


Ethernet Switch 2-Port 100Mbps 128-Pin PQFP Tray

Manufacturer:	Microchip Technology, Inc
Package/Case:	PQFP-128
Product Type:	Switches
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The KSZ8842-series of 2-port switches includes PCI and non-PCI CPU interfaces.

The datasheet describes the KSZ8842-PMQL/PMBL PCI CPU interface chips. KSZ8842-PMQL is PQFP package chip, KSZ8842-PMBL is LFBGA package chip. For information on the KSZ8842-MQL/MBL CPU non-PCI interface switches, refer to the KSZ8842-MQL/MBL datasheet.

The KSZ8842-PMQL/PMBL is the industry's first fully managed 2-port switch with a 32-bit/33MHz PCI processor interface. It is a proven, 4th generation, integrated Layer 2 switch that is compliant with the IEEE 802.3u standard. An industrial temperature grade version of the KSZ8842-PMQL/PMBL, also can be ordered the KSZ8842-PMQL/PMBL AM. The KSZ8842-PMQL/PMBL can be configured as a switch or as a low-latency (<310 nanoseconds) repeater in latency-critical, embedded or industrial Ethernet applications.

For industrial automation applications, the KSZ8842-PMQL/PMBL can run in half-duplex mode regardless of the application. The KSZ8842-PMQL/PMBL offers an extensive feature set that includes tag/port-based VLAN, quality of service (QoS) priority management, management information base (MIB) counters, and CPU control/data interfaces to effectively address Fast Ethernet applications. The KSZ8842-PMQL/PMBL contains two 10/100 transceivers with patented, mixed-signal, low-power technology three media access control (MAC) units, a direct memory access (DMA) channel, a high-speed, non-blocking, switch fabric, a dedicated 1K entry forwarding table, and an on-chip frame buffer memory.

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Key Features

Non-blocking switch fabric assures fast packet delivery by utilizing a 1K entry MAC Address look-up engine and a store-and-forward architecture

Fully compliant with IEEE 802.3u standards

Full-duplex IEEE 802.3x flow control (Pause) with force mode option

Half-duplex back pressure flow control

IEEE 802.1Q VLAN support for up to 16 groups (full-range of VLAN IDs)

VLAN ID tag/untag options, per port basis

IEEE 802.1p/Q tag insertion or removal on a per-port basis (egress)

Programmable rate limiting at the ingress and egress port

Broadcast storm protection

IEEE 802.1d spanning tree protocol support

MAC filtering function to filter unicast packets

Unknown MAC address forwarding function

Direct forwarding mode enabling the processor to identify the ingress port and to specify the egress port

IGMP v1/v2 snooping support for multicast packet filtering

IPv6 Multicast Listener Discovery (MLD) snooping support

Management information base (MIB) counters for fully compliant statistics gathering: 32 MIB counters per port

Loop back modes for remote failure diagnostics

There are three kinds of register groups:

The PCI configuration registers are used to initialize and configure the PCI interface

The PCI control/status registers are used to communicate between the host and KSZ8842-PMQL/PMBL

Switch registers are used to support transceiver control and status. They are configurable on-the-fly (port-priority, 802.1p/d/Q, etc.)

Per port, 802.1p and DiffServ based

Re-mapping of 802.1p priority field on a per port basis

Full-chip hardware power-down (register configuration not saved) provides for low power dissipation

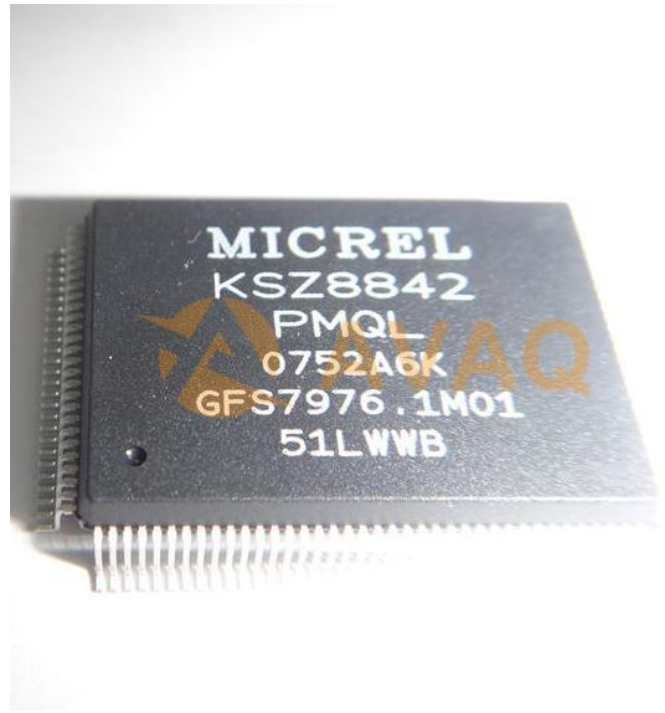
Per port-based software power-save on PHY (idle link detection, register configuration preserved)

Single power supply: 3.3V

Commercial Temperature Range: 0°C to +70°C

Industrial Temperature Range: -40°C to +85°C

Available in 128-pin PQFP and 100-ball LFBGA



Recommended For You

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

KSZ8895FQXI

Microchip Technology, Inc

PQFP128

KSZ8895RQXI

Microchip Technology, Inc

PQFP128

KSZ8895MQXIA

Microchip Technology, Inc

PQFP-128

KSZ8895FQXI-TR

Microchip Technology, Inc

PQFP-128

KSZ8851SNLI-TR

Microchip Technology, Inc

QFN32

KSZ8863MLL

Microchip Technology, Inc

LQFP48

KSZ8993M

Microchip Technology, Inc

QFP128

KSZ8993MI

Microchip Technology, Inc

QFP128

KSZ8851SNL-TR

Microchip Technology, Inc

QFN32