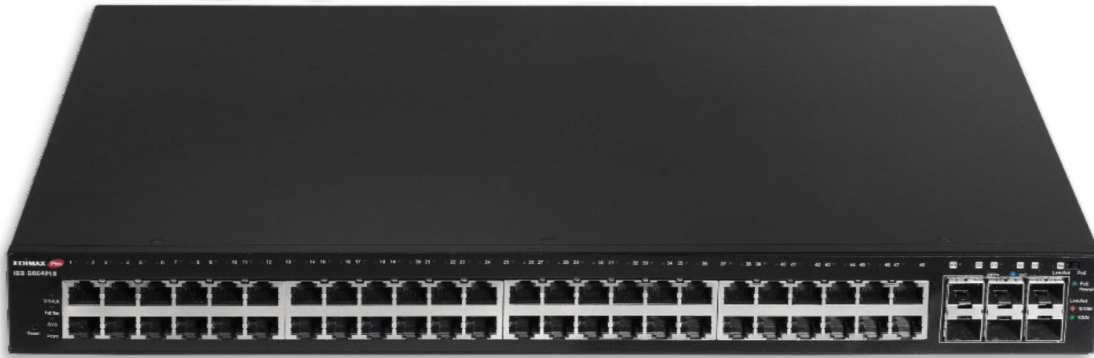




## Industrial Surveillance VLAN 54-Port Gigabit PoE+ Web Smart Switch with 6 10GbE SFP+ Ports

IGS-5654PLX

### FEATURES

- 48 Gigabit Ethernet PoE+ ports and 6 10GbE SFP+ ports
- Wide operating temperature range of -20° ~+65° C (-4° ~+149° F) for industrial or extreme environments
- Dual PoE power budget supplies up to 800W in classic mode and 400W in industrial mode (default)
- One-click to create Surveillance VLAN and auto-discover, auto-enrolled devices all 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-power-supply and 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: 800W or 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 216Gbps backplane bandwidth, 160.7Mpps forwarding rate, 32 MAC address table and 12KB jumbo frame

### OVERVIEW

The EDIMAX Pro IGS-5654PLX industrial rack-mount web-smart switch comes with 48 Gigabit PoE+ ports, and 6 10-Gigabit SFP+ ports, provides up to 60Gbps of fiber-optic uplinking capacity and fast and reliable connectivity for demanding tasks such as data backup, video conferencing, IP surveillance, and more. Allowing the network connection in harsh environments, the switch comes 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.

In order to provide a 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 800W in classic mode or 400W 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 an 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 network durability and increases the geographic range for more 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 budget up to 400W 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 -20°C to 40°C (-4°F to 104°F), the network administrator can adjust the PoE power supply to classic mode to release extra 400W PoE power budget for total PoE power budget supply up to 800W, fully maximum utilized the PoE power budget supply.

## **Quick Installation of Surveillance Devices**

The IGS-5654PLX 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 IGS-5654PLX 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 IGS-5654PLX 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-5654PLX PoE+ Switch will reboot the PD, which enhances network reliability and reduces administration workload.

## **Stable and Reliable Network with Dual Firmware and Dual Power Supply**

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. Furthermore, the switch is equipped with two power supplies, in case either one of the power supply doesn't work, the switch remains supplies 400W to keep the networking system without system shutdown.

## **Guaranteed 200 Meters with Long Range Mode**

While general Ethernet switches have a distance restriction of 100 meters, the IGS-5654PLX 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-5654PLX supplies up to 30W of electricity per port and has a total power supply of 400W (industrial mode) or 800W (classic mode) to power any 802.3at or 802.3af compliant PoE/PoE+ device. With built-in PoE detection capability, the IGS-5654PLX is able to verify whether the connected device is IEEE802.3at or IEEE802.3af compliant. Moreover, with the power backfeed protection, the IGS-5654PLX can avoid damaging the PoE ports.

## **Intuitive and Powerful Smart Layer 2 Management**

The IGS-5654PLX 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.

## SPECIFICATIONS

### HARDWARE

|                    |                                                                                                                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ports              | <ul style="list-style-type: none"> <li>48 x RJ45 PoE+ 10/100/1000Base-T Gigabit ports</li> <li>6 x SFP+ 10GbE-X 10 Gigabit uplink ports</li> <li>1 x RJ45 Console port (Console cable included)</li> </ul>             |
| Buttons            | Reset button                                                                                                                                                                                                           |
| LED Indicators     | <ul style="list-style-type: none"> <li>Per Port: Link/Act (1-54 port), PoE (1-48 port)</li> <li>Per Unit: PoE Max, SYS ALM (System Alert), SYS (System), PWR (Power)</li> <li>Slide Switch: Link/Act or PoE</li> </ul> |
| Power Input        | 100-240V AC, 50-60Hz, internal power supply                                                                                                                                                                            |
| Total Power Budget | <ul style="list-style-type: none"> <li>Classic Mode: 800W</li> <li>Industrial Mode: 400W (Default)</li> </ul>                                                                                                          |
| Mounting           | Desktop / Rack-mount (Rack-mount kit included)                                                                                                                                                                         |
| Housing            | Metal                                                                                                                                                                                                                  |
| Fan                | 4 x Fans with Intelligent Thermal Controller                                                                                                                                                                           |
| Dimensions         | 441 (W) x 330 (D) x 44 (H) mm<br>(17.36 (W) x 12.99 (D) x 1.73 (H) inches)                                                                                                                                             |
| Weight             | 5.6kg (12.35lb)                                                                                                                                                                                                        |

### PERFORMANCE

|                                |                                       |
|--------------------------------|---------------------------------------|
| Switching Capacity / Backplane | 216Gbps                               |
| Forwarding Rates               | Max. 160.7Mpps (64-byte package size) |
| MAC Address Table              | 32K                                   |
| Jumbo Frame                    | 12KB                                  |
| Packet Buffer                  | 16Mb                                  |

### 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                | <ul style="list-style-type: none"> <li>Dual PoE power budget: Industrial Mode, Classic Mode</li> <li>PoE status, PoE scheduling, PoE priority, PoE on/off, PoE PD alive check</li> </ul> |
| PoE Long Range            | Guaranteed PoE long range to 200 meters at 10Mbps                                                                                                                                        |
| Power Backfeed Protection | Built-in                                                                                                                                                                                 |

### OTHERS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard                | <ul style="list-style-type: none"> <li>IEEE 802.3 10Base-T Ethernet</li> <li>IEEE 802.3u 100Base-TX Fast Ethernet</li> <li>IEEE 802.3ab 1000Base-T Gigabit Ethernet</li> <li>IEEE 802.3z 1000Base-SX/LX Gigabit Ethernet over fiber</li> <li>IEEE 802.3ae 10GBase-X Gigabit Ethernet over fiber</li> <li>IEEE 802.3af Power over Ethernet (PoE)</li> <li>IEEE 802.3at Power over Ethernet (PoE+)</li> <li>IEEE 802.3x Full-duplex and flow control</li> <li>IEEE 802.1p Quality of Service (QoS)</li> <li>IEEE 802.1x Port-based Network Access Control (PNAC)</li> <li>IEEE 802.1Q Virtual LANs VLANs</li> <li>IEEE 802.1d Spanning Tree Protocol (STP)</li> <li>IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)</li> <li>IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)</li> <li>IEEE 802.1AB Link Layer Discovery Protocol (LLDP), LLDP-MED (Media Endpoint Discovery)</li> <li>IEEE 802.3ad Link Aggregation Control Protocol (LACP)</li> <li>IEEE 802.3az Energy Efficient Ethernet</li> </ul> |
| Environmental Condition | Temperature: <ul style="list-style-type: none"> <li>Operating:               <ul style="list-style-type: none"> <li>Industrial mode: -20~65°C (-4~149°F)</li> <li>Classic mode: -20~40°C (-4~104°F)</li> </ul> </li> <li>Storage: -40~70°C (-40~158°F)</li> </ul> Humidity: <ul style="list-style-type: none"> <li>Operating: 10~90% (Non-condensing)</li> <li>Storage: 10~90% (Non-condensing)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Certifications          | FCC, CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### SMART FEATURES

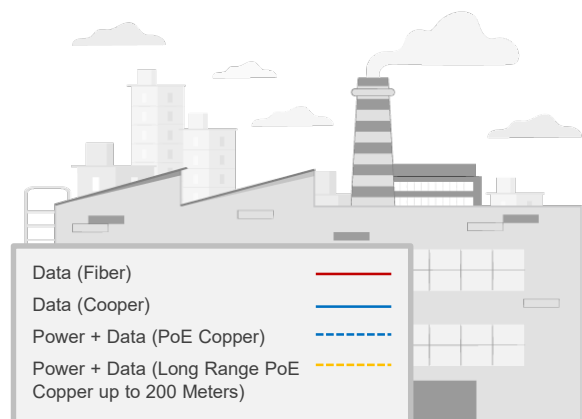
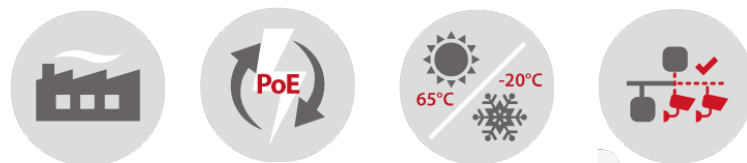
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quality of Service (QoS) | <ul style="list-style-type: none"> <li>Rate limiting on packets sent and received by an interface</li> <li>8 queues on each port</li> <li>WRR, SP, WRR+SP queue scheduling algorithms</li> <li>Re-marking of the 802.1p priority and DSCP priority</li> <li>Rate limiting in each queue and traffic shaping on ports</li> </ul>                                                                                                                                      |
| Class of Service (CoS)   | <ul style="list-style-type: none"> <li>IEEE 802.1p class of service (SPQ, WRR)</li> <li>Port-based CoS</li> <li>IP TOS precedence</li> <li>802.1p VLAN Information based CoS</li> <li>DSCP based CoS</li> <li>TCP/UDP Based CoS</li> </ul>                                                                                                                                                                                                                           |
| Spanning Tree            | <ul style="list-style-type: none"> <li>IEEE 802.1d Spanning Tree Protocol (STP)</li> <li>IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)</li> <li>IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)</li> </ul>                                                                                                                                                                                                                                                      |
| VLAN                     | <ul style="list-style-type: none"> <li>Up to 256 VLANs and 4096 VLAN IDs</li> <li>802.1Q tag-based VLAN</li> <li>Port-based VLAN</li> <li>Surveillance VLAN</li> <li>Voice VLAN</li> <li>MAC VLAN</li> <li>GVRP</li> </ul>                                                                                                                                                                                                                                           |
| IPv6                     | <ul style="list-style-type: none"> <li>IPv6 over Ethernet (RFC 2464)</li> <li>Dual-stack (RFC 4213)</li> <li>ICMPv6 (RFC 4884)</li> <li>Neighbor discovery (RFC 4861)</li> <li>Auto configuration</li> <li>Static IPv6 address and prefix length</li> <li>Static IPv6 default gateway</li> <li>IPv6 duplicate address detection</li> </ul>                                                                                                                           |
| Port Trunking            | <ul style="list-style-type: none"> <li>IEEE 802.3ad LACP Trunk-Static Trunk</li> <li>Up to 8 trunk groups</li> </ul>                                                                                                                                                                                                                                                                                                                                                 |
| IGMP Snooping            | <ul style="list-style-type: none"> <li>IGMP v1/v2/v3 snooping</li> <li>Block unknown multicast traffic</li> </ul>                                                                                                                                                                                                                                                                                                                                                    |
| Port Mirroring           | Port Mirroring Traffic Direction: <ul style="list-style-type: none"> <li>Both (Ingress and Egress)</li> <li>Ingress</li> <li>Egress</li> </ul>                                                                                                                                                                                                                                                                                                                       |
| Security                 | <ul style="list-style-type: none"> <li>RADIUS</li> <li>TACACS+</li> <li>AAA</li> <li>Management Access</li> <li>Authentication Manager</li> <li>Port Security</li> <li>Protected Port</li> <li>Broadcast Storm Control</li> <li>DoS</li> <li>Dynamic ARP Inspection</li> <li>DHCP Snooping</li> <li>IP Source Guard</li> <li>BPDU Guard</li> <li>Remote Access: HTTPS/SSH/HTTP/Telnet/Session Timeout</li> </ul>                                                     |
| Management               | <ul style="list-style-type: none"> <li>User Interface: Web-based management</li> <li>User Account: Login account configuration</li> <li>Firmware Upgrade: Firmware upgrade by WEB</li> <li>Syslog: Support event log, alarm log and security log</li> <li>Dual-firmware image for failover mechanisms</li> <li>ACL (Access Control List)</li> <li>CLI (Command-Line Interface)</li> <li>User Account: Login account configuration</li> <li>SNMP v1/v2c/v3</li> </ul> |

## APPLICATION DIAGRAM

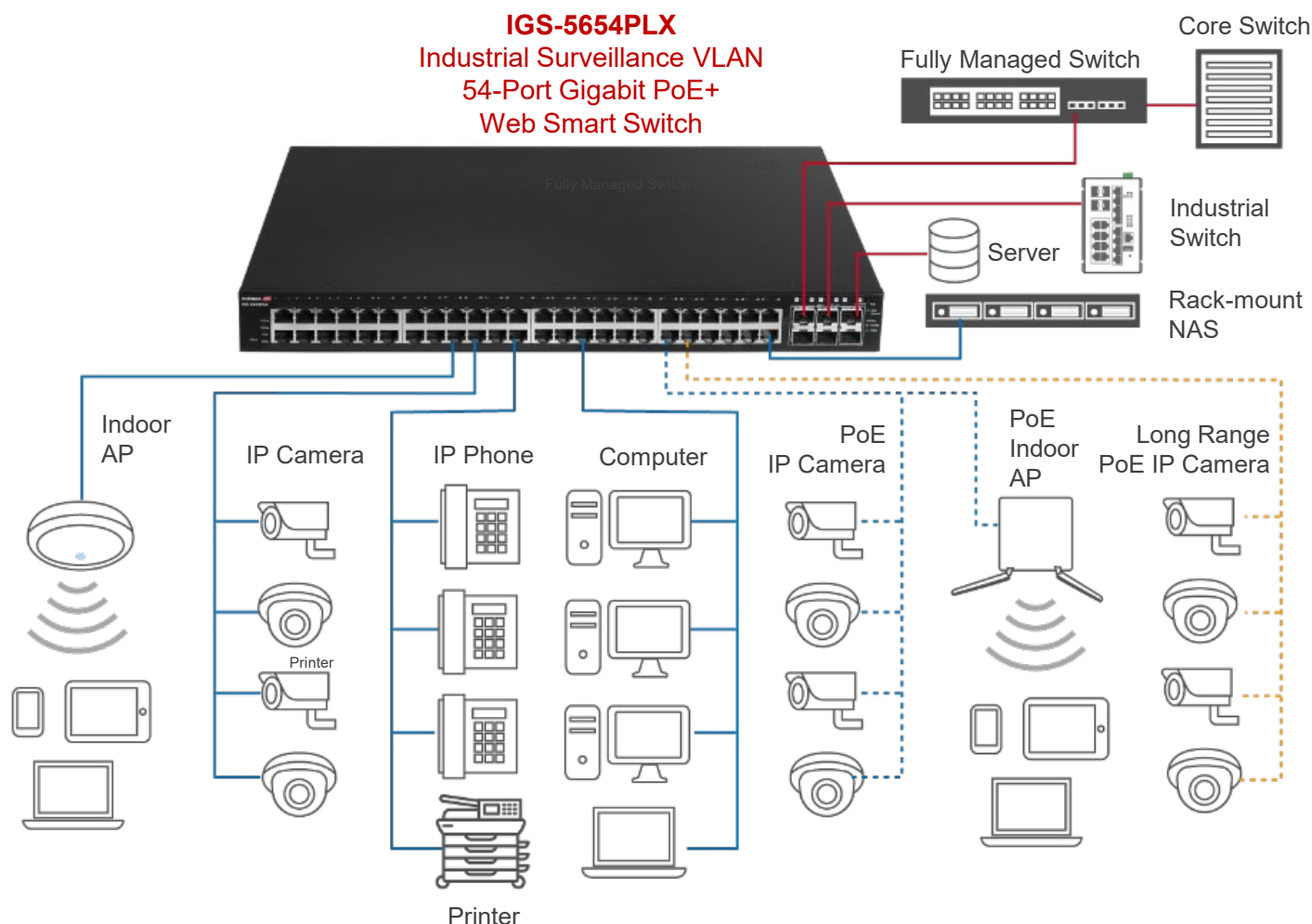
### For industrial or extreme environments use

Dual Mode PoE Power Budget and Wide operating temperature range

| Mode                      | Total PoE Power Budget | Operating Temperature Range      |
|---------------------------|------------------------|----------------------------------|
| Industrial Mode (Default) | 400W                   | -20°C to 65°C<br>(-4°F to 149°F) |
| Classic Mode              | 800W                   | -20°C to 40°C<br>(-4°F to 104°F) |



### IGS-5654PLX Industrial Surveillance VLAN 54-Port Gigabit PoE+ Web Smart Switch



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.  
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