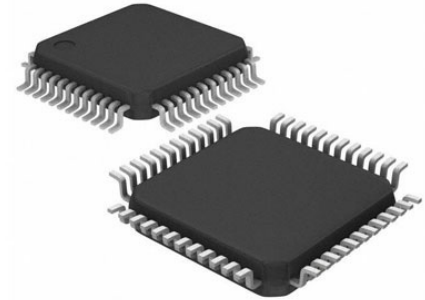


Ethernet ICs 3.3V, 10Base-T/100Base-TX Physical Layer Transceiver with MII support  
(Industrial grade, Lead Free)

Manufacturers	<a href="#">Microchip Technology, Inc</a>
Package/Case	LQFP-48
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for KSZ8041MLLI or [Email to us: sales@ovaga.com](mailto: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



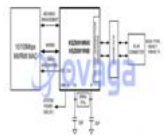
**KSZ8041NLI-TR**

Microchip Technology, Inc  
VQFN-32



**KSZ8721B**

Microchip Technology, Inc  
SSOP-48



**KSZ8091RNBCA**

Microchip Technology, Inc  
VQFN-32



**KSZ8061MNGW**

Microchip Technology, Inc  
VQFN-48