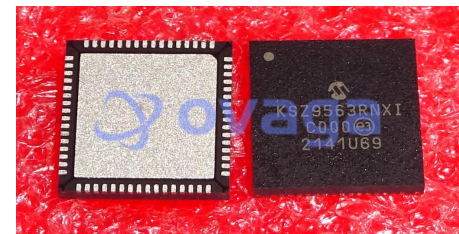


IC ETHERNET SWITCH MII 64VQFN

Manufacturers	Microchip Technology, Inc
Package/Case	VQFN-64
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for KSZ9563RNXI or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The KSZ9563 is a highly-integrated, IEEE 802.3 compliant networking device that incorporates a layer-2+ managed Gigabit Ethernet switch, two 10BASE-T/100BASE-TX/1000BASE-T 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. KSZ9563 also implements IEEE 1588v2 Precision Timing Protocol.

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

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

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

Two Robust Integrated PHY Ports

1000BASE-T/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

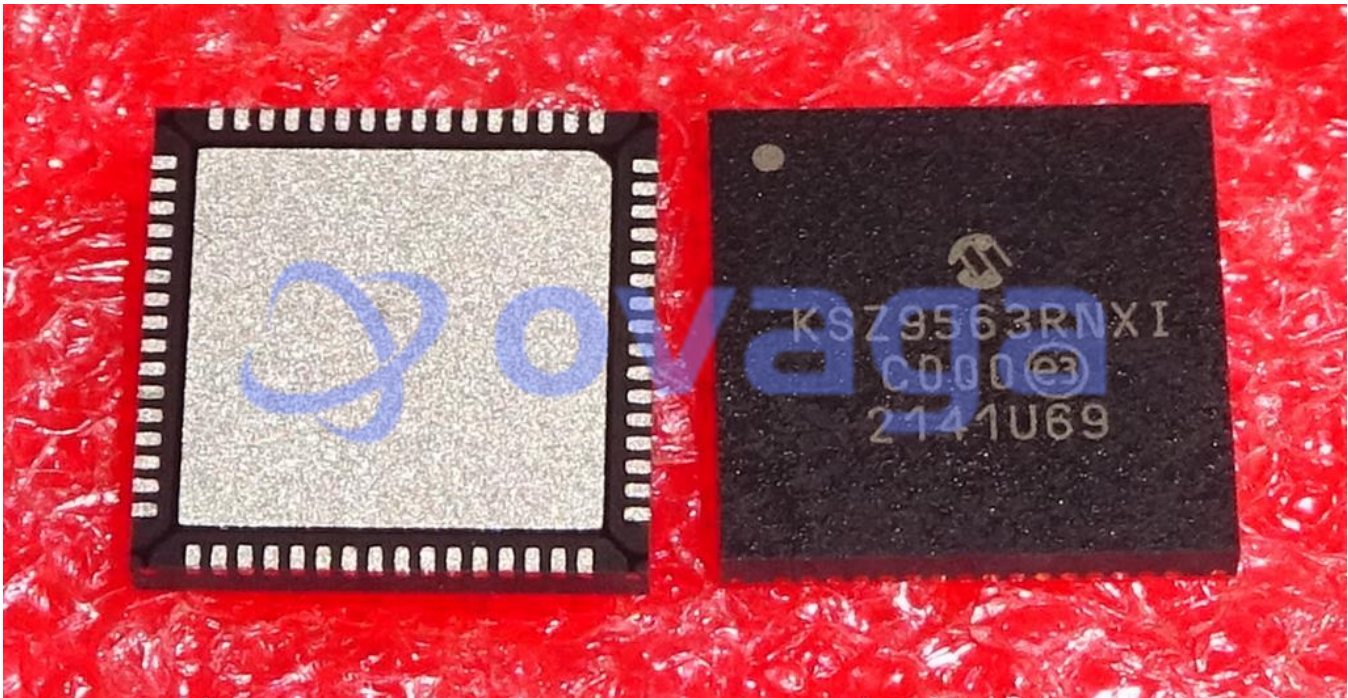
LinkMD® cable diagnostic capabilities for determining cable opens, shorts, and length

Configurable External MAC Port

Reduced Gigabit Media Independent Interface (RGMII) v2.0

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

Media Independent Interface (MII) in PHY/MAC mode



Related Products



[KSZ9477STXI-TR](#)

Microchip Technology, Inc
TQFP-128



[KSZ8001L](#)

Microchip Technology, Inc
LQFP-48



[KSZ9896CTXI-TR](#)

Microchip Technology, Inc
TQFP-128



[KSZ9563RNXC](#)

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Microchip Technology, Inc
LQFP-80