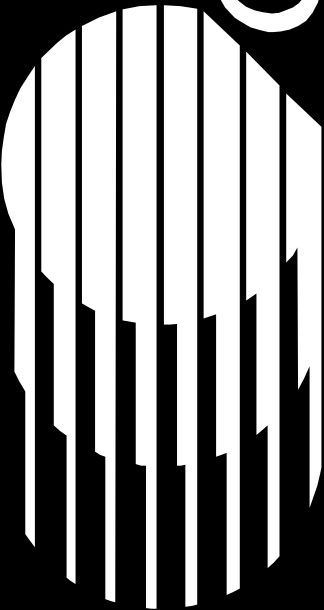




CIRRUS LOGIC®

CS8900A

Crystal LAN™ ISA Ethernet Controller

The following information is based on the
technical datasheet:

CS8900A DS271PP2 DEC'98

Please contact Cirrus Logic :
Communications Products Division for further
information.

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PRODUCT INFORMATION

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PI271PP1 DEC '98

Crystal LAN™ ISA Ethernet Controller

Features

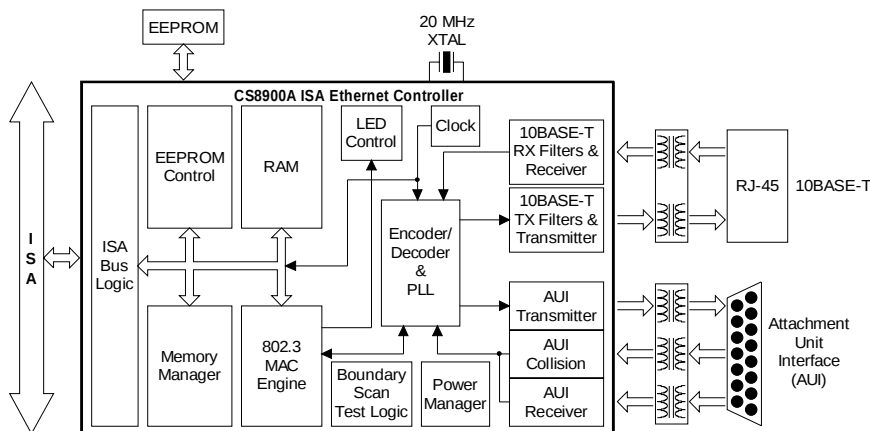
- Single-Chip IEEE 802.3 Ethernet Controller with Direct ISA-Bus Interface
- Maximum Current Consumption = 55 mA (5V Supply)
- 3 V Operation
- Industrial Temperature Range
- Comprehensive Suite of Software Drivers Available
- Efficient PacketPage™ Architecture Operates in I/O and Memory Space, and as DMA Slave
- Full Duplex Operation
- On-Chip RAM Buffers Transmit and Receive Frames
- 10BASE-T Port with Analog Filters, Provides:
 - Automatic Polarity Detection and Correction
- AUI Port for 10BASE2, 10BASE5 and 10BASE-F
- Programmable Transmit Features:
 - Automatic Re-transmission on Collision
 - Automatic Padding and CRC Generation
- Programmable Receive Features:
 - Stream Transfer™ for Reduced CPU Overhead
 - Auto-Switch Between DMA and On-Chip Memory
 - Early Interrupts for Frame Pre-Processing
 - Automatic Rejection of Erroneous Packets
- EEPROM Support for Jumperless Configuration
- Boot PROM Support for Diskless Systems
- Boundary Scan and Loopback Test
- LED Drivers for Link Status and LAN Activity
- Standby and Suspend Sleep Modes

Description

The CS8900A is a low-cost Ethernet LAN Controller optimized for Industry Standard Architecture (ISA) Personal Computers. Its highly-integrated design eliminates the need for costly external components required by other Ethernet controllers. The CS8900A includes on-chip RAM, 10BASE-T transmit and receive filters, and a direct ISA-Bus interface with 24 mA Drivers.

In addition to high integration, the CS8900A offers a broad range of performance features and configuration options. Its unique PacketPage architecture automatically adapts to changing network traffic patterns and available system resources. The result is increased system efficiency.

The CS8900A is available in a 100-pin TQFP package ideally suited for small form-factor, cost-sensitive Ethernet applications. With the CS8900A, system engineers can design a complete Ethernet circuit that occupies less than 1.5 square inches (10 sq. cm) of board space.



Overview

The CS8900A is a true single-chip, full-duplex, Ethernet solution, incorporating all of the analog and digital circuitry needed for a complete Ethernet circuit. Major functional blocks include: a direct ISA-bus interface; an 802.3 MAC engine; integrated buffer memory; a serial EEPROM interface; and a complete analog front end with both 10BASE-T and AUI.

FAQs

1) What software drivers are available for the CS8900A?

A: We have all the most popular drivers available, including

- LINUX
- Microsoft
 - NDIS 2 DOS driver
 - NDIS 2 OS/2 driver
 - NDIS 3 drivers for:
 - Windows NT
 - Windows for Workgroups
 - Windows 95
 - Windows CE
- Novell
- ODI DOS driver
- ODI OS/2 driver
- ODI Server
- Packet Driver (TCP/IP)
- pSOS
- Real-time OS drivers
- RIPL (Remote Initial Program Load) for ODI and NDIS 2
- RTOS/NCOS (ARM and Oracle) - In development
- SCO
- Setup/installation Utility: EEPORG Utility (EEPROM programming utility)
- UNIX
- VxWorks

2) How can I get these drivers?

A: By request to ethernet@crystal.com, or calling James Ayres at 1 512 912 3827. A license agreement is required for source code of some drivers.

Ordering Information

CS8900A-CQ	0° to 70° C	100-pin TQFP
CS8900A-IQ	-40° to 85° C	100-pin TQFP
CS8900A-CQ3	0° to 70° C	100-pin TQFP
CRD8900A-1		Evaluation Kit

If you have any questions, please contact the undersigned by phone or by email. Also, visit our website “www.crystal.com” or call our literature department (800) 888-5016 ext. 3594 or (512) 912-3594 for data sheets and application notes.

Schematic & Layout Review Service

Confirm Optimum
Schematic & Layout
Before Building Your Board.

For Our Free Review Service
Call Applications Engineering.

C a l l : (5 1 2) 4 4 5 - 7 2 2 2



Sales Office and Applications Support

UNITED STATES

Western Area

Cirrus Logic, Inc.
3100 West Warren Ave.
Fremont, CA 94538
Ph: 510-623-8300
FAX: 510-252-6020

Southern California, Sales
Westlake Village
The Townsgate Executive Bldg.
2659 Townsgate Road,
Suite 238
Westlake Village, CA 91361
Ph: 805-371-5860
FAX 805-371-5861

Cirrus Logic, Inc.
6650 S.W. Redwood Lane,
Ste. 105, First Floor Bldg. 16
Portland, Oregon 97224
Ph: 503-620-5547
FAX: 503-620-5665

Cirrus Logic, Inc.
827 Wellesley Ave.
Los Angeles, CA 90049
Ph: 310-820-6489
FAX: 310-820-6180

Central Area

Cirrus Logic, Inc.
14205 Burnet Rd., Ste. 400
Austin, TX 78728
Ph: 512-255-8893
FAX: 512-255-0733

Cirrus Logic, Inc.
2500 W. Higgins Road, Ste. 1125
Hoffman, Estates, IL 60195
Ph: 847-884-6750
FAX: 847-884-6795

Sotheastern Area

Cirrus Logic, Inc..
5511 Capital Center Dr., Ste. 103
Raleigh, NC 27606
Ph: 919-859-5210
FAX: 919-859-5334

Cirrus Logic International
3998 NW 8th Ave., Ste. 300
Boca Raton, FL 33431
Ph: 561-395-1613
FAX: 561-395-1373

Northeastern Area

Cirrus Logic, Inc.
10 New England Business
Center, Ste. 100
Andover, MA 01810
Ph: 978-794-9992
FAX: 978-794-9998

Cirrus Logic, Inc.
10440 Little Patuxent Pkwy.,
Ste. 300
Columbia, MD 21044-3559
Ph: 410-740-5654
FAX: 410-740-6961

EUROPE

Cirrus Logic International SARL
Immeuble Andre Mal



PO BOX 17847
4210 S. INDUSTRIAL DRIVE
AUSTIN, TEXAS 78744
512.445.7222 / 800.888.5016
FAX: 512.445.7581

WORLDWIDE WEB:
<http://www.cirrus.com>