

LM4857 Evaluation Package Instructions

The LM4857 Evaluation Package includes the following:

LM4857 Demoboard I²C Card I²C Cable Software

Hardware Installation Instructions:

- 1) Plug the l^2C Card to the parallel port (LPT1) of the PC.
- 2) Connect the LM4857 Demoboard to the I²C Card with the I²C Cable. Refer to the Silkscreen for the corresponding pin locations of SCL, SDA, extV_{DD} and GND. The I²C Cable uses the following color coding scheme:

(Green – SCL; Blue – NC; Orange – SDA) (White/Green – extV_{DD}; White/Blue – GND)

SCL	NC	SDA	
extV _{DD}	GND	NC	

Green	Blue	Orange	
White/Green	White/Blue		

I²C Silkscreen Pinout

Color Code for I²C Cable

I²C Card Instructions:

- Attach the I²C Card to the PC's parallel port using the I²C Card's male DB-25 connector.
- 2) The LED indicator on the I²C card will light up when a proper connection is made.
- 3) Attach the I^2C Cable to the I^2C Card's corresponding 6-pin header.
- The I²C Card can be powered up either through the PC's parallel port (pcVdd) or the LM4857 Demoboard's power supply (extVdd).
- 5) For pcVdd operation, the slide switch on the I²C Card must be set to the pcVdd position.
- 6) For extVdd operation, the slide switch on the I²C Card must be set to the extVdd position. The extVdd supply is generated through the I²CVdd pin on the demoboard, which can be shorted to the main power supply pin Vdd by closing jumper (J2).



LM4857 Demoboard Instructions:

- 1) The supply pin, ground pin, inputs, and outputs are all easily accessed through the header pins of the LM4857 Demoboard. Each header pin is labeled accordingly on the Demoboard's Silkscreen layer.
- 2) Attach the I²C Cable to the LM4857 Demoboard's corresponding 6-pin header.
- 3) Connect a power supply to the Vdd and GND pin of the LM4857 Demoboard for power-up.

Software Installation Instructions:

- 1) A Windows95/98/NT/2000/XP operating system is required.
- 2) Run setup.exe to begin the software installation.
- 3) Run *LM4857audio1_2.exe* to begin the software program.

💦 LM4857 Audio Program ¥1.2											
	LINEOUT	EARPIEC	Æ	LEFT LOUDSPEAKER	RIGHT LOUDSPEAKER	LEFT HEADPHON		RIGHT DPHONE			
	SHUTDOWN	SHUTDO	٨N	SHUTDOWN	SHUTDOWN	SHUTDOW	VN SHU	JTDOWN			
ا_	MODE SELECT —		min			max					
(MODE 0	C MODE 8]	-34.5 dB	MONO VOLUME			
(C MODE 1	C MODE 9					1	CONTROL			
(O MODE 2	C MODE 10									
(C MODE 3	C MODE 11					-46.5 dB	LEFT VOLUME CONTROL			
(O MODE 4	C MODE 12									
(O MODE 5	C MODE 13					33.0 dB	RIGHT VOLUME			
(O MODE 6	C MODE 14	Yere					CONTROL			
0	O MODE 7	C MODE 15		PHONE 3D		FA	ADDRESS BIT				
			0.01	N © OFF	C SLOW (FAST	01	• 0			
	National Semiconductor The Sight & Sound of Information		O OI	OUDSPEAKER 3D EARPIECE GAIN SELECT -			DEFAULT				

Software Instructions:

- 1) Volume controls are accessed through the slider bars.
- 2) Output modes and other features are accessed through the radio buttons.
- 3) The status of each audio output is given in the corresponding text boxes located in the top section of the GUI.
- 4) The ADR bit setting must correspond to the jumper (J1) setting on the LM4857 Demoboard for proper operation.
- 5) The DEFAULT button resets the GUI back to the default state.