



## Product Description

The KBC ESMGS16-P2 series is a high performance 16 port, industrial, managed Gigabit switch with 16 x 802.3at PoE+ ports and 2 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 ESMGS16-P2 series supports rich network functionalities such as port mirroring, VLAN, trunking, RSTP, rate limiting, port security, SNMP etc.

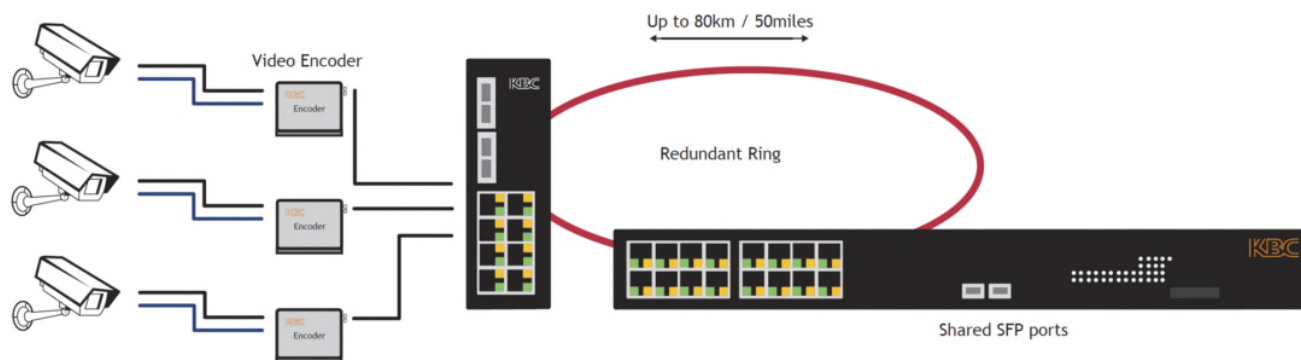


The ESMGS16-P2 Ethernet switch is available as a 1U rack.

## Product Features

- 480W 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
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## Ports

10/100/1000Base-T(X) SFP Port configuration Port speed	RJ45 (16) SFP (2); 1000Base-SX/LX/BX Auto MDI / MDI-X Auto-negotiate
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## PoE

Standard PSE Type Power Pin Assignment PoE Power Output PoE Budget	802.3af/at End-span 1/2(+), 3/6(-) 30 watts max. per port 480W
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## Switch Performance

Architecture Fabric Throughput Mac address table Share data buffer Jumbo frame size Flow control	Store-and-forward 46Gps non-blocking 35.7Mbps @64Bytes 8k 500kbytes 10kbytes IEEE 802.3X Pause frame for full-duplex back pressure for half-duplex
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## 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
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## Layer 2 Functions (cont.)

Port mirroring VLAN  Link aggregation  Quality of Service (QoS)  Multicasting / IGMP SNMP MIBs	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 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
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## Power

Power Input	100-240Vac, 50/60Hz
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## Environmental

Operating Temperature Storage Temperature Operating Humidity Mean Time Between Failure (MTBF)	-30° ~ +70° C / -22° ~ +158° F -30° ~ +70° C / -22° ~ +158° F 0 to 95% non-condensing > 100,000 Hours
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## Mechanical

Dimensions (L x W x D)	482.6 x 300 x 44mm / 19 x 11.81 x 1.73" (1U rack)
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## Connectors

10/100/1000 Electrical Fiber Power	RJ-45 SFP (Small Form-factor Pluggable) IEC <sup>(1)</sup>
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## 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
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# Part Number Configurator

## ESMGS16-P2-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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