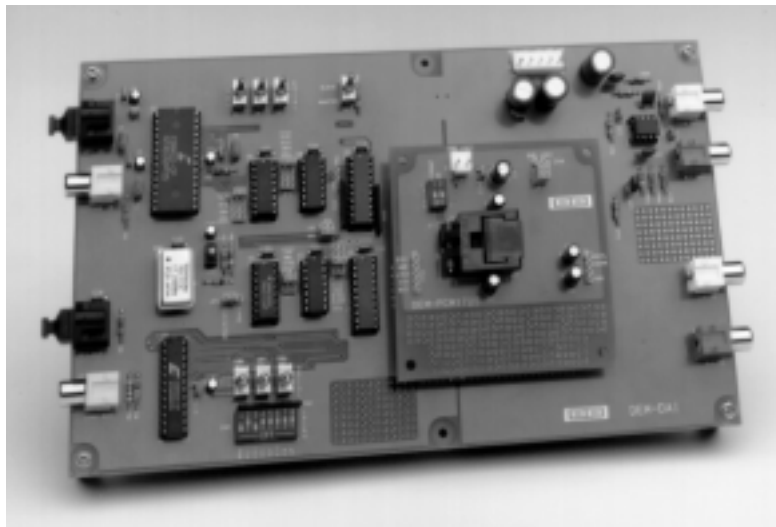




DEM-PCM1725 DEM-DAI1725 EVALUATION FIXTURE



FEATURES

- EVALUATION FIXTURE FOR THE PCM1725 AND PCM1733
- COMPATIBLE WITH THE DEM-DAI MOTHER BOARD
- SWITCHES FOR SELECTING DATA FORMAT AND DIGITAL DE-EMPHASIS
- OPERATES FROM A SINGLE +5V SUPPLY

GENERAL DESCRIPTION

The DEM-PCM1725 is basic demonstration board for the PCM1725 16-bit, 96kHz stereo audio DAC. The board can also be used with the PCM1733 18-bit, 96kHz stereo audio DAC since it is pin-for-pin compatible with the PCM1725.

The DEM-DAI1725 includes both the DEM-PCM1725 and the DEM-DAI mother board. This combination provides a complete interface to S/PDIF receiving and transmitting equipment, as well as providing additional support circuitry and power supply connections.

DEM-PCM1725 DESCRIPTION

The DEM-PCM1725 is a basic demonstration board for the PCM1725 and PCM1733 stereo audio DACs. It includes connectors for interfacing to the DEM-DAI mother board or a customers proto board. An on-board DIP switch is used to select the serial data format and to enable/disable the digital de-emphasis function.

The evaluation board operates from a single +5V power supply. The supply may be derived from the DEM-DAI mother board or a customer proto board via header CN4. Alternatively, a power source may be connected to header CN1. The supply used should be a clean, regulated linear power source.

Header CN2 provides a connection point to an external system clock, as well as the audio serial interface. The stereo audio output of the DAC is available at connector CN3.

Figure 1 shows the demonstration board schematic.

Figure 2 shows the PCB layout (top and bottom views, as well as the silk-screen) for the demonstration board. Customers may freely copy the DEM-PCM1725 board layout for use in their own applications.

DEM-PCM1725 CONFIGURATION

Configuration is performed using the on-board DIP switch and jumper block JP1. The following paragraphs describe the function of each of the switches.

Data Format Controls

The FORMAT switch is used to select the serial interface data format. The available settings are:

FORMAT = L = Normal Format (MSB-first, right-justified)
FORMAT = H = I²S Format

De-Emphasis Control

The DM switch is used to disable or enable the Digital De-Emphasis function. The PCM1725 and PCM1733 only support the de-emphasis function for the 44.1kHz sampling rate. The available settings are:

DM = L = De-Emphasis ON
DM = H = De-Emphasis OFF

Power Supply Selection

The DEM-PCM1725 allows the user to supply power at either CN1 or CN4.

When powering the DEM-PCM1725 from header CN1, remove the JP1-1 and JP1-2 jumpers.

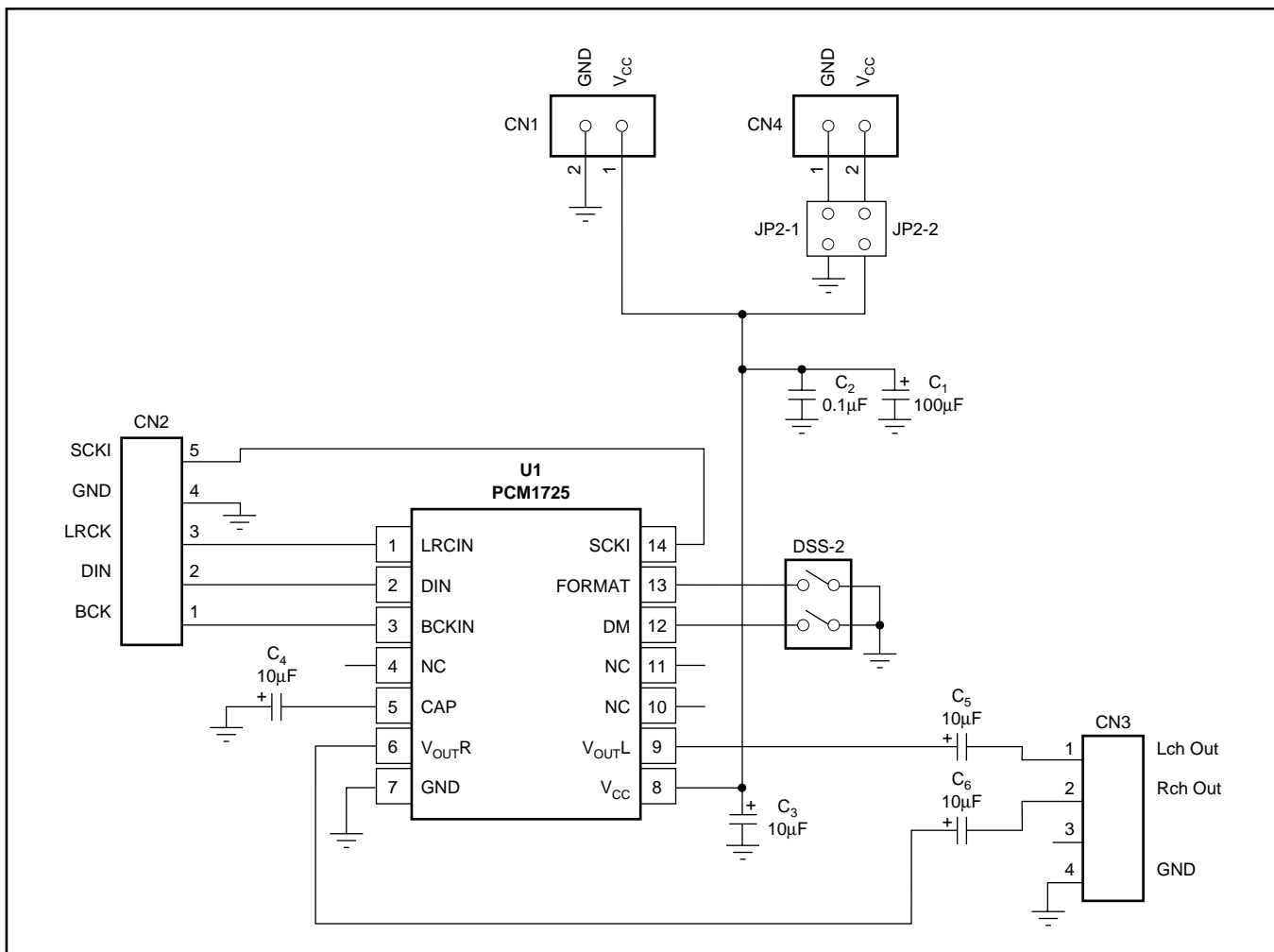


FIGURE 1. Demonstration Board Schematic.

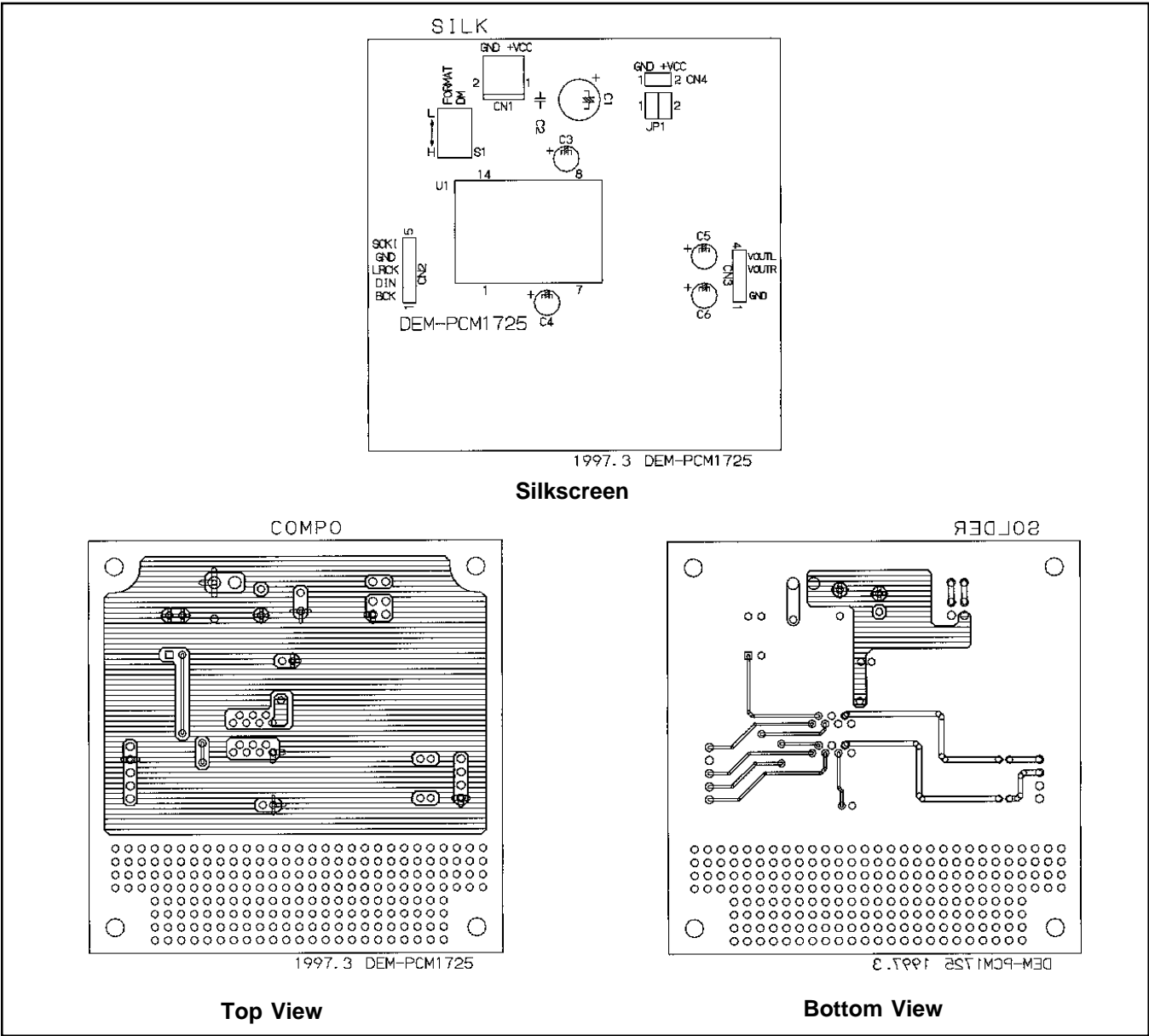


FIGURE 2. DEM-PCM1725 and DAI1725 Parts Layout.

When powering the DEM-PCM1725 from header CN4, both JP1-1 and JP1-2 should have jumpers installed. This is the default setting when using the DEM-PCM1725 with the DEM-DAI mother board. In this scenario, +V_{CC} and GND are derived from the DEM-DAI mother board.

DEM-DAI1725 DESCRIPTION

The DEM-DAI1725 consists of the DEM-PCM1725 demonstration board and the DEM-DAI mother board. The DEM-DAI includes a complete digital audio interface, as well as power supply and audio input and output connectors. The DEM-PCM1725 simply plugs into the DEM-DAI board to form a complete evaluation platform.

When mounting the DEM-PCM1725 to the DEM-DAI mother board, observe the connector alignment shown in Table I.

DEM-PCM1725 CONNECTOR	to	DEM-DAI CONNECTOR
CN2		CN2
CN3		CN3
CN4		CN5

TABLE I. DEM-PCM1725 to DEM-DAI Connector Alignment.

ORDERING INFORMATION

PRODUCT	DESCRIPTION
DEM-PCM1725	Demo Board for the PCM1725 and PCM1733.
DEM-DAI1725	Evaluation Kit, including the DEM-PCM1725 and the DEM-DAI mother board.

Please refer to the DEM-DAI data sheet included with the DEM-DAI1725 package for complete information concerning mother board configuration and setup.

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