

Description

There is an internal 8051 MCU in CT7601 serial chip. The firmware is store in external SPI flash. It can be updated via USB path and Comtrue's In System Programming (ISP) tool.

CT7601 families' default VID is **2fc6** and PID is **6000** when SPI flash is empty or firmware is incorrect. The general CT7601 evaluation board are set to VID=**2fc6** and PID=**6012** after the firmware is loaded. This VID and PID are changeable depends on customer's definition and requirement.

Driver Install

To access external SPI flash via USB path, there are 2 kinds of driver are necessary for firmware update depends on different condition.

1. Particular driver:

This driver is used for program firmware and only when the flash is empty (VID=2fc6, PID=6000). The other state should use the general driver.

Download this particular driver from: <https://bit.ly/2ISO7Az>

Run "InstallDriver.exe" file to install this driver

2. General driver:

This driver used for general system application for CT7601 playback and record. It also can be used for firmware update if there is a normal firmware inside of flash.

This driver must match with the VID/PID setting value in firmware.

Download this general driver from: <https://reurl.cc/qaroGD>

For customer's own VID/PID, please contact us to get correct driver version for your system.

Run "" file to install this driver

3. Make sure the driver is installed complete:

- a. For empty flash, check this device from Device Manager is "libusbK Usb Device" – "Comtrue-inc Firmware Update Device":



The detail information is:



- b. For general application, the device at Device Manager will show the audio device name which defined in firmware in Sound, video and game controllers. (for example, Comtrue-inc evaluation board, device name Comtrue-inc UAC2 Device EVM-IA)



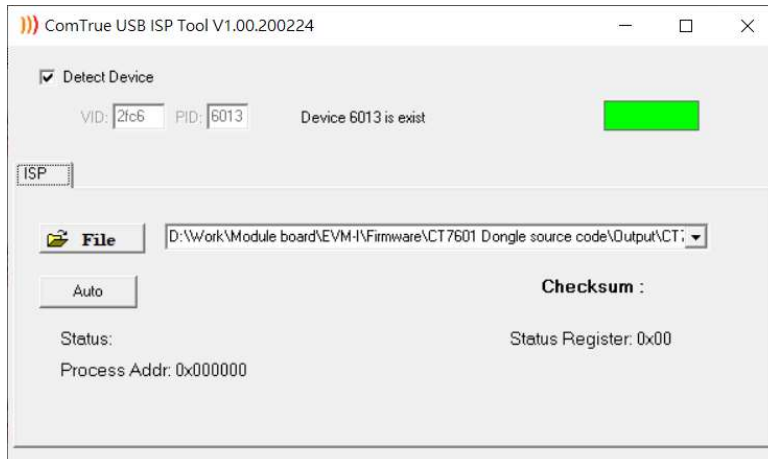
The detail information is:



USB ISP tool

Outline

The USB ISP tool shows as below.

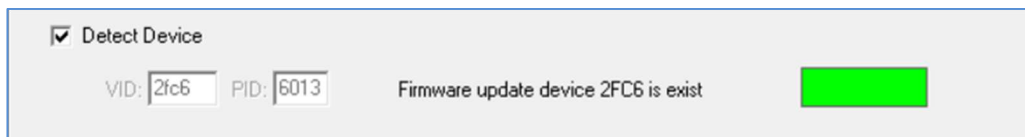


Set correct VID/PID that same as current firmware setting in USB device and connect this device to PC USB port. Modify the setting when “Detect Device” is unchecked.



The display box will become green color when the device is detected and keep at gray color if the device is disconnect.

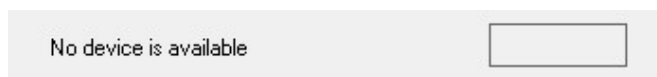
1. Default VID/PID, firmware update mode



2. VID/PID is same as current USB audio device.

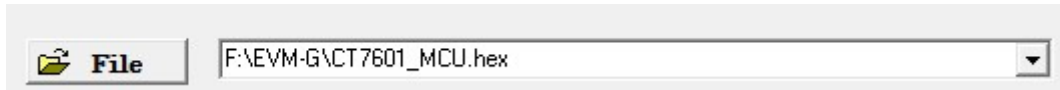


3. Device is disconnected or VID/PID is wrong.



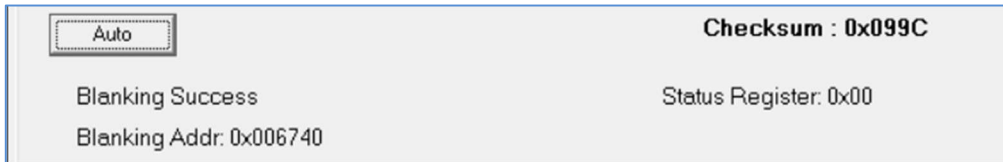
Update firmware

1. Load new hex



Press "File" button to load new hex or bin file for update.

2. execute firmware update process



Press "Auto" button to start flash hex file update process.

The status information text is changed according to current status. It becomes to "Verifying Success".

3. The default SPI flash command in this tool is follow JEDEC standard. It should compatible most type SPI flash and no need any modify. For some special flash that do not follow this standard. Please change the Flash Instruction yourself in the instruction block.

Force into default ID

CT7601 family chip set to default VID/PID mode when the flash is empty or firmware is incorrect. It also can force this chip into default ID by pull one of SPI flash's CS, SCLK to low about 500 ms when chip power on.