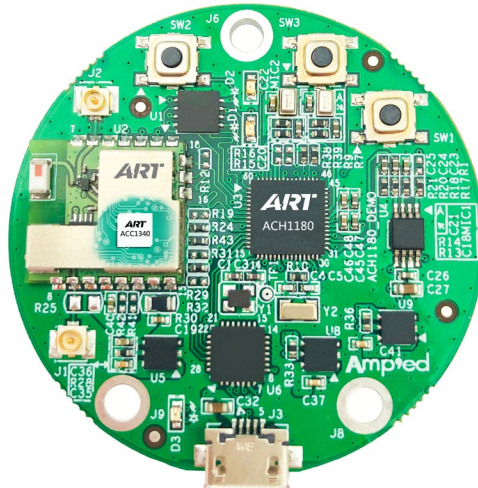


ACH1180 Evaluation Guide

Amp'ed RF Technology, Inc.



1. Introduction

1.1. Overview

The ACH1180 EVB is designed for evaluating and developing audio and voice processing applications. Example wave file player and voice recorder projects are included in this evaluation system. The purpose of this document is to give an overview of hardware and software included in the ACH1180 EVB.

1.2. System requirements

This evaluation has the following system requirements:

- Computer running with Windows XP, Windows 7 ,Windows 8 or Windows 10
- Computer with a minimum of 1 USB ports
- IAR C compiler

1.3. External resources

- A speaker or earphone

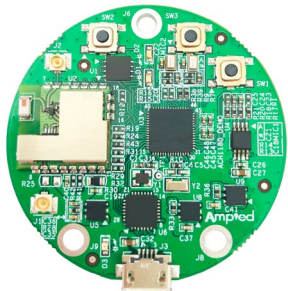
2. Contents of kit

2.1. Software

- Term_5.0.exe, PC software tool
- IAR Project file
- Voice Recorder sample application binary image
- Wave Player sample application binary image

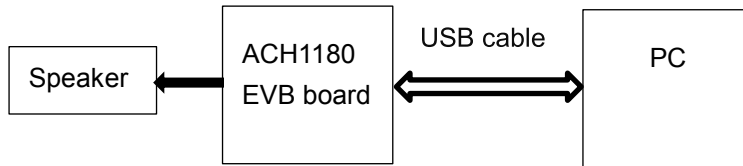
2.2. Hardware

- ACH1180_EVB board
- Micro USB cable

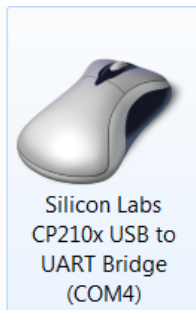


3. Getting started

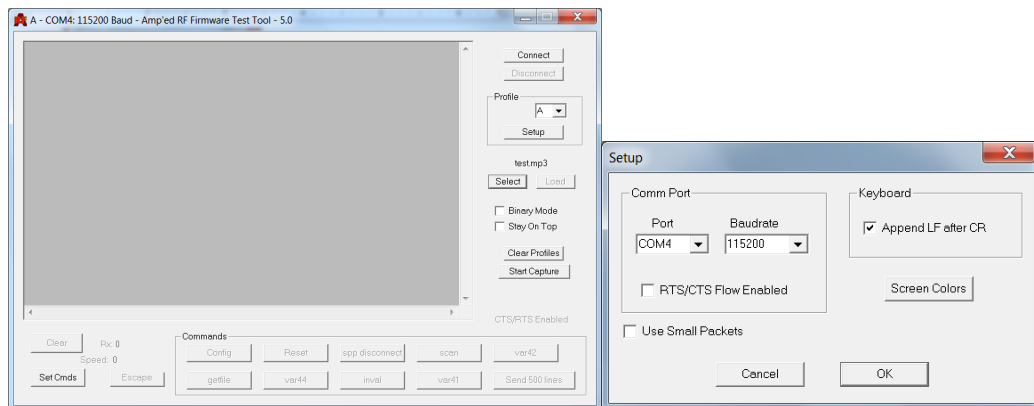
- Copy the Term_5.0.exe to the computer. Copy the code files, Wave Player and Voice Recorder, to the computer.
- Connect EVB board to computer USB interface with USB cable



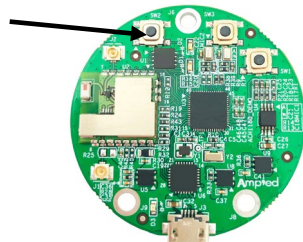
- Find out the port number in Device Manager



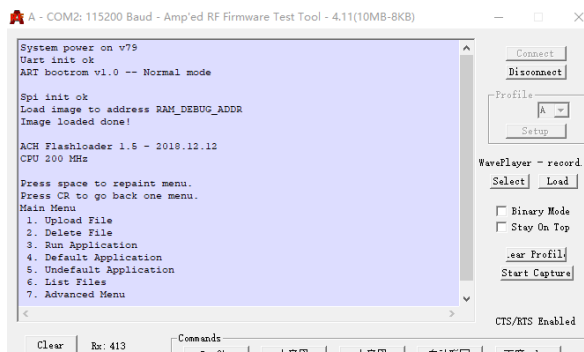
- Run the Term_5.0.exe, setup button, to set the baud rate to 115200 and the port number



- Click on connect button
- Press the reset key (SW2) on the board.



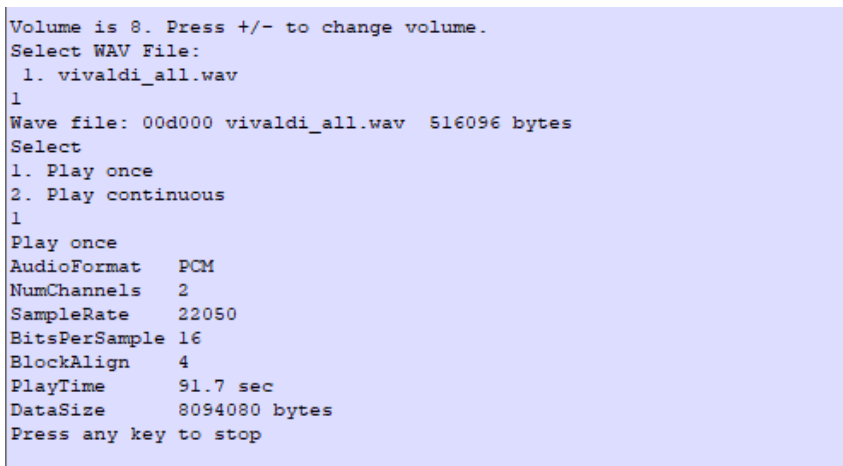
- On the Term interface, you will see the Main menu



- Enter number "3" to run application



- Two applications are pre-loaded. The first one is to demonstrate playing wav music files, the second is to demonstrate recording a voice clip.
- Enter number "1" to select the "Vivaldi" wav file clip



Choose the wav file and mode to play by entering "1" or "2", and adjust the volume by entering "+" or "-".

- Enter Number “2”, then enter Number “2” again.

```
1. 23524 x WavePlayer_wavplay.bin
2. 22344 x WavePlayer_record.bin
#2
Start
SystemCoreClock 200 MHz
Flash: SPI2 (10.0 MHz, Div=10)
Flash IDs: 16 16 C8 60 17

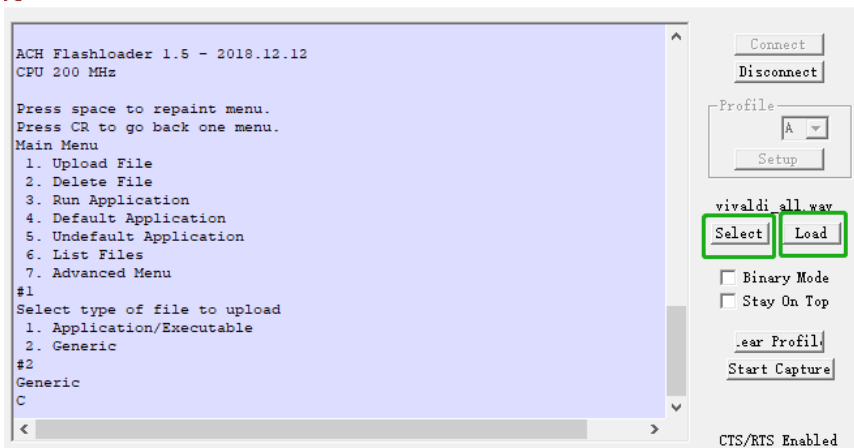
Press space to repaint menu.
Press CR to go back one menu.
Main Menu
 1. Playback
 2. Record
#2
Record
 1. Start
 2. Stop
 3. Playback
 4. Save
 5. Test
#
```

Voice is recorded at 8KHz sampling rate, 16 bits per sample.

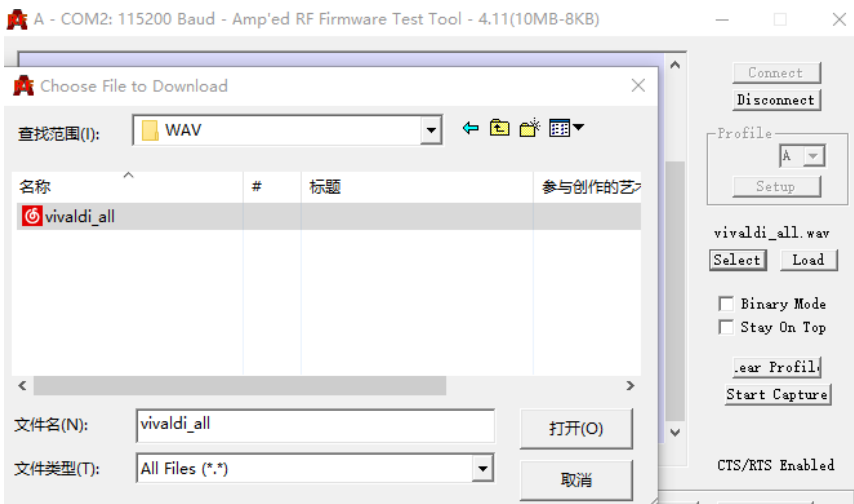
Note that the maximum record time should not exceed 5 seconds.

4. How to load WAV

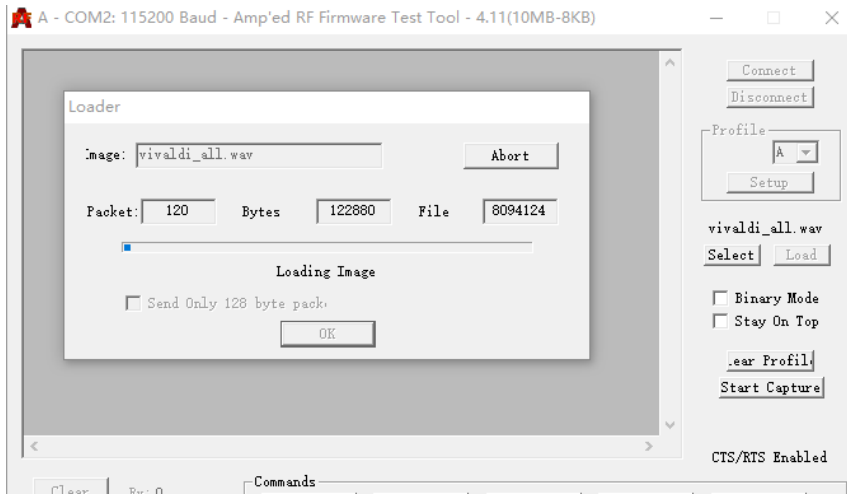
To upload a new wav file, enter the number “1” under the main menu. Then enter the number “2” to choose load generic. Typically, 22KHz sampling rate at 16 bit samples is used for wav files in this example.



- Then click the “select” button to select the path of the wav file you want to upload. Then click “open”.



- Click the “load” button to wait for the download to complete



5. Revision history

1.0	12 April, 2019	Initial release
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