

MCCI Mode Switch

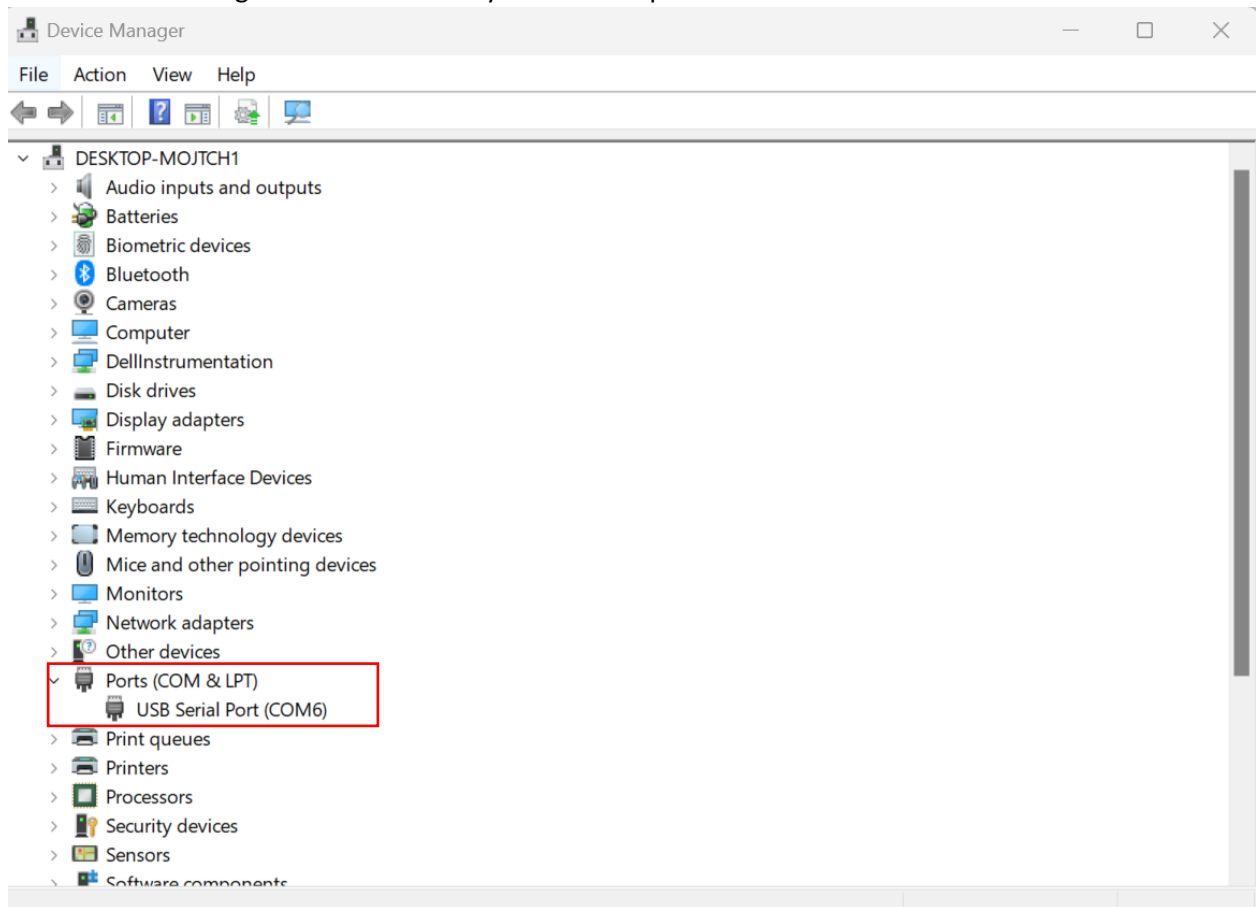
This document contains instructions on how configure the MCCI Model 3411 USB3.2 Gen2 Test Device <https://store.mcci.com/collections/usb-test-devices/products/model-3411>.

The MCCI device is a multi-mode device. In order to work correctly with USB-IF tools (USB4CV, XHCICV), it must be put into the mode that makes it behave as USB-IF compliance device. In this mode it will work identically to the Microsoft SuperMUTT. If it is not configured correctly, USB-IF tools will fail to identify it as a compliance device.



Mode Switching Instructions

1. Connect the MCCI to the PC using a micro-B cable.
2. Go to Device Manager and confirm that you see COM port.



3. Download a terminal program such as Tera Term.
4. These instructions use Tera Term as an example.
5. Install Tera Term.
6. Once you launch Tera Term, a New Connection window will open. Choose Serial and select the COM port that the MCCI is connected to. Then press OK



Tera Term: New connection

☐ TCP/IP Host: myhost.example.com

☒ History

Service: ☐ Telnet TCP port#: 22

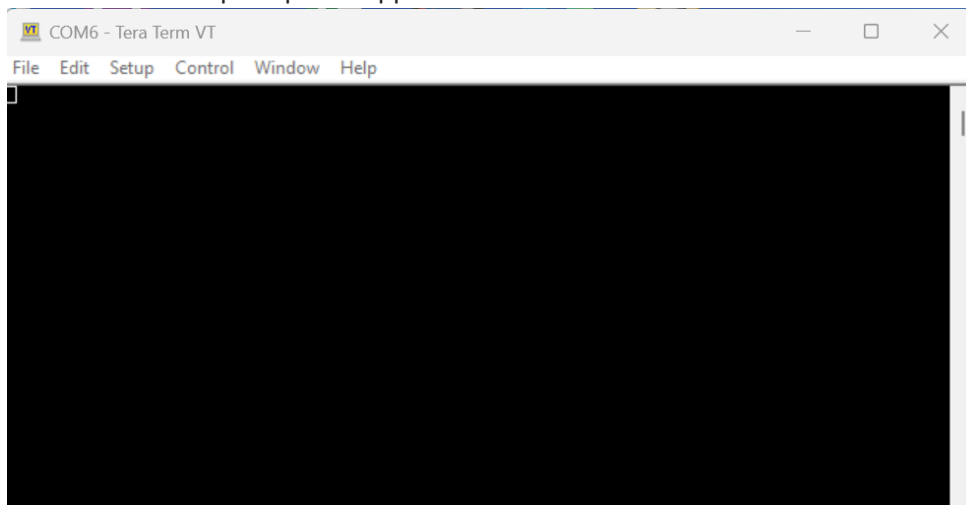
☒ SSH SSH version: SSH2

☐ Other IP version: AUTO

☒ Serial Port: COM6: USB Serial Port (COM6)

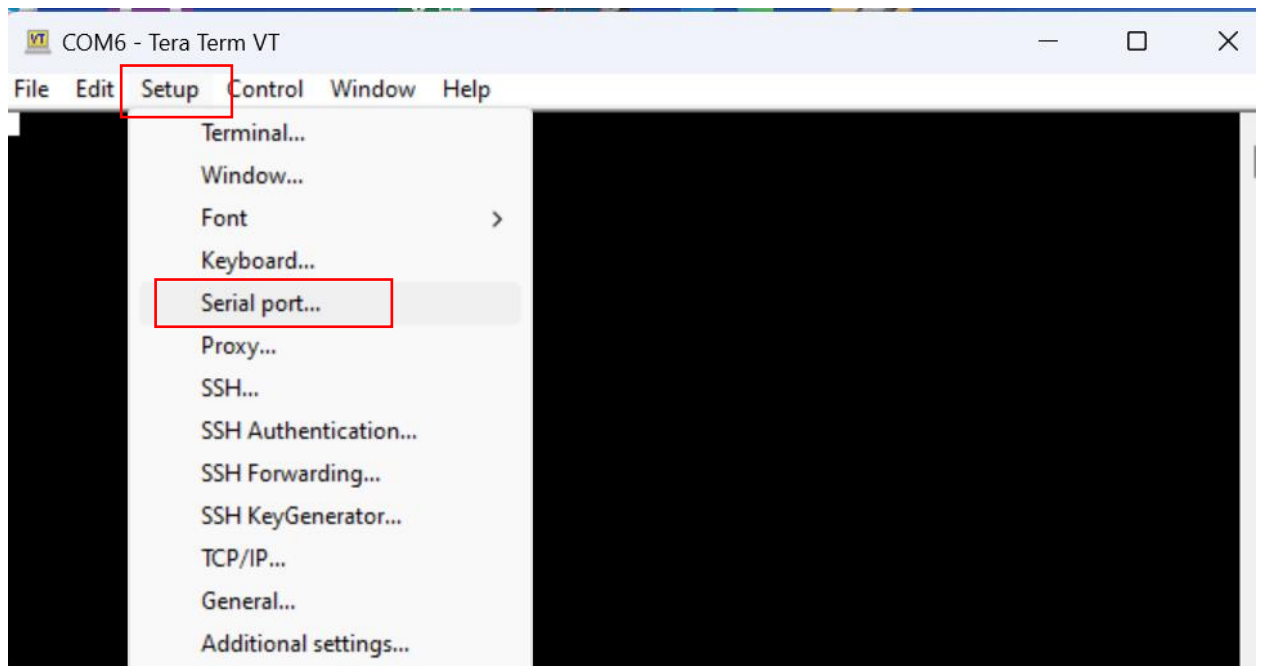
OK Cancel Help

7. Then a command prompt will appear.



8. Then go to **Setup** and choose **Serial Port**





9. Then make sure the setting matches the setting below in the picture. Then press New setting



Tera Term: Serial port setup and connection

Port: COM6

Speed: 115200

Data: 8 bit

Parity: none

Stop bits: 1 bit

Flow control: none

New setting

Cancel

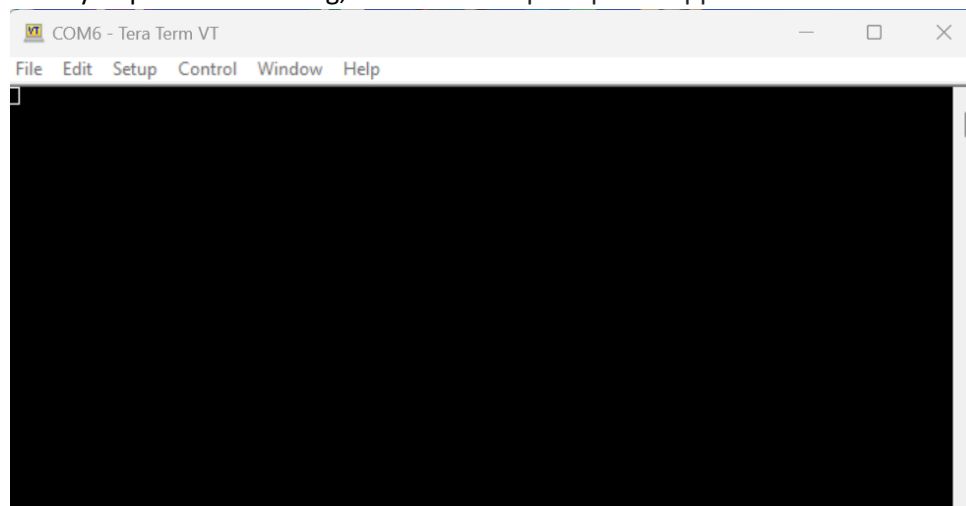
Help

Transmit delay

0 msec/char 0 msec/line

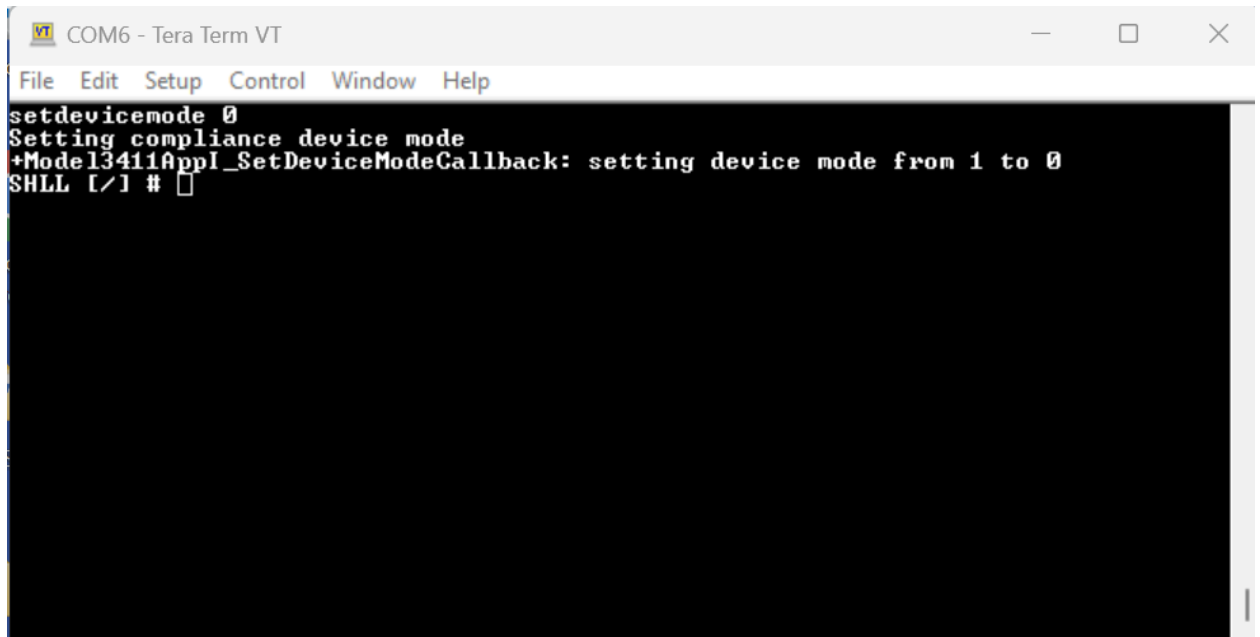
Device Friendly Name: USB Serial Port (COM6)
Device Instance ID: FTDIBUS\VID_0403+PID_6010+0002CC0035C!
Device Manufacturer: FTDI
Provider Name: FTDI
Driver Date: 7-5-2021
Driver Version: 2.12.36.4

10. Once you press New setting, the command prompt will appear.

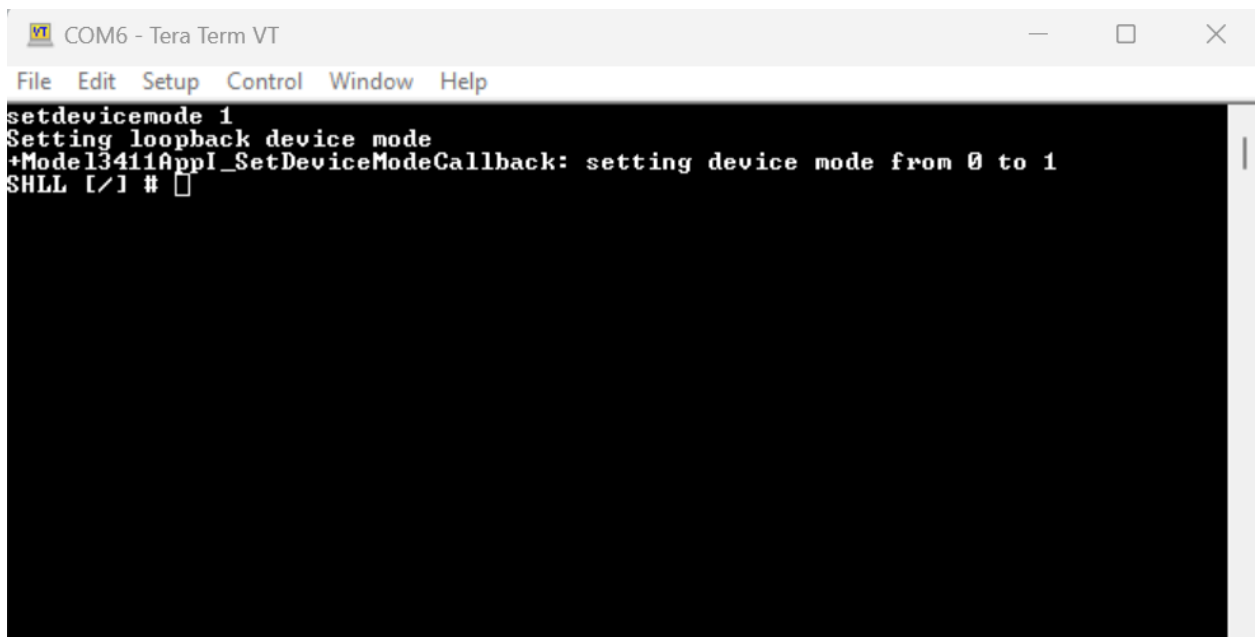


11. Now, you can change the device mode using setdevicemode command.

setdevicemode 0 → USB-IF compliance device mode
setdevicemode 1 → Loopback device mode



```
COM6 - Tera Term VT
File Edit Setup Control Window Help
setdevicemode 0
Setting compliance device mode
+Model3411Appl_SetDeviceModeCallback: setting device mode from 1 to 0
SHLL [/] #
```



```
COM6 - Tera Term VT
File Edit Setup Control Window Help
setdevicemode 1
Setting loopback device mode
+Model3411Appl_SetDeviceModeCallback: setting device mode from 0 to 1
SHLL [/] #
```

12. Once you select which mode you want the MCCI device to be in, you can close the prompt window



Verifying MCCI Device Mode

The device will present a different VID/PID, depending which mode it is in.

The MCCI device has two modes, a USB-IF compliance device mode and a Loopback device mode. Each mode has its own VID/PID. The VID/PID for the USB-IF compliance device mode is VID=040E, PID=F644 and the VID/PID for the Loopback device mode is VID=040E, PID=F645. Below is a Device summary showing the VID/PID.

If USB4CV or XHCICV does not recognize the device, check the VID/PID and make sure it is configured as a USB-IF compliance device.

```
APPLICATION: USB 3 Gen X Command Verifier
TEST SUITE: Device Summary.cvtsts
OPERATING SYSTEM:
WORKSTATION:
DATE: Wednesday, April 19, 2023
TIME: 09:40:13 AM
OPERATOR: Dell XPS_8940_#1
NUMBER OF TESTS: 1
LOG NAME: Device Summary - 2023-04-19 09:40-09
RESULT: passed

Initialize Test Suite
INFO      Test log initialized.
INFO      Log Level: Normal
INFO      User Input module initialized
INFO      Windows 10 Pro (Build 22000.1.amd64fre.co_release.210604-1628)
INFO      CVApp.exe ver 4.1.0.0
INFO      BaseUtilities.dll ver 4.1.0.0
INFO      CommandVerifierLog.dll ver 4.1.0.0
INFO      GuiHelper.dll ver 4.1.0.0
INFO      TestUtilities.dll ver 4.1.0.0
INFO      TestSuiteEngine.dll ver 4.1.0.0
INFO      xhci_Development.dll ver 2.2.7.0
INFO      xhci_TestServices.dll ver 2.2.7.0
INFO      USBUtilities.dll ver 1.4.5.1
INFO      StackSwitcher.dll ver 1.4.5.1
INFO      xhci_CommandVerifierServices.dll ver 2.2.7.0
INFO      VIFReader.dll ver 4.1.0.0
INFO      XHCISpecVersion: 1.10.
INFO      Host 1 selected: xHCI Host: VID=0x1821, PID=0x2142 (PCI bus 4, device 0, function 0)
INFO      User selection from list: "SSP Device (USB Compliance) addr=1: VID=040E, PID=F644"
INFO      Please select USB Device to test
INFO      USB Device Under Test is operating at SuperSpeedPlus Gen2x1.
INFO      Topology: XHCI HC -- DUT
```

Figure 1: USB-IF XHCI compliance device mode



APPLICATION: USB 3 Gen X Command Verifier
TEST SUITE: Device Summary.cvtests
OPERATING SYSTEM:
WORKSTATION:
DATE: Wednesday, April 19, 2023
TIME: 09:38:51 AM
OPERATOR: Dell_XPS_8940_#1
NUMBER OF TESTS: 1
LOG NAME: Device Summary - 2023-04-19 09-38-43
RESULT: passed

Initialize Test Suite

```
INFO      Test log initialized.
INFO      Log Level: Normal
INFO      User Input module initialized
INFO      Windows 10 Pro (Build 22000.1.amd64fre.co_release.210604-1628)
INFO      CVApp.exe ver 4.1.0.0
INFO      BaseUtilities.dll ver 4.1.0.0
INFO      CommandVerifierLog.dll ver 4.1.0.0
INFO      GuiHelper.dll ver 4.1.0.0
INFO      TestUtilities.dll ver 4.1.0.0
INFO      TestSuiteEngine.dll ver 4.1.0.0
INFO      xhci_DevIOCTL.dll ver 2.2.7.0
INFO      xhci_TestServices.dll ver 2.2.7.0
INFO      USBUtilities.dll ver 1.4.5.1
INFO      StackSwitcher.dll ver 1.4.5.1
INFO      xhci_CommandVerifierServices.dll ver 2.2.7.0
INFO      VIFReader.dll ver 4.1.0.0
INFO      XHCISpecVersion: 1.10.
INFO      Host 1 selected: xHCI Host: VID=0x1821, PID=0x2142 (PCI bus 4, device 0, function 0)
INFO      User selection from list: "SSP Device addr=1: VID=040E, PID=F645"
INFO      Please select USB Device to test
INFO      USB Device Under Test is operating at SuperSpeedPlus Gen2x1.
INFO      Topology: XHCI HC -- DUT
```

Figure 2: Loopback device mode

