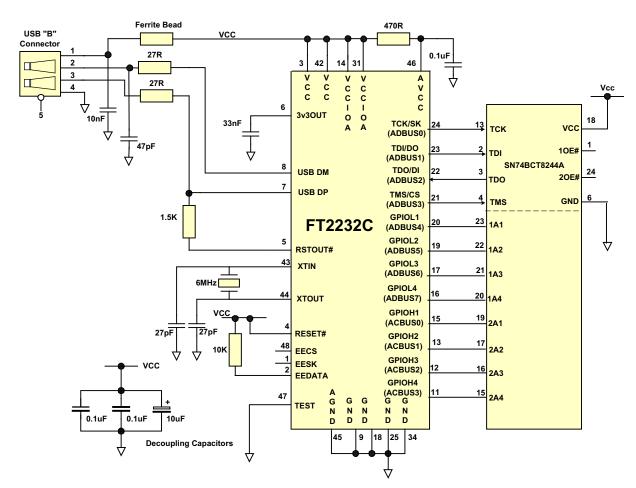# USB JTAGScan - Sample Project

Overview

This sample project demonstrates using FTDI's FT2232C I.C. device Multi-Protocol Synchronous Serial Engine (MPSSE) controller to do JTAG routines for scanning in, scanning out, scanning in and out, and getting the data. The executable application and full project code (in Delphi) are provided.

The project code only demonstrates using 32 bits, but can be extended up to 64 KByte. The GetData routine in the example shows how to collect data. For this type of application the FT2232C's read buffer latency timer should be left set to 16 ms (the default value). The routines in this project use the Send Immediate command to send any outstanding data.

Requirements

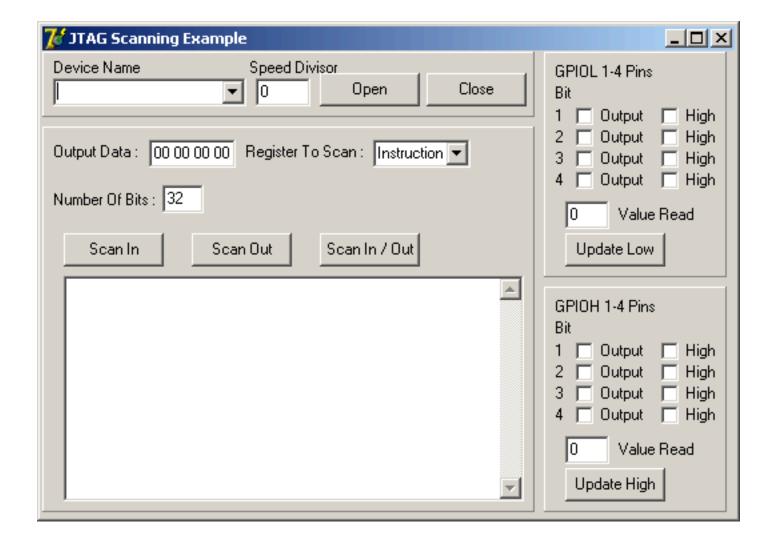This project is designed to run on Windows 2000 or Windows XP PC, and requires FTDI's FT2232C drivers to be installed.

Figure 1 - Interfacing the FT2232C to a Texas Instruments SN74BCT8244A JTAG Scan / Test device.

Running the Sample Application

Run JTAGScan.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. This application is designed to be run with a Texas Instruments SN74BCT8244A JTAG Scan / Test device, but the source code could be modified to allow it to be used with almost any JTAG device. Obviously, the hardware configuration, and thus the application will vary depending on which device the FT2232C is being interfaced with.

Figure 2 - JTAGScan sample application

Related Documentation

FT2232C Device Datasheet
AN2232C-01 - Command Processor For MPSSE and MCU Host Bus Emulation
AN2232C-02 - Bit Mode Functions for the FT2232C
AN232B-04 - Data Throughput, Latency, and Handshaking**
Texas Instruments sn74bct8244a - SN54BCT8244A / SN74BCT8244A Scan Test Device With Octal Buffers - Device Datasheet

Related Projects

FT2232C-Proj01 USB to SPI Interface

FT2232C-Proj02 - USB to I^{2}C Interface

**Note - The application note refers to FTDI's FT232BM and FT245BM devices, but much of the infomation still applies to the FT2232C

Document Revision History

FT2232C-Proj03 Version 1.0 – Initial document created July 2004.
FT2232C-Proj03 Version 1.1 – October 2004.
Schematic added.
Reference to SPITest.exe corrected - changed to JTAGScan.exe
Reference to Texas Instruments Datasheet added.

Disclaimer

Contact Information