

OVERVIEW

Cirrus Logic, the leader in digital audio with its growing family of Maverick™ Market Specific Processors, expands the reach of MP3 encoding from the exclusive domain of the PC into the home entertainment market through the EP9312. It allows the creation of a new Internet Appliance, the Home Digital Audio Jukebox, that compresses music acquired from personal CD collections, local AM/FM stations, or the Internet and stores the compressed music files on its local hard drive. These files may then be played through a local amplifier, downloaded to a handheld player, or distributed to remote players via a home network.

The EP9312 is designed for applications where processor performance, signal processing capabilities, and the user interface are properly balanced to provide multiple streams of compressed audio data (MP3, WMA, and other popular standards) throughout the home.

The ARM920T microprocessor core with separate 16 Kbyte, 64-way set-associative instruction and data caches is augmented by the MaverickCrunch™ co-processor enabling faster than real-time compression of audio CDs. The proprietary MaverickLock™ technology exceeds the security requirements set forth by the Secure Digital Media Initiative (SDMI) to protect content. It may also be used to protect firmware as well.

FEATURES AND SPECIFICATIONS

200 MHz ARM920T Processor

- 16 Kbyte Data / 16 KByte Instruction Caches
- MMU supports Windows® CE, LINUX®, or other embedded operating systems

MaverickCrunch™ Math Engine

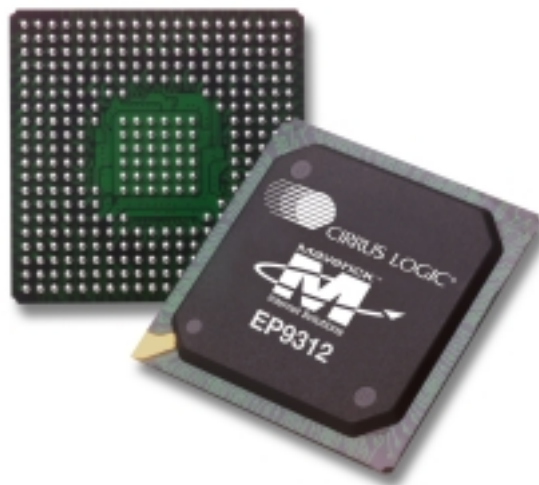
- Floating point, integer and signal processing instructions
- Optimized for digital music compression algorithms
- Hardware interlocks allow in-line coding

MaverickLock™ Security Features

- Incorporates boot ROM, laser fuses, and gate-level IP
- Multiple security vendors can co-exist in the same system
- Exceeds Secure Digital Music Initiative (SDMI) requirements

Integrated Peripheral Interfaces

- EIDE (up to 2 devices)
- 1/10/100 Mbps Ethernet MAC
- Three 16550 compatible UARTs



- 16-bit GPIO
- Three-Port USB Host
- Two SPI Ports
- 8 x 8 Keypad Scanner
- LCD Interface
- Touch Screen Interface

External Memory Options

- 32-bit SDRAM Interface up to 4 banks
- 32/16-bit SRAM/Flash/ROM PCMCIA I/F
- EEPROM Interface

Internal Peripherals

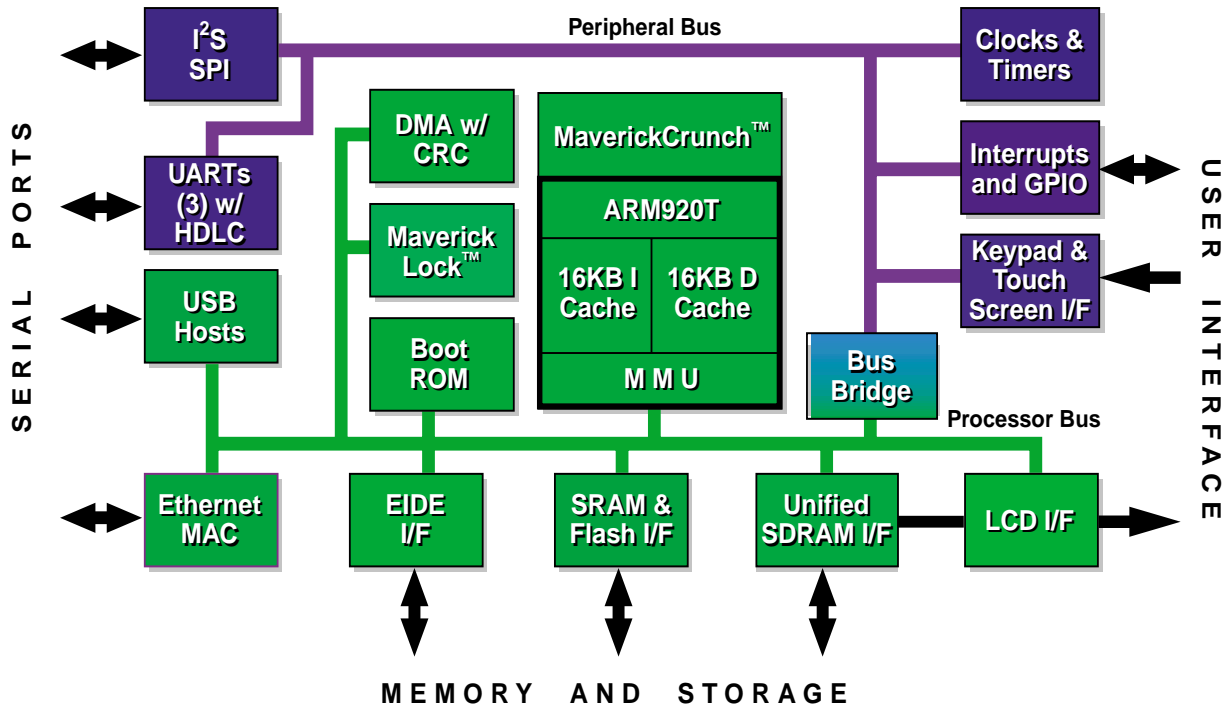
- Real-Time Clock with Software Trim
- Eight DMA Channels with CRC Generation
- Dual PLLs control all clock domains
- Watchdog Timer
- Four general purpose 16-bit timers
- 32-bit Debug Timer
- Boot ROM

Package

- 352-pin PBGA


Maverick™

EP9312 Block Diagram



Contacting Cirrus Logic Support

For a complete listing of Direct Sales, Distributor, and Sales Representative contacts, visit the Cirrus Logic web site at: <http://www.cirrus.com/corporate/contacts/>

Cirrus Logic Inc. (Nasdaq: CRUS) is a premier supplier of high-performance analog and DSP chip solutions for Internet entertainment electronics. Building on its global market share leadership in audio integrated circuits and its rich mixed-signal patent portfolio, the company targets high volume audio, storage and communications applications. Cirrus Logic sells its products under the Crystal[®], Maverick[™] and 3Ci[™] brands as well as its own name.

With more than 930 patents (issued and pending), Cirrus Logic's portfolio of inventions is substantial, and the company continues to expand its rich intellectual property portfolio through major R&D investments. Approximately half of the company's patents involve mixed-signal technology, which is key to innovating highly integrated system-on-chip solutions. Over the past decade, Cirrus Logic has achieved more than 75 industry firsts with its product introductions. Many of these innovations have set new industry standards within their respective markets.

Cirrus Logic operates from headquarters in Austin, Texas and major sites located in Fremont, California and Broomfield, Colorado as well as offices in Europe, Japan and Asia.

More information about Cirrus Logic and its products can be accessed at the company's world wide web site: www.cirrus.com.

Copyright © 2000 Cirrus Logic, Inc. All rights reserved. Printed in USA.

ARM is a registered trademark of ARM Limited. Windows, and Windows CE, and Microsoft are registered trademarks of Microsoft Corporation. Cirrus Logic, Inc. has made best efforts to ensure that the information contained in this document is accurate and reliable. However, the information is subject to change without notice and is provided 'AS IS' without warranty of any kind (express or implied). No responsibility is assumed by Cirrus Logic, Inc. for the use of this information, nor for infringements of patents or other rights of third parties. This document is the property of Cirrus Logic, Inc. and implies no license under patents, copyrights, trademarks, or trade secrets. No part of this publication may be copied, reproduced, stored in a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photographic, or otherwise) unless distributed in its entirety with all copyright notices attached. No part of this publication may be used as a basis for manufacture or sale of any items without the prior written consent of Cirrus Logic, Inc. The names of products of Cirrus Logic, Inc. or other vendors and suppliers appearing in this document may be trademarks or service marks of their respective owners which may be registered in some jurisdictions. A list of Cirrus Logic, Inc. trademarks and service marks can be found at <http://www.cirrus.com>.