

Ethernet Controller, 1 Gbps, IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, 1.14 V, 1.26 V, TQFP, 128 Pins

Manufacturers	Microchip Technology, Inc
Package/Case	TQFP-128
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for KSZ9567RTXI or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The KSZ9567 is a fully integrated layer 2, managed, seven-port gigabit Ethernet switch with numerous advanced features. Five of the seven ports incorporate 10/100/1000 Mbps PHYs. The other two ports have interfaces that can be configured as SGMII, RGMII, MII or RMII. Either of these may connect directly to a host processor or to an external PHY. The SGMII port may interface to a fiber optic transceiver.

Full register access is available by SPI or I2C interfaces, and by optional in-band management via any of the data ports. PHY register access is provided by a MIIM interface.

Security features include support for IEEE 802.1X port-based authentication and Access Control List (ACL) filtering.

As a member of the EtherSynch® product family, the KSZ9567 incorporates full hardware support for the IEEE 1588v2 Precision Time Protocol (PTP), including hardware time-stamping at all PHY-MAC interfaces, and a high-resolution hardware “PTP clock”. IEEE 1588 provides sub-microsecond synchronization for a range of industrial Ethernet applications.

The KSZ9567 fully supports time-stamping and time-keeping features support IEEE 802.1AS time synchronization. All ports feature credit based traffic shapers for IEEE 802.1Qav, and a time aware scheduler as proposed for IEEE 802.1Qbv.

An assortment of power-management features including Energy-Efficient Ethernet (EEE) have been designed in to satisfy energy efficient environments.

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Features

Integrated 7-port 10/100/1000 Layer-2 switch with Gigabit uplink

Non-blocking wire-speed Ethernet switching fabric

Advanced Switch Capabilities

IEEE802.1AS (AVB) time synchronization support

IEEE802.1Qav (AVB) credit based traffic shaper

Time aware traffic scheduler with low latency cut-through mode

IEEE1588v2 Precision Time Protocol support

Time-stamping on all ports

Precision GPIO pin timed to the AVB/1588 clock

Full-featured forwarding and filtering control, including Access Control List (ACL) filtering

IEEE802.1X support (Port-Based Network Access Control)

IEEE802.1Q VLAN support for 128 active VLAN groups and the full range of 4096 VLAN IDs

IEEE802.1p/Q tag insertion or removal on a per port basis and support for double-tagging

VLAN ID tag/untag options on per port basis

IEEE802.3x full-duplex flow control and half-duplex back pressure collision control

IGMPv1/v2/v3 snooping for multicast packet filtering

IPv6 multicast listener discovery (MLD) snooping

QoS/CoS packets prioritization support: 802.1p, DiffServ-based and re-mapping of 802.1p priority field per-port basis on four priority levels

IPv4/IPv6 QoS support

Programmable rate limiting at ingress and egress ports

Broadcast storm protection

Four priority queues with dynamic packet mapping for IEEE802.1p, IPv4 DIFFSERV, IPv6 TrafficClass

MAC filtering function to filter or forward unknown unicast, multicast and VLAN packets

Self-address filtering for implementing ring topologies

Comprehensive Configuration Register Access

High-speed SPI (4-wire, up to 50MHz) interface to access all internal registers

I2C Interface to access all registers

MII management (MIIM, MDC/MDIO 2 wire) interface to access all PHY registers per IEEE 802.3 specification

In-band management to access all registers via any of the seven ports, strap enabled

I/O pin strapping facility to set certain register bits from I/O pins at reset time

Control registers configurable on-the-fly

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)

Low Power Dissipation

Full-chip software power-down

Energy detect power-down (EDPD)

Wake on LAN (WoL) support

Related Products



[KSZ9563RNXI](#)

Microchip Technology, Inc
VQFN-64



[KSZ9477STXI-TR](#)

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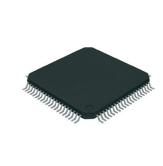
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