Industrial Surveillance VLAN 28-Port Gigabit PoE+ Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports

IGS-5428PLC

FEATURES

- 24 Gigabit Ethernet PoE+ ports and 4 Gigabit RJ45/SFP combo ports
- Wide operating temperature range of -20° ~+65° C (-4° ~+149° F) for industrial or extreme environments
- Dual PoE power budget supplies up to 500W in classic mode and 300W in industrial mode (default)
- One-click to create Surveillance VLAN and auto-discover, auto-enrolled devices all at once
- PoE powered devices (PD) alive check to enhance the reliability of the network
- Dual-firmware image for robust failover mechanisms
- Guaranteed PoE long distance to 200 meters
- Power backfeed protection to avoid damaging the PoE ports
- IP Surveillance VLAN and Voice VLAN to enhance video and voice quality
- DHCP snooping to protect the integrity of the legitimate DHCP server and its operations
- IEEE 802.3af/at PoE compliant, up to 30W per port (total power budget: 500W or 300W) for powering PoE-enabled devices
- Supports SNMP v1/v2c/v3, Access Control List (ACL), QoS, 802.1Q VLAN, IPv4/IPv6, Port Trunking, Port Mirroring, IGMP v1/v2/v3 Snooping and etc.
- Supports 56Gbps backplane bandwidth, 41.6Mpps forwarding rate, 8K MAC address table and 9KB jumbo frame

OVERVIEW

The EDIMAX Pro IGS-5428PLC industrial rack-mount web-smart switch comes with 24 Gigabit PoE+ ports, and 4 Gigabit RJ45/SFP+ combo ports for copper or optical uplinks. Allowing the network connection in harsh environments, the switch with dedicated, robust, outstanding electronics and mechanical design can operate within a wide temperature range from -20°C to 65°C (-4°F to 149°F) for industrial network use.

To provide the stable PoE power supply and reliable network connection, the dual PoE power budget supply, enables the network administrator to adjust the PoE power supply up to 500W in classic mode or 300W in industrial mode (default) to PoE devices.

The surveillance switch provides fast and easy system settings device discovery, and user authentication. One-click VLAN setting and Auto-Enrollment make the surveillance networks configuration with ease of mind.

With smart layer 2 management features such as SNMP v1/v2c/v3, Dual Firmware, Access Control List (ACL), DHCP Snooping, QoS, CoS, STP, 802.1Q VLAN, IPv4/IPv6, Port Trunking, IGMP v1/v2/v3 Snooping and Port Mirroring, the switch provides a reliable, scalable and secure solution for industrial business networks.

Industrial, Durable Performance Network with Wide Temperature Range

With industrial hardened design, the switch can operate across a wide range of temperatures from -20° ~+65° C (-4° ~+149° F) for extreme environments. It offers the network with durability and increases the geographic range for possible deployments and eliminates hidden costs with a longer product life cycle.

Stable and Flexible PoE Power Supply with Dual PoE Power Supply Mode

The Industrial Mode by default enables the switch to deliver the PoE power supply budge up to 300W and works in extreme environments from -20°C to 65°C (-4°F to 149°F) while keeps the performance and avoids the overheat and shutdown conditions. In the environments from 0°C to 40°C (32°F to 104°F), the network administrator can adjust the PoE power supply to classic mode to release extra 200W PoE power budget for total PoE power budget supply up to 500W, fully maximum utilized the PoE power budget supply.

Quick Installation of Surveillance Devices

The IGS-5428PLC offers feature-rich IP Surveillance VLAN to prioritize IP video traffic with ease, which also supports network cameras and network video recorders (NVRs). These functions provide IP surveillance installers easy setup, quick discovery, configuration, and product control on the network. Just plug-and-play, the One-click VLAN setting with Auto-Discovery, Auto-Enrollment makes the surveillance networks configuration with ease of mind.

Cost-effective PoE Solution with PD Alive Check

The IGS-5428PLC switch offer high-speed network connection and power supply to Powered Devices (PDs). The PoE Powered Device Alive Check feature monitors real-time status of connected PDs by ping action (sending alive-checking packets). If a PD fails to respond, the IGS-5428PLC PoE+ Switch will reboot the PD, which enhances network reliability and reduces administration workload.

Stable and Reliable Network with Dual Firmware

The dual firmware feature allows switches to have two firmware stored. You can set up and implement an active and a backup firmware. If the current firmware faces problems, you can activate the backup firmware right away to reduce downtime.

Guaranteed 200 Meters with Long Range Mode

While general Ethernet switches have a distance restriction of 100 meters, the IGS-5428PLC long-range mode provides extended power and data delivery distance to 200 meters (656 ft.) at 10Mbps full-duplex operation on a per-port basis. It's ideal for long-distance applications such as IP cameras, VoIP phones, access points, and PoE-enabled IoT devices at remote locations.

Safety Guard Your Devices with Power Backfeed Protection

The IGS-5428PLC supplies up to 30W of electricity per port and has a total power supply of 300W (industrial mode) or 500W (classic mode) to power any 802.3at or 802.3af compliant PoE/PoE+ device. With built-in PoE detection capability, the IGS-5428PLC is able to verify whether the connected device is IEEE802.3at or IEEE802.3af compliant. Moreover, with the power backfeed protection, the IGS-5428PLC can avoid damaging the PoE ports.

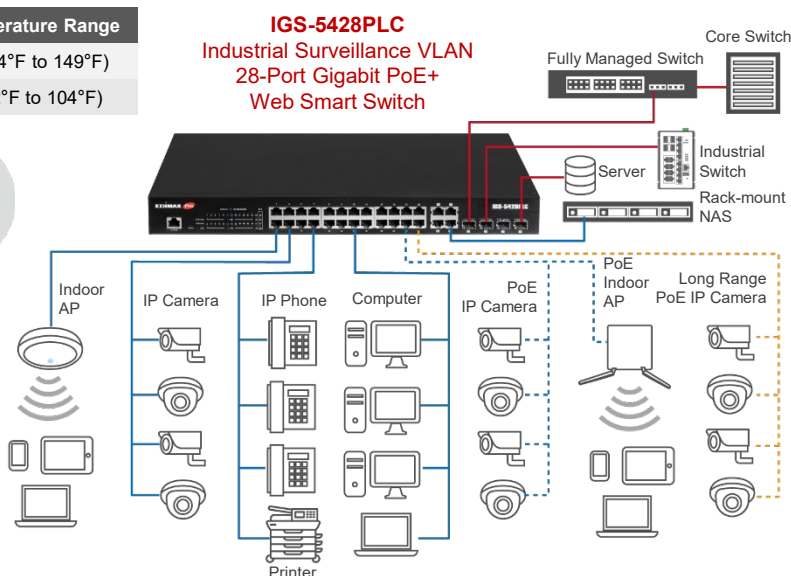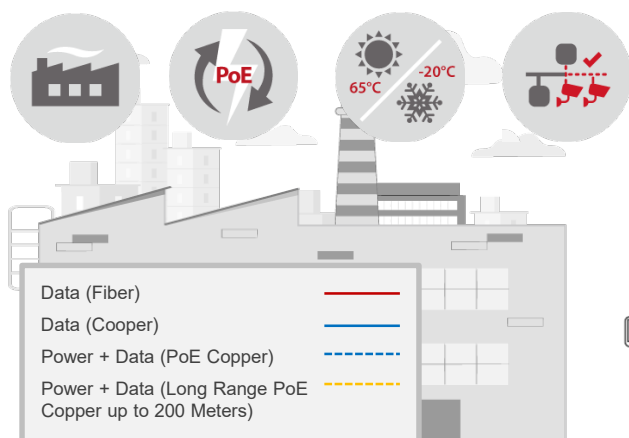## Intuitive and Powerful Smart Layer 2 Management

The IGS-5428PLC is designed for small-and-medium business (SMB) and enterprise networks that require smart layer 2 network management. This web smart switch meets the network growing need by providing advanced essential features such as SNMP v1/v2c/v3, Access Control List (ACL), QoS, CoS, STP, 802.1Q VLAN, Link Aggregation, Broadcast Storm Control, Loop Detection/Prevention, IPv4/IPv6, Port Trunking, Port Mirroring and more. Further optimizing the performance of business networks. Experience fast and easy operations with just a few simple clicks through the user-friendly web-based management utility, your network is ready to use with ease.

APPLICATION DIAGRAM

For industrial or extreme environments use

Dual Mode PoE Power Budget and Wide operating temperature range

Mode	Total PoE Power Budget	Operating Temperature Range
Industrial Mode (Default)	300W	-20°C to 65°C (-4°F to 149°F)
Classic Mode	500W	0°C to 40°C (32°F to 104°F)

Legend	
Data (Fiber)	——
Data (Cooper)	——
Power + Data (PoE Copper)	- - - -
Power + Data (Long Range PoE Copper up to 200 Meters)	- - - -

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SPECIFICATIONS

HARDWARE

Ports	• 24 x RJ45 PoE+ 10/100/1000Base-T Gigabit ports • 4 x RJ45/SFP Gigabit combo uplink ports • 1 x RJ45 Console port (Console cable included)
Buttons	Reset button
LED Indicators	• Per Port: Link/Act (1-28 port), PoE (1-24 port) • Per Unit: PoE Alert, SYS ALM (System Alert), SYS (System Power)
Power Input	100-240V AC, 50-60Hz, internal power supply
Total Power Budget	• Classic Mode: 500W • Industrial Mode: 300W (Default)
Mounting	Desktop / Rack-mount (Rack-mount kit included)
Housing	Metal
Fan	2 x Fans
Dimensions	441 (W) x 270 (D) x 44 (H) mm (17.36 (W) x 10.63 (D) x 1.73 (H) inches)
Weight	4.45kg (9.81lb)

PERFORMANCE

Switching Capacity / Backplane	56Gbps
Forwarding Rates	Max. 41.6Mpps (64-byte package size)
MAC Address Table	8K
Jumbo Frame	9KB
Packet Buffer	4.1Mb

POWER OVER ETHERNET

Standard	IEEE 802.3af (PoE), IEEE 802.3at (PoE+)
Power Output	Up to 30W per port
Pin Assignment	1/2(+), 3/6(-) End-Span (mode A)
Management	• Dual PoE power budget: Industrial Mode, Classic Mode • PoE status, PoE scheduling, PoE priority, PoE on/off, PoE PD alive check
PoE Long Range	Guaranteed PoE long range to 200 meters at 10Mbps
Power Backfeed Protection	Built-in

OTHERS

Standard	• IEEE 802.3 10Base-T Ethernet • IEEE 802.3u 100Base-TX Fast Ethernet • IEEE 802.3ab 1000Base-T Gigabit Ethernet • IEEE 802.3z 1000Base-SX/LX Gigabit Ethernet over fiber • IEEE 802.3af Power over Ethernet (PoE) • IEEE 802.3at Power over Ethernet (PoE+) • IEEE 802.3x Full-duplex and flow control • IEEE 802.1p Quality of Service (QoS) • IEEE 802.1x Port-based Network Access Control (PNAC) • IEEE 802.1Q Virtual LANs VLANs • IEEE 802.1d Spanning Tree Protocol (STP) • IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) • IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) • IEEE 802.1AB Link Layer Discovery Protocol (LLDP), LLDP-MED (Media Endpoint Discovery) • IEEE 802.3ad Link Aggregation Control Protocol (LACP) • IEEE 802.3az Energy Efficient Ethernet

Environmental Condition	Temperature:
	• Operating:
	  • Industrial mode: -20~65°C (-4~149°F)
	  • Classic mode: 0~40°C (32~104°F)
	• Storage: -40~70°C (-40~158°F)
	Humidity:
	• Operating: 10~90% (Non-condensing)
	• Storage: 10~90% (Non-condensing)

Certifications	FCC, CE

SMART FEATIRES

Quality of Service (QoS)	• Rate limiting on packets sent and received by an interface • 8 queues on each port • WRR, SP, WRR+SP queue scheduling algorithms • Re-marking of the 802.1p priority and DSCP priority • Rate limiting in each queue and traffic shaping on ports
Class of Service (CoS)	• IEEE 802.1p class of service (SPQ, WRR) • Port-based CoS • IP TOS precedence • 802.1p VLAN Information based CoS • DSCP based CoS • TCP/UDP Based CoS
Spanning Tree	• IEEE 802.1d Spanning Tree Protocol (STP) • IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) • IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
VLAN	• Up to 256 VLANs and 4096 VLAN IDs • 802.1Q tag-based VLAN • Port-based VLAN • Surveillance VLAN • Voice VLAN • MAC VLAN • GVRP
IPV6	• IPv6 over Ethernet (RFC 2464) • Dual-stack (RFC 4213) • ICMPv6 (RFC 4884) • Neighbor discovery (RFC 4861) • Auto configuration • Static IPv6 address and prefix length • Static IPv6 default gateway • IPv6 duplicate address detection
Port Trunking	• IEEE 802.3ad LACP Trunk-Static Trunk • Up to 8 trunk groups
IGMP Snooping	• IGMP v1/v2/v3 snooping • Block unknown multicast traffic
Port Mirroring	Port Mirroring Traffic Direction: • Both (Ingress and Egress) • Ingress • Egress
Security	• RADIUS • TACACS+ • AAA • Management Access • Authentication Manager • Port Security • Protected Port • Broadcast Storm Control • DoS • Dynamic ARP Inspection • DHCP Snooping • IP Source Guard • BPDU Guard • Remote Access: HTTPS/SSH/HTTP/Telnet/Session Timeout
Management	• User Interface: Web-based management • User Account: Login account configuration • Firmware Upgrade: Firmware upgrade by WEB • Syslog: Support event log, alarm log and security log • Dual-firmware image for failover mechanisms • ACL (Access Control List) • CLI (Command-Line Interface) • User Account: Login account configuration • SNMP v1/v2c/v3

Maximum performance, actual data rates, and coverage will vary depending on network conditions and environmental factors. Product specifications and design are subject to change without notice.