# EDIMAX
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# Surveillance VLAN 28-Port Gigabit PoE+ Long Range Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports

GS-5424PLC V2

## FEATURES

• 24 Gigabit Ethernet PoE+ ports and 4 Gigabit RJ45/SFP combo ports
• One-click to create Surveillance VLAN and auto-discover, auto-enrolled devices at once
• Dedicated Intelligent Thermal Controller to control fan speeds for power saving and noise reduction
• 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: 400W) 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 GS-5424PLC V2 is a web-smart switch optimized for small-to-medium businesses and enterprise networks. It features 24 Gigabit PoE+ ports, 4 RJ45/SFP+ combo ports for Gigabit fiber uplinks, and long-range copper or optical connections for maximum network performance. The Gigabit connectivity fully utilizes the power of your office networking for demanding tasks, such as data backup, video conferencing, IP surveillance, high volume transaction processing, large file transferring, and more.

Designed for IP surveillance networks, this switch offers easy device discovery and user authentication through the one-click VLAN setting and Auto-Enrollment. The switch also offers a guaranteed power and data transmission speed of 10Mbps over 200 meters, making it ideal for remote network devices and IP cameras.

With advanced 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, this switch ensures reliable, secure, and scalable network performance for your business. The user-friendly web-based management interface allows for easy and fast network configuration.

## Quick Installation of Surveillance Devices

The GS-5424PLC V2 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.

## Power Saving Implementation with Intelligent Thermal Controller

With a dedicated and intelligent microchip for cooling system control, the GS-5424PLC V2 can measure and control fan speeds, also turn on/off each fan for power saving and noise reduction.

## Cost-effective PoE Solution with PD Alive Check

The GS-5424PLC V2 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 GS-5424PLC V2 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 the Long Range Mode

While general Ethernet switches have a distance restriction of 100 meters, the GS-5424PLC V2 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.
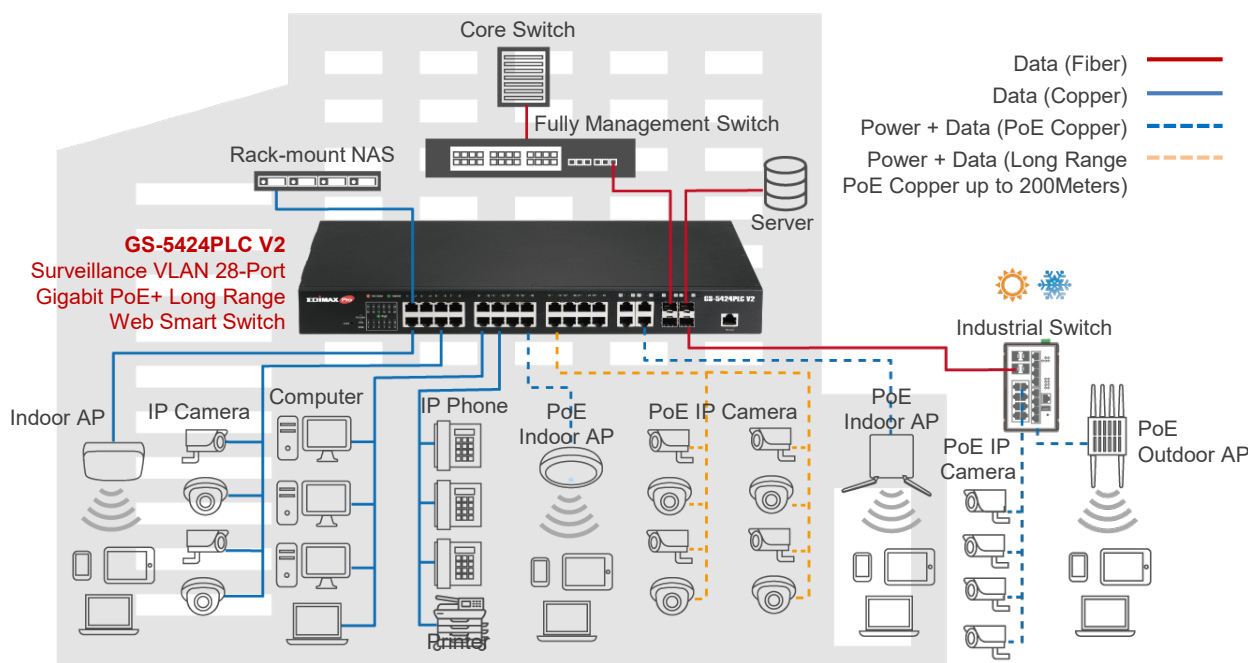
## Safety Guard Your Devices with the Power Backfeed Protection

The GS-5424PLC V2 supplies up to 30W of electricity per port and has a total power supply of 400W to power any 802.3at or 802.3af compliant PoE/PoE+ device. With built-in PoE detection capability, the GS-5424PLC V2 is able to verify whether the connected device is IEEE802.3at or IEEE802.3af compliant. Moreover, with the power backfeed protection, the GS-5424PLC V2 can avoid damaging the PoE ports.

## Intuitive and Powerful Smart Layer 2 Management

The GS-5424PLC V2 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

## SPECIFICATIONS

### HARDWARE

| | |
|---|---|
| Ports | • 24 x RJ45 10/100/1000Base-T Gigabit PoE+ Ports<br>• 4 x RJ45/SFP Gigabit Combo Uplink Ports<br>• 1 x RJ45 Console Port (Console Cable Included) |
| Buttons | Reset Button |
| LED Indicators | • PoE/Alert: PoE Power Consumption Alert<br>• SYS: System Alert<br>• PWR: System Power Status<br>• PoE: PoE Status (1-24 Port)<br>• Link/Act: Connection and Transmission Status (1-28 Port) |
| Power Input | 100-240V AC, 50-60Hz, internal power supply |
| Total Power Budget | 400W |
| Mounting | Desktop / Rack-mount (Rack-mount kit included) |
| Housing | Metal |
| Fan | 2 x Fan with Intelligent Thermal Controller |
| Dimensions | 441 (W) x 270 (D) x 44 (H) mm<br>(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 | 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<br>• IEEE 802.3u 100Base-TX Fast Ethernet<br>• IEEE 802.3ab 1000Base-T Gigabit Ethernet<br>• IEEE 802.3z 1000Base-SX/LX Gigabit Ethernet over fiber<br>• IEEE 802.3af Power over Ethernet (PoE)<br>• IEEE 802.3at Power over Ethernet (PoE+)<br>• IEEE 802.3x Full-duplex and flow control<br>• IEEE 802.1p Quality of Service (QoS)<br>• IEEE 802.1x Port-based Network Access Control (PNAC)<br>• IEEE 802.1Q Virtual LANs VLANs<br>• IEEE 802.1d Spanning Tree Protocol (STP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)<br>• IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)<br>• IEEE 802.1AB Link Layer Discovery Protocol (LLDP), LLDP-MED (Media Endpoint Discovery)<br>• IEEE 802.3ad Link Aggregation Control Protocol (LACP)<br>• IEEE 802.3az Energy Efficient Ethernet |
| Environmental Condition | Temperature:<br>• Operating: 0~40°C (32~104°F)<br>• Storage: -40~70°C (-40~158°F)<br>Humidity:<br>• Operating: 10~90% (NonCondensing)<br>• Storage: 5~90% (NonCondensing) |
| Certifications | CE, FCC, BSMI |

### SMART FEATIRES

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