USB to I²C Bus Interface - Sample Project

Overview

This example project for the FT2232C demonstrates how to use the devices Multi-Protocol synchronous Serial Engine (MPSSE) to make a USB to I²C bus interface. The executable application and full project code (in Delphi) are provided.

Requirements

This project is designed to run on Windows 2000 or Windows XP and requires FTDI's FT2232C drivers to be installed
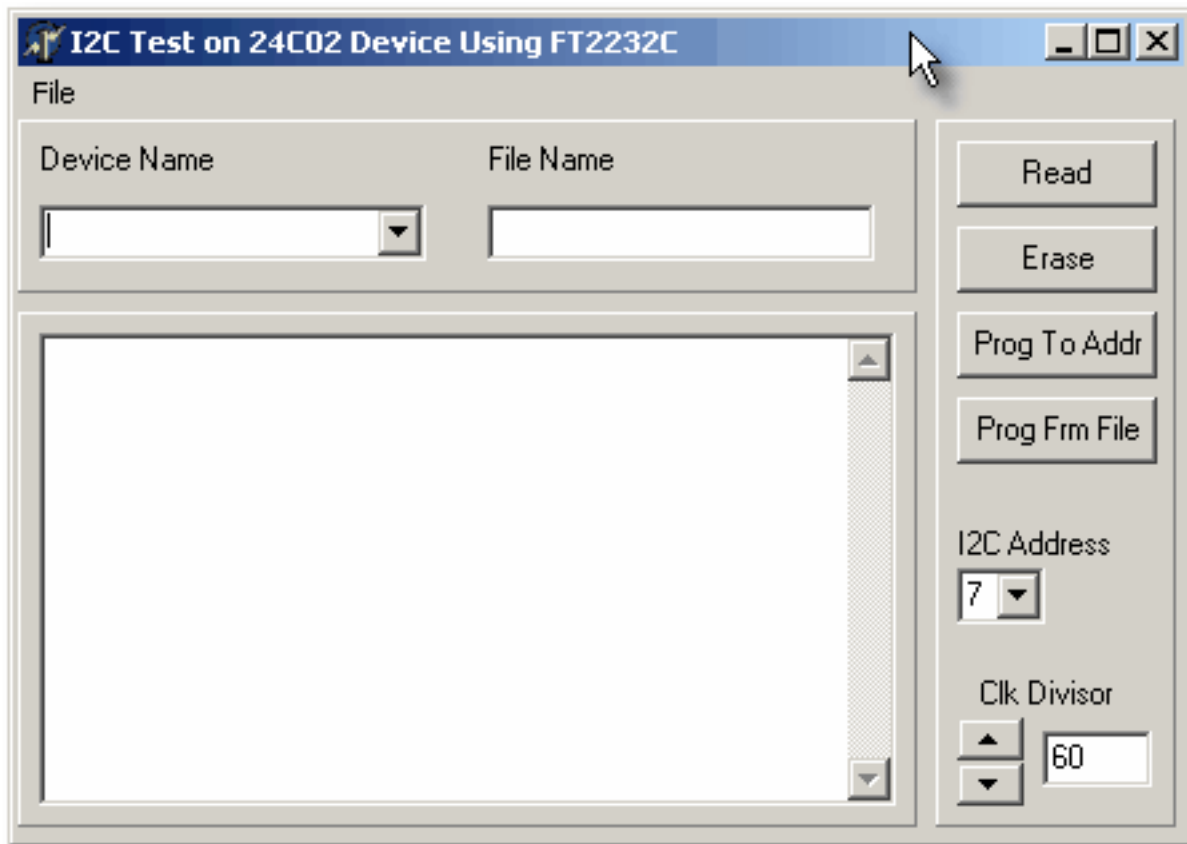
Test Circuit

This project was developed and tested using the following circuit. 4 of the signal lines on channel A of the FT2232C were used.
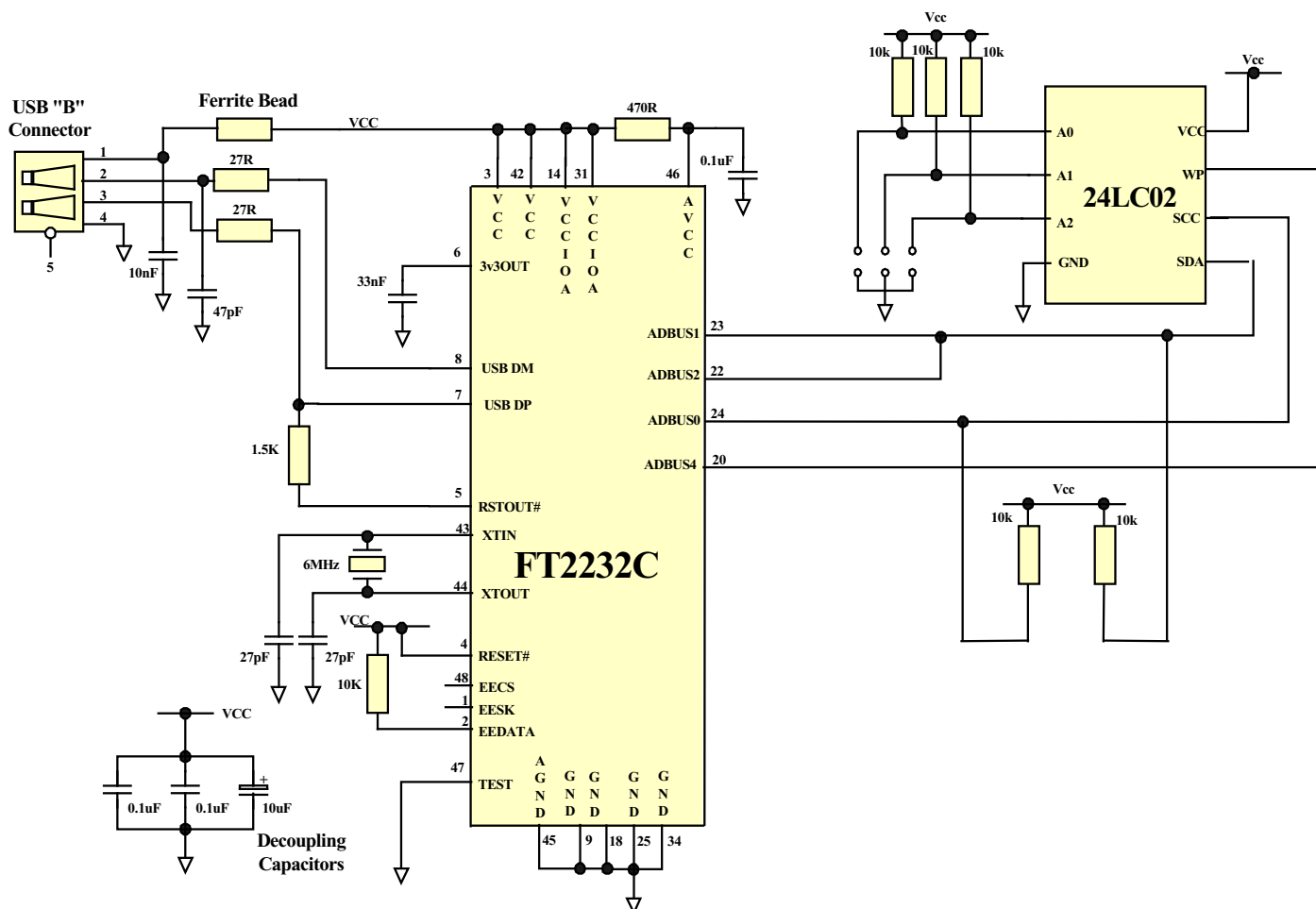
Running the Sample Application

Run I²CTest.exe. The following dialogue window will be shown. Use the Device name drop down menu to select the MPSSE device that you want to talk to.

Read - this will read the current contents of the 24LC02. If the EEPROM is blank FF's will be shown.

Erase - this will erase the EEPROM contents.

Prog To Addr - This will program the address value (in hex) to each address in the EEPROM. i.e. 0000 will be programmed to address 0000, 0001 to address 0001,...., and 007F to address 007F.

Prog Frm File - This allows the EEPROM to be programmed with data from a file stored on the PC. The file used to program can be selected using Open from the File menu. The file path will be displayed under the File Name field.

I2C Address - Can be used to select the target device using the address lines if multiple I²C devices are connected to the FT2232C.

Clk Divisor - Allows the clock divisor for programming the EEPROM to be set.

The full Delphi project files are available for this application program.

Further Information

FT2232C Device Datasheet
AN2232C-01 - Command Processor For MPSSE and MCU Host Bus Emulation
AN2232C-02 - Bit Mode Functions for the FT2232C
FT2232C-Proj01 - USB to SPI Bus Sample Project

Document Revision History

FT2232C-Proj02 Version 1.0 – Initial document created May 2004.
FT2232C-Proj02 Version 1.1 – November 2004 - Circuit diagram updated.

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