

## 54-Port Gigabit PoE+ Long Range Web Smart Switch with 6-Port 10GbE SFP+ Uplinks

GS-5654PLX V2

### FEATURES

- 48 Gigabit Ethernet PoE+ ports and 6 10GbE SFP+ ports
- 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 216Gbps backplane bandwidth, 160.7Mpps forwarding rate, 32K MAC address table and 12KB jumbo frame

### OVERVIEW

The EDIMAX Pro GS-5654PLX V2 is a high-performance web-smart switch designed for enterprise and SMB networks. With 48 Gigabit PoE+ ports and 6 10-Gigabit SFP+ ports, it 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.

This switch also features a long-range mode, allowing for power and data transmission up to 200 meters at a guaranteed speed of 10Mbps, making it ideal for applications such as IP cameras and network devices in remote locations.

The GS-5654PLX V2 is equipped with a range of smart layer 2 management features, including 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, to provide a secure, scalable, and reliable switch solution for your network.

### Powerful 10GbE Uplink Flexibility with 6 SFP+ Ports

Equipped with 48GbE ports for high-speed connections and 6 dedicated SFP+ 10GbE fiber ports for up to 60Gbps of fiber-optic uplinking capability also allowing the GS-5654PLX V2 to be easily deployed in multiple physical locations, such as branches, retails, or remote workgroup environment for larger network access.

### Power Saving Implementation with Intelligent Thermal Controller

With a dedicated and intelligent microchip for cooling system control, the GS-5654PLX 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-5654PLX 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-5654PLX 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 firmwares 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-5654PLX 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.

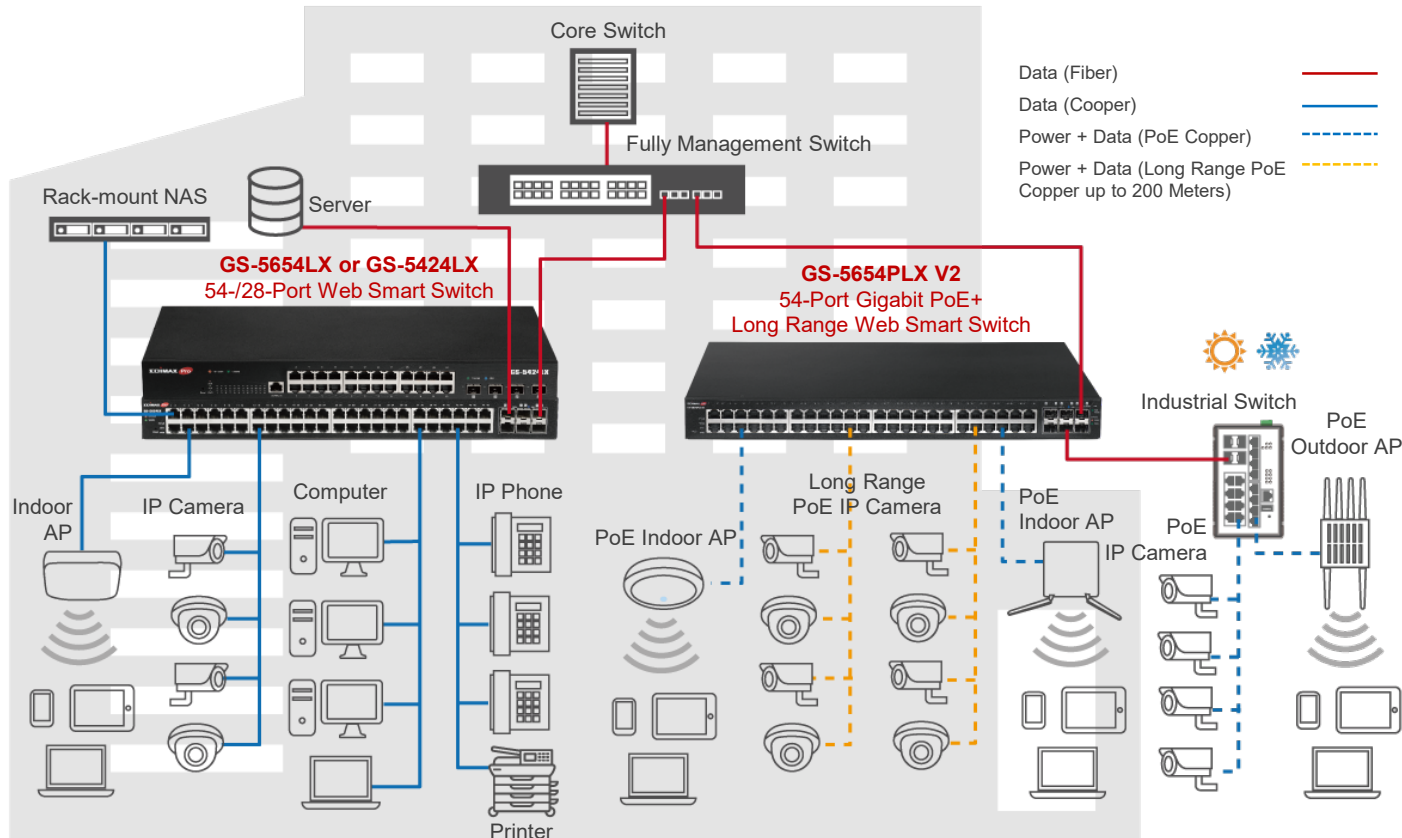
### Safety Guard Your Devices with Power Backfeed Protection

The GS-5654PLX 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-5654PLX V2 is able to verify whether the connected device is IEEE802.3at or IEEE802.3af compliant. Moreover, with the power backfeed protection, the GS-5654PLX V2 can avoid damaging the PoE ports.

### Intuitive and Powerful Smart Layer 2 Management

The GS-5654PLX 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	48 x RJ45 PoE+ 10/100/1000Base-T Gigabit ports 6 x SFP+ 10GBase-X 10 Gigabit uplink ports 1 x RJ45 Console port (Console cable included)
Buttons	Reset button
LED Indicators	Per Port: Link/Act (1-54 port), PoE (1-48 port) Per Unit: PoE Max, SYS ALM (System Alert), SYS (System), PWR (Power) Slide Switch: Link/Act or PoE
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	4 x Fan with Intelligent Thermal Controller
Dimensions	441 (W) x 330 (D) x 44 (H) mm (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	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	<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: • Operating: 0~50°C (32~122°F) • Storage: -40~70°C (-40~158°F) Humidity: • Operating: 10~90% (NonCondensing) • Storage: 10~90% (NonCondensing)
Certifications	FCC, CE, BSMI

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>

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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