



802.3af
15.4W

802.3at
30W

10M/
100M

PoE
Distance
200M

Fan-
Less

VLAN
QoS

5-Port Fast Ethernet Switch with 4 PoE+ Ports & DIP Switch

Introduction

The Edimax ES-5104PH V2 is a five port Fast Ethernet switch with four PoE+ Ports designed for use in home, small or medium sized network environments. With four DIP switches, PoE ports can be manually set with on/off control, extending PoE delivery distance up to 200 meters and port-based on/off control for VLAN and QoS is also supported. The switch easily connects and supplies power to PoE-enabled devices such as wireless access points, network cameras and IP phones as well as other Ethernet-enabled devices such as computers, printers or network attached storage (NAS). The compact size and fan-less design make the switch an ideal solution for expanding home and small business networks.

Power over Ethernet (PoE+) Auto Detection

Features four IEEE 802.3at Power over Ethernet (PoE+) ports which supply up to 30 watts of electricity per port. It can convert standard 100-240V AC power into low-voltage 50 - 57V DC electricity to power IEEE 802.3at compliant network accessories via existing LAN cables. With PoE detection capability, the ES-5104PH V2 is able to verify whether the connected device is IEEE 802.3at compliant. In the event that a PoE device is not detected, only network data will be transmitted through the LAN cable – meaning easy setup and management of network devices such as access points and network cameras.



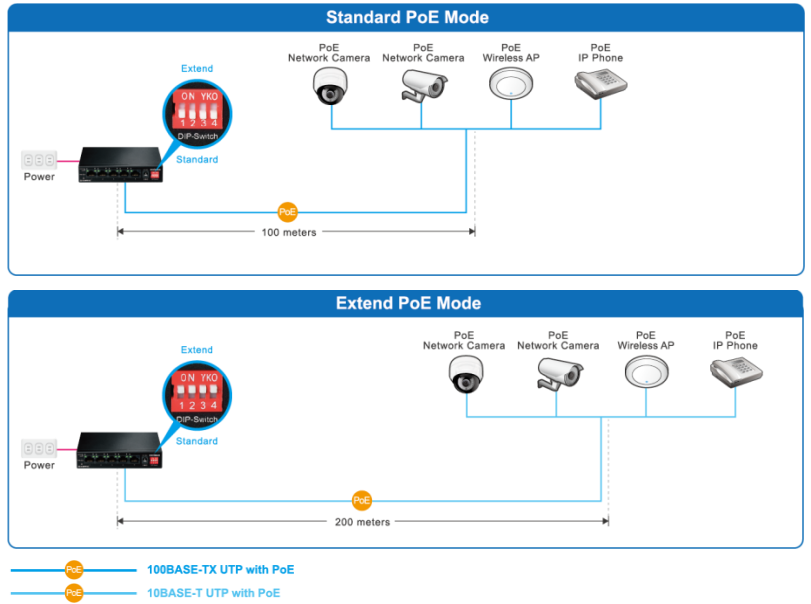
*IP Phone: 3 - 7W, IP Camera: 7 - 10W PZT Camera: 15 - 25+ W

*Access Point: 8W for 802.11a/g radios; upwards of 20W for 802.11n radios

The guidelines are meant to provide general estimates for power consumption. Actual power requirements vary and should be confirmed for each model when determining your PoE budget requirements.

Power and Data Distance Extension

The built-in DIP switch provides extended operation modes on switch 1 & 2. The ES-5104PH V2 operates as a “standard” IEEE 802.3at/af PoE Switch when DIP switches are off. With switches on, the ES-5104PH V2 operates on a per-port basis at 10Mbps duplex operation but can support 30-watt PoE power output over a distance of up to 200 meters, overcoming the 100m limit on Ethernet UTP cables. With this brand-new feature, the ES-5104PH V2 provides an additional solution for 802.3at/af PoE distance extension and saves costs of Ethernet cable installation.

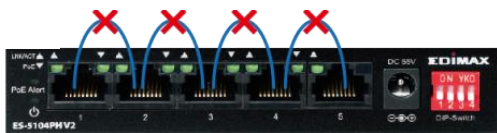


 DIP Switch 1. PoE Extend 2. PoE Extend 3. VLAN 4. QoS	DIP Switch	Status	Description
	1	PoE Extend	On
		Off	As a normal PoE switch
2	PoE Extend	On	PoE Ports 3 – 4 Power + Data extend
		Off	As a normal PoE switch
3	VLAN	On	Ports 1 – 4 VLAN enabled
		Off	Ports 1 – 4 VLAN disabled
4	QoS	On	QoS (Video & Voice Traffic High Priority) enabled
		Off	QoS disabled

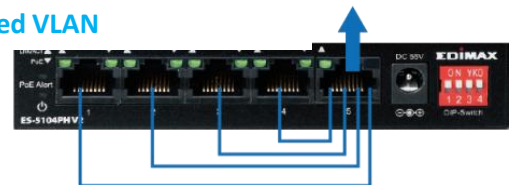
Innovative Port-based VLAN Features

The ES-5104PH V2 features port-based VLAN where ports can be isolated from each other via DIP switch port 3. This can help to prevent IP camera’s multicast or broadcast storms from affecting each other.

Port Isolated

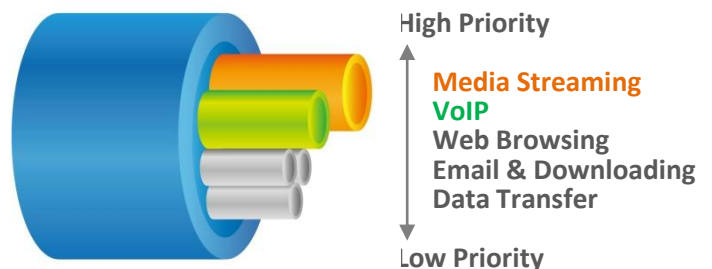


Port-based VLAN



Hardware QoS for Video & Voice Traffic Priority

Supports 802.1p QoS via DIP switch port 4. This ensures first priority for video and voice traffic.



CCTV Mode

The unique CCTV-mode DIP switch function is ideal for surveillance networking environment. Switching all DIP switches to on enables CCTV mode which gives multi-function PoE + data extension, Port Isolation and QoS on the ES-5104PH V2. When using video surveillance systems for homes, business or institutions, the CCTV mode provides better speeds for multicast viewing and easier installation. Setting all DIP switches back to off quickly changes the ES-5104PH V2 back to normal for general-use data transmission..

One Uplink Port

The ES-5104PH V2 comes with one uplink port with 100Mbps transfer rate to ensure high-speed data and video transmission, and reliable assurance for connections between surveillance systems and the outside network where the four PoE+ ports can be used to their full potential.

Plug & Play, No Installation Required

Just plug Ethernet or PoE enabled devices into the switch. Data and power can be transmitted through existing standard Cat-5e Ethernet cables with no additional cables or configuration required. The ES-5104PH V2 reduces the difficulty, time and cost of network setup.

Flexible Network Deployment & Energy Efficient

A fast and effective solution when power outlets are unavailable for your network devices. The switch additionally supports IEEE 802.3az Energy Efficient Ethernet which allows for less power consumption and reduced costs during periods of low data activity.

Fan-Less Quiet & Compact Design

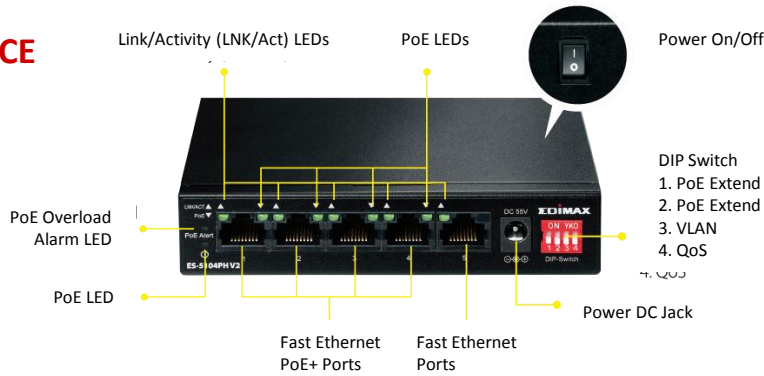
A fan-less design ensures quiet operation and enables an even more compact design, keeping valuable desk space free in home or small office environments.

FEATURES

- Five 10/100Mbps Fast Ethernet ports and four PoE+ ports
- IEEE 802.3af/at PoE compliant (ports 1 - 4) for simplified deployment and installation
- Up to 30W per PoE port (total power budget: 71.5W) for powering PoE-enabled devices
- Auto-detection of powered devices (PD) and power consumption levels
- 60-watt PoE budget
- Hardware DIP switch for “Standard” and “Extend” mode selection; the “Extend” mode features 30-watt PoE transmit distance of 200m at speed of 10Mbps
- Port-based VLAN and Loop Protection features
- Supports 802.1p Quality of Service (QoS)
- Plug & play, no installation required
- Fanless quiet operation
- External power adapter included



HARDWARE INTERFACE



SPECIFICATIONS

ES-5104PH V2 5-Port Fast Ethernet Switch with 4 PoE+ Ports & DIP Switch

Hardware

Ports	5 RJ-45 10/100Base-T ports 4 RJ-45 10/100Base-T PoE+ ports
Transmission Method	Store and forward
LED Indicators	Power: Green LED LNK/ACT: Green LED (Port 1 – Port 5) PoE: Green LED (Port 1 – Port 4) PoE Alert: Green LED (PoE overload alarm)
Fan	Fanless
DIP Switch	PoE Extend, VLAN, QoS
Power Requirements	AC-to-DC external power adapter Input: 100-240V AC Output: 55V DC/1.3A (Total Power: 71.5W)
Power Consumption	3W
Dimensions (L x W x H)	121*75*26mm
Weight	240.5g

Performance

Switching Capacity	1G
MAC Address	1K
Buffer Memory	56Kb
Filtering/Forwarding Rates	100Mbps port - 148,800pps 10Mbps port - 14,880pps

Power over Ethernet

Standard	IEEE 802.3af, IEEE 802.3at
Power Output	Up to 30W per port
Pin Assignment	1/2(+), 3/6(-)
PoE Power Budget	60W

Environment

Temperature	Operating: 0 ~ 40 °C Storage: -40 ~ 70 °C
Humidity (Non-condensing)	Operating: 10 ~ 90% Storage: 5 ~ 90%

Standards Compliance

Standards	IEEE 802.3 10BaseT Ethernet IEEE 802.3u 100BaseTX Fast Ethernet IEEE 802.3af Power over Ethernet (PoE) IEEE 802.3at Power over Ethernet Plus (PoE+) IEEE 802.3x Full-duplex and flow control IEEE 802.3az Energy efficient Ethernet
Certifications	FCC, CE, LVD

*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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