IGM-642BT-2.5G





802.3bt Gigabit RJ45 & SFP 2.5G 90W

Managed L2+ Switch L₃ Routing

PoE management Watchdog

IPv6/IPv4 VLAN

Redundant Network

Ultra Fast Ring recovering

Dual Power inputs 48~55Vdc

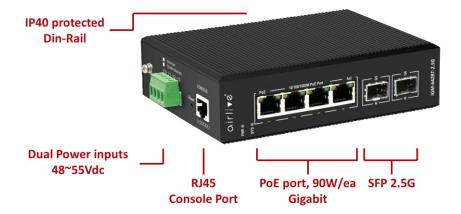
-40°C~85°C

IP40, Din-Rail & Wall-Mount

Overview

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 85°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.



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
- 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.

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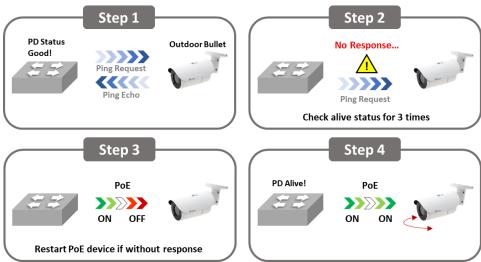


Efficient PoE Watch dog technology and PoE Management

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 front 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 front camera to solve the problem.



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

The IGM-642BT-2.5G switch can operate from -40°C ~ 85°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.



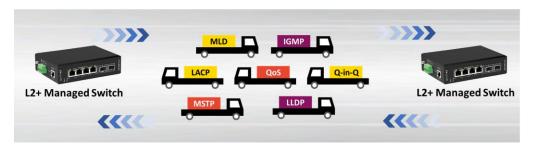
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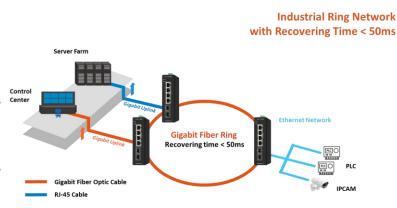
Intelligence - Layer 2+ Manage Advanced Feature

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, can reach 20KM in speed 2500Mbps data transmission.

IGM-642BT-2.5G



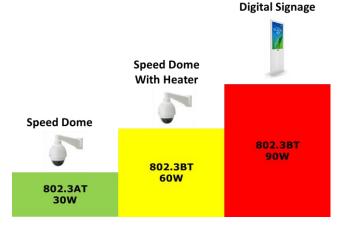
Dual Power Inputs

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 \sim 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.



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 then 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.



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.



Specification



Model

Hardware

Device Interface:

4 x 90W PoE 10/100/1000 RJ45

 $2\ x\ ports\ Gigabit\ SFP\ 2.5G\ ({\it compatible\ with\ 1.25G/155M})$

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), ESD15KV

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**: 4
- PoE Power Output / PoE Port: max. 90 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

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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

MAC

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



^{*} Specification will be changed without prior notice

Specification



Model

L2 Management Extension Function

Based on 802.1p (CoS) classification

ACL

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

QoS

Based on DSCP Classification
Classification based on source IP, destination IP
and port number
Support SP, WRR, DRR scheduling strategy

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

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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 x 21 x 6.5 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) : $60.8 \times 50 \times 43.5$ cm
- Standard packing quantity: 36 (PCS) / ctn

Ordering Information

· 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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