



## Product Description

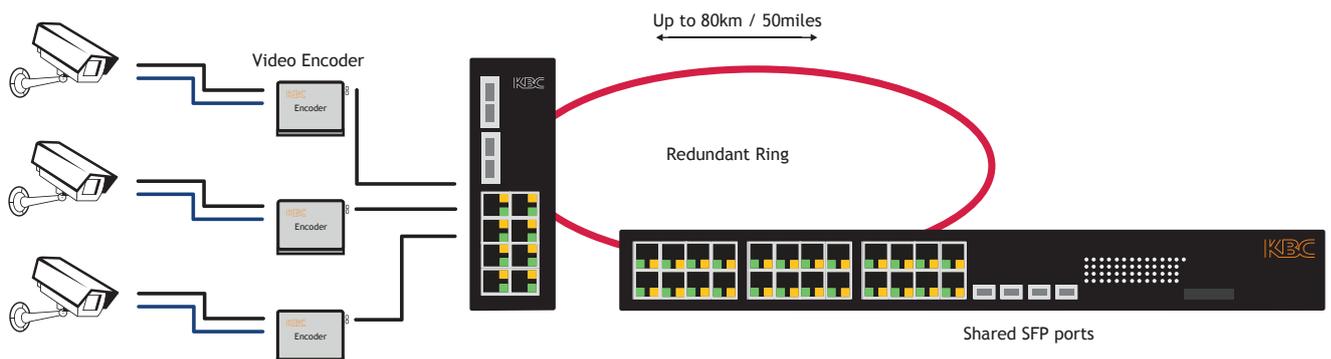
The KBC ESMGS24-P4 series is a high performance 24 port, industrial, managed Gigabit switch with 24 x 802.3at PoE+ ports and 4 shared SFP ports. It is designed for large scale IP surveillance applications and networks. Each PoE port (up to 30W) satisfies the high power consumption requirement of a PoE IP camera. The switch is also ideal for applications requiring Power Sourcing Equipment (PSE) functionality such as IP switches, routers and hubs, CCTV DVR, home networking and industrial Ethernet. Automatic identification of the Powered Device (PD) maintains a reliable power supply to external devices. The KBC ESMGS24-P4 series supports rich network functionalities such as port mirroring, VLAN, trunking, RSTP, rate limiting, port security, SNMP etc.

The ESMGS24-P4 Ethernet switch is available as a 1U rack unit and as a standard, commercial grade or extended temperature unit.

## Product Features

- 720W PoE budget
- 4k VLANs and 8k MAC addresses
- Configurable through web-based or SNMP or CLI
- Virtual LAN support (Port based VLAN and IEEE 802.1Q)
- VLAN Q-in-Q support (For VLAN stacking)
- Rapid Spanning Tree Protocol (IEEE 802.1W) for avoidance of network ring and redundancy (recovery time < 2s)
- Port trunking (Link aggregation) for high-speed backbone & redundancy (recovery time <10 ms)
- LACP support (Dynamic port trunking or aggregate)
- QoS (Quality of Service) support (802.1p, DiffServ, TOS, Port-based, MAC-based)
- Rate limiting (Broadcast storm control)
- Port mirroring
- IGMP Snooping
- Port security
- Symmetric pause & backpressure flow control

## Typical System Configuration



# Specifications

## Standards

IEEE Standards

IEEE802.3 10Base-TX  
 IEEE802.3u 100Base-TX  
 IEEE802.3u 1000Base-TX  
 IEEE 802.1x  
 IEEE 802.1w RSTP  
 IEEE 802.1D STP  
 IEEE 802.1p CoS priority  
 IEEE 802.1Q VLAN  
 IEEE 802.1ab 2005 LLDP Protocol  
 IEEE 802.3 2005  
 10/100/1000M Ethernet Protocol

## Ports

10/100/1000Base-T(X)  
 SFP  
 Port configuration  
 Port speed

RJ45 (24)  
 SFP (4); 1000Base-SX/LX/BX  
 Auto MDI / MDI-X  
 Auto-negotiate

## Switch Performance

Architecture  
 Fabric  
 Throughput  
 Mac address table  
 Share data buffer  
 Jumbo frame size  
 Flow control

Store-and-forward  
 46Gbps non-blocking  
 35.7Mbps @64Bytes  
 8k  
 500kbytes  
 10kbytes  
 IEEE 802.3X Pause frame for full-duplex back pressure for half-duplex

## Layer 2 Functions

Management interface

Port configuration

Console, web browser, SNMP v1, v2c & v3  
 Port enable/disable;  
 Auto-negotiation;  
 10/100/1000Mbps full and half duplex mode selection;  
 Flow Control enable/disable;  
 Bandwidth control on each port  
 Tx/Rx/both: 1 to 1 monitoring  
 IEEE 802.1g tagged-based VLAN; port-based VLAN;  
 Q-in-Q tunneling  
 IEEE902.3as LACP/static trunk:  
 Supports 24 groups of 16-port trunks

## Layer 2 Functions (cont.)

Quality of Service (QoS)

Multicasting / IGMP

SNMP MIBs

802.1p, DiffServ, TOS, port-based; Mac-based IGMP (v1/v2) snooping

RFC 791 IP; RFC 1122 Internet Host Requirements; RFC 792 ICMP; RFC 2131 DHCP; RFC 826 ARP; RFC 1700 Assigned Numbers; RFC 2822 Internet Message Format; RFC 793 TCP; RFC 768UDP; RFC 2236 IGMP v2; RFC 1157 SNMP; RFC 1349 Type of Service in the IP Suite; RFC 1945 HTTP/1.0; RFC 932 Subnetwork addressing scheme; RFC 1350 TFTP; RFC 1510 Network Authentication; RFC 2068 HTTP

## Power

Power Input

100 - 240Vac, 50/60Hz

## Environmental

Operating temperature

Standard temp unit: -10° ~ +55°C / 14° ~ +131°F  
 Extended temp unit: -30° ~ +70°C / -22° ~ +158°F

Storage temperature

-30° ~ +70°C / -22° ~ +158°F

Operating humidity

0 to 95% non-condensing

Mean Time Between Failure (MTBF)

>100 000 hours

## Mechanical

Dimensions

l x w x d

482.6 x 300 x 44mm / 19 x 11.81 x 1.73" (1U rack)

## Connectors

10/100/1000 Electrical  
 Fiber  
 Power

RJ45  
 SFP (Small Form-factor Pluggable)  
 IEC<sup>(1)</sup>

## LED indicators & Switch

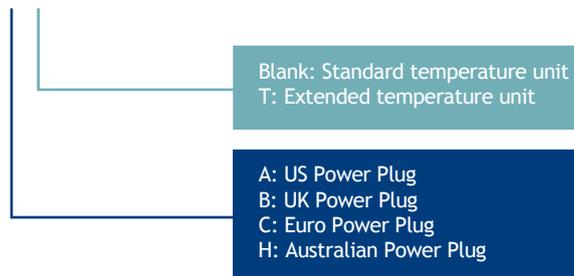
Power

10/100/1000BASE-TX/PoE ports  
 10/100/1000BASE-T/SFP ports

on / red  
 10/100 LNK/ACT - green  
 100 LNK/ACT - green, 1000LNK/ACT - green

# Part Number Configurator

## ESMGS24-P4-RAT



1. Please select the power plug from US Standard, Euro 2 Circular, UK 3 Pin square or Australian when placing order

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