

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.

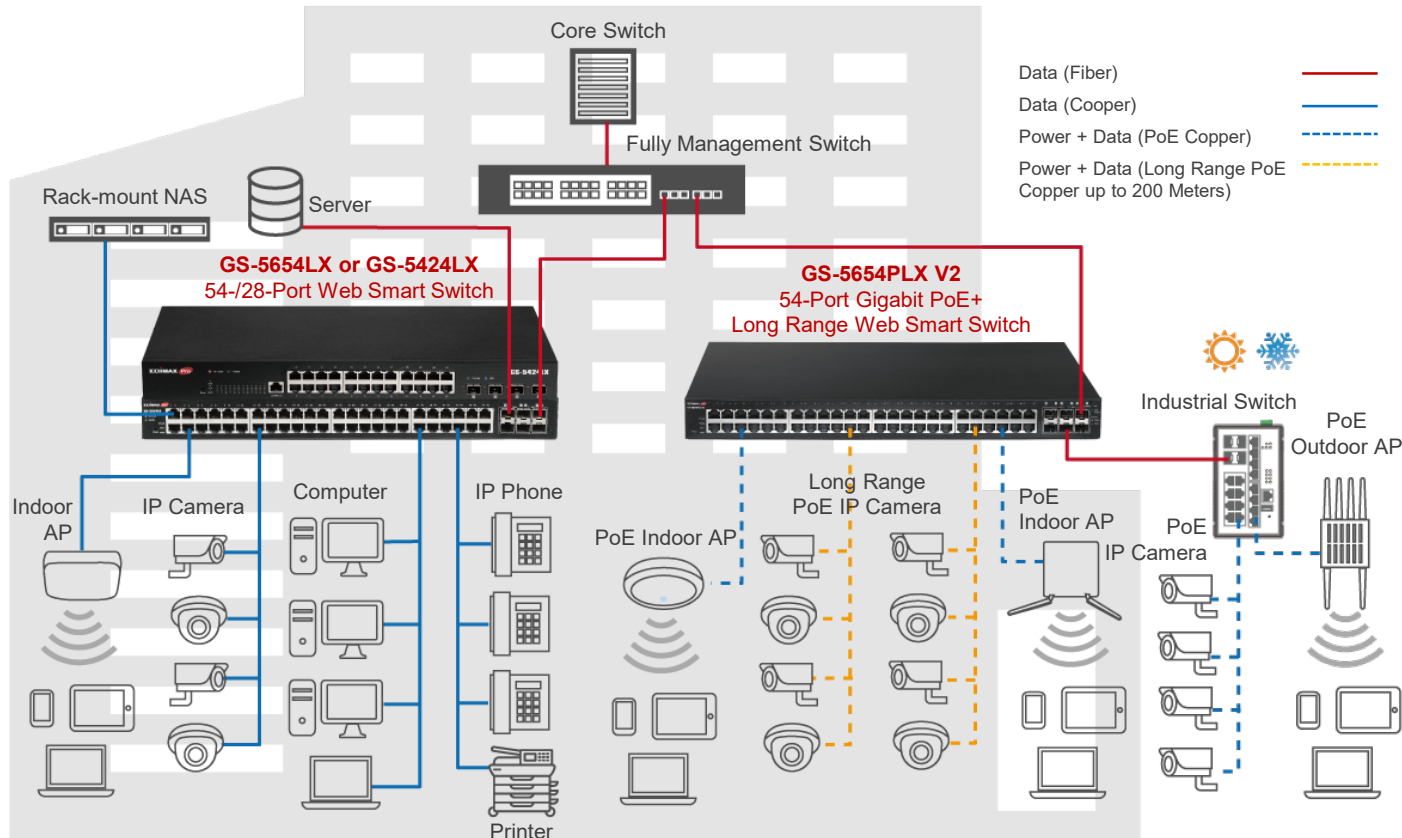
Safety Guard Your Devices with Power Backfeed Protection

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"> 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 802.3ae 10GBase-X 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: 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"> 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)	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> IEEE 802.1d Spanning Tree Protocol (STP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
VLAN	<ul style="list-style-type: none"> Up to 256 VLANs and 4096 VLAN IDs 802.1Q tag-based VLAN Port-based VLAN Surveillance VLAN Voice VLAN MAC VLAN GVRP
IPv6	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> IEEE 802.3ad LACP Trunk-Static Trunk Up to 8 trunk groups
IGMP Snooping	<ul style="list-style-type: none"> IGMP v1/v2/v3 snooping Block unknown multicast traffic
Port Mirroring	Port Mirroring Traffic Direction: • Both (Ingress and Egress) • Ingress • Egress
Security	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.

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