

1. 插上调试器，打开“FT_Prog”(该软件的下载地址：

首先下载软件

<https://ftdichip.com/utilities/>

The screenshot shows the FTDI Chip Utilities page. At the top, there's a navigation bar with a logo, the URL 'ftdichip.com/utilities/' in the address bar, and links for 'HOME' and 'PRODUCT'. Below the navigation, there's a section titled 'FT602 Configuration Programmer'. It contains text about the utility allowing customization of the FT602 device with different USB descriptors and configuring FIFO mode and UVC parameters. It links to a 'Comprehensive Configuration Guide' (AN_435) and a video tutorial. A red box highlights the download link for the 'FT_PROG' utility.

FT_PROG 3.12.61.670 - EEPROM Programming Utility

FT_PROG is a free EEPROM programming utility for use with FTDI devices. It is used for modifying EEPROM contents that store configuration information.

PLEASE NOTE – The use of some of these utilities by an end user may result in a device being rendered useless.

FT_PROG is available for download by clicking [here](#).

The full FT_PROG User Guide can be downloaded [here](#).

Please Note: FT_PROG requires the Microsoft .NET Framework 4.0 installed on your system to run the application. This can be obtained from [here](#). If your system does not have .NET 4.0 installed please download the file from the above link. To install, double click on the downloaded file.

Microsoft USBView - USB Connection Viewer

USBView is a free utility from Microsoft that displays the USB connection tree and shows the USB devices that are connected to your computer. It supports Windows ME, 2000, XP, Windows 7 and Windows 8/8.1.

USBView is available for download as a .zip file by [clicking here](#). Please note the file must be unzipped before execution.

或者直点这里下载软件：

https://ftdichip.com/wp-content/uploads/2025/02/FT_Prog_v3.12.61.670-Installer.zip

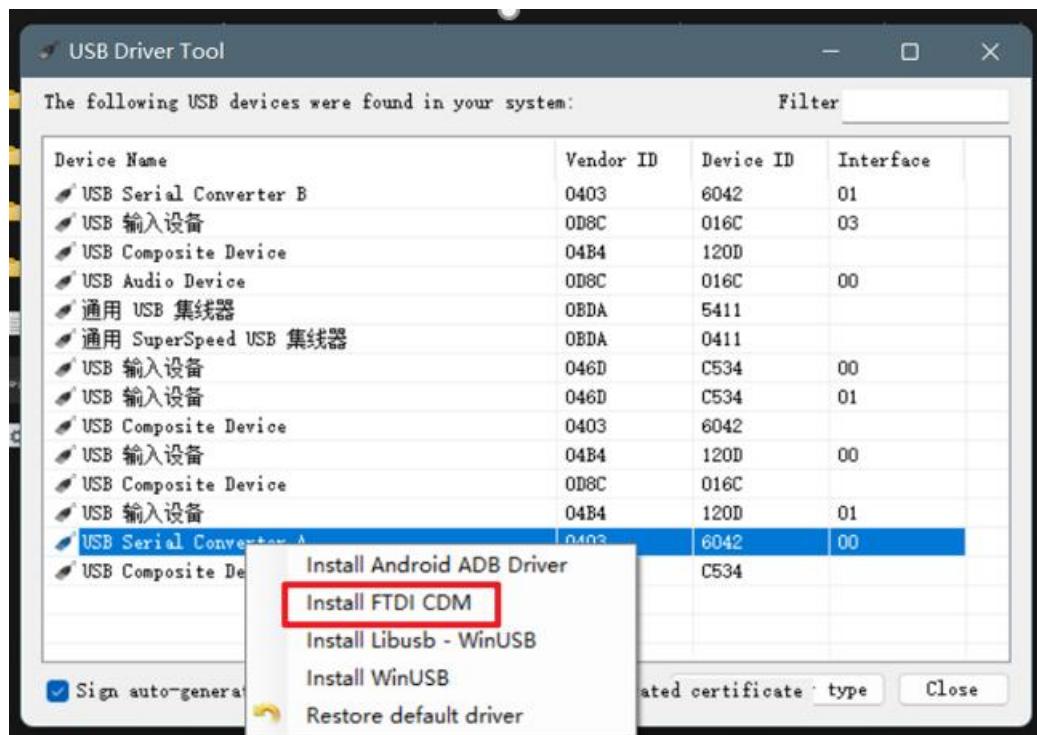
点这里下载软件的英文手册：

https://ftdichip.com/wp-content/uploads/2020/07/AN_124_User_Guide_For_FT_Programmer.pdf

注意事项：

- (1) 在此之前先必须保证 usbdrivertool 中将调试器的驱动设置为 ftdi 官方驱动（如果已经将驱动安装为 winusb），才能被 ft_prog 正确识别。

调试器的驱动由专门的驱动管理软件 (UsbDriverTool.exe) 进行驱动安装、管理、卸载。下载地址为：<https://visualgdb.com/UsbDriverTool/>



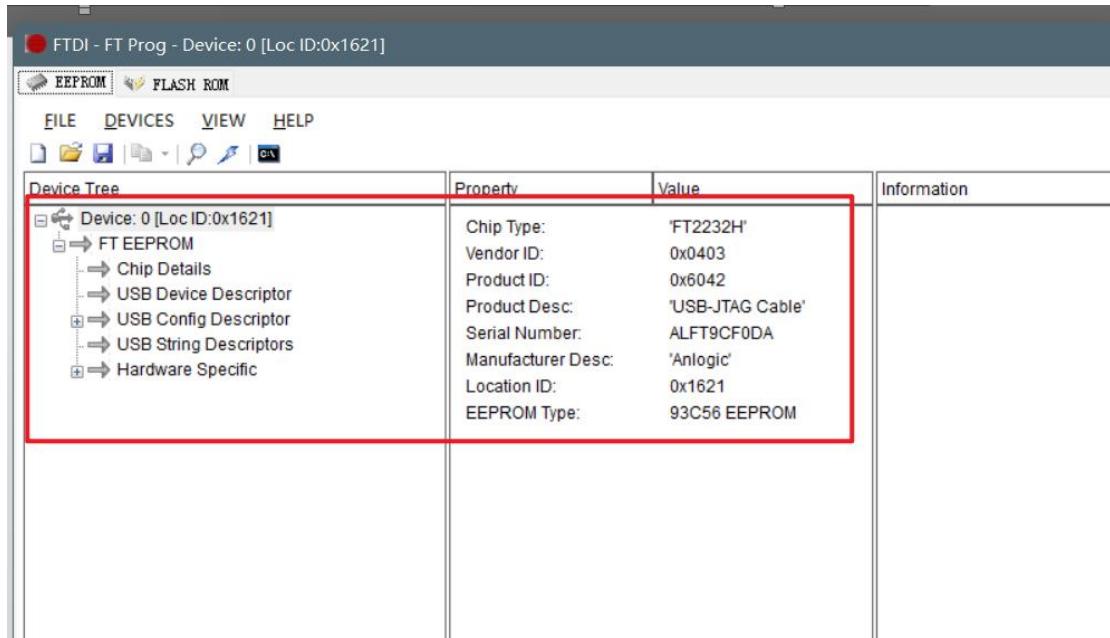
- (2) usbdriverTool 的安装和使用参考：

[known-link]

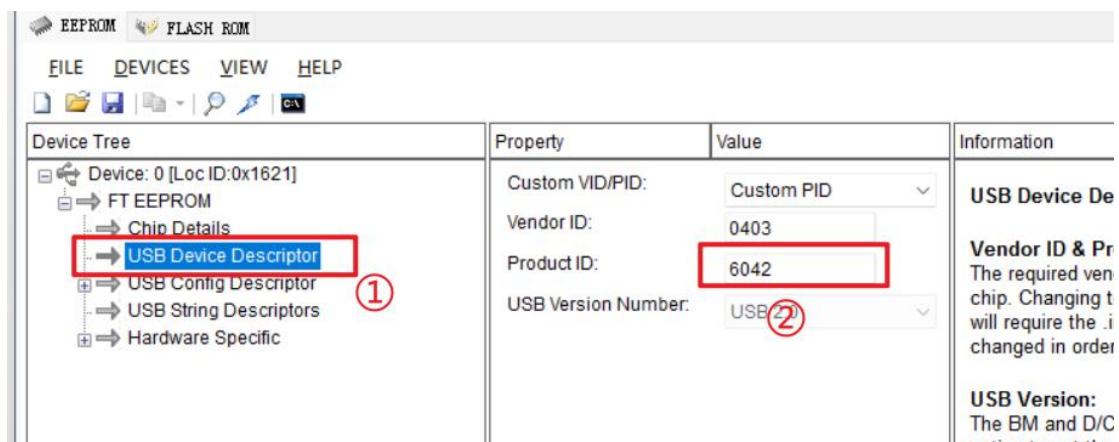
2. 点击“Scan and Parse”按钮，查看是否扫描到器件。



被扫描到的器件信息：



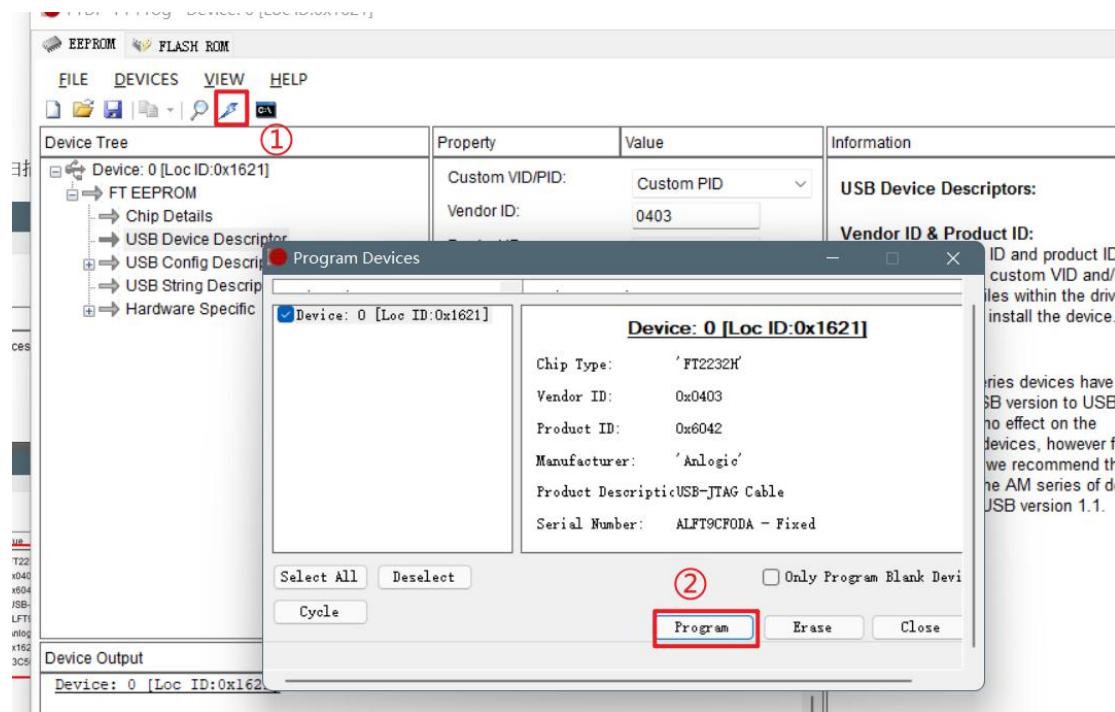
3. 修改 pid



- ① 点击“USB Device Descriptor”
- ② 修改“Product ID”， 改为 6042。

4. 烧写器件

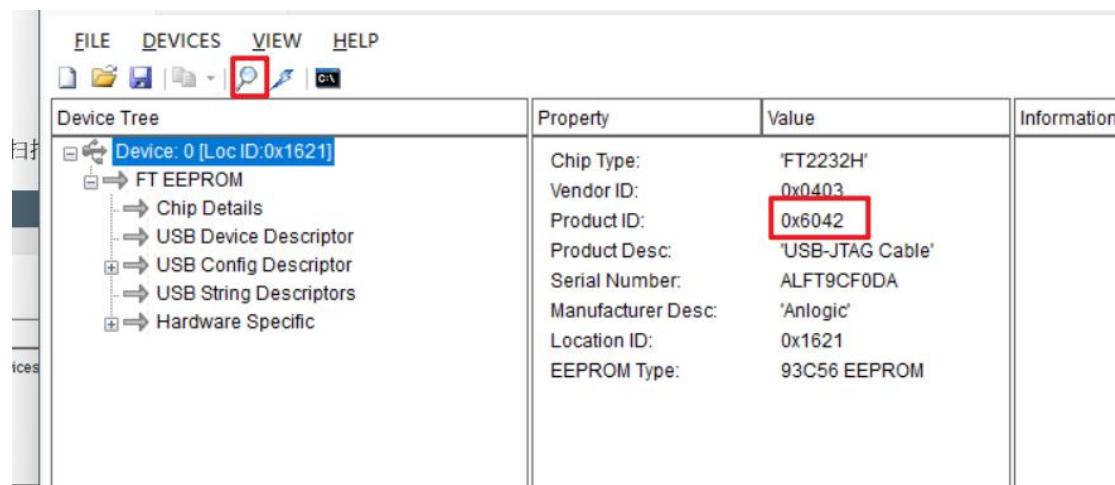
点击“Program Device”按钮，在弹出来的页面上点击“Program”按钮，完成烧写。



① 点击“Program Device”

② 点击“Program”

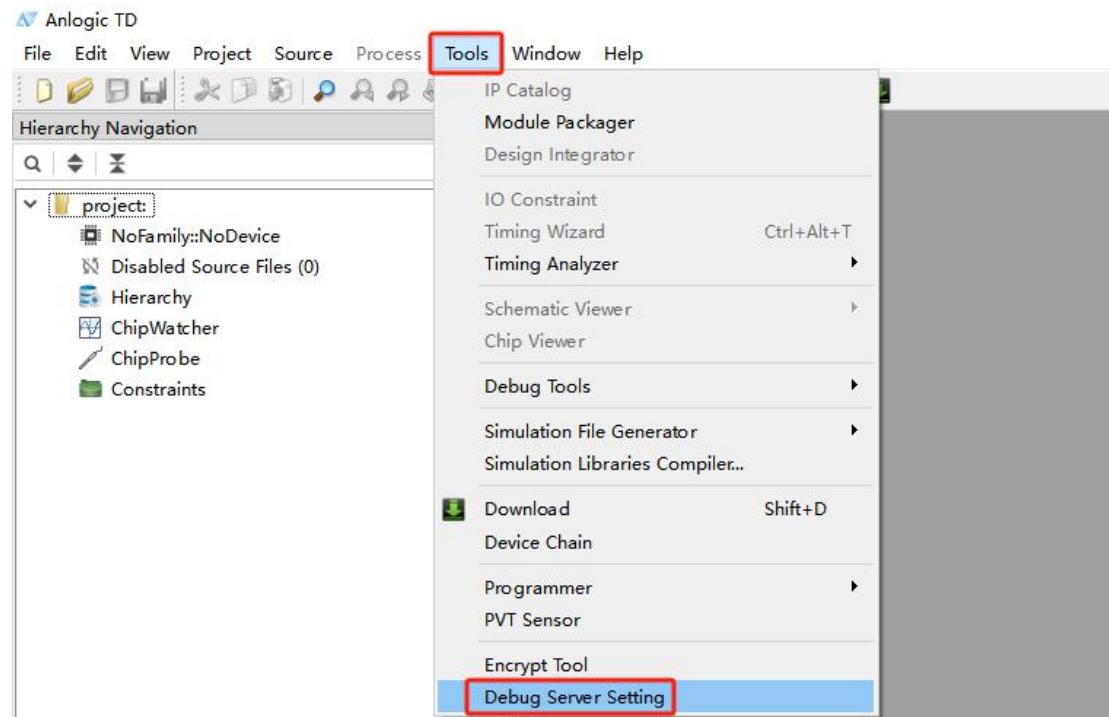
下载完成后，返回 FT_Prog 页面，重新扫描器件，可以查看是否下载成功。



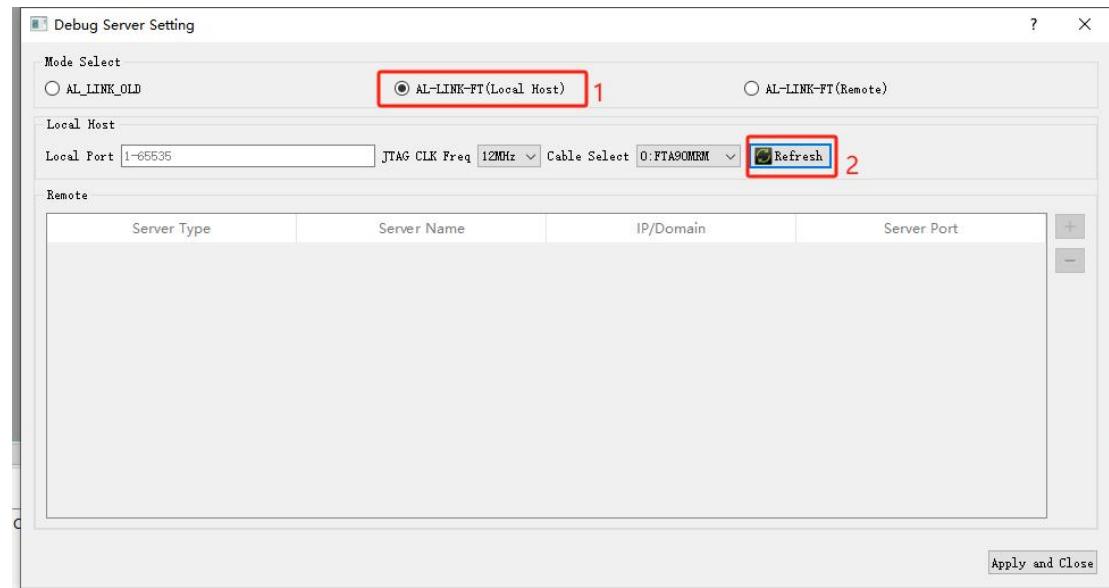
下载完成后，将调试器的 **usb** 端重新插拔一下之后，再使用 **usbdrivertool** 进行驱动安装。

连接 JTAG 方法：

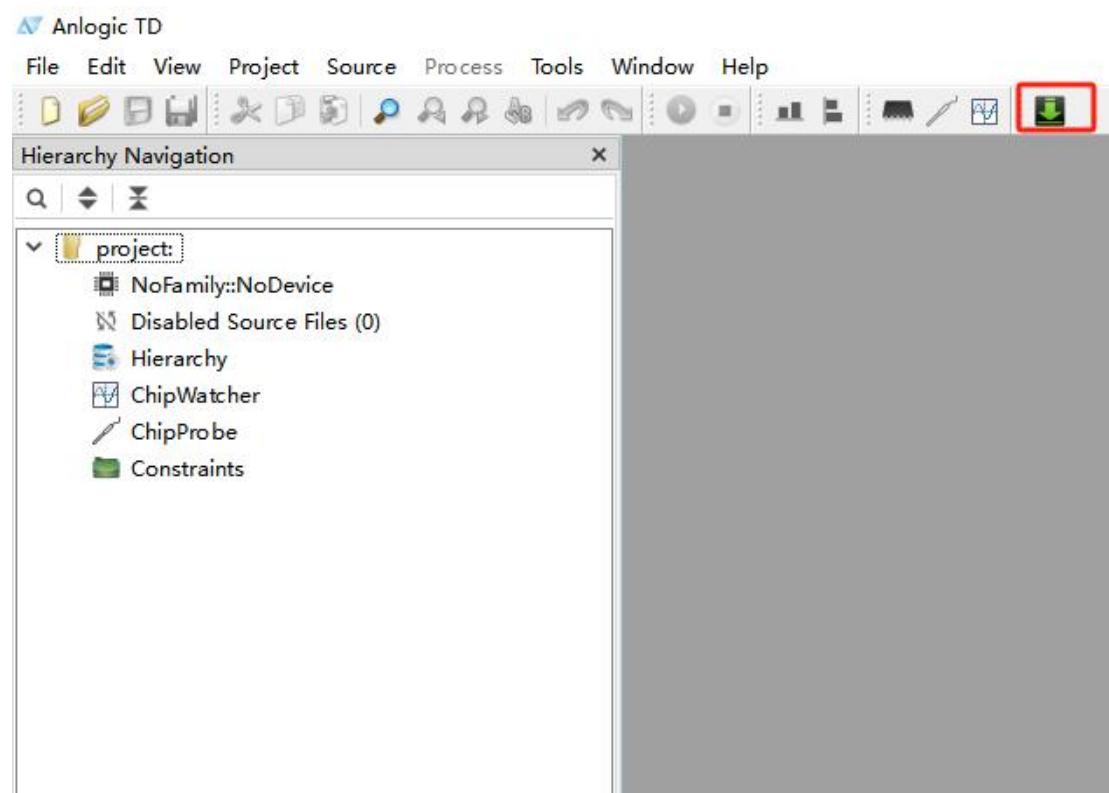
选择 Tools-->Debug Server Setting



选择 AL-LINK-FT，然后点击 Refresh 刷新器件，Cable Select 可以看到开发板型号



点击下载快捷图标，打开 jtag 下载界面



点击 Refresh 可以看到右边有开发板芯片型号

