


Ethernet CTRLR Single Chip 10Mbps 3.3V/5V 100-Pin PQFP Tray

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



Images are for reference only

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General Description

The LAN91C96 is a VLSI Ethernet Controller that combines Local Bus, PCMCIA, and Motorola 68000 bus interfaces in one chip. LAN91C96 integrates all MAC and physical layer functions, as well as the packet RAM, needed to implement a high performance 10BASE-T (twisted pair) node. For 10BASE5 (thick coax), 10BASE2 (thin coax), and 10BASE-F (fiber) implementations, the LAN91C96 interfaces to external transceivers via the provided AUI port. Only one additional IC is required for most applications. The LAN91C96 comes with Full Duplex Switched Ethernet (FDSWE) support allowing the controller to provide much higher throughput. 6K bytes of RAM is provided to support enhanced throughput and compensate for any increased system service latencies. The controller implements multiple advanced power-down modes including Magic Packet to conserve power and operate more efficiently. The LAN91C96 can directly interface with the Local Bus, PCMCIA, and 68000 buses and deliver no-wait-state operation. *The LANCheck online design review service is subject to Microchip's Program Terms and Conditions and requires a myMicrochip account.

Please consider this device LAN9217, LAN9218

Key Features

- Non-PCI Single-Chip Ethernet Controller
- A Subset of Motorola 6800 Bus Interface Support
- Fully Supports Full Duplex Switched Ethernet
- Supports Enhanced Transmit Queue Management
- 6K Bytes of On-Chip RAM
- Supports IEEE 802.3 (ANSI 8802-3) Ethernet Standards
- Automatic Detection of TX/RX Polarity Reversal
- Enhanced Power Management Features
- Supports "Magic Packet" Power Management Technology
- Hardware Memory Management Unit
- Optional Configuration via Serial EEPROM Interface (Jumperless)
- Supports Single +5V or +3.3V (for Revisions E and Later) VCC Design

Supports Mixed Voltage External PHY Designs

Low Power CMOS Design

100 Pin QFP and TQFP (1.0mm Body Thickness) RoHS Compliant Packages

Pin Compatible with the LAN91C92 and LAN91C94

Direct Interface to Local Bus, PCMCIA, and 68000 Buses with No Wait States

Flexible Bus Interface

16 Bit Data and Control Paths

Fast Access Time

Pipelined Data Path

Handles Block Word Transfers for Any Alignment

High Performance Chained ("Back-to-Back") Transmit and Receive

Pin Compatible with the LAN91C92 (in Local Bus Mode) and the LAN91C94 in Both Local Bus and PCMCIA Modes

Dynamic Memory Allocation Between Transmit and Receive

Flat Memory Structure for Low CPU Overhead

Buffered Architecture, Insensitive to Bus Latencies (No Overruns/Underruns)

Supports Boot PROM for Diskless Local Bus Applications

Driver and Receiver

Link Integrity Test

Receive Polarity Detection and Correction

Integrated AUI Interface

10 Mb/s Manchester Encoding/Decoding and Clock Recovery

Automatic Retransmission, Bad Packet Rejection, and Transmit Padding

External and Internal Loopback Modes

Four Direct Driven LED Outputs for Status/Diagnostics

LAN9000 Drivers for Major Network Operating Systems Utilizing Local Bus or PCMCIA Interface

Software Drivers Compatible with the LAN91C92, LAN91C94, LAN91C100FD (100 Mb/s), and LAN91C110 (100 Mb/s) Controllers in Local Bus Mode

Software Drivers Utilize Full Capability of 32 Bit Microprocessor



Recommended For You

LAN91C111-NE

Microchip Technology, Inc

QFP

LAN91C93I-MU

Microchip Technology, Inc

QFP

LAN9420I-NU

Microchip Technology, Inc

TQFP128

LAN91C96-MU

Microchip Technology, Inc

TQFP100

LAN91C111i-NC

Microchip Technology, Inc

QFP

LAN91C111I-NU

Microchip Technology, Inc

TQFP128

LAN91C111-NC

Microchip Technology, Inc

QFP

LAN9252I/ML

Microchip Technology, Inc

QFN-64

LAN9215-MT

Microchip Technology, Inc

QFP100

LAN91C111I-NS

Microchip Technology, Inc

QFP128

LAN91C111-NU

Microchip Technology, Inc

QFP

LAN9118-MT

Microchip Technology, Inc

TQFP100

LAN9252I/PT

Microchip Technology, Inc

TQFP64

LAN9221I-ABZJ

Microchip Technology, Inc

QFN56

LAN91C111-NS

Microchip Technology, Inc

QFP