High-Definition Audio Decoder

Dual core 32-bit audio DSP for next-generation high-definition audio standards

The advent of next-generation high-definition DVD players, based on the Blu-ray Disc® and HD DVD™ formats, presents significant design complexities for original equipment manufacturers (OEMs). While most of the attention has been placed on high-definition video, the emergence of new audio formats utilized in high-definition DVD standards poses even greater challenges for OEMs seeking to penetrate this quickly evolving consumer market.

Cirrus Logic has applied its core audio expertise to provide OEMs with a single-chip, total market-ready solution for AVRs and high-definition DVD players, for all product price points.
**CRD49700-USB Development Platform**

The CRD49700-USB Evaluation Kit is composed of the CRD49700 Customer Reference Design as well as the CRD-USBMASTER-DC-Z USB Host Control / Audio Playback / Capture Board. The later board can be used to spool standard and high-bit-rate (HBR) audio to the CS49700 device to undergo decoding and processing using provided command-line based tools such as USBPLAY.

Separately, the CRD-HDMI-DC-Z Evaluation Board is available for designs which feature HDMI® inputs and features a dual input Silicon Image™ SiI9135 HDMI Receiver as well as a single SiI9134 HDMI Transmitter.

The CRD49700 Evaluation Board provides a practical platform for emulating a typical HD Audio multichannel audio system application and is a powerful aid to system designers during the design and development of their platforms.

**DSP GUI Programming Environment**

The CS49700 is programmed using the Cirrus Logic proprietary GUI software development tool, DSP Composer. An audio signal processing chain is designed using a drag-and-drop interface. The tool then configures the CS49700 through the SPI™ / I2C® serial port. The firmware may be loaded from ROM within the CS49700 or it may be downloaded through the serial control port.

**Accelerate your Development Time**

A revolutionary new development microcontroller source code developer called DSP Condenser now enables AVR-like designs to be able to decode any type of compressed audio streams in a couple of days worth of work, instead of weeks or months.

**Ordering Information:**

- **Device:** CS497004-CQZ
- **Package:** 144-pin LQFP
- **Dev. Board:** CRD49700-USB
- **HDMI Adapter:** CRD-HDMI-DC-Z
- **Application Note:** AN304, AN304 Family
- **Tools:** DSP Composer GUI, Software Programming Tool, DSP Controller GUI, AVR front panel stimulator, DSP Condenser Source Code Generator

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