GS-5416PLC

Long Range 16-Port Gigabit PoE+ Web Smart Switch with 4 RJ45/SFP Combo Ports

The Edimax Pro GS-5416PLC smart switch comes with web-based user interface, 16 Gigabit PoE+ ports and 4 RJ45/SFP combo ports for high-speed Gigabit and long-range copper or optical connections. With smart features in SNMP v3, PoE PD Alive Check, Dual Firmware, Voice VLAN, DHCP Snooping, QoS, CoS, STP, 802.1Q VLAN, IPv4/IPv6, Port Trunk, IGMP v1/v2/v3 Snooping and Mirror, the smart switch provides a cost effective, reliable, scalable and secure switch solution for SMB networks. The Edimax-specific long range mode enables power and data transmission to up to 200 meters at a speed of 10Mbps, tailored for IP cameras and far away network device applications. The PoE also features auto detection and power backfeed protection to efficiently provide power and, at the same time, avoid damaging the PoE ports. The Edimax GS-5416PLC is the ideal solution to increase the distance/speed of your network server and backbone connections.

Gigabit High-Speed Connection

Complies with IEEE802.3/802.3u/802.3ab/802.3z Gigabit Ethernet Standards, the GS-5416PLC features 16 Gigabit Ethernet ports for high-speed, large file transfer and 4 SFP slots for long range optical fiber Gigabit Ethernet connections.

802.3at PoE with Auto Detection & Power Backfeed Protection

The GS-5416PLC features 24 IEEE 802.3at Power over Ethernet (PoE+) ports which supply up to 30W of electricity per port and has a total power supply of 330W (can provide 280W for PD)to power any 802.3at or 802.3af compliant power device. With PoE detection capability, the GS-5416PLC is able to verify whether the connected device is IEEE 802.3at or 802.3af compliant. If a PoE device is not detected, only network data will be transmitted. Moreover, with the PoE power backfeed protection from the passive PoE injectors, the GS-5416PLC is able to avoid damaging the PoE ports.

PoE for Easy Installation and Better Cost Efficiency

Power over Ethernet technology enables the Ethernet cable to carry both data and power, reducing cable installation and eliminating the need for extension cords or electrical outlets on the walls and ceiling. The GS-5416PLC can effectively lower installation costs and simplify deployment effort. The GS-5416PLC can be used with different PoE products such as access points, IP cameras or VoIP devices and is an effective solution for network environments where power outlets are difficult to access.

PoE Powered Device Alive Check

Featuring PoE Powered Device (PD) alive check, the switch can be configured to monitor real-time status of connected PDs by ping action (sending alive-checking packets). If a PD fails to response, the GS-5416PLC PoE Switch will reboot the PD, which enhances the reliability of the network and reduces administrator management burden.

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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Long Range 16-Port Gigabit Web Smart Switch with 4 SFP Slots

Long Range PoE Distance Extension, up to 200 Meters

The long range mode provides extended power and data delivery distance to up to 200 meters while general Ethernet switches have a distance restriction of 100 meters. The long range mode operates on a per-port basis at 10Mbps full-duplex operation, ideal for devices such as IP cameras, IP phones and PoE-enabled IoT devices at a remote location.

Dual Firmware

The dual firmware feature allows switches to have two firmware in storage. You can denote one of these firmware as the active one and the other firmware as the backup. If the active firmware faces problems, you can activate the backup firmware right away to reduce down time.

Voice VLAN

Voice VLAN is a special function of GS-5416PLC switch which allows network administrator to easily prioritize IP voice traffic from IP phone through the access port of switch to enhance VoIP service. Voice VLAN also provides QoS to VoIP, ensuring that the sound quality of an IP phone does not deteriorate when the IP voice traffic is sent unevenly.

DHCP Snooping

The network security feature of DHCP snooping enables the prevention of malicious or malformed DHCP traffic or the mitigation of security risks from rogue DHCP servers. The feature monitors DHCP messages received from untrusted devices connected to a switching device in the network and protects the integrity of legitimate DHCP server and its operations.

Smart Tools for Improved Network Efficiency and Security

The switch features smart and simple network monitoring tools that allow for improved network efficiency and security. The web-based interface management features include QoS (Quality of Service) bandwidth control for better traffic control, VLAN (Virtual LAN) for enhanced network security and multicast IGMP snooping v1/v2/v3 for streaming applications. For quick and easy setup, the web-based management integrates advanced management and security functions of Access Control List (ACL), CoS, STP, IPv4/IPv6, Port Trunk, IGMP v1/v2/v3 Snooping and Mirror.

KEY FEATURES

- 16 Gigabit Ethernet ports and four RJ45/SFP combo ports.
- IEEE 802.3af/at PoE compliant.
- Up to 30W per port (total power budget: 330W) for powering PoE-enabled devices.
- Auto-detection of powered devices (PD) and power consumption levels.
- PoE powered devices (PD) alive check to enhance the reliability of the network.
- Power backfeed protection to avoid damaging the PoE ports.
- PoE long range mode with Ethernet cable to extend up to 200 meters.
- Dual firmware to reduce down time for the switch.
- Voice VLAN to enhance sound quality for IP phones.
- DHCP snooping to protect the integrity of legitimate DHCP server and its operations.
- Surge protection 6KV to avoid the damage of the switch and connected devices.
- Supports SNMP v3, Access Control List (ACL), QoS, CoS, STP, 802.1Q VLAN, IPv4/IPv6, Port Trunk, IGMP v1/v2/v3 Snooping and Mirror.
- 40Gbps switch capacity.
- 8K MAC address table and jumbo frame support up to 9KB.
- Two fans with hot-swappable fan tray and19-inch 1U rack-mount design.

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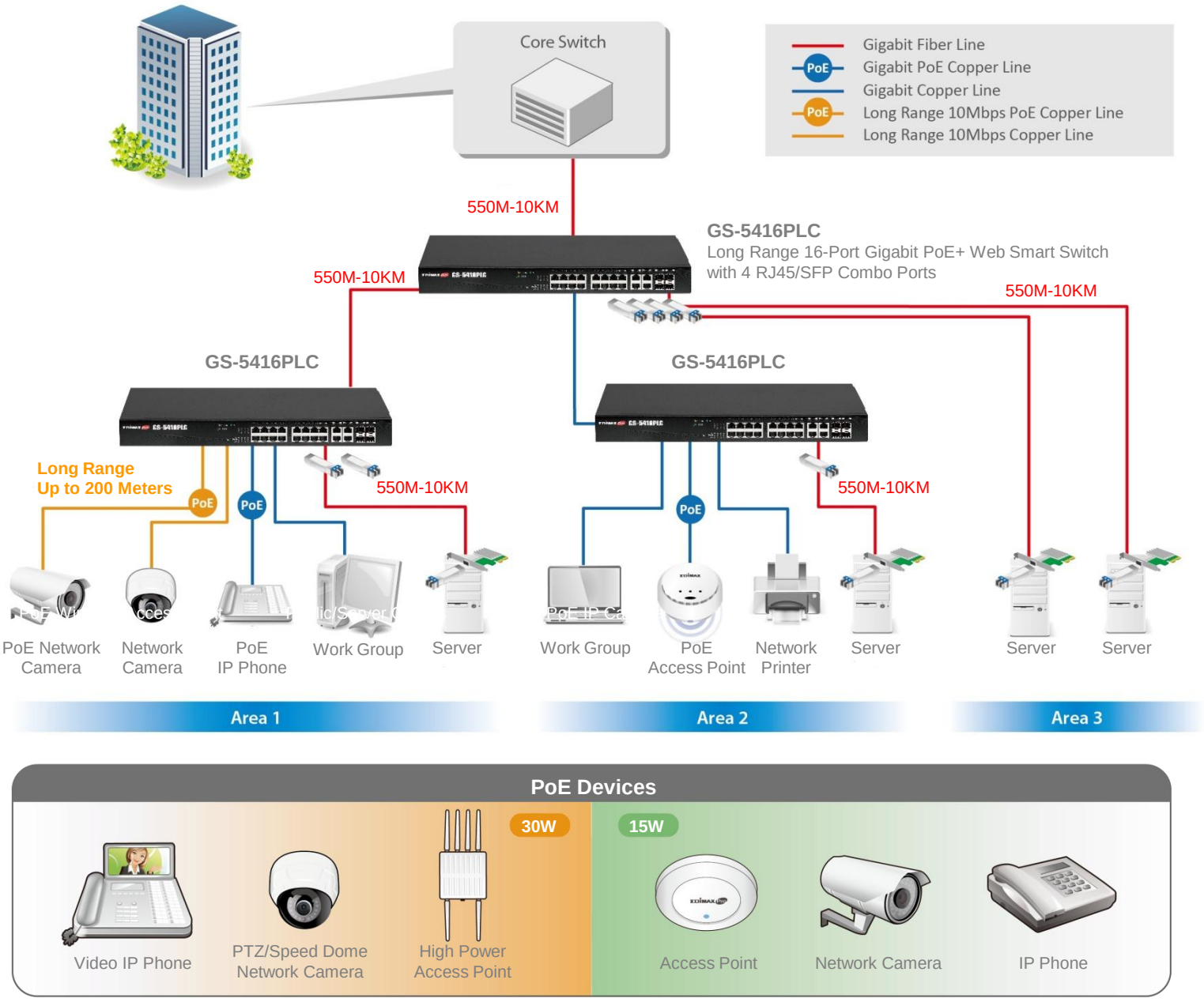
Long Range 16-Port Gigabit PoE+ Web Smart Switch with 4 RJ45/SFP Combo Ports

APPLICATION DIAGRAM



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SPECIFICATIONS

Hardware	
Ports	16 x RJ45 10/100/1000Base-T Gigabit ports 4 x RJ45/SFP Gigabit Combo ports
Transmission Method	Store and forward
Buttons	Reset button
LED Indicators	Per Port: Link/Act, PoE: Act/Status, Per Unit: Power
Fan	2 x Fans with hot-swappable fan tray
Power Input	100-240V AC, 50-60 Hz, internal power supply
Surge Protection	Support 6KV surge protection on RJ45 port (port 21-24)
Dimensions (L x W x H)	441 x 197 x 45 mm
Weight	3.20kg
Performance	
Switching Capacity	40Gbps
Forwarding Rate	35.7Mpps
MAC Address	8K
Buffer Memory	1M bit
Jumbo Frames	9K
Filtering/ Forwarding Rates	1000Mbps port - 1,488,000pps 100Mbps port - 148,800pps 10Mbps port - 14,880pps
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)
Available Power Budget	280W
Management	PoE status, PoE on/off, PoE PD alive check, per port priority setting
Long Range	Enable long range mode at 10Mbps for cable distance up to 200 meters
Backfeed Protection	Built-in
Environment	
Temperature	Operating: 0 - 40°C Storage: -40 - 70°C
Humidity (Non-condensing)	Operating: 10 - 90% Storage: 10 - 90%
Standards Compliance	
Standards	IEEE 802.3 10BaseT Ethernet IEEE 802.3u 100BaseTX Fast Ethernet IEEE 802.3ab 1000BaseT Gigabit Ethernet IEEE 802.3z 1000BaseSX/LX 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 802.1w Rapid Spanning Tree Protocol(RSTP) IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3az Energy Efficient Ethernet
Certifications	FCC Class A, CE

Smart Features	
Quality of Service (QoS)	Rate limiting on packets sent and received by an interface Eight 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)	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	IEEE 802.1d Spanning Tree Protocol (STP) IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
VLAN	Up to 200 VLANs and 4096 VLAN IDs 802.1Q tag-based VLAN Port-based VLAN Voice VLAN Protocol VLAN MAC VLAN Surveillance VLAN GVRP
IPV6	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 Trunk	IEEE 802.3ad LACP Trunk-Static trunk up to 8 trunk groups
IGMP Snooping	IGMP v1/v2 /V3 snooping
Mirror	Port mirroring both on ingress and egress traffic
Security	RADIUS AAA Management Access Authentication Manager Port Security Protected Port Storm Control DoS Dynamic ARP Inspection DHCP Snooping IP Source Guard
Management	SNMP management 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

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NETWORKING PEOPLE TOGETHER

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