



## 8-Port 2.5GbE PoE++ Web Smart Switch with 1 10GbE SFP+ Port

TGS-3109PLX

### FEATURES

- 8 x 2.5GbE 90W PoE++ Multi-Gigabit RJ45 ports and 1 10GbE SFP+ port
- IEEE 802.3bt/at/af PoE++ compliant, up to 90W per port (total power budget: 240W) for powering PoE-enabled devices
- Dedicated Intelligent Thermal Controller to control fan speeds for power saving and noise reduction
- Guaranteed PoE long distance to 200 meters
- Auto-detection of powered devices (PD) and power consumption levels
- No need to upgrade on the cabling infrastructure, double the network bandwidth by leveraging existing CAT5E cabling infrastructure
- Power backfeed protection to avoid damaging the PoE ports
- Supports smart management features including QoS, 802.1Q VLAN, Port Trunking/Link Aggregation, Port Mirroring, IGMP Snooping v1/v2/v3, Broadcast Storm Control, Loop Detection/Prevention and more
- Supports 60Gbps backplane bandwidth, 44.64Mpps forwarding rate, 4K MAC address table and 12KB jumbo frame
- Rack-mount design, rack-mount kit included

### OVERVIEW

The TGS-3109PLX is a web-smart switch with 8 2.5GbE PoE++ RJ45 and 1 10GbE SFP+ uplink port. Each PoE++ port can supply up to 90W power to PoE-enabled devices with up to total 240W power budget per switch. It offers powerful and reliable network connectivity providing sufficient bandwidth and speed demanding applications such as data transferring, backup, video conferencing, IP surveillance, and Wi-Fi 6/6E/7 APs.

Tailored for IP cameras and far away network device applications, the EDIMAX specific long-range mode allows for power and data transmission up to 200 meters at a guaranteed speed of 10Mbps, making it ideal for IP cameras and remote network devices.

The PoE also features auto-detection and power backfeed protection to efficiently provide power and avoid damaging PoE ports at the same time. With smart features such as QoS, 802.1Q VLAN, Port Trunking/Link Aggregation, Port Mirroring, IGMP Snooping v1/v2/v3, Broadcast Storm Control, Loop Detection/Prevention, the TGS-3109PLX provides a cost-effective, reliable, scalable and secure switch solution for SMB networks.

### Boost the Network Connection to 2.5G Multi-Gig and 10GbE SFP+ Uplink

Equipped with 8 2.5G Multi-Gigabit RJ45 ports for high-speed connections, the TGS-3109PLX breaks the gigabit barrier and supports the full potential of Wi-Fi 6/6E/7 APs. The dedicated SFP+ 10GbE fiber port with fiber-optic uplinking capability allows the TGS-3109PLX to be easily deployed in multiple physical locations, such as branches, retails, or remote workgroup environment for larger network access.

### Double the Performance to 2.5GbE with Existing Cabling Infrastructure

Just plug Ethernet-enabled devices into the TGS-3109PLX to double the network bandwidth while leveraging the existing CAT5E cabling infrastructure for cost savings with no additional cables required. Overall, it reduces installation costs and simplifies the deployment effort.

### Powerful 90W PoE++ Solution with PoE Auto-detection

The TGS-3109PLX switch auto detects powered devices (PD) and power consumption levels, while offers high-speed data network connection and power supply to faraway Powered Devices (PDs) up to 90W per port. Connected to any IEEE 802.3af/at/bt end-nodes such as speed dome IP cameras, Digital Signage, color touch-screen, VoIP telephones, multi-channel wireless LAN access points, information kiosk, POS system, and thin client.

### Power Saving Implementation with Intelligent Thermal Controller

With a dedicated and intelligent microchip for cooling system control, the TGS-3109PLX can measure and control fan speeds, also turn on/off each fan for power saving and noise reduction.

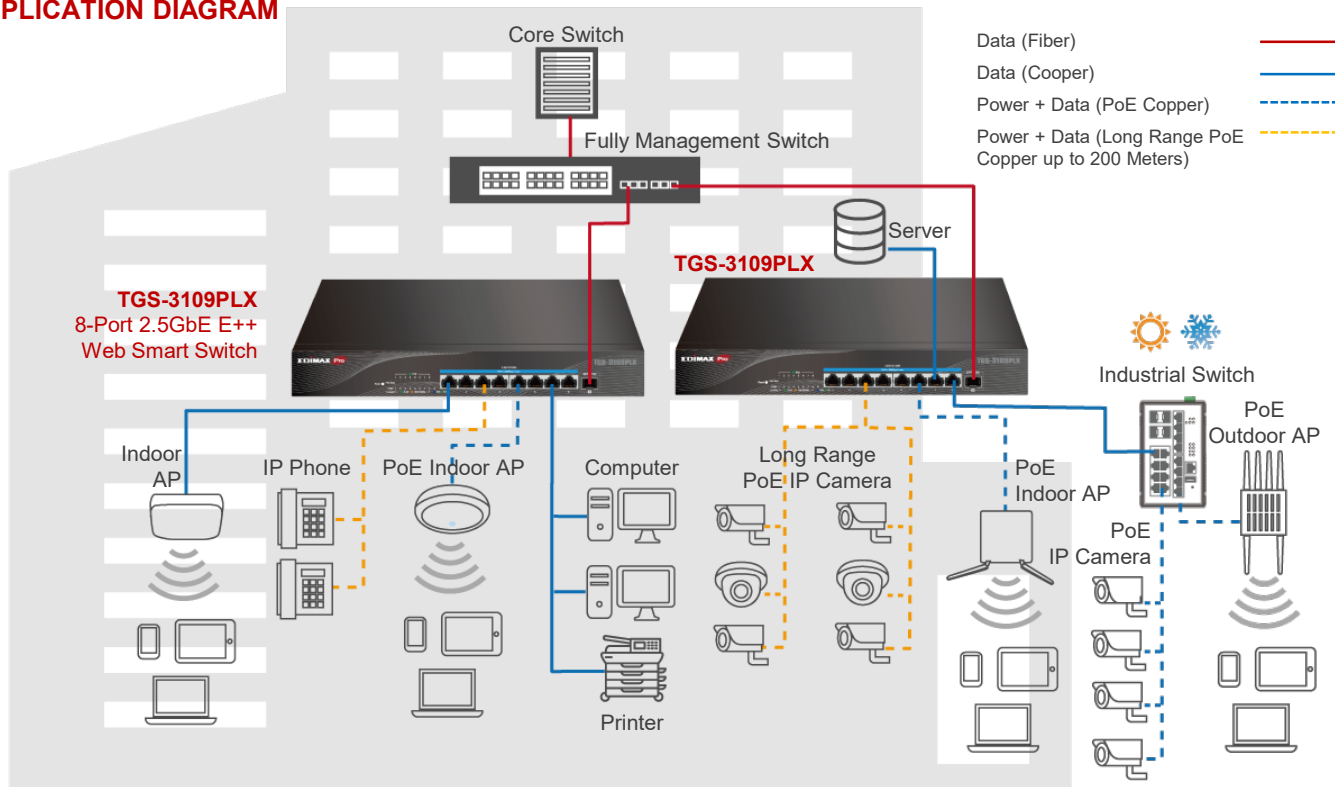
### Safe Guard Your Devices with Power Backfeed Protection

The TGS-3109PLX supplies up to 90W of electricity per port and has a total power supply of 240W to power any 802.3bt/at/af compliant PoE/PoE+/PoE++ device. With built-in PoE detection capability, the TGS-3109PLX is able to verify whether the connected device is IEEE802.3bt/at/af compliant or not. Moreover, with the power backfeed protection, the TGS-3109PLX can avoid damaging the PoE ports.

### Intuitive and Powerful Smart Layer 2 Management

The TGS-3109PLX is designed for small-and-medium business (SMB) networks that require smart and simple network management. This web smart switch meets the network growing need by providing advanced essential features such as QoS, 802.1Q VLAN, Port Trunking/Link Aggregation, Port Mirroring, IGMP Snooping v1/v2/v3, Broadcast Storm Control, Loop Detection/Prevention 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



### POE DEVICES

Complies with IEEE 802.3af (PoE), IEEE 802.3at (PoE+) and IEEE 802.3bt (PoE++) Standards and supports PoE PD (Power Device) up to 90W per PoE port, total PoE power budget up to 240W per switch.

|                         |                       |                          |                          |                          |  |
|-------------------------|-----------------------|--------------------------|--------------------------|--------------------------|--|
| <b>PoE</b><br>802.3af   | up to<br><b>15.4W</b> | 802.11n Access Point     | Biometric Access Control | IP Phone                 | Thin Client                            |
| <b>PoE+</b><br>802.3at  | up to<br><b>30W</b>   | 802.11n High Power AP    | Alarm System             | PTZ/Speed Dome IP Camera | Video IP Phone<br>RFID Reader          |
| <b>PoE++</b><br>802.3bt | up to<br><b>90W</b>   | 802.11ac/ax Access Point | Digital Signage          | Information Kiosk        | POS System<br>PTZ/Speed Dome IP Camera |

## SPECIFICATIONS

## HARDWARE

|                    |  |
|--------------------|--|
| Ports              | <ul style="list-style-type: none"> <li>8 x RJ45 2.5GBase-T 2.5 Gigabit PoE++ Ports</li> <li>1 x SFP+ 10GBase-X 10 Gigabit Uplink Port</li> </ul>   |
| Buttons            | Reset Button   |
| LED Indicators     | <ul style="list-style-type: none"> <li>PoE Max.: PoE Power Budget Alert</li> <li>PWR: System Power Status</li> <li>Link/Act: Connection and Transmission Status (Port 1-8 RJ45, Port 9 SFP+)</li> <li>PoE: PoE Status</li> </ul> |
| Power Input        | 100-240V AC, 50-60Hz, Internal Power Supply  |
| Total Power Budget | 240Watts   |
| Mounting           | Desktop / Rack-mount (Rack-mount Kit Included)   |
| Housing            | Metal  |
| Fan                | 1 x Fan with Intelligent Thermal Controller  |
| Dimensions         | 330 (W) x 230 (D) x 44 (H) mm (12.99 (W) x 9.06 (D) x 1.73 (H) inches)   |
| Weight             | 2.39kg (5.27lb)  |

## PERFORMANCE

|                                |                                       |
|--------------------------------|---------------------------------------|
| Switching Capacity / Backplane | 60Gbps                                |
| Forwarding Rates               | Max. 44.64Mpps (64-byte Package Size) |
| MAC Address Table              | 4K                                    |
| Jumbo Frame                    | 12KB                                  |
| Packet Buffer                  | 8.1Mb                                 |

## POWER OVER ETHERNET

|                           |   |
|---------------------------|---|
| Standard                  | IEEE 802.3bt (PoE++), IEEE 802.3at (PoE+), IEEE 802.3af (PoE)   |
| Power Output              | Up to 90W per Port  |
| Pin Assignment            | <ul style="list-style-type: none"> <li>IEEE 802.3at/af: Alternative A (Pin 1,2/3,6)</li> <li>IEEE 802.3bt: Alternative A &amp; B (Pin 1,2/3,6 &amp; Pin 4,5/7,8)</li> </ul> |
| Management                | PoE Status, PoE On/Off  |
| Long Range                | Guaranteed PoE long distance to 200 meters (656 feet) at 10Mbps   |
| Power Backfeed Protection | Built-in  |

## SMART FEATURES

|                          |   |
|--------------------------|---|
| Quality of Service (QoS) | <ul style="list-style-type: none"> <li>Port-based QoS</li> <li>IEEE802.1p QoS</li> <li>4 Priority Queues</li> <li>Scheduling Algorithms</li> </ul>  |
| VLAN                     | <ul style="list-style-type: none"> <li>Up to 10 VLANs</li> <li>802.1Q Tag-based VLAN</li> </ul>   |
| Port Trunking            | IEEE 802.3ad LACP Trunk-Static Trunk  |
| IGMP Snooping            | <ul style="list-style-type: none"> <li>IGMP v1/v2/v3 Snooping</li> <li>Block Unknown Multicast Traffic</li> <li>Multicast Groups: 128</li> </ul>  |
| Port Mirroring           | <ul style="list-style-type: none"> <li>Port Mirroring Traffic Direction: <ul style="list-style-type: none"> <li>Both (Ingress and Egress)</li> <li>Ingress</li> <li>Egress</li> </ul> </li> </ul>                               |
| Security                 | Broadcast Storm Control   |
| 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>Loop Detection/Prevention</li> </ul> |

## OTHERS

|                         |   |
|-------------------------|---|
| Standard                | <ul style="list-style-type: none"> <li>IEEE 802.3u 100Base-TX Fast Ethernet</li> <li>IEEE 802.3ab 1000Base-T Gigabit Ethernet</li> <li>IEEE 802.3bz 2.5GBase-T 2.5G 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 802.3bt 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 802.1Q Virtual LANs VLANs</li> <li>IEEE 802.3ad Link Aggregation Control Protocol (LACP)</li> <li>IEEE 802.3az Energy Efficient Ethernet</li> </ul> |
| Environmental Condition | <ul style="list-style-type: none"> <li>Temperature: <ul style="list-style-type: none"> <li>Operating: 0~40°C (32~104°F)</li> <li>Storage: -40~70°C (-40~158°F)</li> </ul> </li> <li>Humidity: <ul style="list-style-type: none"> <li>Operating: 10~90% (NonCondensing)</li> <li>Storage: 10~90% (NonCondensing)</li> </ul> </li> </ul>  |
| Certifications          | FCC, CE   |

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.

Copyright © Edimax Technology Co. Ltd. All rights reserved.

www.edimax.com 3