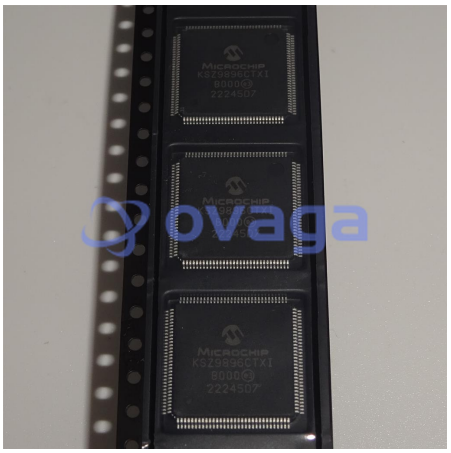
KSZ9896CTXI-TR

Data Sheet

IC ETHERNET SWITCH 6PORT 128TQFP

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



Images are for reference only

Please submit RFQ for KSZ9896CTXI-TR or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The KSZ9896 is a fully integrated layer 2, managed, six-port gigabit Ethernet switch with numerous advancedfeatures. Five of the six ports incorporate 10/100/1000Mbps PHYs. The sixth port has a MAC interface that canbe configured as GMII, RGMII, MII or RMII.

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 includingEnergy-Efficient Ethernet (EEE) have been designed in tosatisfy energy efficient environments. 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

Integrated 6-port 10/100/1000 Layer-2 switch with Gigabit uplink

Non-blocking wire-speed Ethernet switching fabric

Advanced Switch Capabilities

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

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

IEEE802.1Q VLAN supportfor 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 six 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)

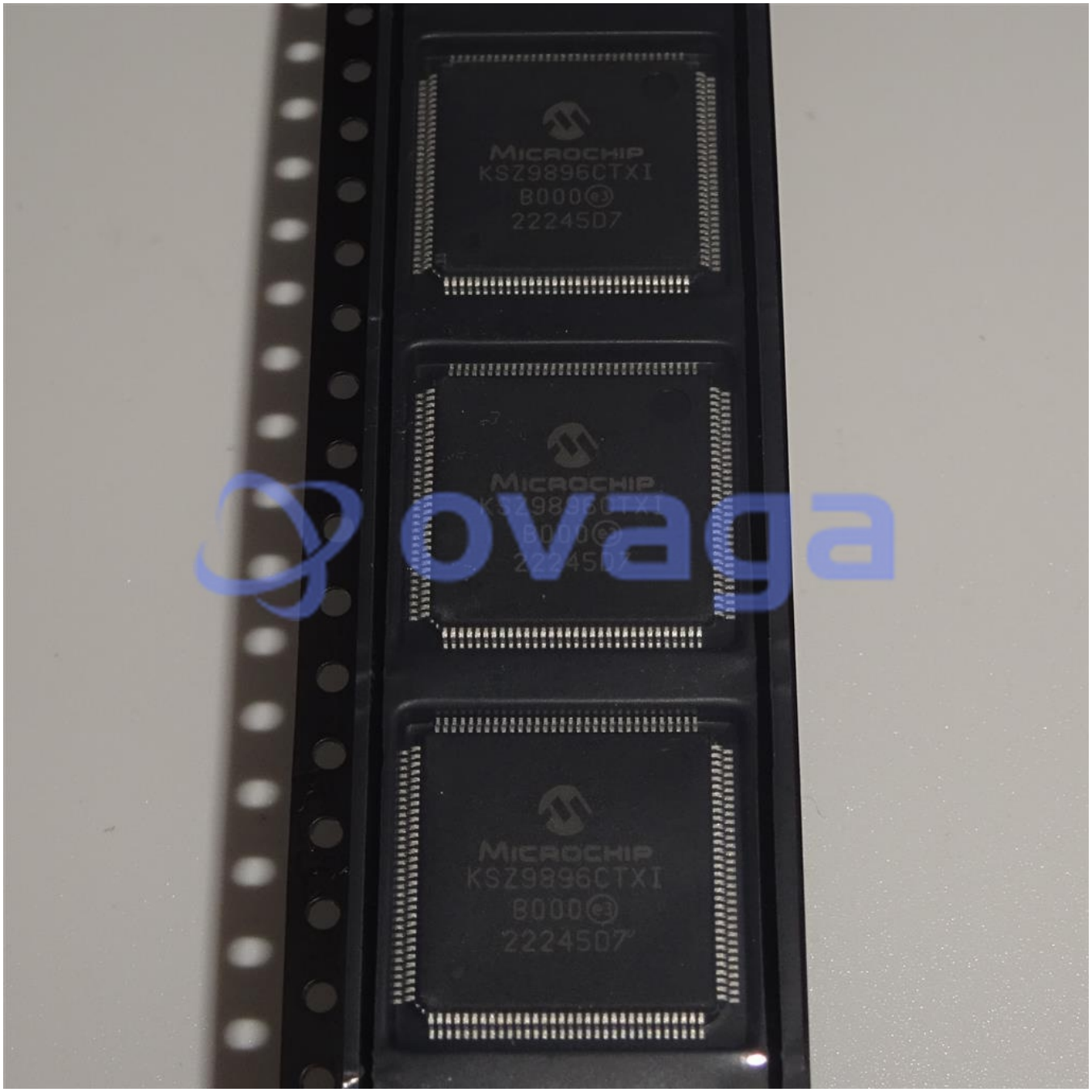
Low Power Dissipation

Full-chip software power-down

Energy detect power-down (EDPD)

Support IEEE P802.3az Energy Efficient Ethernet (EEE)

Wake on LAN (WoL) support



Related Products

[KSZ9563RNXI]

Microchip Technology, Inc

VQFN-64

[KSZ9477STXI-TR]

Microchip Technology, Inc

TQFP-128

[KSZ8001L]

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LQFP-48

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LQFP-80