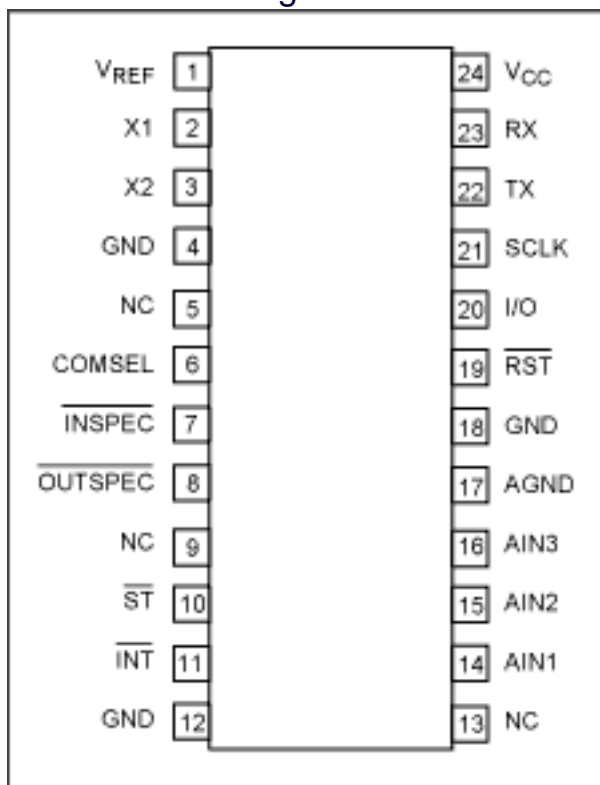# App Note 3448: Interfacing a DS1616 Data Recorder with an 8051-Type

This application note describes how to interface the DS1616 data recorder to a microcontroller using the synchronous 3-wire interface. The code is written in C for an 8051-type microcontroller.

DS1616 Pin Assignment

Description

This application note demonstrates how to interface a DS1616 data recorded to an 8051-type microcontroller. Example code shows basic interface routines. The microcontroller used in this example is the DS2250, and the software is written in C.

Operation

The program uses three general-purpose port pins on the microcontroller to control the 3-wire synchronous bus. The microcontroller initiates a data transfer by sending a command byte plus additional address bytes, as required, to the DS1616. The microcontroller then sends additional data and/or SCLKs to the DS1616, which transmits or receives data based upon the command

byte.

The software is shown in **Figure 1**. A schematic of the circuit is shown in **Figure 2**.

Figure 1. Software Listing (Download ZIP file)
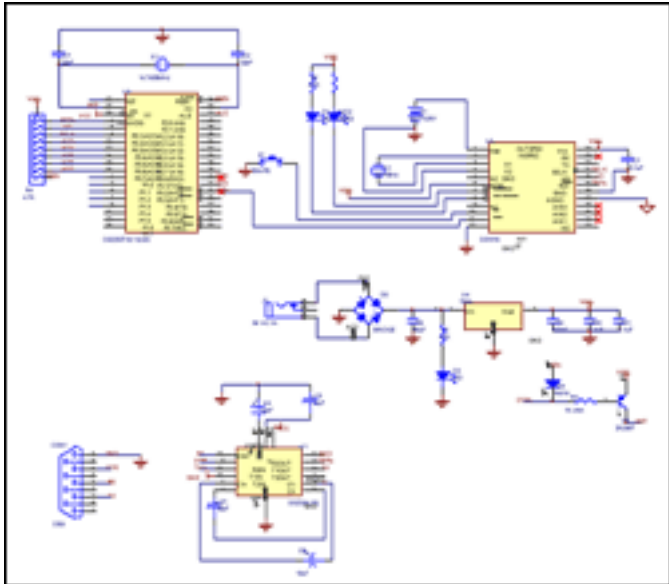
For Larger Image
Figure 2. Schematic of the DS1616

More Information

DS1615: QuickView -- Full (PDF) Data Sheet -- Free Samples

DS1616: QuickView -- Full (PDF) Data Sheet -- Free Samples