. 2500Mbps at SFP interface, Jumbo Frame, EEE, Fiber Module(DDM) • Link Aggregation: <ul style="list-style-type: none"> Support load balance policy; based on MAC and IP-MAC, Static and Dynamic Group, Support LACP • Storm Control: <ul style="list-style-type: none"> Broadcast Suppression, Unknown Multicast, Unknown Unicast • Port Mirroring: <ul style="list-style-type: none"> One to one monitor, Many to one monitor, Ingress/Egress/Both • Port Security: <ul style="list-style-type: none"> MAC Address Constraints, Action: Trap/Shutdown • Port Isolation: <ul style="list-style-type: none"> Supported • Port Rate-limit: <ul style="list-style-type: none"> Supported • Loopback Detection: <ul style="list-style-type: none"> Supported • VLAN: <ul style="list-style-type: none"> Access/Trunk/Hybrid, VLAN Tunnel (Q-in-Q Tunnel), GVRP, VLAN range 1-4094, maximum active VLAN is 4K • MAC: <ul style="list-style-type: none"> Dynamic MAC address, Static MAC address • Spanning Tree Protocol: <ul style="list-style-type: none"> STP/RSTP/MSTP, BPDU Filter, BPDU Guard, Edge Port • ERPS: <ul style="list-style-type: none"> Major and sub ring, up to 16 rings • Smart Ring: <ul style="list-style-type: none"> Private Ring, Major and sub ring, Up to 16 rings • PTP: <ul style="list-style-type: none"> Ordinary Clock, Boundary Clock, Transparent clock • LLDP: <ul style="list-style-type: none"> Supported • Multicast: <ul style="list-style-type: none"> IGMP Snooping, IGMP V1/V2/V3, Router Port, Static IGMP group address, IGMP groups filtering, Querier MLD Snooping • QoS: <ul style="list-style-type: none"> Traffic classification based, Strict priority and WRR, Port Priority, 802.1P Priority, IP DSCP Priority Support up to 8 queues per port, Port Shaping

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L2 Management Extension Function <ul style="list-style-type: none">• PoE Configuration: PoE Temperature, PoE Type/Level/Power/Voltage/Current query, PoE Switch Configuration, PoE Watchdog, Total PoE power budget control, PoE power management, PoE port priority, IEEE 802.3bt, compatible with IEEE 802.3af/802.3at PoE, Per PoE port power limit• PoE Schedule: Supported• PoE Port Timer Reboot: Supported	<ul style="list-style-type: none">• RMON: Statistics, History Configuration, Event Configuration, Alarm Configuration• User Management: Configurable user privilege level from 0 - 15• Firmware Management: Firmware upgrade, Double Image; Swap between Active and Alternate firmware image.• Configuration Management: Upload and Download• Save, Restart• Factory Defaults
Services <ul style="list-style-type: none">• DHCP: DHCP Server, IP Pool, Static Binding, DHCP Relay• Access Protocol: HTTP, Telnet, SSH, Manager ACL	Power Supply <ul style="list-style-type: none">• Input Voltage: DC48~55V• Input Type: 4 Pin Terminal (block V1+V1- V2+ V1- Supports Dual Power Input)• PCB Power Usage Max: 2.49W
Security <ul style="list-style-type: none">• AAA: RADIUS, TACACS+, 802.1X, Base on port/MAC/local/WEB• DHCP Snooping: Supported• IP Source Guard: Supported• Dynamic ARP Inspection: Supported• ACL: MAC ACL, Port ACL, IPv4 ACL, IPv6 ACL	Environment <ul style="list-style-type: none">• Operating temperature: -40~75°C• Storage temperature: -40~85°C• Working Humidity: 10%~90%, non-condensing• Storage Humidity: 5%~95%, non-condensing
Diagnostics <ul style="list-style-type: none">• Syslog: Logging Message, Remote Server• Ping: Supported• Traceroute: Supported• Cable Diagnostics: Supported	Standard package of Switch <ul style="list-style-type: none">• Product size: 14.5 x 10.8 x 4.0 cm(L*W*H)• Package size: 24.5 x 19.0 x 6.0 cm(L*W*H)• Product Weight: N.W: 0.63kg ; G.W: 0.83kg• Package content: 1 x Switch, 1 x Serial Cable, 1x QIG
System Management <ul style="list-style-type: none">• Manager Access: Console, HTTP, Telnet, SSHv2, SNMP• Manager IP: Static Address, DHCP Client, Support 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 2819 RMON MIB (Groups 1, 2, 3 and 9), RFC 2863 Interface MIB, Private MIB	Standard carton package <ul style="list-style-type: none">• Quantity: 20pcs / 1 carton• Dimensions 52.0 x 32.0 x 40.0cm (L*W*H)• Weight 17.6kg (G.W) Ordering Information <ul style="list-style-type: none">• Model: IGM-642BT-2.5G• Name: L2+ Industrial Ring Managed Gigabit PoE++ Switch 6-Port Gigabit including 2*2.5G SFP

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