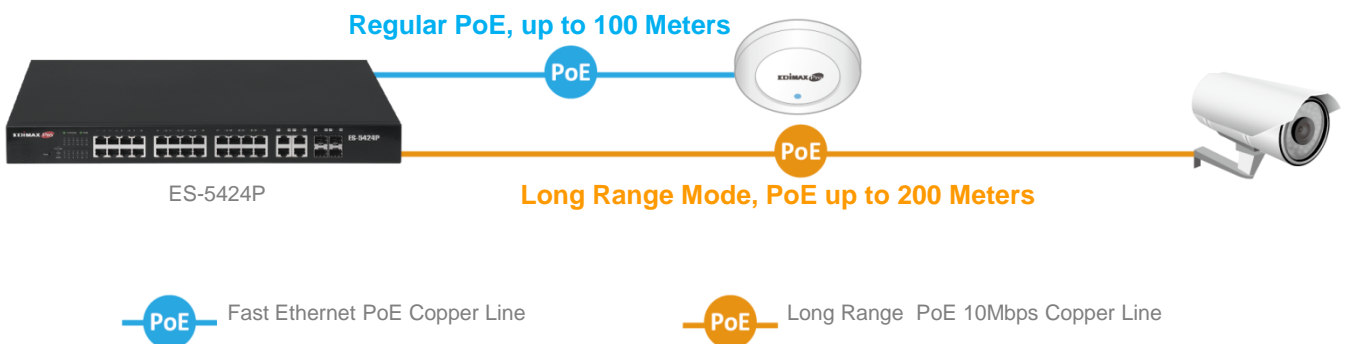![EDIMAX Pro logo]

ES-5424P

Long Range 24-Port Fast Ethernet PoE+ Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports

The Edimax Pro ES-5424P smart switch comes with a web-based user interface, 24 Fast Ethernet PoE+ ports and 4 Gigabit RJ45/SFP combo ports for high-speed and long-range copper or optical connections. With smart features of SNMP v3, PoE PD Alive Check, 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 provide power efficiently and, at the same time, avoid damaging the PoE ports. The Edimax ES-5424P is the ideal solution to boost your network environment's performance and efficiency.

**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.

Regular PoE, up to 100 Meters

ES-5424P

Long Range Mode, PoE up to 200 Meters

PoE — Fast Ethernet PoE Copper Line

PoE — Long Range PoE 10Mbps Copper Line

Long Range 24-Port Fast Ethernet PoE+ Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports

802.3at PoE with Auto Detection & Power Backfeed Protection.
The ES-5424P 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 450W to power any 802.3at or 802.3af compliant power device. With PoE detection capability, the ES-5424P 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 PoE injectors, the ES-5424P is able to avoid damaging the PoE ports.

Passive PoE
Outdoor Access Point
ES-5424P
PoE Injector
PoE Backfeed Protection
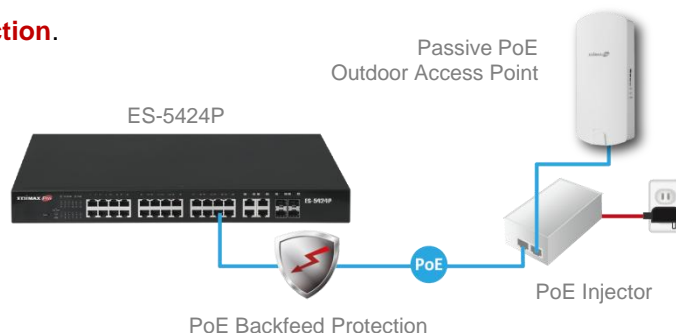
PoE for Easy Installation and Better Cost Efficiency

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 ES-5424P can effectively lower installation costs and simplify deployment effort. The ES-5424P 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 the real-time status of connected PDs by ping action (sending alive-checking packets). If a PD fails to respond, the ES-5424P PoE Switch will reboot the PD, which enhances the reliability of the network and reduces administrator management burden.

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 function 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.

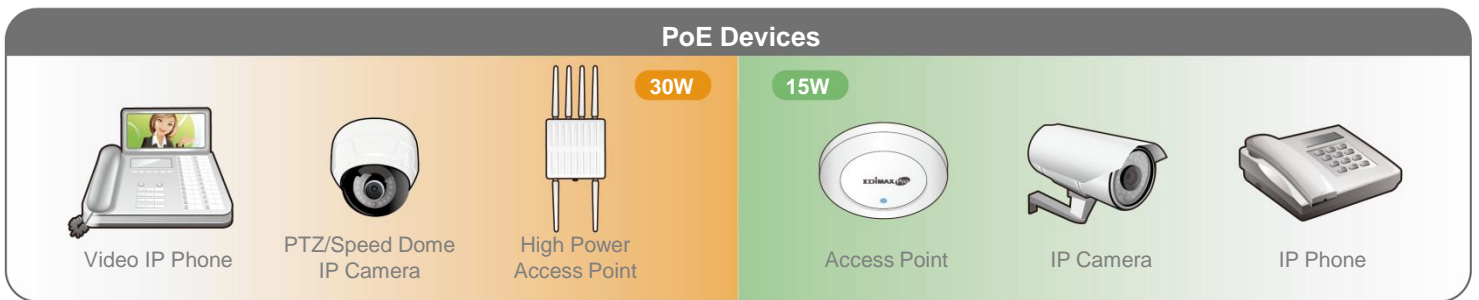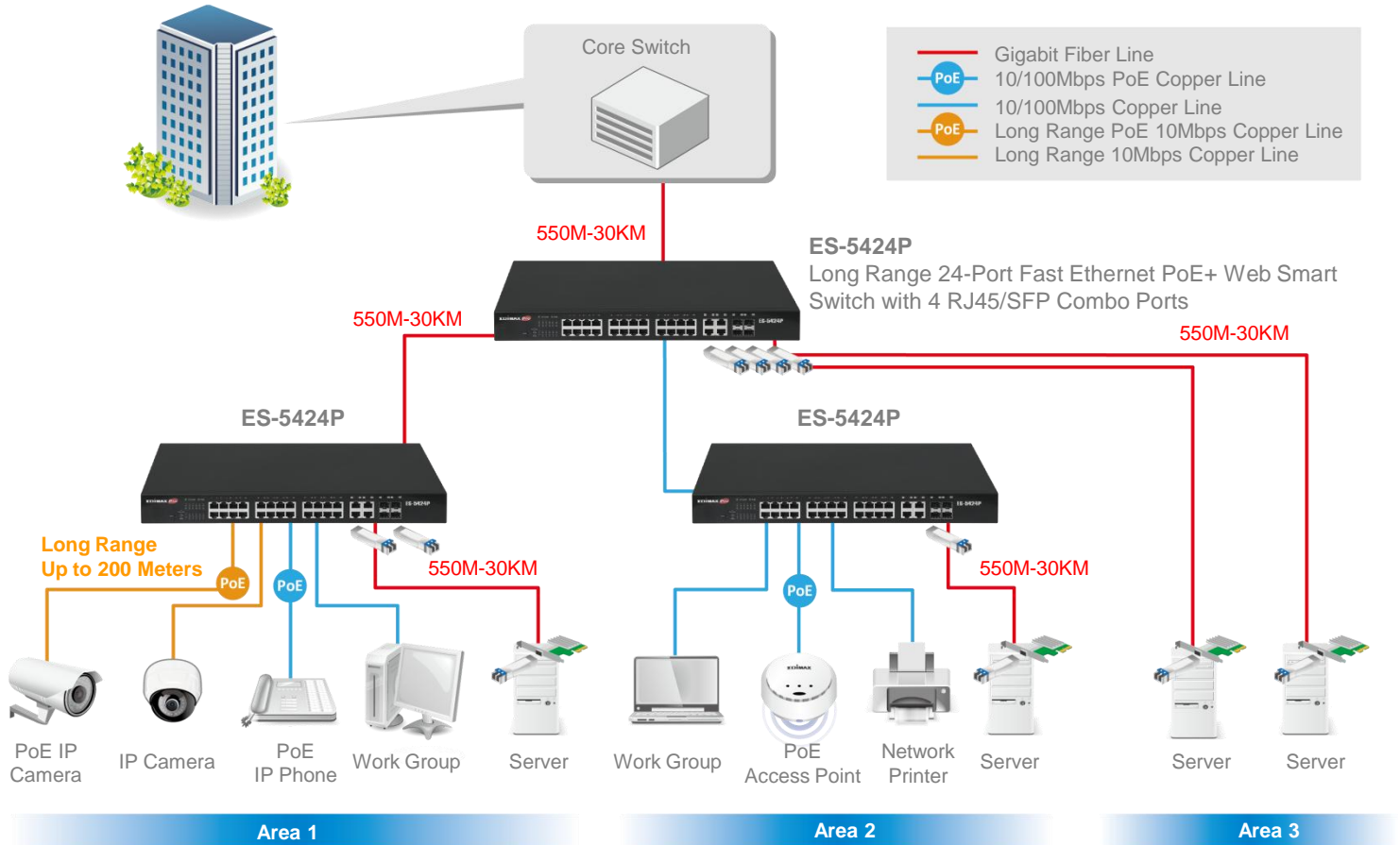## Smart Tools for Improved Network Efficiency and Security

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

- Twenty-four Fast Ethernet ports and four Gigabit RJ45/SFP combo ports.
- IEEE 802.3af/at PoE compliant.
- Up to 30W per port (total power budget: 280W) for powering PoE-enabled devices.
- PoE long range mode with Ethernet cable to extend up to 200 meters.
- 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.
- 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.
- 12.8Gbps switch capacity.
- 16K MAC address table and jumbo frame support up to 9KB.
- 19-inch 1U rack-mount design.

Long Range 24-Port Fast Ethernet PoE+ Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports

APPLICATION DIAGRAM

Core Switch

Gigabit Fiber Line
PoE 10/100Mbps PoE Copper Line
10/100Mbps Copper Line
PoE Long Range PoE 10Mbps Copper Line
Long Range 10Mbps Copper Line

550M-30KM

ES-5424P
Long Range 24-Port Fast Ethernet PoE+ Web Smart Switch with 4 RJ45/SFP Combo Ports

550M-30KM

550M-30KM

ES-5424P

ES-5424P

Long Range Up to 200 Meters

550M-30KM

550M-30KM

PoE IP Camera | IP Camera | PoE IP Phone | Work Group | Server

Work Group | PoE Access Point | Network Printer | Server

Server | Server

Area 1 | Area 2 | Area 3

PoE Devices

30W

Video IP Phone | PTZ/Speed Dome IP Camera | High Power Access Point

15W

Access Point | IP Camera | IP Phone

OPTIONAL ACCESSORY

MG-1000 Series V2 1000Base-T SX LX SFP Modules
- Compliant with IEEE 802.3z Gigabit Ethernet and Fiber Channel standard
- Plug-and-Play & Hot Pluggable
- Supports single-mode or multi-mode fiber depends on the SFP modules
- Max. cable length: 550m to 30km depends on the SFP modules
- Industrial grade SFP modules with robust design for enhanced reliability

Long Range 24-Port Fast Ethernet PoE+ Web Smart Switch with 4 Gigabit RJ45/SFP Combo Ports

SPECIFICATIONS

Hardware	
Ports	24 x RJ45 10/100Base-T Fast Ethernet ports 4 x Gigabit RJ45/SFP combo ports
Transmission Method	Store and forward
Buttons	Reset button
LED Indicators	Per Port: Link/Act, PoE: Act/Status, Per Unit: Power
Power Input	100-240V AC, 50-60 Hz, internal power supply
Total Power Budget	280W
Dimensions (L x W x H)	441 × 270 × 45 mm
Weight	3.53kg

Performance	
Switching Capacity	12.8Gbps
MAC Address	16K
Buffer Memory	1M bit
Jumbo Frames	16K
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	240W
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 - 50ºC Storage: -40 - 70ºC
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 802.1Q 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)
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 GVRP
IPV6	IPv6 over Ethernet (RFC 2464) 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 6 trunk groups
IGMP Snooping	IGMP v1/v2 /v3 snooping
Mirror	Port mirroring both on ingress and egress traffic
Security	Management Access Storm Control Dynamic ARP Inspection DHCP Snooping
Management	User Interface: Web-based management User Account: Login account configuration Firmware Upgrade: Firmware upgrade by WEB Syslog: Support event log and alarm log

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