



FTDI EEPROM Programming User Guide

Calterah Semiconductor

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2019.09.18	V0.1.0	First version	Xudong Ran
2019.11.22	V0.1.1	Reorganized	Xudong Ran
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INTRODUCTION

The purpose of this document is to explain the procedure about how to download FTDI firmware into EEPROM. Please note that this document only applies to Alps and Rhine Radar Development Platform (RDP) series with FTDI chip.

1.1 Background

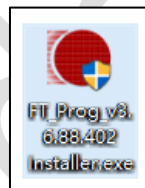
FTDI FT2232H is dual high-speed USB to multipurpose UART IC. On Calterah Radar Development Platform, FT2232H is connected to UART and JTAG pins on ALPS and Rhine SoC for firmware downloading and debugging. Usually, the EEPROM for FT2232H has been programmed before sending out. But if you change the hardware design or make your own board based on Calterah SoC, you may need to program the EEPROM for FTDI before use.

SOFTWARE INSTALLATION

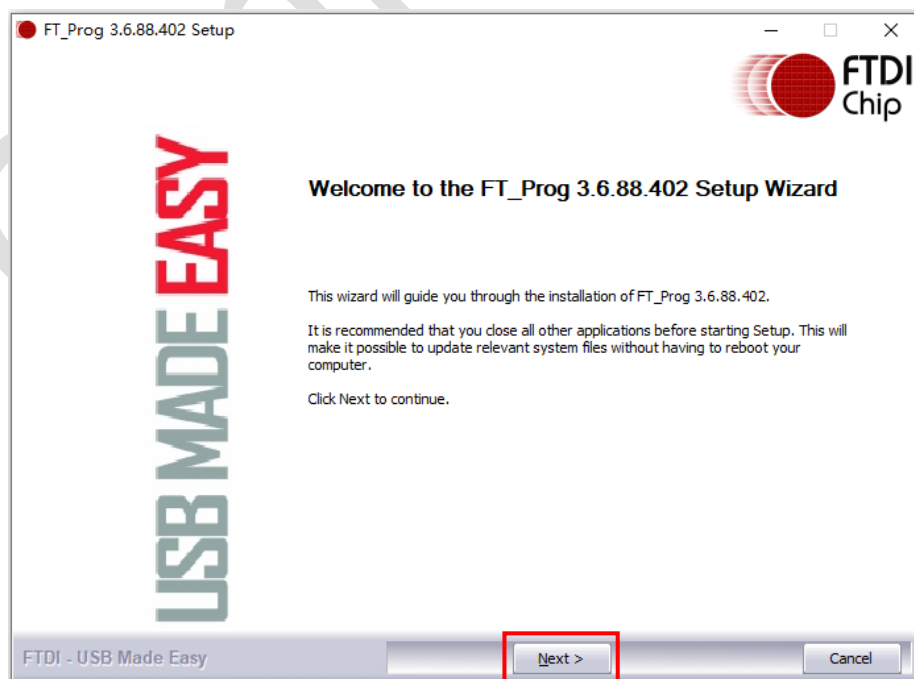
FT_PROG is a free EEPROM programming utility for use with FTDI devices. It is used for modifying EEPROM contents that store the FTDI device descriptors to customize designs. On Calterah RDP board, FTDI chip is configured as one JTAG port for debugging and one Serial port for communication. You may need to download this software from [FTDI website](#) and install to implement such functions.

Please follow the steps below to finish the installation.

1. FT_PROG requires the **Microsoft .NET Framework 4.0** installed on your system to run the application. This can be obtained from the [Microsoft Website](#).
2. Double click the installation file, **FT_Prog_v3.6.88.402 Installer.exe**.

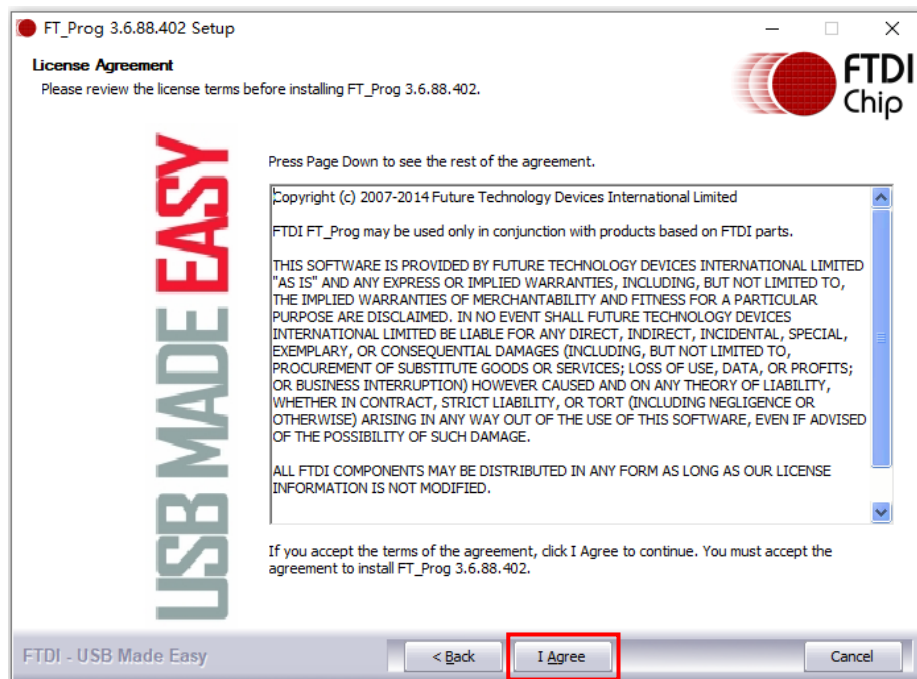


3. Click **Next**.

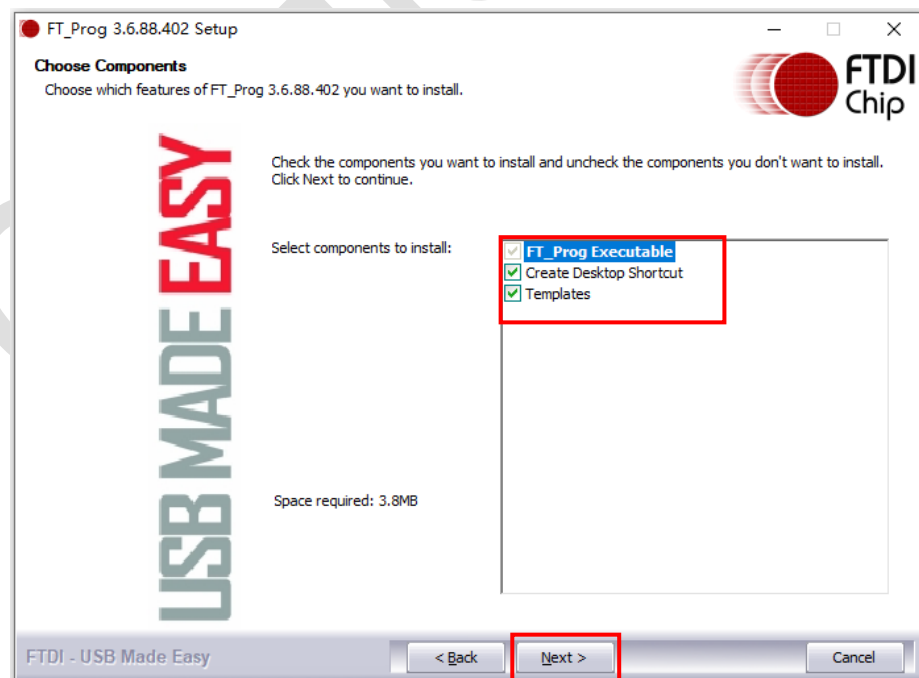


2. Software Installation

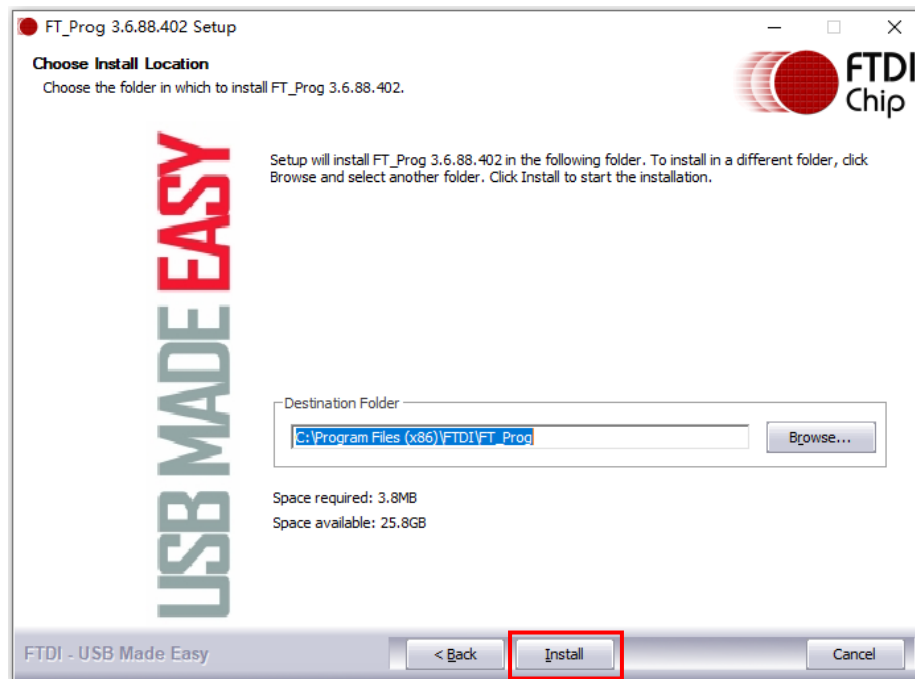
- Click **I Agree**.



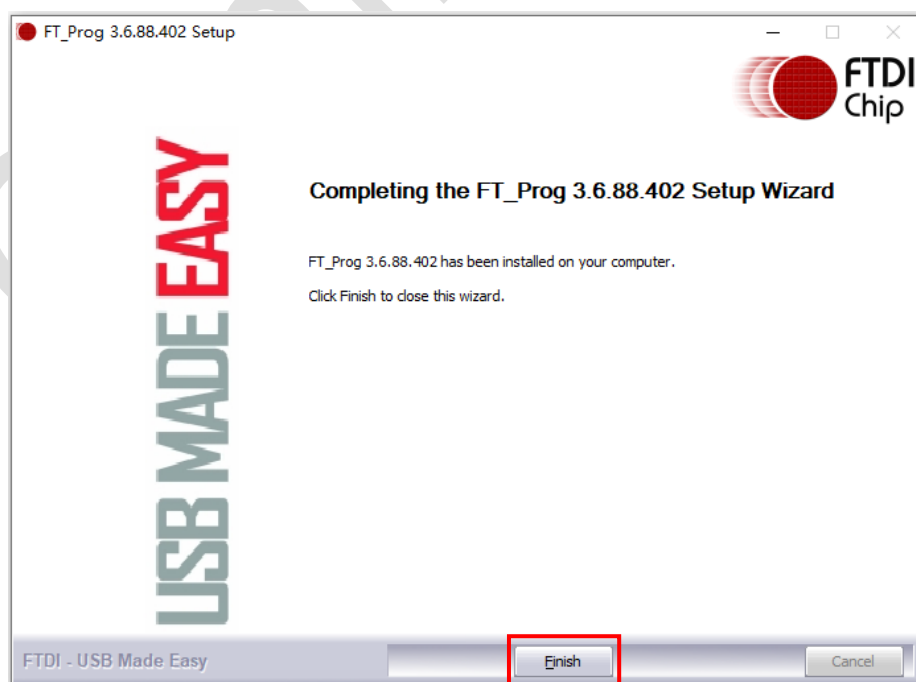
- Select all **three components** to install, and click **Next**.



6. Use the **default directory** for installation, and click **Install**.



7. Click **Finish** to complete the installation.



CHAPTER THREE

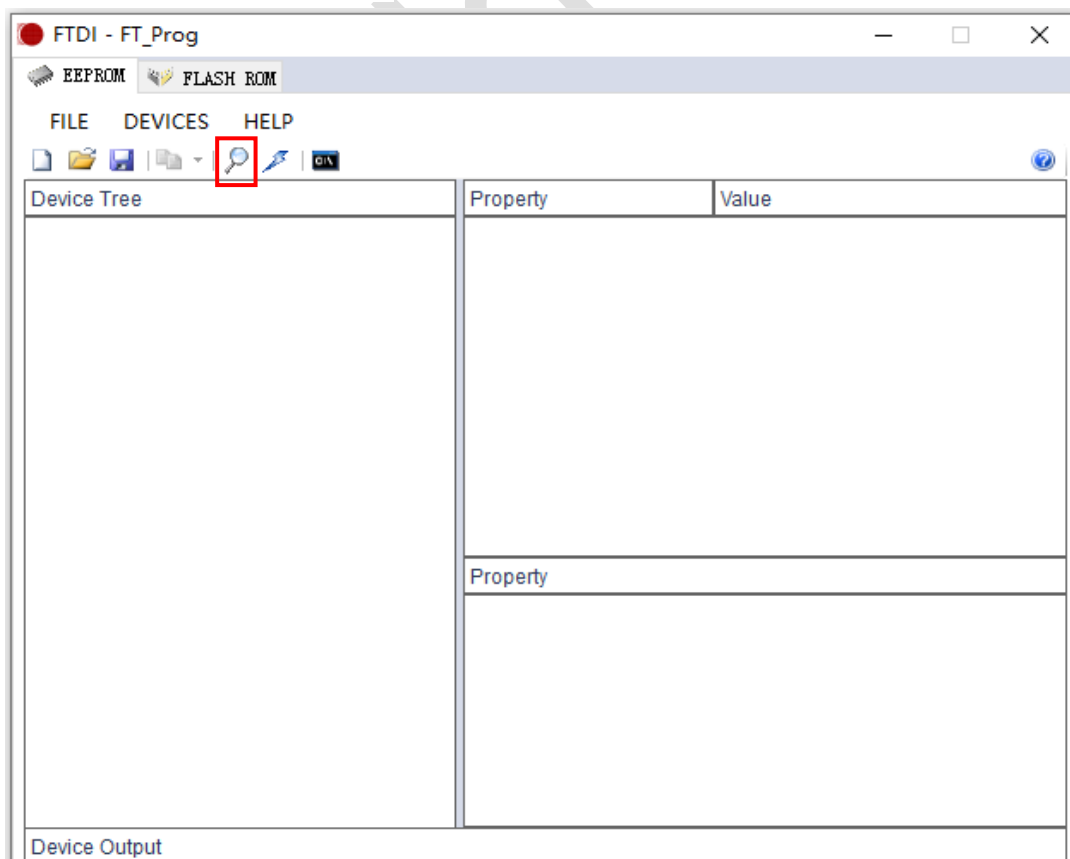
EEPROM PROGRAMMING

Calterah provides FTDI firmware so that users can debug and download radar firmware through Micro-USB port. You may find the FTDI configuration file (**Calterah_RDP_20181018.xml**) in the Calterah Software Release Package under **\Document\FTDI EEPROM Programming User Guide** directory.

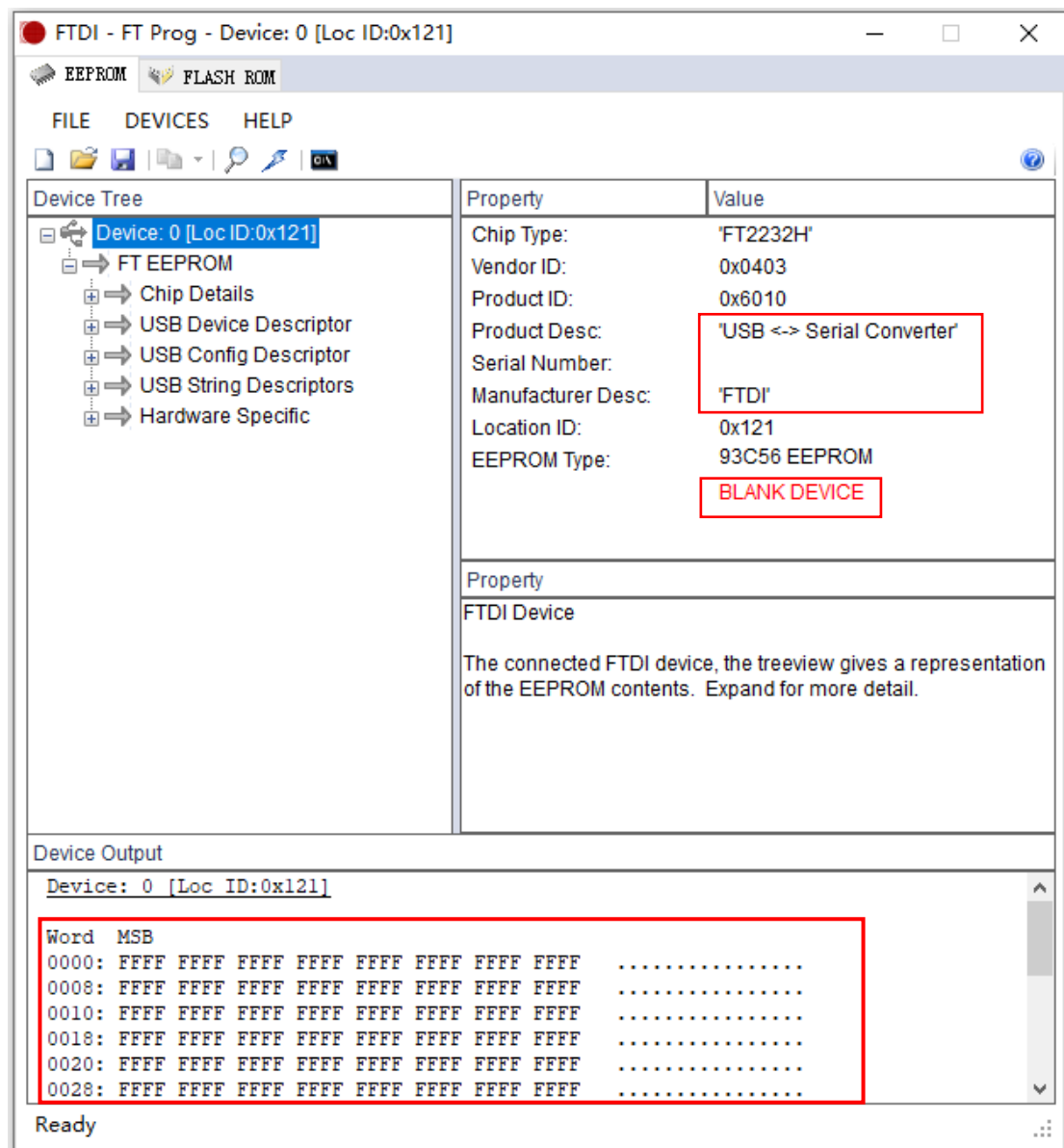
1. Connect Calterah Radar Development Platform to PC through Micro-USB port.
2. Open the **FT_Prog** on your desktop.



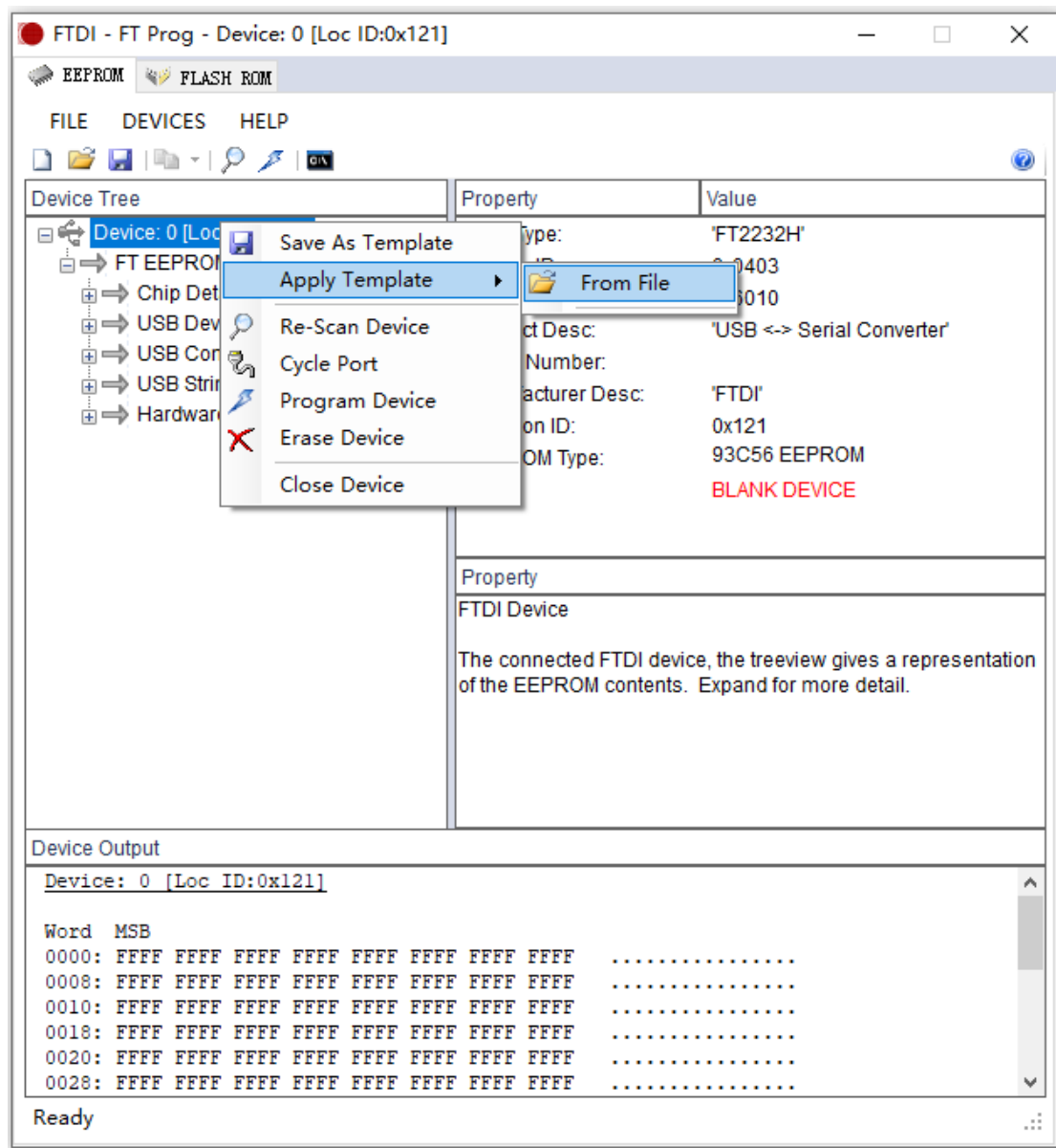
3. Click **Scan and Parse Icon**  on the top.




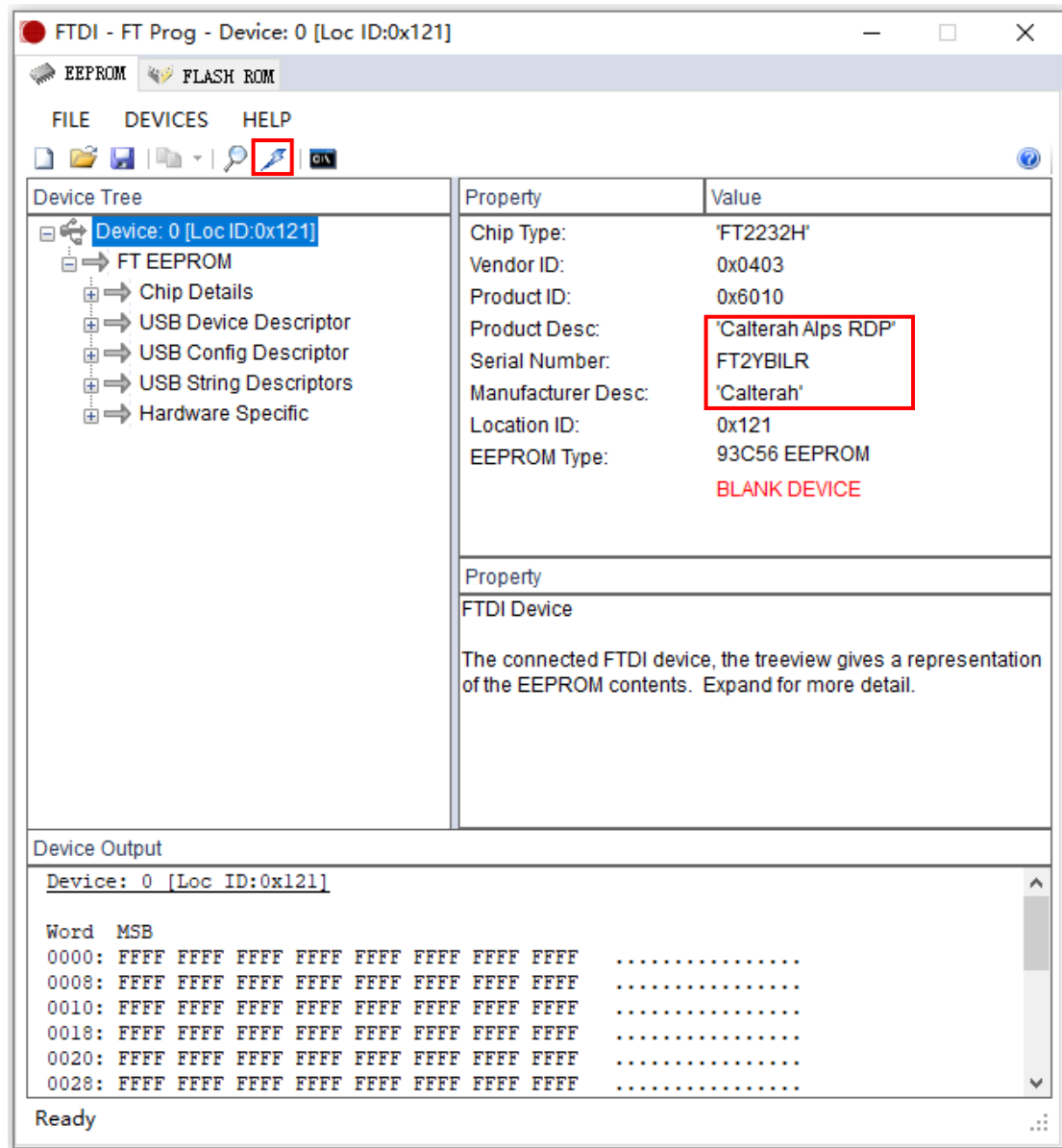
4. The USB devices will be listed in the Device Tree area. Select **Device 0** as shown below. If you can see multiple devices on the list, choose the one with **Product Desc USB<-> Serial Converter**, empty Serial Number, **Manufacturer Desc FTDI**, and **BLANK DEVICE**.



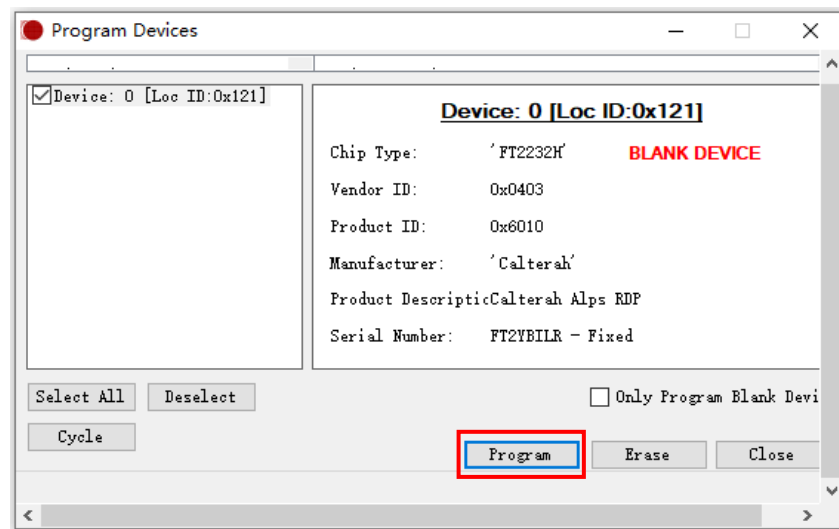
- Right-click on the device, select **Apply Template – From File**, and **choose the FTDI configuration file (*.xml)** in Calterah Software Release Package.



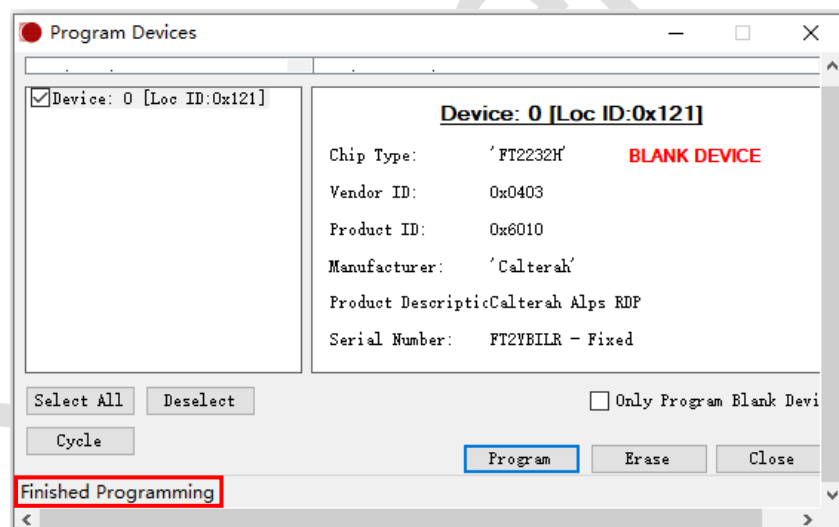
6. Once the configuration file is loaded, device properties such as **Product Desc**, **Serial Number**, and **Manufacturer Desc** are updated as below. Click **Program Device**  on the top.



- Click **Program** in the pop-up window.



- When programming is completed, **Finished Programming** will be shown on the bottom of the window.



3. EEPROM Programming

9. Check the **Device Output** in the bottom area. If it is not empty, it means that the EEPROM programming is successful. And then, the FTDI chip is ready to use on Calterah RDP board.

