

SonicMaster Evaluation board – Quick start Guide

SonicMaster2 Evaluation Board Quick Start User Guide

PLEASE read this entire minimal document before starting. It may save you a lot of time.
 If you have questions contact support@anadigm.com before starting.

Introduction (second generation SM2 PCB implementation).

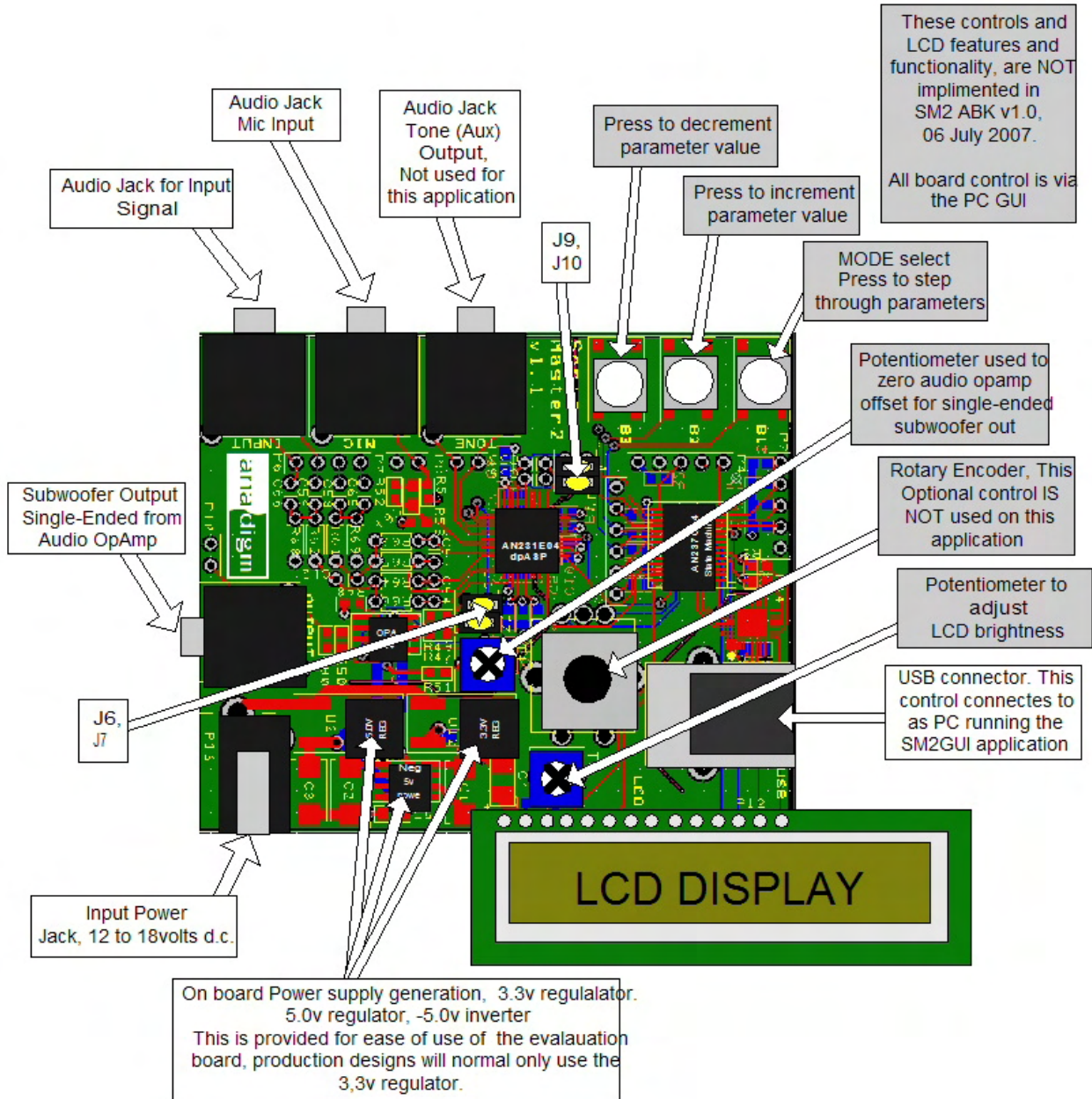


Figure1, Pictorial description of the board

This evaluation Kit contains:

- This Quick start guide
- SonicMaster PCB, (SM2firmware)
- Microphone, LCD Display
- 3 x cables 3.5mm stereo to phono
- 12v d.c. power supply

This Quick Start User Guide contains:

- Pictorial description of the board
- Simple and detailed quick start connection instructions
- Idealized complete system diagram connection diagram
- Overview of the State Machine menu and controls
- PCB circuit schematic drawing

For information Contact:



support@anadigm.com,
<http://www.anadigm.com>

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Quick start instructions:

The initial state of the jumpers should be as follows: ON = Shorting Link fitted- factory shipped condition. Please do not remove.

Jumper	Default State	Function
J6,7	ON,	Connects the subwoofer output from dpASP to Audio OpAmp. The Audio OpAmp will level shift the signal to ground and convert it to single-ended. When setting the Audio OpAmp offset to zero using the potentiometer at the top of the board, a single jumper should be placed horizontally across the top of J6, 7 to short the Audio OpAmp inputs together.
J9,10	ON	Connects the peak detect outputs from the dpASP to the state machine. Always on (shorted) except when factory programs the state machine.

- 1) Start by loading the USB drivers into you PC, the USB driver file is included on the CD. This driver **MUST** be installed before connecting the board. Please load the CD now.
- 2) Now copy the SonicMaster2 GUI executable file (SonicMaster2.exe) to your PC.
- 3) Now connecting the SonicMaster board to your Subwoofer. This is done using the Subwoofer line level audio input, set the subwoofer volume to mid range and the corner frequency to maximum or bypass. Use the cable labeled Subwoofer input, 3.5mm jack to single phono connection.
- 4) If you have SonicMaster2 with an LCD connect the LCD now. (NOTE: SM2 ABK v1.0 does not have this feature). The LCD will not function until updated ABK software is implemented.
- 5) Then connect a source of music (e.g. a CD player) to the Audio Jack input connector (3.5mm stereo socket).
- 6) Now connect the power source. For your convenience we have included a 120v ac to 12v dc converter power supply with a 3.5mm jack socket (positive centre).
- 7) Adjust the potentiometer above the LCD display until the display can be read clearly. Not Applicable for SM2 ABK v1.0
- 8) Now connect the USB cable to the board and your PC.
- 9) Follow instructions provided to you by you PC operating system to complete the USB installation and associate the hardware with the driver.
- 10) Next start the SonicMaster2 GUI application; Double click the copy of file SonicMaster2.exe. The GUI immediately checks the validity of the Board, to create a flat response signal path through the dpASP please press the DOWNLOAD button inside the GUI.
- 11) Play music through the system and check the subwoofer generates an audio output, then use the GUI to adjust the 2 PEQ filters and linkwitz shelving filter
- 12) A single point (listening position) room response can be measured and plotted using the SonicMaster2 GUI, before pressing the GUI "room response button" please ensure you have connected the microphone.

Note: the components required to derive the power supplies needed for this Evaluation board are not normally required for a production implementation of this circuit, the circuit as implemented requires a 3.3v supply. The addition of the Audio OpAmp to easily interface to a subwoofer requires a supply between +/-5.0v and +/-18volts

Tips: The Subwoofer gain should be set to approx midrange. Only use Anadigm Microphone.

Table1: SonicMaster2 State Machine software menu and parameter settings.

	ACTION	Function	Increment (B2) / decrement(B3)
End user controls	power up	Displays Firmware revision for 2 seconds, then display Home**	
	<i>Home **</i>	Not included in this version	
	Tap, Mode Select Button (B1)		
	Tap B1 again		
	Tap B1 again		
	Tap B1 again		
	Hold B1 for 5 secs	Resets to factory default	

Notes,** If no button is pressed for 5 second, currently displayed values are saved and the menu will return to home and display the volume setting. Settings are saved whenever a menu view is changed.

Absolute parameters values are firmware and can be changed, contact Anadigm to discuss this

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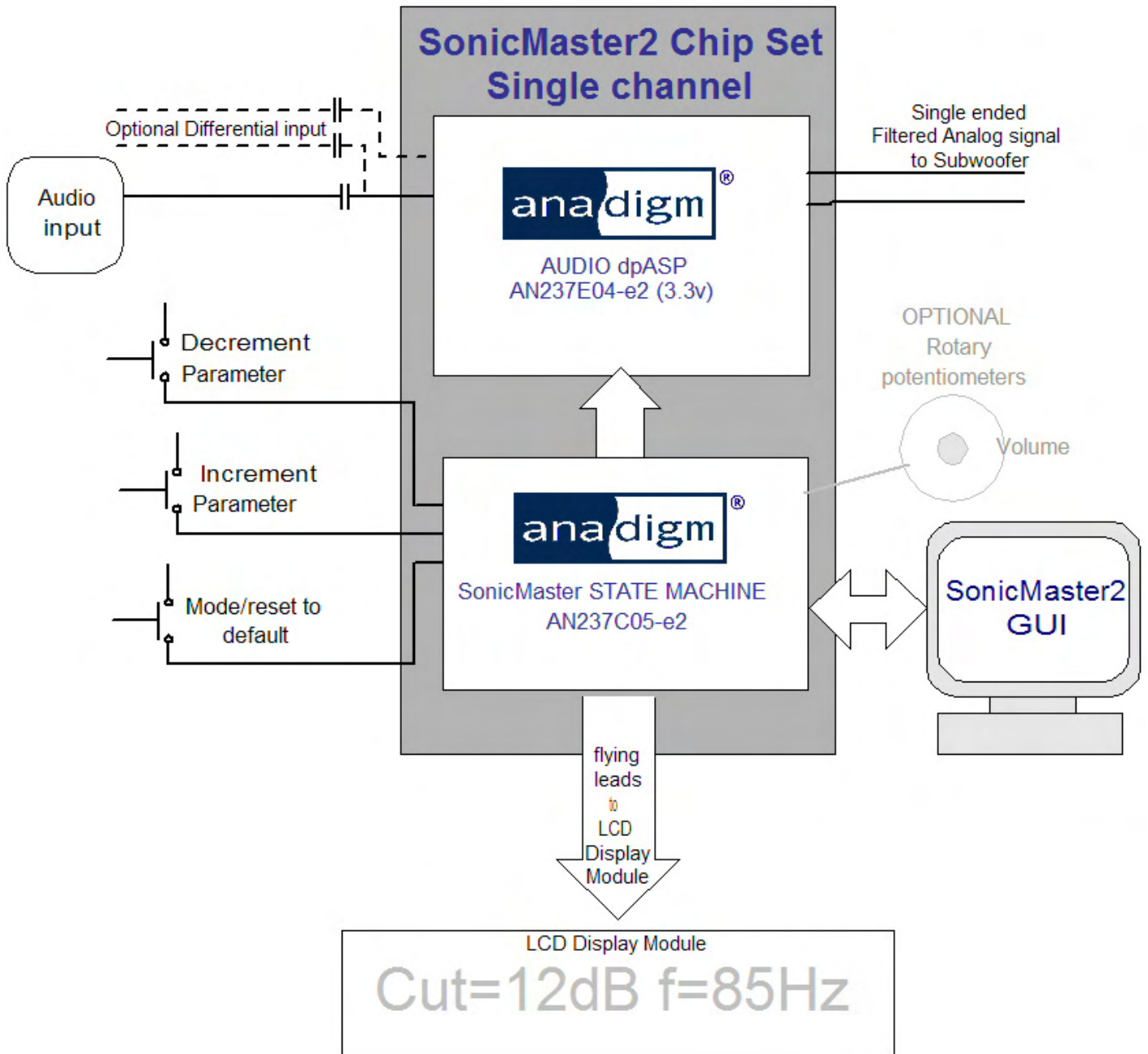


Figure 2.

For information Contact:



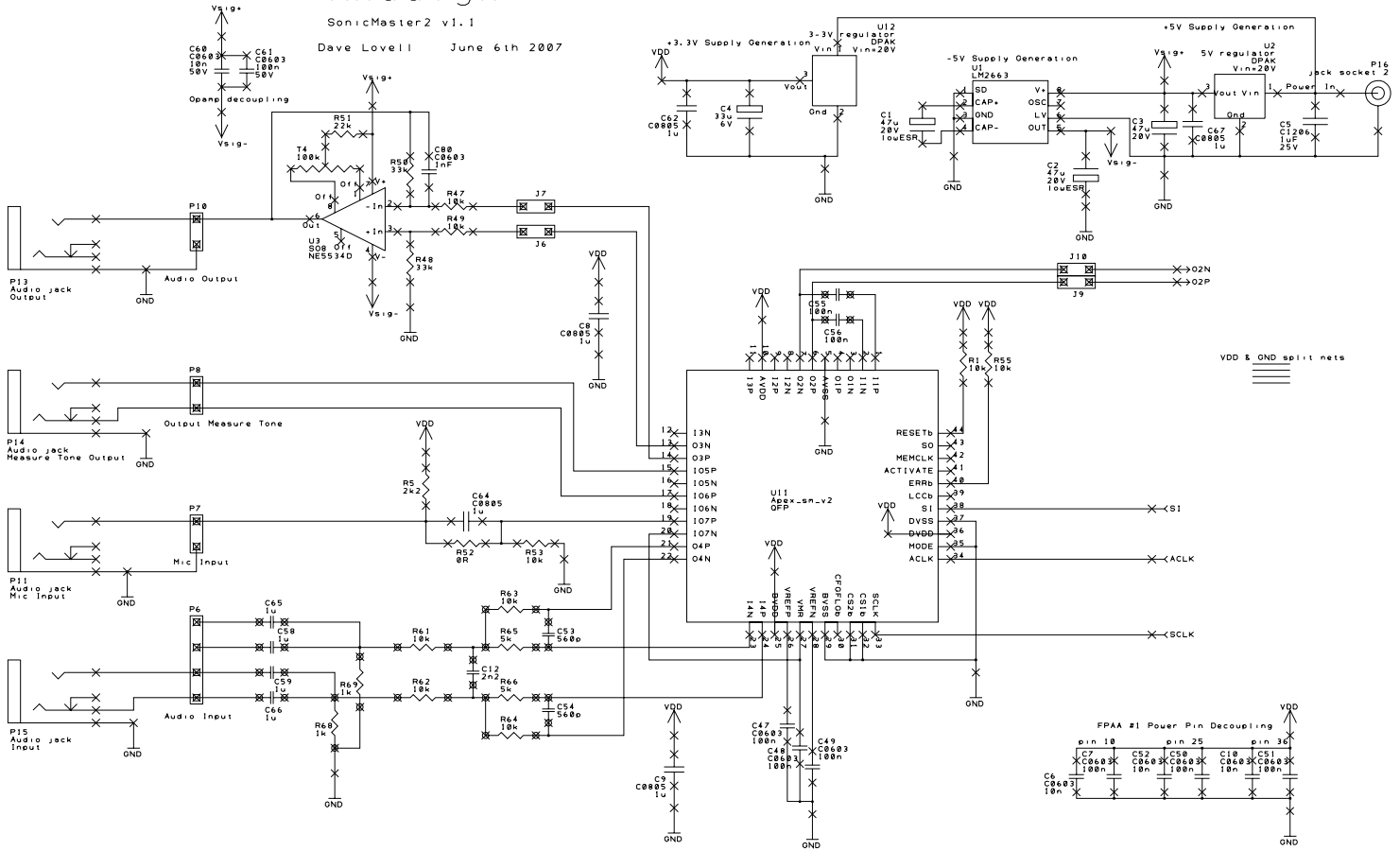
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SonicMaster2 v1.1

Dave Lovell June 6th 2007



Anadigm

SonicMaster2 digital v1.0
Dave Lovell June 6th 2007