Ethernet Controller, 100 Mbps, IEEE 802.3, IEEE 802.3u, 3.135 V, 3.465 V, TQFP, 48 Pins

Manufacturers	Microchip Technology, Inc
Package/Case	TQFP-48
Product Type	Interface ICs
RoHS	Green
Lifecycle	

Images are for reference only

Please submit RFQ for KSZ8041FTL or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFQ

General Description

The KSZ8041 is a single supply 10Base-T/100Base-TX Physical Layer Transceiver, which provides MII/RMII/SMII interfaces to transmit and receive data. A unique mixed signal design extends signaling distance while reducing power consumption.HP Auto MDI/MDI-X provides the most robust solution for eliminating the need to differentiate between crossover and straight-through cables.The KSZ8041 represents a new level of features and performance and is an ideal choice of physical layer transceiver for 10Base-T/100Base-TX applications.The KSZ8041RNL is an enhanced RMII version of the KSZ8041NL that does not require a 50MHz system clock. It uses a 25MHz crystal for its input reference clock and outputs a 50MHz RMII reference clock to the MAC.The KSZ8041NL and KSZ8041RNL are available in 32-pin, lead-free QFN packages. The KSZ8041TL and KSZ8041FTL are available in 48-pin, lead-free TQFP packages. The KSZ8041MLL is provided in the 48-pin, lead-free LQFP package.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

Single-chip 10Base-T/100Base-TX physical layer solution

Fully compliant to IEEE 802.3u Standard

Low power

Power consumption of <180mW

Power down and power saving modes

Built-in 1.8V regulator for core

Single power supply (3.3V)

HP auto MDI/MDI-X for reliable detection and correction for straight-through and crossover cables with disable and enable option

Robust operation over standard cables

MII interface support (KSZ8041NL only)

RMII Interface Support

External 50MHz system clock (KSZ8041NL or KSZ8041TL/FTL)

25MHz crystal/clock input and 50MHz reference clock output to MAC (KSZ8041RNL)

SMII Interface Support

External 125MHz system clock and 12.5MHz sync clock from MAC (KSZ8041TL/FTL only)

Fiber support 100Base-FX (KSZ8041FTL only)

MIIM (MDC/MDIO) management bus to 6.25MHz for rapid PHY register configuration

Interrupt pin option

Programmable LED outputs for link, activity and speed

ESD rating (6kV)

Variety of Packages

32-pin QFN (5mm x 5mm)

48-pin LQFP (KSZ8041MLL)

48-pin TQFP (KSZ8041TL/FTL)

Related Products

KSZ8081MLXIA

Microchip Technology, Inc

LQFP-48

KSZ8721BT

Microchip Technology, Inc

TQFP-48

KSZ8721BLI-TR

Microchip Technology, Inc

LQFP-48

KSZ8091RNAIA-TR
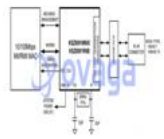
Microchip Technology, Inc

VQFN-24

KSZ8041NLI-TR

Microchip Technology, Inc

VQFN-32

KSZ8721B

Microchip Technology, Inc

SSOP-48

KSZ8091RNBCA

Microchip Technology, Inc

VQFN-32

KSZ8061MNGW

Microchip Technology, Inc

VQFN-48