



USB MCU Host Emulator – Sample Project USB AT-Bus Interface

Overview

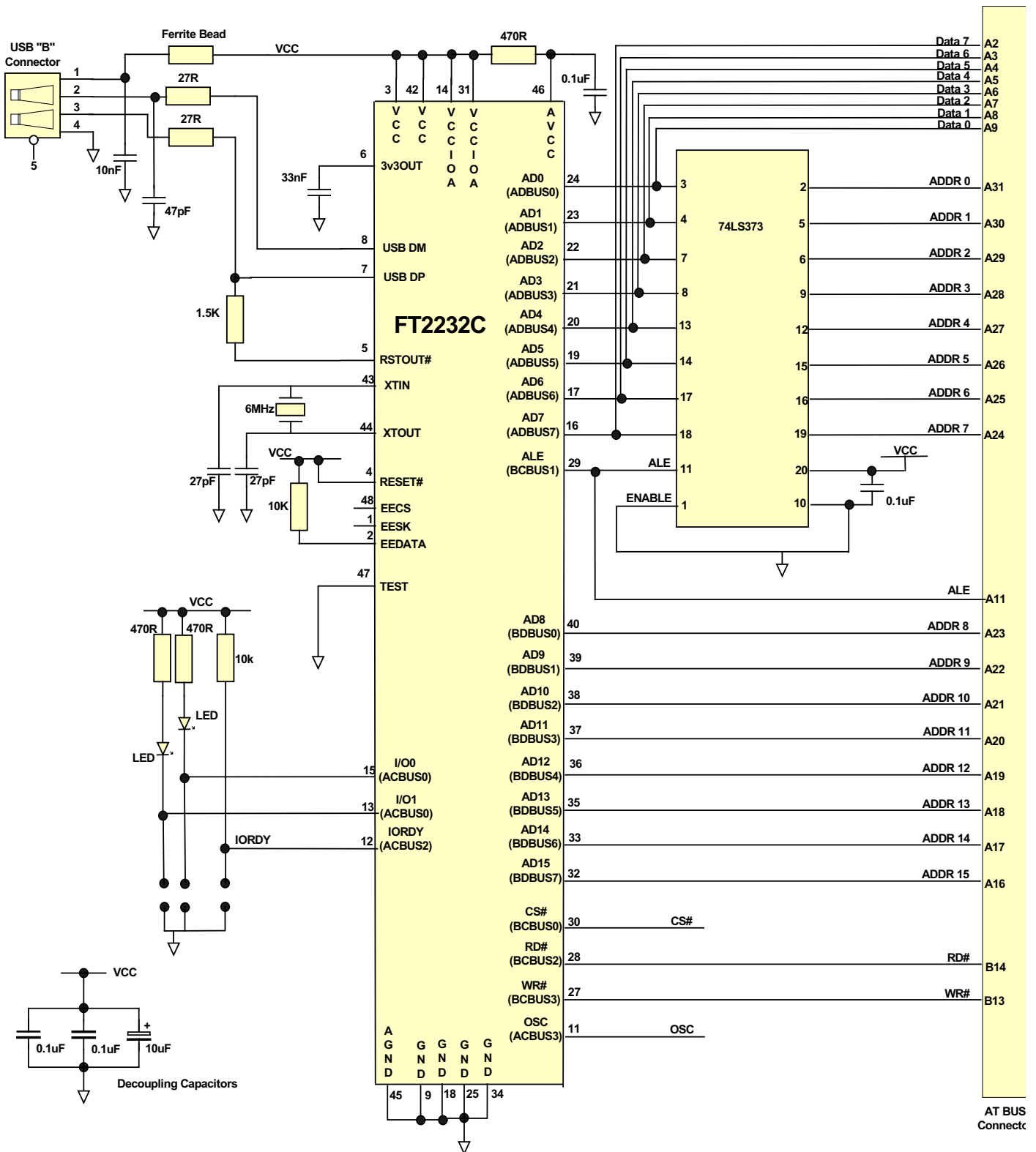
This is an example project that demonstrates using the FT2232C's Multi-Protocol Synchronous Serial Engine (MPSSE) controller to perform MCU host bus controlling of an AT-Bus. The executable application and the full project code (in Delphi) are provided.

Requirements

This project is designed to run on Windows 2000 or Windows XP and requires FT2232C drivers to be installed.

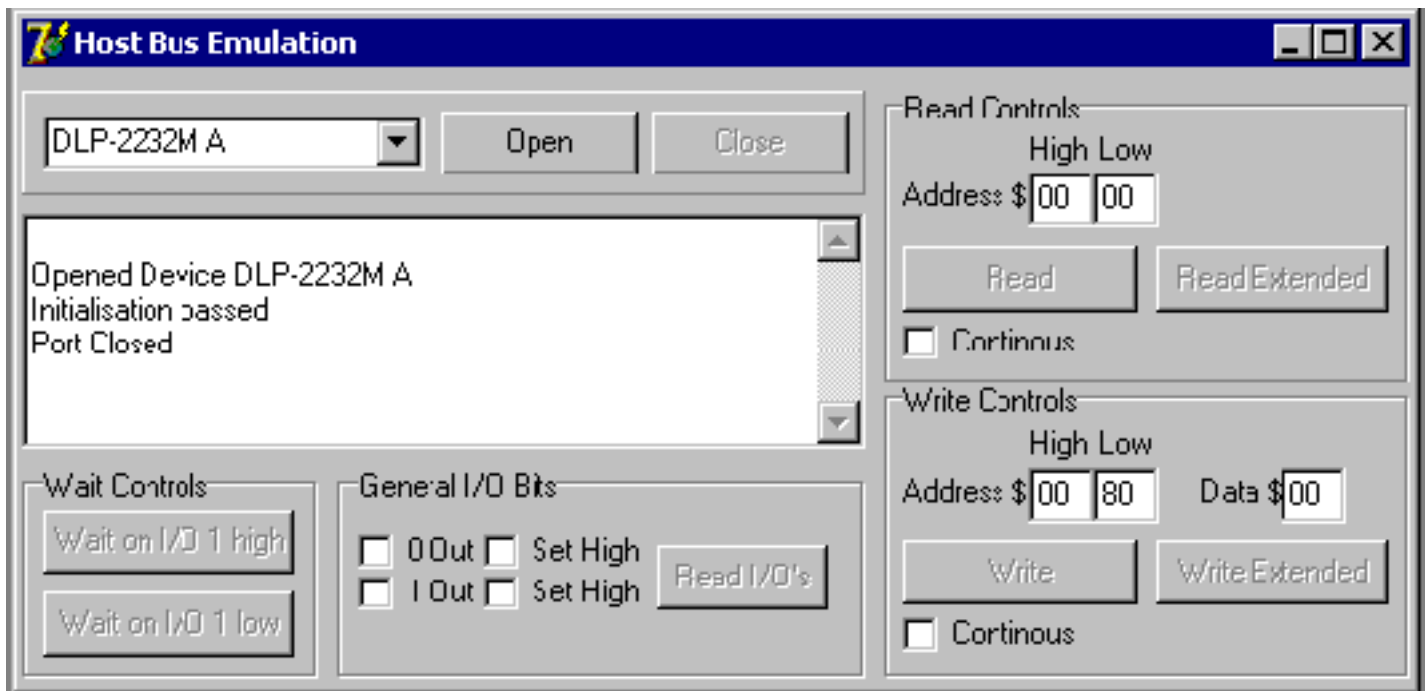
Example Schematic

The schematic shown is an example of the design tested with the application provided.



Running the Sample Application

Run HostEmul.exe. The following dialogue window will be shown.



The top left drop down menu allows you to select the device you want to open. In this example device DLP-2232M A was connected.

The **OPEN** and **CLOSE** buttons open and close the port.

Read Controls

Address High are address bits A15 to A8.

Address Low are address bits A7 to A0.

Read will read the address (uses A7 to A0) and the data is displayed in the log window.

Read Extended will read the address (uses A15 to A0) and the data is displayed in the log window.

Write Controls

Address High are address bits A15 to A8.

Address Low are address bits A7 to A0.

Write will write the data in the data box to the address selected (uses A7 to A0).

Write Extended write the data in the data box to the address selected (uses A15-A0).

General I/O Bits

There are two General I/O bits – 0 and 1.

These are defaulted as inputs but can be set as outputs using the 0 Out and 1 Out boxes. The Set High bow sets the IO to logic one. This can be used to toggle the LEDs.

Wait Controls

Allows you to queue commands on the IO before triggering on a transition caused by fitting / removing a jumper link

Further Information

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**

sn74ls373.pdf - Texas instruments SNLS373 Device Data Sheet

Related Projects

FT2232C-Proj01-USB to SPI Interface

FT2232C-Proj02-USB to I2C Interface

FT2232C-Proj03-USB to JTAG interface

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

Document Revision History

FT2232C-Proj04 Version 1.0 – Initial document created November 2004.

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