A DIVISION OF CIRRUS LOGIC

CDBCAPTAUDIO

S/PDIF Adapter Board for CDBCAPTURE

Features

- Allows CDBCAPTURE to collect data from any S/PDIF data stream.
- Easy interface to Crystal Semiconductor's Digital Audio evaluation boards.
- Software programmable for 24, 20, 18, or 16 bit word lengths.

General Description

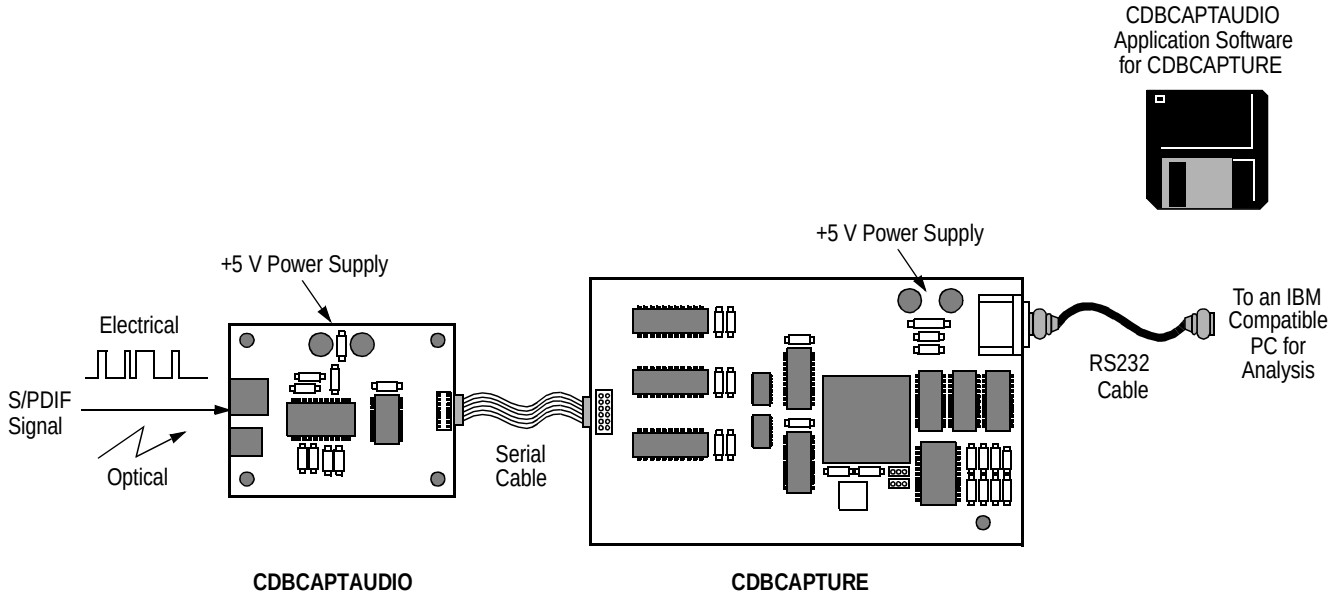
The CAPTAUDIO adapter board is designed to work with the CAPTURE interface board. It enables the CAPTURE board to collect data from an S/PDIF signal. The S/PDIF signal is a standard digital audio format for passing data between equipment. All of Crystal Semiconductor's digital audio analog to digital converter evaluation boards output an S/PDIF signal.

The S/PDIF input to the CAPTAUDIO board can be either an electrical or optical signal. RCA and TOSLINK connectors are provided. The CAPTAUDIO output connects to the CAPTURE board via the 10 conductor ribbon cable. A 5 volt power supply is required for operation. Application software is provided to configure the CAPTURE board for 24, 20, 18, and 16 bit word lengths.

Evaluation software is included with the CAPTURE interface board. The software is developed with LabWindows, a software development system for instrument control, data acquisition, and analysis applications. The evaluation software permits time domain, frequency domain and histogram analysis.

ORDERING INFORMATION

CDBCAPTAUDIO



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OVERVIEW

The CAPTAUDIO adapter board converts an S/PDIF signal into a format which the CAPTURE board can read. CAPTAUDIO adapter board can accept the S/PDIF signal in either electrical or optical form. RCA and TOSLINK connectors are provided. A CS8412 converts the S/PDIF signal into separate serial data, bit clock, and left/right signals. These signals are then passed to the CAPTURE board via a 10 conductor ribbon cable.

Figure 1 is a functional block diagram for the CAPTAUDIO adapter board The S/PDIF signal from the TOSLINK or RCA connector is input to a CS8412. The CS8412 decodes the S/PDIF signal and outputs the digital audio information on the SDATA, SCK and FSYNC pins. These signals are synchronized with the MCLK using an HCT175 latch. The output of the HCT175 is routed to a 10-pin stake header, which is connected to the ribbon cable for the CAPTURE board.

A 3.5 in diskette contains hex files for configuring the CAPTURE board for four word lengths (24, 20, 18, and 16 bits). These hex files must be copied to the CAPTURE software's "hex" subdirectory.

Connections:

Connect CAPTURE board to PC via RS232 cable.

Connect CAPTAUDIO board to CAPTURE board via 10 conductor serial cable.

Connect S/PDIF signal to CAPTAUDIO board.

Supply 5 volt power to CAPTURE and CAPTAUDIO boards.

Copy Application Software to the Hard Drive:

Insert Diskette "CDBCAPTAUDIO Application Software for CDBCAPTURE" into the disk drive.

Read the "readme.doc" file.

Follow the instructions in the readme file on copying the application software onto the hard drive.

Operation:

Run the CAPTURE software on the PC.

For operation with the CAPTAUDIO board, select "PART NUMBER" from the "SETUP" menu.

In the PART NUMBER selection, select either "24 Bit", "20 Bit", "18 Bit" or "16 Bit".

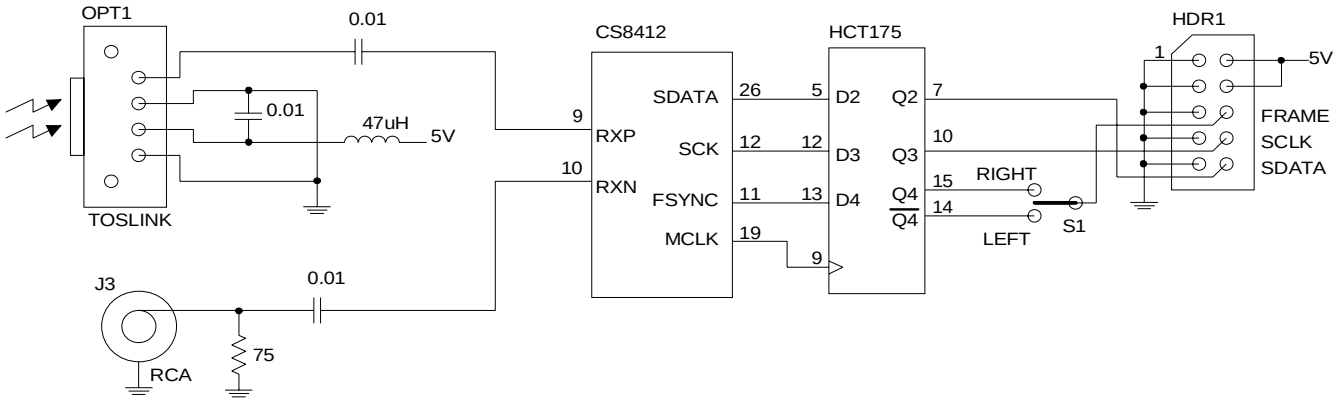

Figure 1. Functional Block Diagram

• Notes •


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