Overview

The Host Audio example supports the audio speaker device.
The application prints the audio speaker information when the USB speaker device is attached.

System Requirement

Hardware requirements

- J-Link ARM
- P&E Micro Multi-link universal
- Mini/micro USB cable
- USB A to micro AB cable
- Hardware (tower/base board, ...) for a specific device
- Personal Computer

Software requirements

- The project files are in:
  <SDK_Install>/boards/<board>/usb_examples/usb_host_audio_speaker/<rtos>/<toolchain>.

Getting Started

Hardware Settings

- The Jumper settings:
  J22 1-2, J11 5-6, J24 1-2 for micro USB connector. 1-2, J17 1-2, J24 2-3, and remove J11 5-6 for using TWR-SER mini USB connector. For detailed instructions, see the appropriate board User's Guide.

Prepare the example

1. Download the program to the target board.
2. Power off the target board, and then power on again, or press the reset button on your board.
3. Connect the USB audio speaker devices to the board.

Note

For detailed instructions, see the appropriate board User's Guide.

Run the example

1. Connect the board UART to the PC and open the COM port in a terminal tool.
2. Plug in the USB audio speaker device to the board and attach the information print out in the terminal.
3. The USB audio speaker information will print in the terminal when USB speaker device is attached.
4. After the USB speaker device is plugged in to the host, the USB application automatically transfers the audio data to the USB audio speaker device and the sound can be heard from the audio speaker device.

The following image shows how to attach a USB audio speaker device.

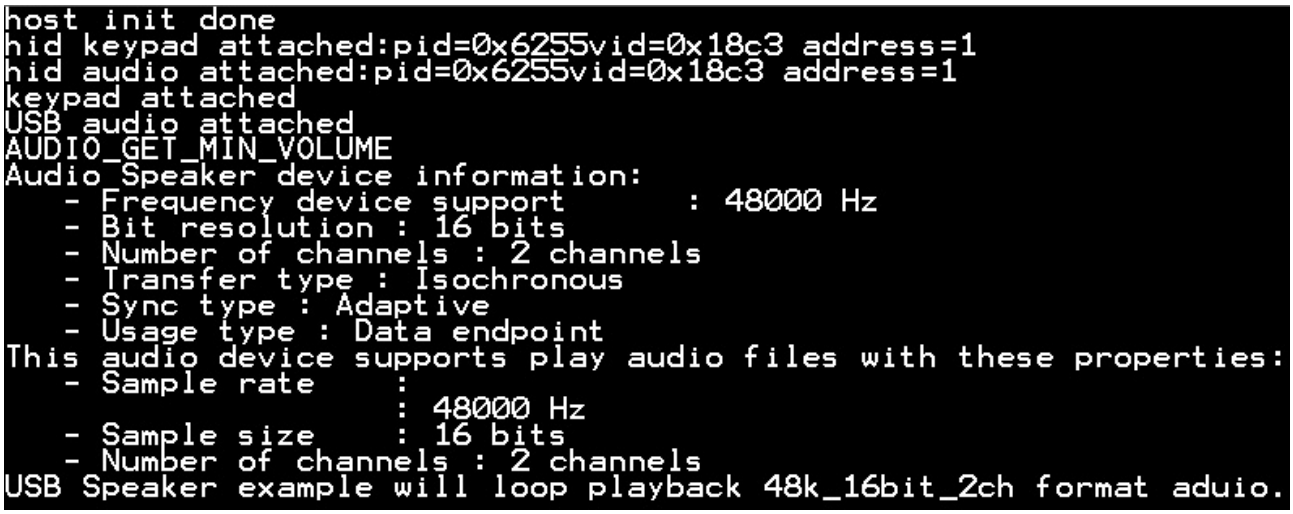

Figure 1: Attach audio speaker device

Known issue for freertos Host Audio Speaker Example

- The freertos version example attach/detached print debug message is disordered with do hot plug test many times. Because example will handle different interface in different task, so one task is printing debug message maybe be broken by another task, will cause the debug message is disordered.
- Sometimes noise happen when the song is playing on some boards with The freertos version example. Because there is no software timer can ensure one ISO transfer would be sent per one SOF timer without hardware pit timer enablement, and the issue also is effected by the Khci hardware SOF Threshold feature. The host would send less audio data to the device after a while, the buffer on the device side is underrun error if the device doesn't have an appropriate schema to deal with it, then will cause some noise happen.