DEM-DIR1703 Instruction Manual

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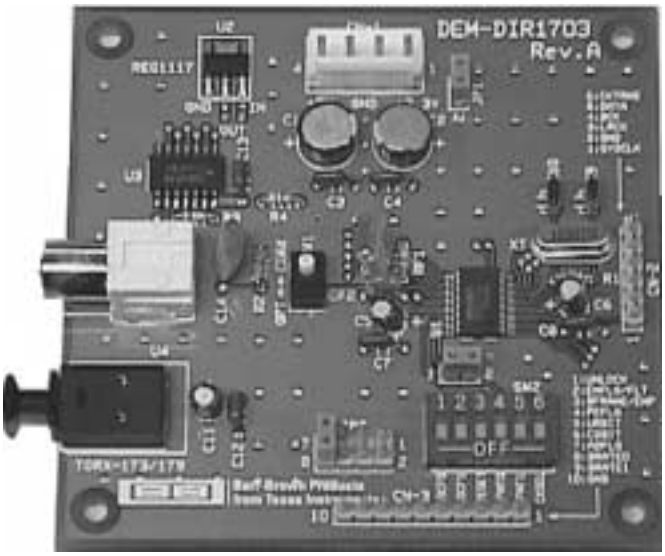


Feature and Description

The DEM-DIR1703 is an evaluation board for digital audio interface receiver IC DIR1703. This board generates very low jitter system clock and PCM audio data for audio DAC interface from an S/PDIF digital audio interface input.

The DEM-DIR1703 has switch-selectable coax and optical inputs. It accepts sampling rates up to 96 kHz.

This board requires a 5-V power supply; a 3.3-V power supply is also required when jumper JP–1 is removed. An internal 3.3-V regulator IC is used for operation of the DIR1703. The 5-V power supply operates the optical receiver and the input logic section.

The PCM audio interface format and generated system clock frequency (either $128f_S$, $256f_S$, $384f_S$, or $512f_S$) can be selected by control switch SW2.

Basic Connection

In initial conditions, a 5-V power supply must be applied through CN-1 with jumper JP-1 connected.

Both 5-V and 3.3-V supplies must be connected through CN-1 when JP-1 connection is removed.

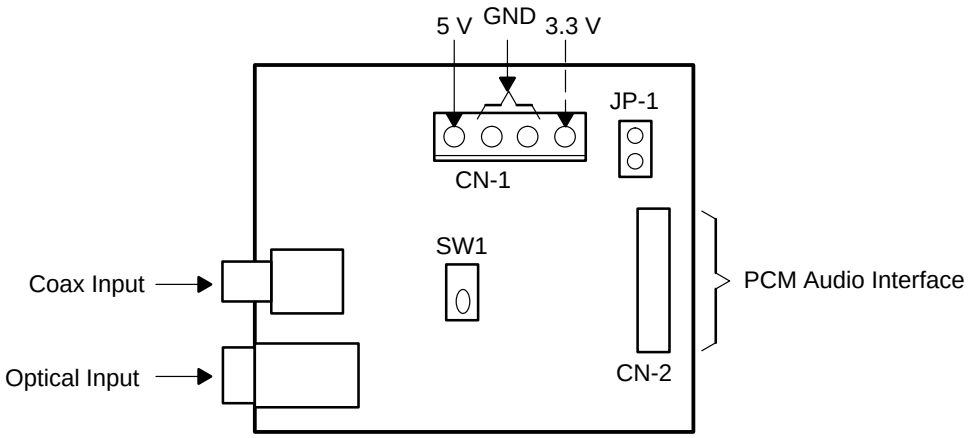
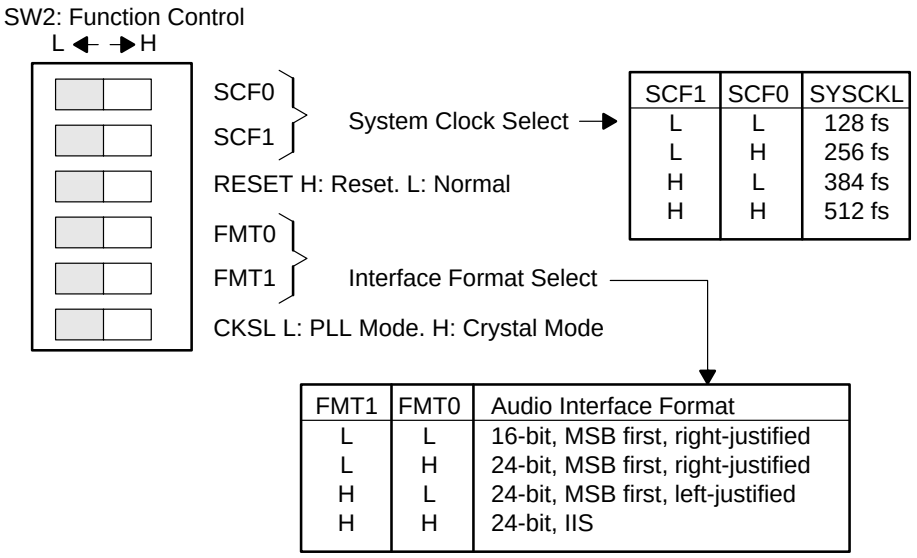


Figure 1. DEM–DIR1703

S/PDIF digital audio interface can use coax or optical input as selected by switch SW1.

Operation Control Switch



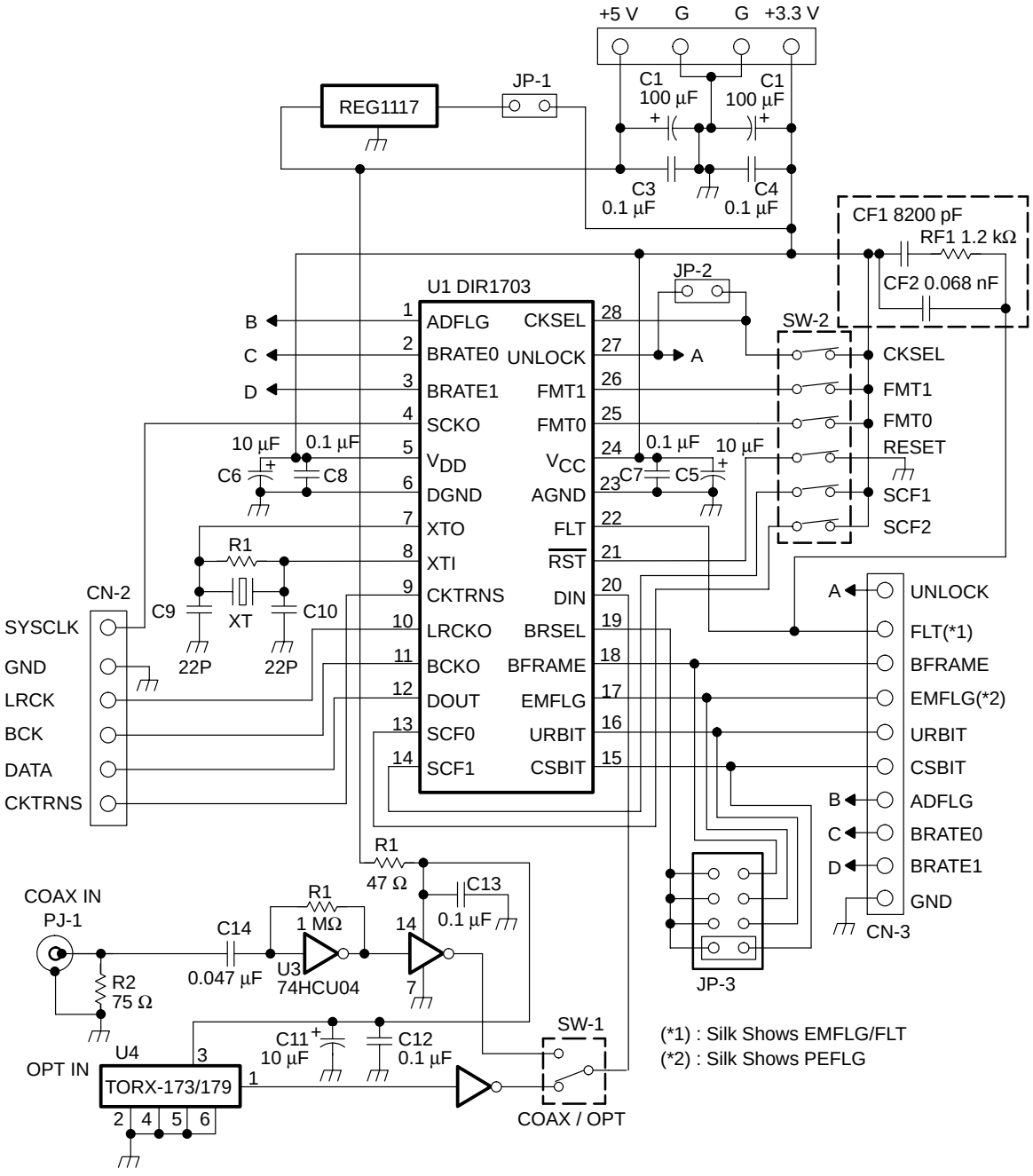
SCF1	SCF0	SYSCKL
L	L	128 fs
L	H	256 fs
H	L	384 fs
H	H	512 fs

FMT1	FMT0	Audio Interface Format
L	L	16-bit, MSB first, right-justified
L	H	24-bit, MSB first, right-justified
H	L	24-bit, MSB first, left-justified
H	H	24-bit, IIS

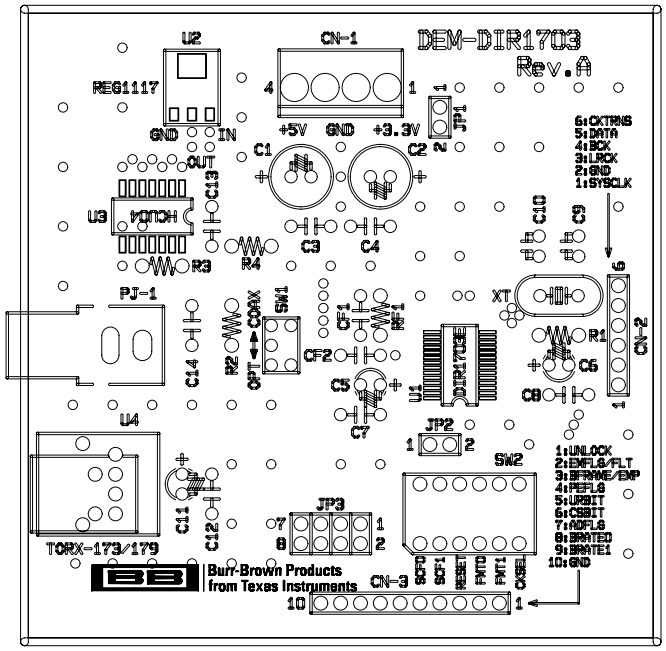
NOTES: 1. Reset is active low at RESET pin, silk printed L<–>H at SW2 on board is inverted. Reset operation is required after power up.
2. A 12.288-MHz crystal is mounted.
3. See DIR1703 PDS for JP-2 and JP-3 jumper connection.

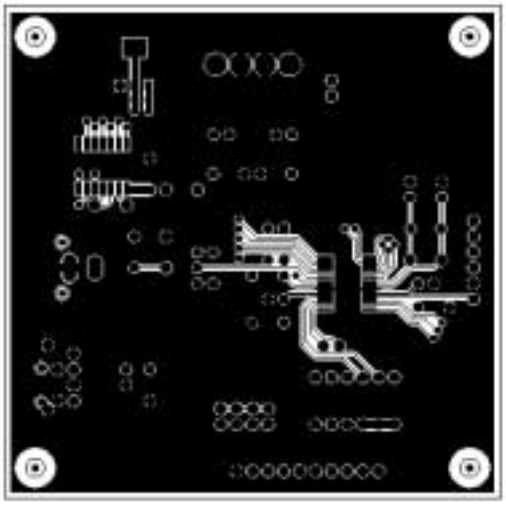
Figure 2. Operation Control Switch

DEM-DIR1703 Schematic Diagram

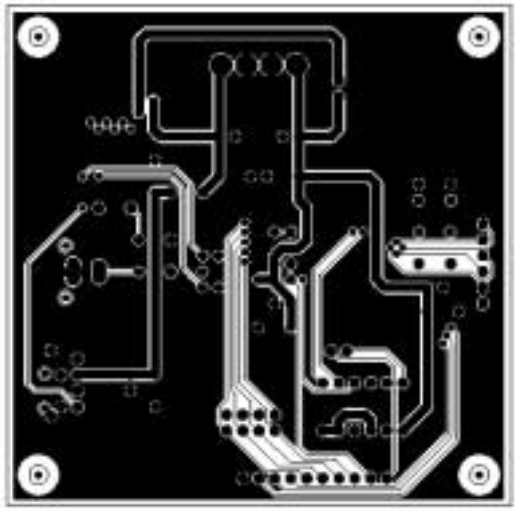


Parts Location





TOP VIEW



BOTTOM VIEW

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