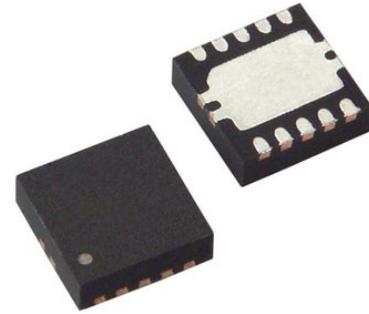


10/100/1000BASE-T 3-Port Switch/RMGII

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



Images are for reference only

Please submit RFQ for KSZ8563RNXV or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The KSZ8563 is a highly-integrated, IEEE 802.3 compliant networking device that incorporates a layer-2+ managed Ethernet switch, two 10BASE-T/100BASE-TX physical layer transceivers (PHYs) and associated MAC units, and one MAC port with a configurable RGMII/MII/RMII interface for direct connection to a host processor/ controller, another Ethernet switch, or an Ethernet PHY transceiver. KSZ8563 also implements IEEE 1588v2 Precision Timing Protocol one-step operation.

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

Looking for a Linux® Host Processor, try the SAMA5D3 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.

Features

EtherSync®

IEEE 1588 v2 PTP

One-step Operation

Transparent Clock (TC) with auto correction update

Master and slave Ordinary Clock (OC) support

End-to-end (E2E) or peer-to-peer (P2P)

PTP multicast and unicast message support

PTP message transport over IPv4/v6 and IEEE 802.3

IEEE 1588v2 PTP packet filtering

Switch Management Capabilities

10/100Mbps Ethernet switch basic functions: frame buffer management, address look-up table, queue management, MIB counters

Non-blocking store-and-forward switch fabric assures fast packet delivery by utilizing 4096 entry forwarding table with 128kByte frame buffer

Jumbo packet support up to 9000 bytes

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

Rapid spanning tree protocol (RSTP) support for topology management and ring/linear recovery

Multiple spanning tree protocol (MSTP) support

Configurable External MAC Port

Reduced Gigabit Media Independent Interface (RGMI) v2.0

Reduced Media Independent Interface (RMII) v1.2 with 50MHz reference clock input/output option

Media Independent Interface (MII) in PHY/MAC mode

Advanced Switch Capabilities

IEEE 802.1Q VLAN support for 128 active VLAN groups and the full range of 4096 VLAN IDs

IEEE 802.1p/Q tag insertion/removal on per port basis

VLAN ID on per port or VLAN basis

IEEE 802.3x full-duplex flow control and half-duplex back pressure collision control

IEEE 802.1X (Port-Based Network Access Control)

IGMP v1/v2/v3 snooping for multicast packet filtering

IPv6 multicast listener discovery (MLD) snooping

IPv4/IPv6 QoS support, QoS/CoS packet prioritization

802.1p QoS packet classification with 4 priority queues

Programmable rate limiting at ingress/egress ports

Two Robust Integrated PHY Ports

100BASE-TX/10BASE-T IEEE 802.3

Quiet-WIRE® filtering option for reduced emissions

LinkMD®+ receive signal quality indicator

Fast Link-up option significantly reduces link-up time

Auto-negotiation and Auto-MDI/MDI-X support

Energy-Efficient Ethernet (EEE) support with low-power idle mode and clock stoppage

On-chip termination resistors and internal biasing for differential pairs to reduce power

LinkMD® cable diagnostic capabilities for determining cable opens, shorts, and length

Related Products



[KSZ9563RNXI](#)

Microchip Technology, Inc
VQFN-64



[KSZ9477STXI-TR](#)

Microchip Technology, Inc
TQFP-128



[KSZ8001L](#)

Microchip Technology, Inc
LQFP-48



[KSZ9896CTXI-TR](#)

Microchip Technology, Inc
TQFP-128



[KSZ9563RNXC](#)

Microchip Technology, Inc
VQFN-64



[KSZ9896CTXC](#)

Microchip Technology, Inc
TQFP-128



[KSZ9567RTXI-TR](#)

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