


## Ethernet Switch 5-Port 100Mbps Automotive 128-Pin PQFP Tray

<b>Manufacturer:</b>	<a href="#">Microchip Technology, Inc</a>
<b>Package/Case:</b>	PQFP128
<b>Product Type:</b>	Switches
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The KSZ8895MQX/RQX/FQX/ML is a highly-integrated, Layer 2 managed, five-port switch with numerous features designed to reduce system cost. The KSZ8895 is Automotive qualified (AEC-Q100).

The KSZ8895 family was designed to be used in for cost sensitive 10/100Mbps five-port switch systems with low power requirements. Combining on-chip termination and internal LDO regulator help minimize system cost. The KSZ8895 family supports high-performance memory bandwidth and shared memory-based switch fabric with non-blocking configuration.

The KSZ8895 family also includes an extensive feature set, including: power management, programmable rate limit and priority ratio, tag/port-based VLAN, packets filtering, four queue QoS prioritization, management interfaces, and MIB counters.

The KSZ8895 family provides multiple CPU data interfaces to effectively address both current and emerging fast Ethernet applications when port 5 is configured to separate MAC5 with SW5-MII/RMII and PHY5 with P5-MII/RMII interfaces.

The KSZ8895 family offers three configurations, providing the flexibility to meet different requirements:

KSZ8895MQX/ML has 5 10/100Base-T/TX transceivers, 1 SW5-MII and 1 P5-MII interface

KSZ8895RQX has 5 10/100Base-T/TX transceivers, 1 SW5-RMII and 1 P5-RMII interface

KSZ8895FQX has 4 10/100Base-T/TX transceivers on Ports 1, 2, 3 and 5 (port 3 can be set to the fiber mode). 1 100Base-FX transceivers on Port 4. 1 SW5-MII and 1 P5-MII interface

All registers of MACs and PHYs units can be managed by the SPI or the SMI interface. MIIM registers can be accessed through the MDC/MDIO interface. EEPROM can set all control registers for the unmanaged mode. KSZ8895MQX/RQX/FQX are 128-pin PQFP package. KSZ8895ML is 128-pin LQFP package.

Microchip's complimentary and confidential LANCheck® online design review service is available for customers who have selected our products for their application design-in. The LANCheck online design review service is subject to Microchip's Program Terms and Conditions and requires a myMicrochip account.

**\*\*Please note: KSZ8895 part numbers ending/containing "A" are not recommended for new designs\*\***

i.e. For new designs, instead of using KSZ8895MQXIA, please use KSZ8895MQXI.

## Key Features

### Advanced Switch Features

IEEE 802.1q VLAN support for up to 128 active VLAN groups (full-range 4096 of VLAN IDs)

Static MAC table supports up to 32 entries

VLAN ID tag/untag options, per port basis

### Comprehensive Configuration Register Access

Serial management interface (MDC/MDIO) to all PHYs registers and SMI interface (MDC/MDIO) to all registers

High-speed SPI (up to 25MHz) and I2C master Interface to all internal registers

I/O pins strapping and EEPROM to program selective registers in unmanaged switch mode

### QoS/CoS Packet Prioritization Support

Per port, 802.1p and DiffServ-based

1/2/4-queue QoS prioritization selection

Programmable weighted fair queuing for ratio control

### Integrated 5-Port 10/100 Ethernet Switch

New generation switch with five MACs and five PHYs that are fully compliant with the IEEE 802.3u standard

PHYs designed with patented enhanced mixed-signal technology

Non-blocking switch fabric assures fast packet delivery by utilizing a 1K MAC address lookup table and a store-and-forward architecture

### Switch Monitoring Features

Port mirroring/monitoring/sniffing: ingress and/or egress traffic to any port or MII/RMII

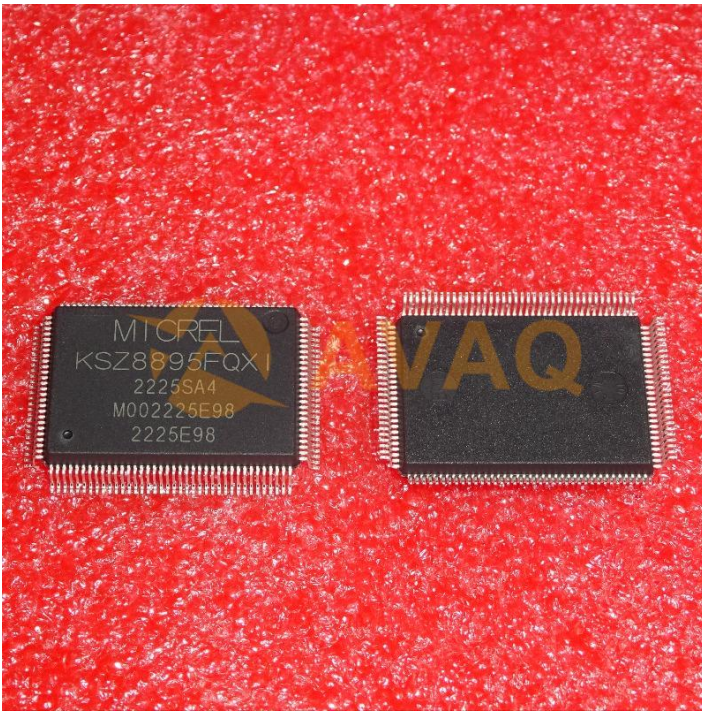
MIB counters for fully-compliant statistics gathering 34 MIB counters per port

Loop-back support for MAC, PHY, and remote diagnostic of failure

### Low-Power Dissipation

Full-chip software power-down and per port software power down

Energy-detect mode support <100mW full-chip power consumption when all ports have no activity



## Recommended For You

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### **KSZ8851-16MQL**

Microchip Technology, Inc  
PQFP-128

### **KSZ8851-16MLL**

Microchip Technology, Inc  
LQFP48

### **KSZ8893MQL**

Microchip Technology, Inc  
QFP128

### **KSZ8851SNL**

Microchip Technology, Inc  
VQFN32

### **KSZ8893MQLI**

Microchip Technology, Inc  
QFP128

### **KSZ8863RLLI**

Microchip Technology, Inc  
LQFP-48

### **KSZ8895RQXI**

Microchip Technology, Inc  
PQFP128

### **KSZ8895MQXIA**

Microchip Technology, Inc  
PQFP-128

### **KSZ8895FQXI-TR**

Microchip Technology, Inc  
PQFP-128

### **KSZ8851SNLI-TR**

Microchip Technology, Inc  
QFN32

### **KSZ8842-PMQL**

Microchip Technology, Inc  
PQFP-128

### **KSZ8863MLL**

Microchip Technology, Inc  
LQFP48

### **KSZ8993M**

Microchip Technology, Inc  
QFP128

### **KSZ8993MI**

Microchip Technology, Inc  
QFP128

### **KSZ8851SNL-TR**

Microchip Technology, Inc  
QFN32