ESMGS24-P4-RX Series

Managed Industrial Ethernet Switch with PoE+
24 Ports: 24 Copper & 4 Shared SFP Ports

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.
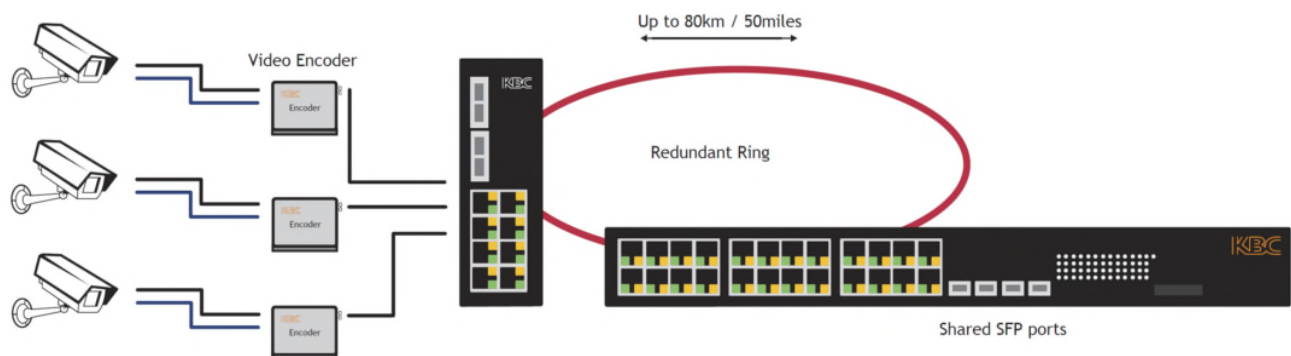
The ESMGS24-P4 Ethernet switch is available as a 1U rack unit.

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 &
- 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

Specifications

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

PoE

Standard	802.3af/at
PSE Type	End-span
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Output	30 watts max. per port
PoE Budget	720W

Switch Performance

Architecture	Store-and-forward
Fabric	46Gps non-blocking
Throughput	35.7Mbps @64Bytes
Mac address table	8k
Share data buffer	500kbytes
Jumbo frame size	10kbytes
Flow control	IEEE 802.3X Pause frame for full-duplex back pressure for half-duplex

Layer 2 Functions

Management interface	Console, web browser, SNMP v1, v2c & v3
Port configuration	Port enable/disable; Auto-negotiation; 10/100/1000Mbps full and half duplex mode selection; Flow Control enable/disable; Bandwidth control on each port

Layer 2 Functions (cont.)

Port mirroring	Tx/Rx/both: 1 to 1 monitoring
VLAN	IEEE 802.1g tagged-based VLAN; port-based VLAN; Q-in-Q tunneling
Link aggregation	IEEE902.3as LACP/static trunk: Supports 24 groups of 16-port trunks
Quality of Service (QoS)	802.1p, DiffServ, TOS, port-based; Mac-based
Multicasting / IGMP	IGMP (v1/v2) snooping
SNMP MIBs	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	-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	RJ-45
Fiber	SFP (Small Form-factor Pluggable)
Power	IEC [1]

LED indicators & Switch

Power	on / red
10/100/1000BASE-TX/PoE ports	10/100 LNK/ACT - green
10/100/1000BASE-T/SFP ports	100 LNK/ACT - green, 1000LNK/ACT - green

Part Number Configurator

ESMGS24-P4-RA

A: US Power Plug
B: UK Power Plug
C: Euro Power Plug
E: Australian Power Plug

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

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