



Application Note

AN_212

User Guide for FT311 Configuration Utility

Version 1.0

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This application note explains how to program FT311D vendor string using a free FTDI utility, FT311 Configuration. The application communicates with the FT311D over USB via the FTDI USB to USB Null Modem cable

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1 Introduction

Android Open Accessory hardware is paired with applications running on the Android platform via the descriptor strings the device sends to the Android. The FT311D allows for these strings to be modified such that the device may be used with multiple applications.

This application note describes the test setup and usage of the FT311 Configuration Utility for making these modifications.

The utility is intended for use in FT311D manufacturing environment to configure the vendor strings. This utility is needed only if the default vendor strings have to be changed.

FT311 Configuration application is downloadable from the FTDI website at

http://www.ftdichip.com/Support/SoftwareExamples/Android/FT311Configuration_V010100.zip

1.1 Overview

The figure 1.1 below shows the block diagram of the FT311 Configuration setup.

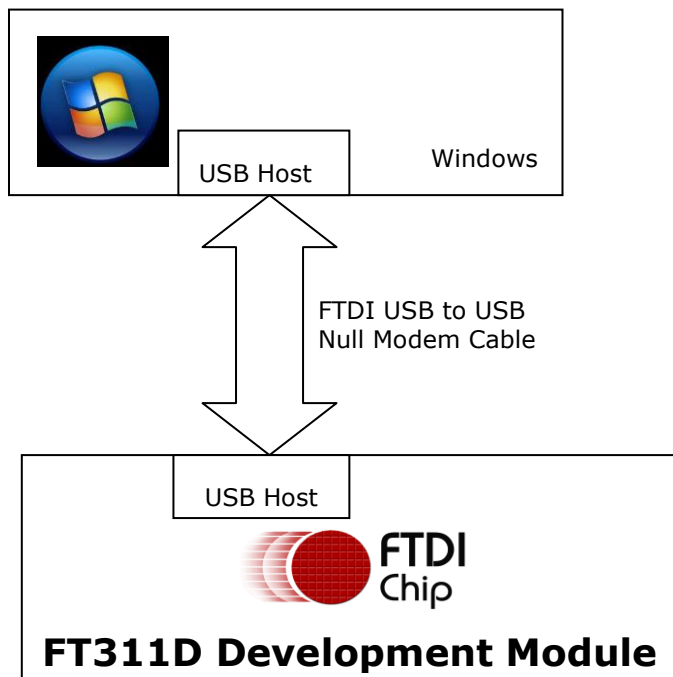


Figure 1.1 : Block diagram of FT311 Configuration setup

1.2 Hardware Requirements

FTDI FT311D (may be mounted on the UMFT311EV or the customers own design).

FTDI USB to USB Null Modem Cable.

5V power supply.

Note: Customers developing custom design should refer to Appendix A: document reference for FT311D Development Module.

1.3 Software Requirements

Operating system: Windows XP or later.

USB Serial Converter driver: Install the latest FTDI D2XX driver from www.ftdichip.com
<http://www.ftdichip.com/Drivers/D2XX.htm>

Framework: Microsoft .NET Framework 4 needs to be installed to run the test software

Application: FT311Configuration.exe and supporting files

2 Test Setup

2.1 Preparing the test PC

1. Download & install Microsoft .NET Framework 4 from the following website <http://www.microsoft.com/download/en/details.aspx?id=17851>
2. FT311 Configuration is downloadable from the FTDI website at http://www.ftdichip.com/Support/SoftwareExamples/Android/FT311Configuration_V010100.zip
3. Copy the test software (FT311Configuration_V010100.zip) folder to a local hard drive.
4. Unzip them if the folders are compressed. For maximum compatibility, make sure that there are no non-English character in the path leading to the folders.

2.2 Preparing the hardware

The test setup is done with the following steps

1. Connect the FTDI USB Null Modem cable to the PC and install the driver. This will happen automatically if connected to the internet.
2. Power up the FT311D from a 5V supply.
3. Connect the free end of USB to USB Null Modem Cable to the FT311D Hardware via the USB Host port.
4. The FT311D will now enumerate the Null Modem cable to complete the data link back to the PC.

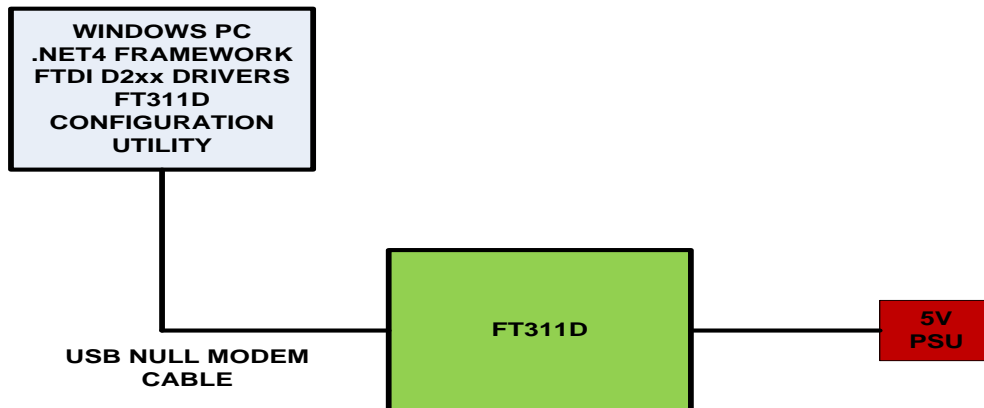


Figure 2.1 : Completed FT311D Test Setup

The completed test setup is shown in the Figure 2.1. The FT311D is powered from 5V. In this case, the 5V supply is provided through the FT311 GPIO board (UMFT311GP) to a FT311D break-out board (note this break-out board is not offered for sales). One end of USB to USB Null Modem cable is connected to FT311D Development Module USB host port.

NOTE: The mode select pins on the FT311D should be set before the device is powered to ensure the Configuration utility programs the correct descriptors to match the mode of operation.

3 Using the FT311 Configuration Utility

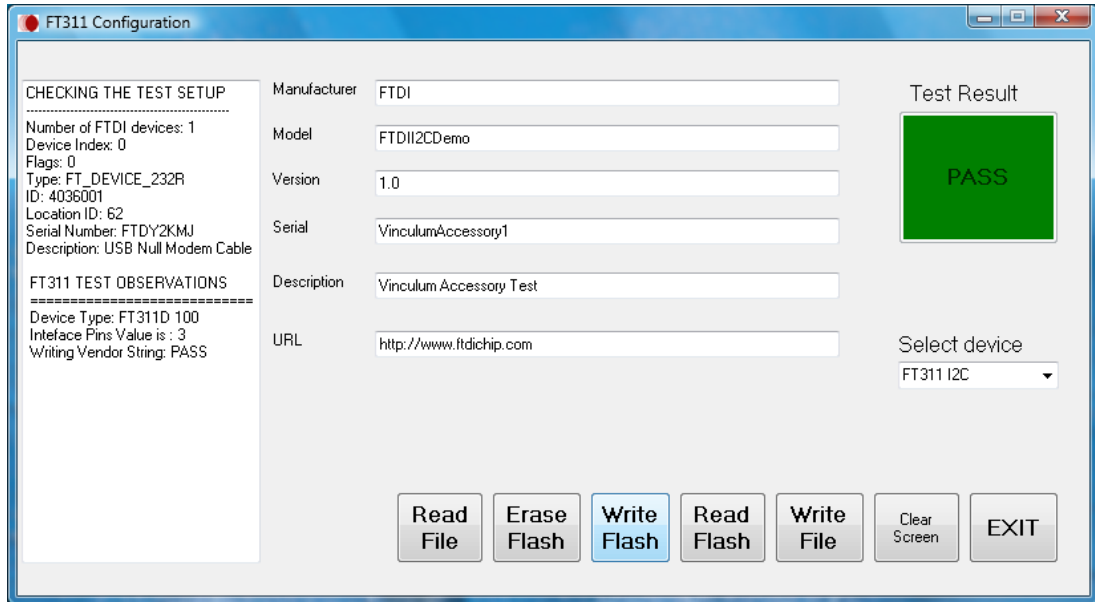


Figure 3.1 : FT311 Configuration Utility

Run FT311Configuration.exe, and the software will start, opening a screen similar to the one shown in figure 3.1. the buttons may then be used to perform the following tasks:

Read File

Read File will load the configuration file into the template window, filling in the values for the strings. A default configuration.xml is installed when you install the executable. This may be updated with the Write File button.

Erase Flash

Any updates that the user programs to the FT311D may be erased with the Erase Flash button. A device that is erased will still function with the default strings stored in the device.

The utility also checks the setup and pops up a message if the setup is wrong e.g. wrong device selected.

The result is PASS if the configuration is successful. The result is FAIL if the configuration failed

Note: Device type is determined by the setting of the CNFGx pins on the FT311D. Refer to the FT311D datasheet for the mode selection of the FT311D based on the CNFGx pins.

Choose the device type using the Select device combo box to match with the device type selected using the CNFGx pins.

Write Flash

Write Flash will upload the strings displayed in the GUI to the FT311D.

The utility also checks the setup and pops up a message if the setup is wrong e.g. wrong device selected.

The result is PASS if the configuration is successful. The result is FAIL if the configuration failed

Note: Device type is determined by the setting of the CNFGx pins on the FT311D. Refer to the FT311D datasheet for the mode selection of the FT311D based on the CNFGx pins.

Choose the device type using the Select device combo box to match with the device type selected using the CNFGx pins.

Read Flash

Read Flash will read the values previously written to the FT311D and display them in the GUI. A device that has not been flashed or has been erased will return blank values in the GUI.

Write File

Write File will store the values displayed in the GUI to the configuration.xml file.

Clear Screen

Clear screen will reset the display to blank boxes.

EXIT

The application may be closed by selecting EXIT

Note: The Read File, Write File, Clear Screen and EXIT button in the utility is functional with the FT311D connected or not.

The Erase Flash, Write Flash and Read Flash button in the utility is functional only when the FT311D is connected.

4 FTDI Chip Contact Information

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Appendix A – References

Document References

[FT311D Development Module datasheet](#)

[FT311 GPIO Board datasheet](#)

Acronyms and Abbreviations

Terms	Description
FT311D	FTDI USB Android Accessory
PC	Personal Computer
RXD	Receive
TXD	Transmit Asynchronous Data output
UART	Universal asynchronous receiver/transmitter
USB	Universal Serial Bus
USB-IF	USB Implementers Forum

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Appendix C – Revision History

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