

Overview

This Host HID example only supports the HID generic device that runs the device HID generic example. This application implements a simple HID interrupt in-and-out endpoint bi-directional communication. The application sends one test string to the device. The device receives and sends back the string. The application receives the string and prints it.

System Requirement

Hardware requirements

- Mini/micro USB cable
- USB A to micro AB cable
- Hardware (Tower module/base board, and so on) for a specific device
- Personal Computer (PC)

Software requirements

- The project path is:
<MCUXpresso_SDK_Install>/boards/<board>/usb_examples/usb_host_hid_generic/<rtos>/<toolchain>.

Note

The <rtos> is Bare Metal or FreeRTOS OS.

Getting Started

Hardware Settings

- Jumper settings for REV B:
J17 1-2 and 3-5. Besides, two 33ohm resistors (R225 and R227) have to be populated on nets K21_MICRO_USB_DP and K21_MICRO_USB_DN and two 33ohm resistors (R224 and R226) on nets USB0_DP and USB0_DN have to be removed for using micro USB connector. 1-2 and 3-5. Besides, two 33ohm resistors (R224 and R226) have to be populated on nets USB0_DP and USB0_DN and two 33ohm resistors (R225 and R227) on nets K21_MICRO_USB_DP and K21_MICRO_USB_DN have to be removed for using TWR-SER board's mini USB connector.
- The Jumper settings REV C:
J17 1-2 and 3-5, J24 1-2 for micro USB connector. 1-2, J24 2-3 for using TWR-SER mini USB connector.

Note

Set the hardware jumpers (Tower system/base module) to default settings.

Prepare the example

1. Download the program to the target board.
2. Power off the target board and power on again.
3. Connect devices to the board.

Note

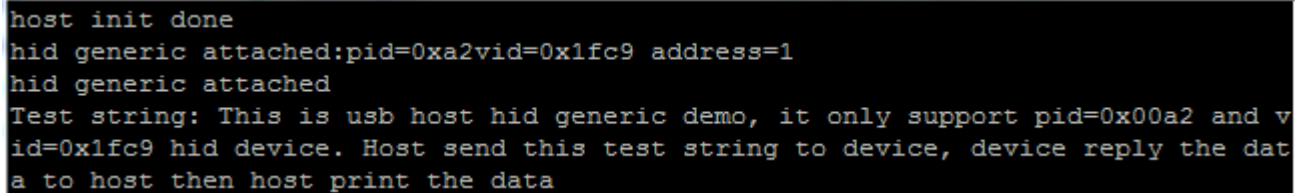
For detailed instructions, see the appropriate board User's Guide.
this example could be tested with the "usb_device_hid_generic" example in pairs.

Run the example

1. Connect the board UART to the PC and open the COM port in a terminal tool.
2. Plug in the HUB or HID generic device to the board. The attached information prints out in the terminal.
3. The following string prints in the terminal.

Test string: This is a USB host HID generic demo. It only supports pid=0x00a2 and vid=0x1fc9 HID device. The host sends this test string to the device. The device echoes the data to the host and the host prints the data.

The following figure is an example for attaching one HID generic device.



```
host init done
hid generic attached:pid=0xa2vid=0x1fc9 address=1
hid generic attached
Test string: This is usb host hid generic demo, it only support pid=0x00a2 and v
id=0x1fc9 hid device. Host send this test string to device, device reply the dat
a to host then host print the data
```

Figure 1: Attach HID generic device