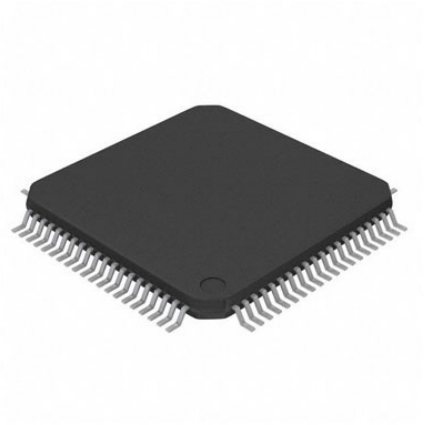
KSZ8775CLXIC

Data Sheet

Ethernet Controller, 1 Gbps, IEEE 802.3, IEEE 802.3u, 3.135 V, 3.465 V, LQFP, 80 Pins

Manufacturers	Microchip Technology, Inc
Package/Case	LQFP-80
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for KSZ8775CLXIC or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The KSZ8775CLX is a highly integrated, Layer 2-managed, five-port switch with numerous features designed to reduce system cost. It is intended for cost-sensitive applications requiring three 10/100Mbps copper ports, one RMII on Port 4, and one 10/100/1000Mbps Gigabit uplink port on Port 5. The KSZ8775CLX incorporates a small package outline, the lowest power consumption with internal biasing, and on-chip termination. Its extensive set of features include enhanced power management, programmable rate limiting and priority ratio, tagged and port-based VLAN, port-based security and ACL rule-based packet filtering technology, QoS priority with four queues, management interfaces, enhanced MIB counters, high-performance memory bandwidth, and a shared memory-based switch fabric with non-blocking support. The KSZ8775CLX provides support for multiple CPU data interfaces to effectively address both current and emerging fast Ethernet and Gigabit Ethernet applications where the Port 5 GMAC can be configured to any of the RGMII, MII, and RMII modes.The KSZ8775CLX product is built upon Microchip's industry-leading Ethernet analog and digital technology, with features designed to offload host processing and streamline the overall design.- Three integrated 10/100Base-T/TX MAC/PHYs- One integrated 10/100Base-T/TX MAC with RMII interface- One integrated 10/100/1000Base-T/TX GMAC with selectable RGMII, MII, and RMII interfaces- Small 80-pin LQFP packageA robust assortment of power management features including energy-efficient Ethernet (EEE), power management event (PME), and wake-on-LAN (WoL) have been designed in to satisfy energy efficient environments.All registers in the MAC/PHY units can be managed through the SPI interface. MIIM PHY registers can be accessed through the MDC/MDIO interface.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 5-port 10/100 Layer-2 switch with Gigabit uplink

New generation switch with four MACs, one GMAC (for uplink) and three PHYs that are fully compliant with the IEEE 802.3u standard

10/100Base-T/TX switch system which combines a switch engine, frame buffer management, address lookup table, queue management, MIB counters, MAC, and PHY transceivers

Rapid spanning tree support (RSTP) for topology management

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

Advanced Switch Capabilities

IEEE 802.1q VLAN support for up to 128 active VLAN groups (full range 4096 of VLAN IDs)

Support 802.1x port-based security and MAC-based authentication via access control lists (ACL)

QoS/CoS Packet Prioritization Support

802.1p, DiffServ-based and Re-mapping of 802.1p priority field, per-port basis on four priority levels

4 priority queues with dynamic mapping for IEEE 802.1P, IPV4 ToS (DiffServ), IPV6 Traffic Class, etc

Programmable rate limiting at the ingress and egress ports on a per port basis

Comprehensive Configuration Register Access

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

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

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 (36 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]

Microchip Technology, Inc

LQFP-48

[KSZ9896CTXI-TR]

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