TAS3103AEVM Quick Start

Introduction

This quick start guide is provided to assist the user in executing the initial setup steps required to use the TAS3103A evaluation module (EVM). The configuration example presents the initial steps in a stereo application using the S/PDIF input to input audio data into the TAS3103A EVM.

TAS3103A EVM Connections

The connections to the TAS3103AEVM are shown in Figure 1. The jumpers that are required to configure the TAS3103AEVM for S/PDIF input are shown in red.
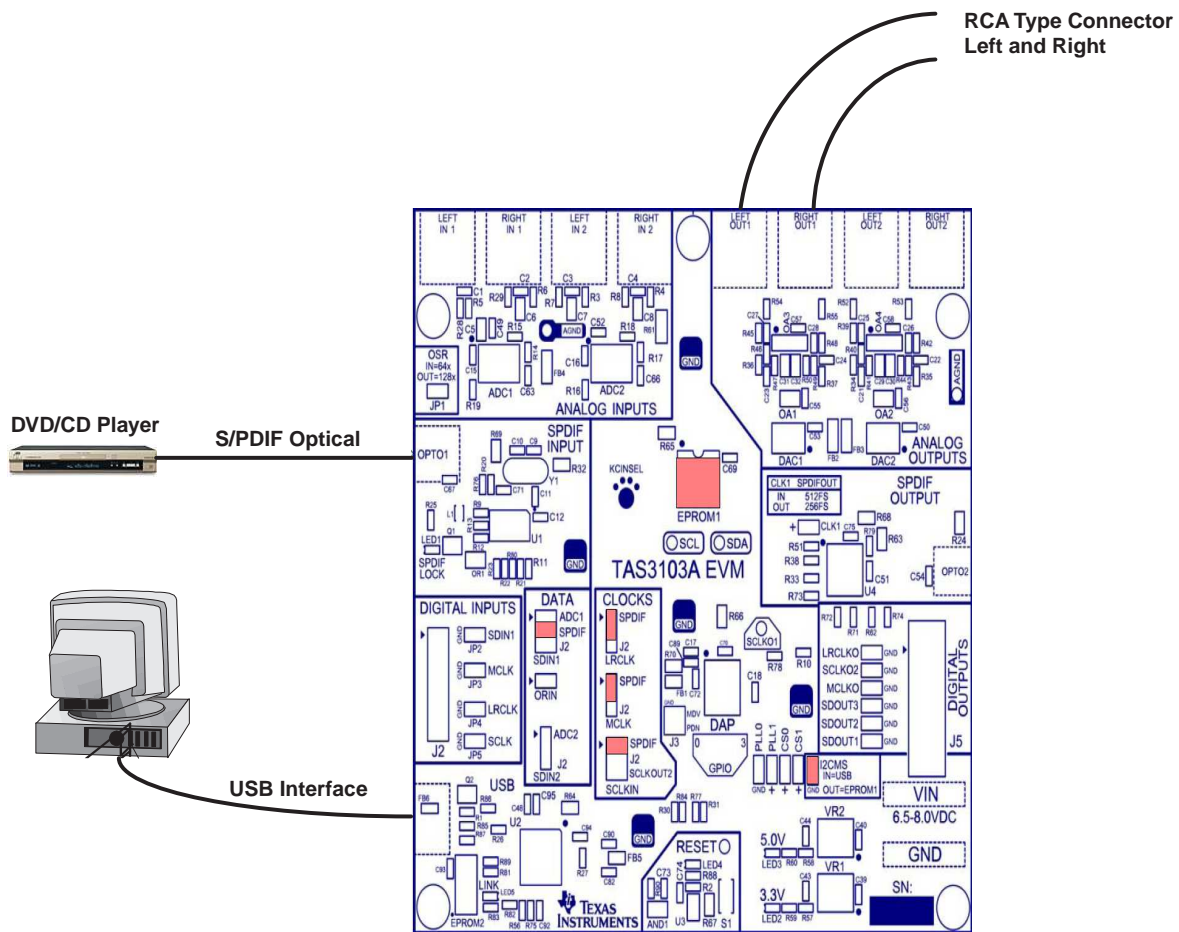

Figure 1. TAS3103AEVM Connections

To communicate with the TAS3103A EVM, a USB cable must be attached to the PC. The S/PDIF input should be supplied to the TAS3103A EVM optically through OPTO1. A separate 7-V to 8-V dc supply should be used to power the EVM through VIN and GND.

Downloading TAS3103A S/PDIF Configuration Coefficients

After making all connections to the TAS3103A EVM and setting the jumpers on the TAS3103A EVM as indicated in Figure 1, apply power to the EVM. Two green LEDs (LED2 and LED3) light to indicate that 3.3-V and 5-V power are present on the board. A blue LED (LED1) lights to indicate that a valid S/PDIF input is present.

Run the supplied DAS DCT SAA program by clicking Start → Programs → Texas Instruments Inc → DAS DCT.
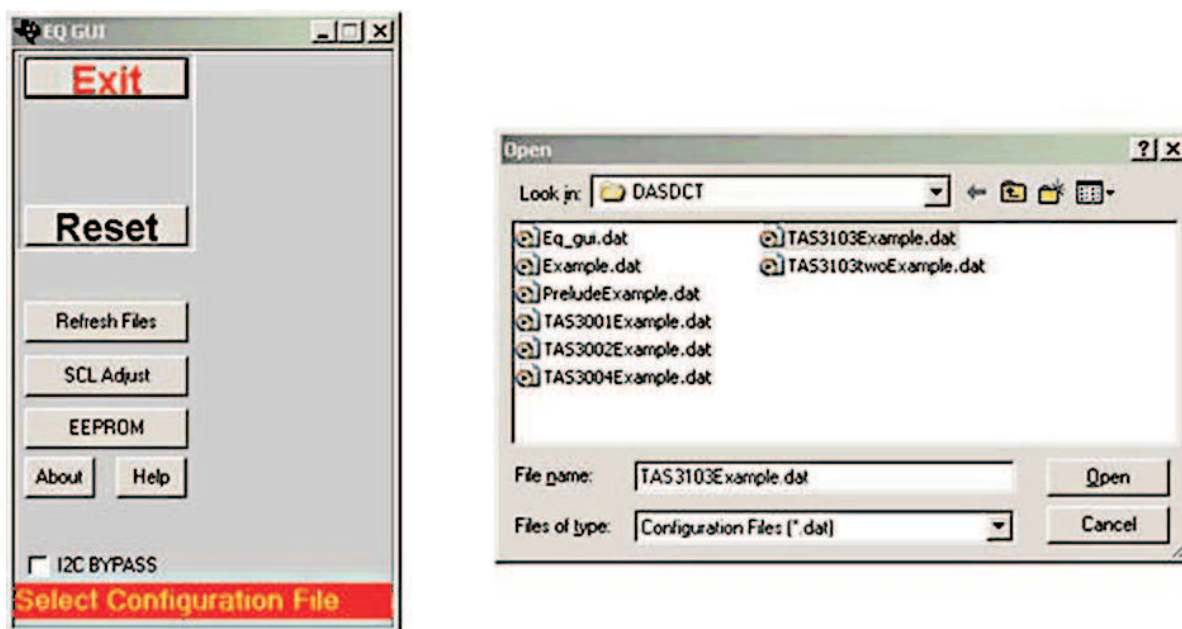
The panels shown in Figure 2 open.

Figure 2. Initial EQ GUI Panels

Load the TAS3103Example.dat configuration file. After a time lapse, the EQ GUI panel opens, as shown in Figure 3.

Figure 3. EQ GUI I²C Communication

The EQ GUI panel shown in Figure 3 indicates that communication with the TAS3103A EVM was successful.

Possible reasons for I²C communication failure include:

- The TAS3103A EVM is not powered up.
- The USB cable from the user's computer to J1 on the TAS3103A EVM is not connected (or not seated properly at both ends).
- SPDIF MCLK jumper is not installed, which would cause the TAS3103A to not receive a MCLK.

If an I²C communication failur occurs, click on the Reset button after fixing the problem, and the EQ GUI panel shown in Figure 3 should appear.

When the EQ GUI panel shown in Figure 3 is obtained, click on the Detail GUI A button. The panel entitled 1st 3100 Page 1 opens (see Figure 4).
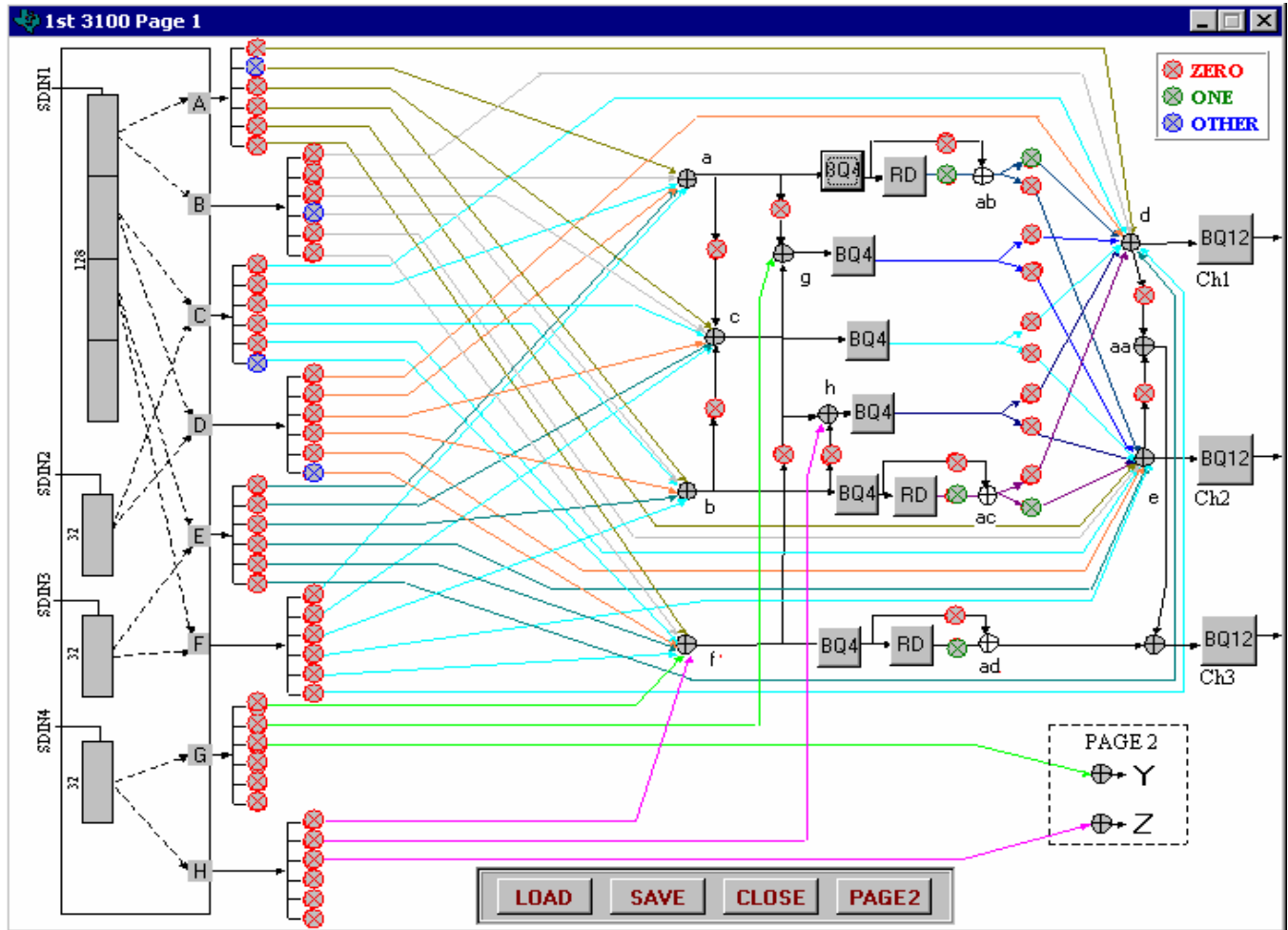

Figure 4. 1st 3100 Page 1

To load a configuration file:

1. Click the LOAD button.

   The Open panel shown in Figure 5 appears.

2. Select TAS3103initEVM.cfg.

3. Click the Open button.

This file sets the coefficients in TAS3103A to receive and pass through the S/PDIF audio data without any processing being applied. As indicated in Figure 1, the stereo output is available on both the S/PDIF output port and on the two line-out ports, Left Out #1 and Right Out #1.

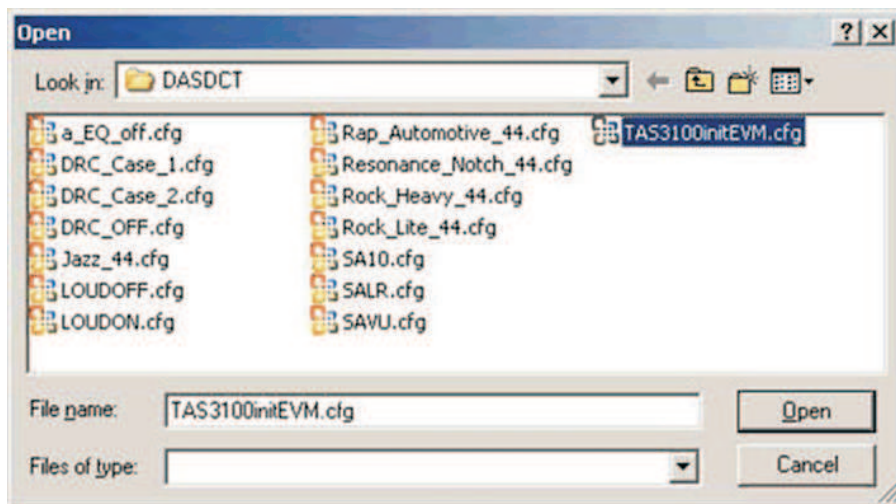**Figure 5. Select Configuration File**

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