

2.1 Class-D Digital Input Closed Loop Audio Amplifier System with Signal Processing

TIDA-00404 Quick Start Guide

1.0 Abstract

This quick start guide discusses running the TAS5754_56M + TAS5760M_2.1 TI Design Board with the PurePath Console GUI and to evaluate the performance and functionality the design. This board has been designed to work with the GUI used for the TAS5756MDCAEVM with the addition of a command script to activate the TAS5760 device used for mono subwoofer output.

2.0 Hardware

To get the TAS5754_56M + TAS5760M_2.1 TI Design board running, the PurthPath Console Mother Board (PUREPATH-CMBEVM) is required for computer connection as well as a mini USB cable.

For more information visit:

<http://www.ti.com/tool/PUREPATH-CMBEVM>

3.0 Software

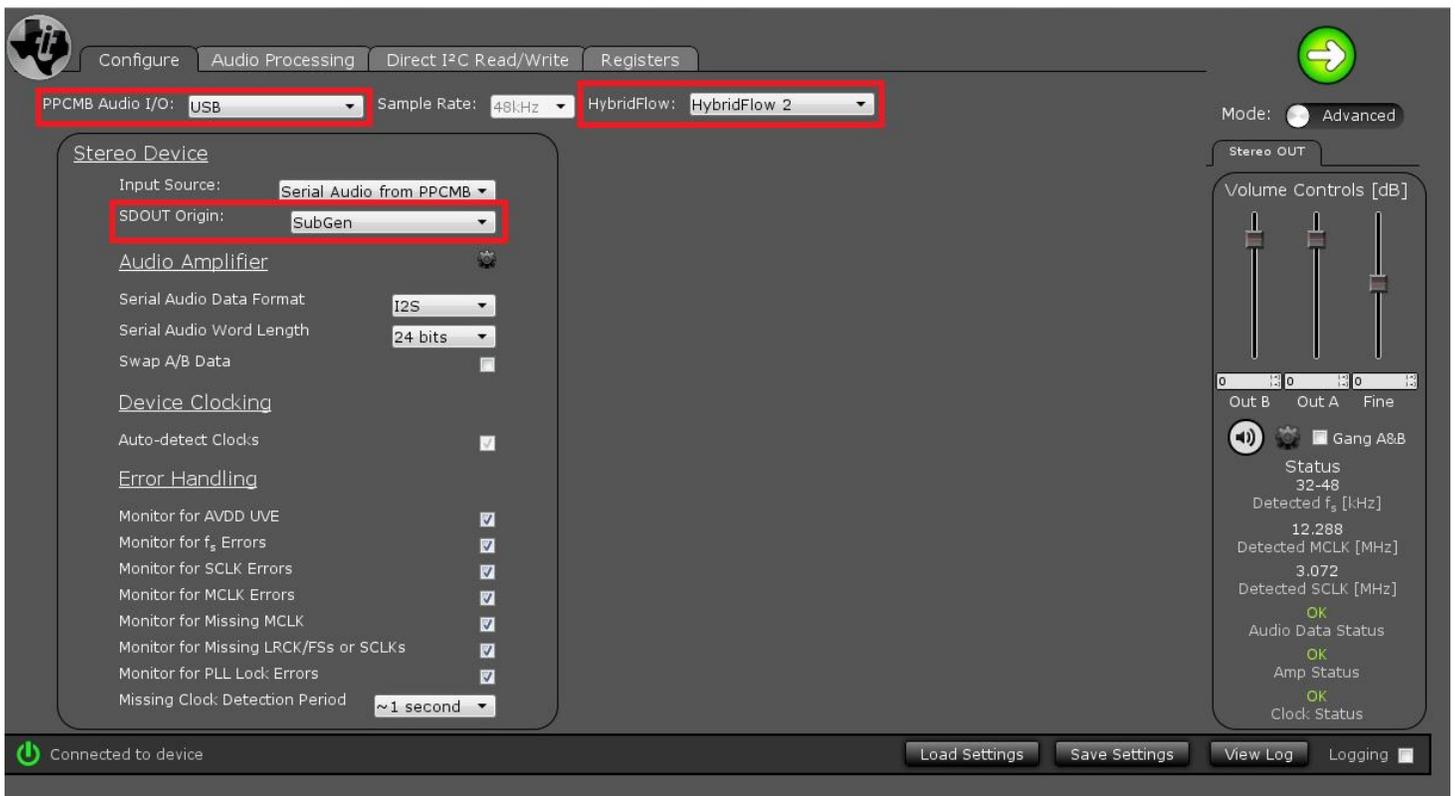
To download the PurePath Console GUI request permission by following the link below:

<http://www.ti.com/tool/PurePathConsole>

Once access is granted, download and run the TAS5754M56MDCAEVM-2.1 .exe installer. This board has been designed to work with the GUI used for the TAS5756MDCAEVM with the addition of a command script to activate the TAS5760 device used for mono subwoofer output.

4.0 Running the Design

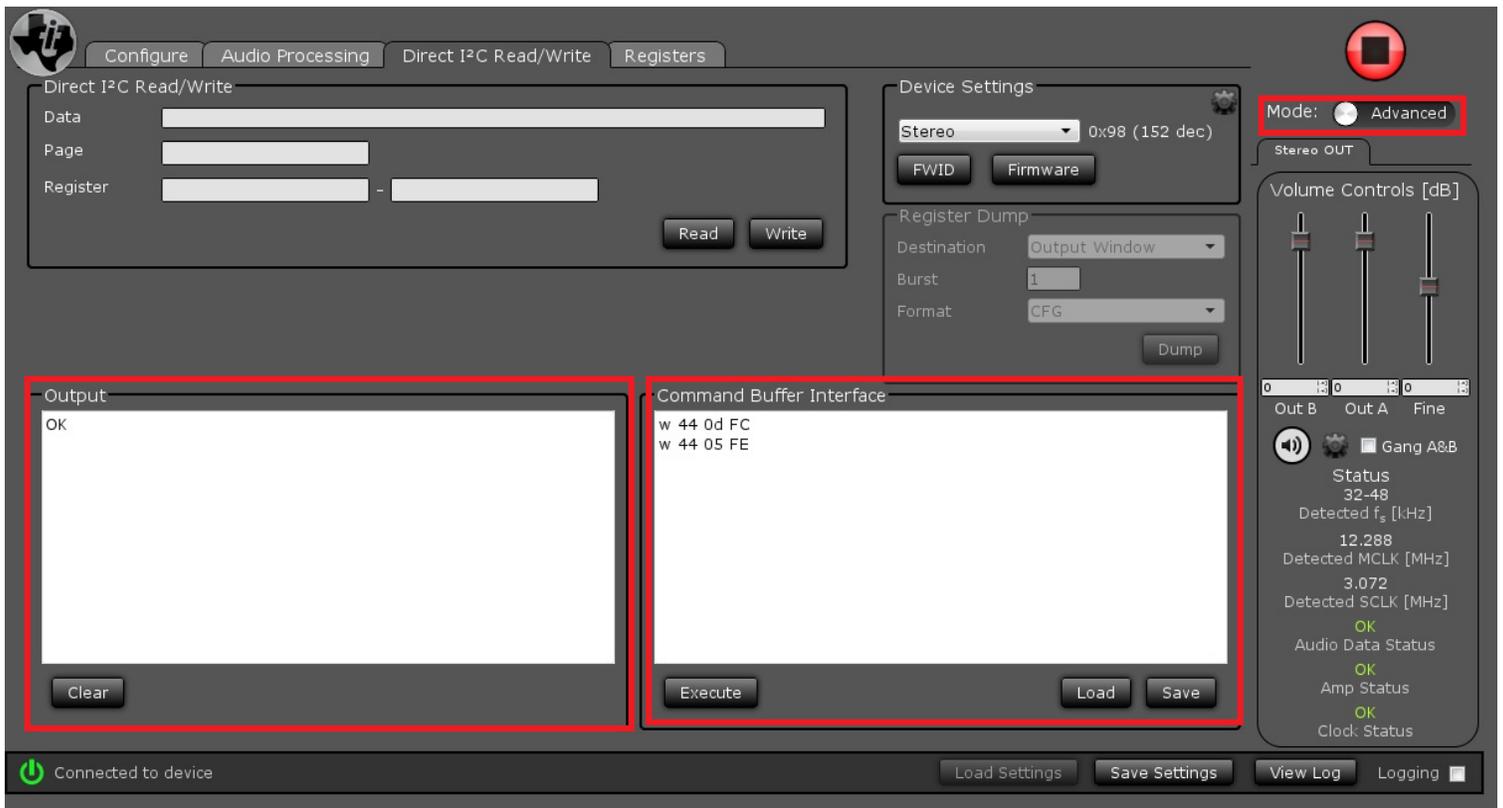
- 4.1 Once installed open the PurePath Console GUI and plug in the Mother Board with the S5754_56M + TAS5760M_2.1 TI Design board attached into the host computer using a mini USB cable
- 4.2 Supply 12V from a DC power supply to the design board. This will also power the Mother Board.
- 4.3 Select *HybridFlow 2* from the drop down menu on the top of the GUI window. Then make sure to choose SDOUT Origin as “*SubGen*” to use the TAS5760 as a mono subwoofer. Be sure to select the proper audio source as well. See the screen shot below for reference.



- 4.4 Make sure the GUI is in *Advanced* mode and move to the tab on the top that says *Direct I2C Read/Write*.
- 4.5 In the *Command Buffer Interface* Type the following command and click *Execute*
w 44 0d FC
w 44 05 FE

This command will set the correct GPIOs on the Mother Board GIPO expander as to turn on the TAS5760 mono device as it is hardware controlled.

- 4.6 The *Output* window should display “OK” indicating a successful write. See the screen shot below:



- 4.7 The TAS5754_56M + TAS5760M_2.1 TI Design should now be fully functional with the GUI. The *Audio Processing* tab should be used to tune the design and add biquad filters, dynamic bass enhancement as well as dynamic range controls.

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