Ethernet Controller, 1000 Mbps, IEEE 802.3, 3.135 V, 3.465 V, QFN, 64 Pins

Manufacturers	Microchip Technology, Inc
Package/Case	VQFN-64
Product Type	Interface ICs
RoHS	Green
Lifecycle	
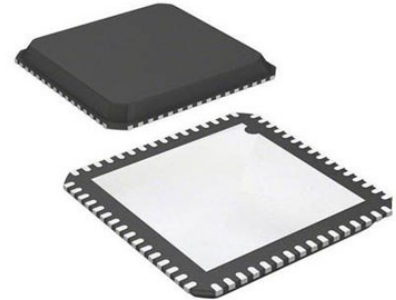
Images are for reference only

Please submit RFQ for KSZ9021GNI or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The KSZ9021 is a completely integrated triple speed (10Base-T/100Base-TX/1000Base-T) Ethernet Physical Layer Transceiver for transmission and reception of data over standard CAT-5 unshielded twisted pair (UTP) cable.The KSZ9021Gxx provides the industry standard Gigabit Media Independent Interface/Media Independent Interface (GMII/MII) for connection to GMII/MII MACs in Gigabit Ethernet Processors and Switches for data transfer at 1000Mbps or 10/100Mbps speed. The KSZ9021Rxx provides the Reduced Gigabit Media Independent Interface (RGMII).The KSZ9021 reduces board cost and simplifies board layout by using on-chip termination resistors for the four differential pairs and by integrating a LDO controller to drive a low cost MOSFET to supply the 1.2V core.The KSZ9021 provides diagnostic features to facilitate system bring-up and debugging in production testing and in product deployment. Parametric NAND tree support enables fault detection between KSZ9021 I/Os and board. Micrel LinkMD® TDR-based cable diagnostics permit identification of faulty copper cabling. Remote and local loopback functions provide verification of analog and digital data paths.The KSZ9021RL is available in a 64-pin, lead-free E-LQFP package, and is offered as the KSZ9021RN in the smaller 48-pin QFN package. The KSZ9021GN is available in a 64-pin, lead-free QFN package and the KSZ9021GQ is available in a 128-pin, lead-free PQFP 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.

Please consider this deviceKSZ9031

Features

Single-chip 10/100/1000Mbps IEEE 802.3 compliant Ethernet Transceiver

KSZ9021G features GMII/MII standard compliant interface

KSZ9021R features RGMII interface compliant to RGMII Version 1.3

GMII/MII/RGMII I/Os with 3.3V/2.5V tolerant and programmable timings to adjust and correct delays on both Tx and Rx paths

Auto-negotiation to automatically select the highest link up speed (10/100/100Mbps) and duplex (half/full)

On-chip termination resistors for the differential pairs

On-chip LDO controller to support single 3.3V supply operation – requires only external FET to generate 1.2V for the core

Jumbo frame support up to 16KB

125MHz Reference Clock Output

Programmable LED outputs for link, activity and speed

Baseline Wander Correction

LinkMD® TDR-based cable diagnostics for identification of faulty copper cabling

Parametric NAND Tree support for fault detection between chip I/Os and board.

Loopback modes for diagnostics

Related Products

KSZ8081MLXIA

Microchip Technology, Inc

LQFP-48

KSZ8721BT

Microchip Technology, Inc

TQFP-48

KSZ8721BLI-TR

Microchip Technology, Inc

LQFP-48
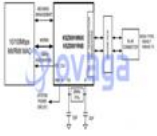
KSZ8091RNAIA-TR

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