LAN9512i-JZX

Ethernet CTLR Single Chip 10Mbps/100Mbps 3.3V 64-Pin QFN EP Tray

Manufacturer:	Microchip Technology, Inc
Package/Case:	QFN64
Product Type:	Communication & Networking ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

Images are for reference only

Inquiry

General Description

Microchip's LAN9512/LAN9512i are the industry's first fully-integrated, Hi-Speed USB 2.0 hub and high-performance 10/100 Ethernet controllers. LAN9512/LAN9512i are specifically designed to provide system architects with a low-cost, power-efficient, small-footprint USB to Ethernet and multi-port USB connectivity solution in a single package.

The LAN9512/LAN9512i contain a Hi-Speed USB 2.0 hub with two fully-integrated downstream USB 2.0 PHYs, an integrated upstream USB 2.0 PHY, a 10/100 Ethernet MAC/PHY controller, and an EEPROM controller. This offers Microchip's highest level of USB 2.0 and 10/100 Ethernet compliance and interoperability. Additionally, LAN9512/LAN9512i devices simplify system design by leveraging the existing USB stack and reducing the PCB footprint by up to 65% compared to discrete competitive solutions. USB-based networking technology offers a cost-effective and smart design alternative to traditional PCI/PCI-Express networking solutions due to the flexibility of routing and placement of Ethernet and USB connectivity ports.

Microchip's complimentary and confidential LANCheck® and USBCheck™ online design review services are 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.

For product comparison, please consider:LAN9513,LAN9514

Key Features

Highlights

Fully-integrated 2-port Hi-Speed USB 2.0 hub and 10/100 Ethernet controller

Microchip's UniClock™ technology simplifies the clocking scheme and reduces system BOM cost by using a single 25MHz crystal for both USB and Ethernet connectivity − without the need for extra components when adding USB hubs

Built-in ±8kV/15kV contact/air discharge ESD protection on both USB and Ethernet PHYs

24MHz clock out provided to connect additional USB Hubs

Multiple Operation Systems supported including: Windows® 7, Windows XP, Windows Vista®, Windows CE, Windows Mobile®, Linux® and Mac®, among others

Industrial temperature range (-40° to 85°C) options available (LAN9512i)

Compact 9x9mm, RoHS-compliant, 64-pin QFN package

EEPROM-less design option helps to reduce BOM costs

Hub features:

Two USB 2.0 downstream ports

Dedicated Transaction Translator (TT) for each downstream port for higher data throughput in mixed-speed USB environments

Unique PHYBoost technology enables programmable four-level USB signal drive strengths in downstream port transceivers

Ethernet features:

10/100 Ethernet controller supports numerous power management wakeup features, including Magic Packet™, Wake-on LAN (WOL) and Link Status Change

Target Applications

Docking Stations

Netbooks and Ultra-mobile PCs (UMPCs)

Mobile Internet Devices (MIDs)

Gaming Consoles

Portable Consumer Devices

Digital TVs (DTVs)

Blu-ray Disc™ Players

Set-top Boxes (STBs)

Network Printers

Embedded Systems

Recommended For You

LAN7500-ABZJ

Microchip Technology, Inc

QFN56

LAN9514i-JZX

Microchip Technology, Inc

QFN64

LAN7500-ABZJ-TR

Microchip Technology, Inc

QFN56

LAN7800/Y9X

Microchip Technology, Inc

VQFN-48

LAN7500i-ABZJ

Microchip Technology, Inc

QFN56

LAN9730-ABZJ

Microchip Technology, Inc

QFN56

LAN9513i-JZX

Microchip Technology, Inc

QFN64

LAN7500I-ABZJ-TR

Microchip Technology, Inc

QFN-56

LAN9512-JZX

Microchip Technology, Inc

QFN64

LAN7850-I/8JX

Microchip Technology, Inc

VQFN56

LAN7800/VSX

Microchip Technology, Inc

VQFN48

LAN7800-I/VSX

Microchip Technology, Inc

VQFN48

LAN7800-I/Y9X

Microchip Technology, Inc

VQFN48

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