Ethernet CTLR Single Chip 10Mbps/100Mbps 3.3V 100-Pin TQFP Tray

Manufacturer:	Microchip Technology, Inc
Package/Case:	QFP100
Product Type:	Communication & Networking ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active
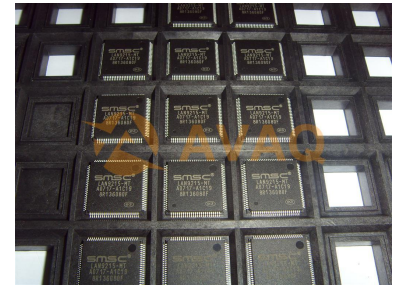
Images are for reference only

Inquiry

General Description

The LAN9215(i) is a full-featured, single-chip 10/100 Ethernet controller designed for embedded applications where performance, flexibility, ease of integration and system cost control are required. The LAN9215(i) has been architected to provide the best price-performance ratio for any 16-bit application with medium performance requirements. The LAN9215(i) is fully IEEE 802.3 10BASE-T and 802.3u 100BASE-TX compliant, and supports HP Auto-MDIX. The LAN9215(i) includes an integrated Ethernet MAC and PHY with a high-performance SRAM-like slave interface. The simple, yet highly functional host bus interface provides a glue-less connection to most common 16-bit microprocessors and microcontrollers as well as 32-bit microprocessors with a 16-bit external bus. The LAN9215(i) includes large transmit and receive data FIFOs to accommodate high latency applications. In addition, the LAN9215(i) memory buffer architecture allows the most efficient use of memory resources by optimizing packet granularity.The 93AA46AE48 EEPROM device from Microchip comes with a factory programmed, globally unique EUI-48™ MAC Address. This Ethernet controller will automatically detect and load the EUI-48™ node address from the 93AA46AE48 EEPROM at start-up or reset. *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:LAN9217,LAN9218

Key Features

Highlights

Optimized for medium performance applications

Efficient architecture with low CPU overhead

Easily interfaces to most 16-bit embedded CPU's

Integrated PHY with HP Auto-MDIX Support

Supports audio & video streaming over Ethernet: multiple standard-definition (SD) MPEG2 streams

Compatible with other members of LAN9218 family

Target Applications

Basic cable, satellite, and IP set-top boxes

Digital video recorders

Video-over IP solutions, IP PBX & video phones

Wireless routers & access points

Audio distribution systems

Printers, kiosks, security systems

General embedded applications

Key Benefits

Non-PCI Ethernet controller for medium performance applications

16-bit interface

Burst-mode read support

External MII interface

Eliminates dropped packets

Internal buffer memory can store over 200 packets

Automatic PAUSE and back-pressure flow control

Minimizes CPU overhead

Supports Slave-DMA

Interrupt Pin with Programmable Hold-off timer

Reduces system cost and increases design flexibility

SRAM-like interface easily interfaces to most Embedded CPU's or SoC's

Reduced Power Modes

Numerous power management modes

Wake on LAN*

Magic packet wakeup*

Wakeup indicator event signal

Link Status Change

Single chip Ethernet controller

Fully compliant with IEEE 802.3/802.3u standards

Integrated Ethernet MAC and PHY

10BASE-T and 100BASE-TX support

Full- and Half-duplex support

Full-duplex flow control

Backpressure for half-duplex flow control

Preamble generation and removal

Automatic 32-bit CRC generation and checking

Automatic payload padding and pad removal

Loop-back modes

Flexible address filtering modes

One 48-bit perfect address

64 hash-filtered multicast addresses

Pass all multicast

Promiscuous mode

Inverse filtering

Pass all incoming with status report

Disable reception of broadcast packets

Integrated 10/100 Ethernet PHY

Supports HP Auto-MDIX

Auto-negotiation

Supports energy-detect power down

Host bus interface

Simple, SRAM-like interface

16-bit data bus

16Kbyte FIFO with flexible TX/RX allocation

One configurable host interrupt

Miscellaneous features

Low-profile 100-pin TQFP, or 100-ball LFBGA (LAN9215) RoHS Compliant package
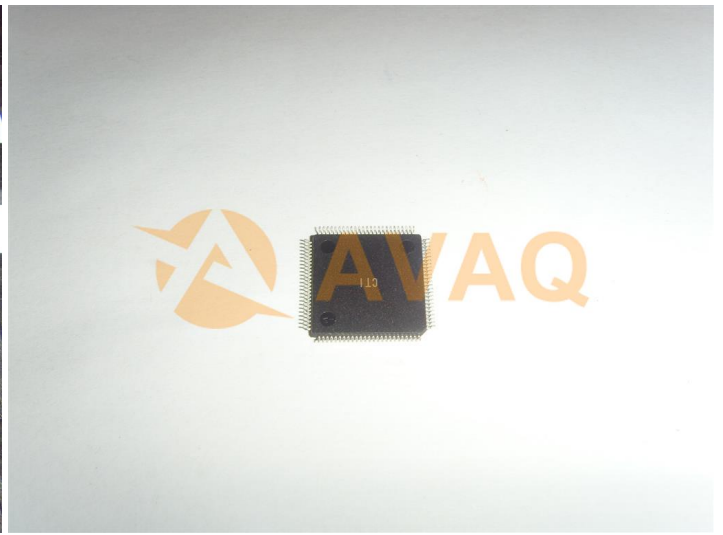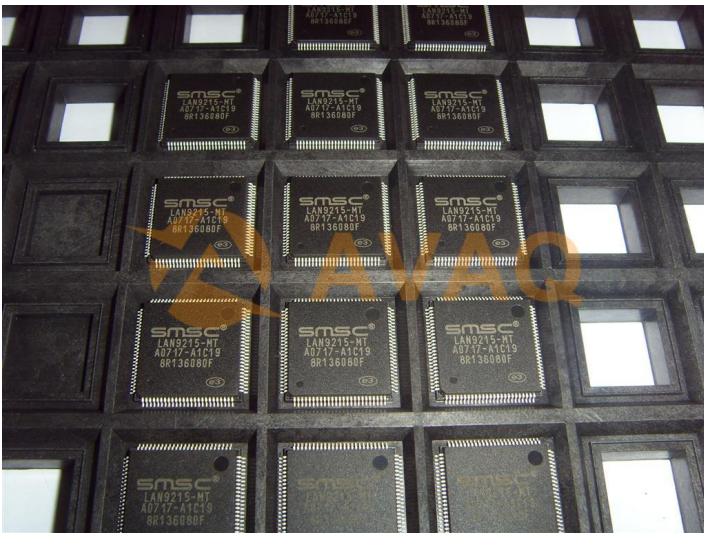
Integrated 1.8V regulator

General Purpose Timer

Optional EEPROM interface

Support for 3 status LEDs multiplexed with Programmable GPIO signals

Single 3.3V Power Supply with 5V tolerant I/O

Commercial and Industrial (LAN9215i) Temperature Support

Recommended For You

LAN91C111-NE	**LAN91C93I-MU**	**LAN9420I-NU**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
QFP	QFP	TQFP128

LAN91C96-MU	**LAN91C111i-NC**	**LAN91C96-MS**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
TQFP100	QFP	QFP

LAN91C111I-NU	**LAN91C111-NC**	**LAN9252I/ML**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
TQFP128	QFP	QFN-64

LAN91C111I-NS	**LAN91C111-NU**	**LAN9118-MT**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
QFP128	QFP	TQFP100

LAN9252I/PT	**LAN9221I-ABZJ**	**LAN91C111-NS**
Microchip Technology, Inc	Microchip Technology, Inc	Microchip Technology, Inc
TQFP64	QFN56	QFP