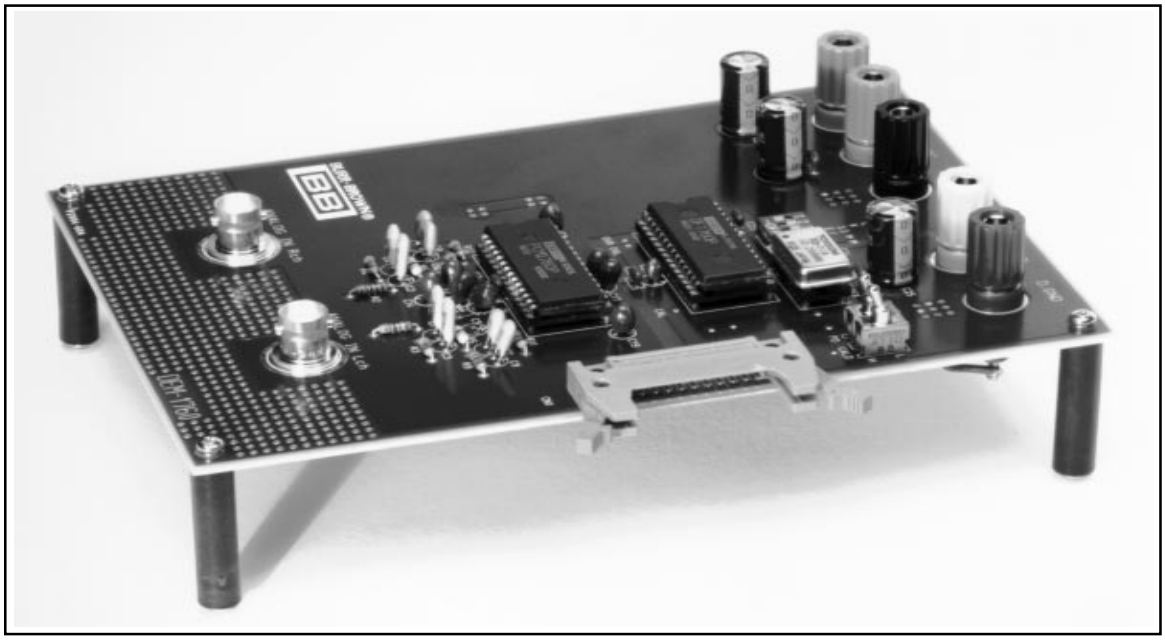
BURR - BROWN®

DEM-PCM1760
EVALUATION FIXTURE



FEATURES

- **COMPLETE 20-BIT STEREO A/D CONVERSION SYSTEM**
- **20-BIT A/D CONVERTER: PCM1760**
- **HIGH PERFORMANCE DIGITAL FILTER: DF1760**
- **SERIAL DIGITAL INTERFACE**
- **HIGH PERFORMANCE**
  THD+N (F/S): 0.0015%
  Dynamic Range: 108dB (EIAJ)
  S/N Ratio: 108dB (EIAJ)
- **ANALOG INPUT: ±2.5V**
- **POWER SUPPLY: ±5V, +5V**
- **DIRECT INTERFACE TO DEM-PCM1702**
- **BOARD SIZE: 182mm x 128mm**

DESCRIPTION

The DEM-PCM1760 is an evaluation fixture for the PCM1760/DF1760 (20-bit stereo analog-to-digital conversion system) primarily intended for quick evaluation of the PCM1760/DF1760's spectral purity and sound fidelity.

The PCM1760 is provided for evaluation with ±5V analog power supply and the DF1760 is provided for evaluation with +5V digital power supply.

The input to the DEM-PCM1760 is ±2.5V full scale analog signal and output from the DEM-PCM1760 is a serial digital interface signal consisting of SYSCLK, SCLK, SDATA, and L/R.

The output digital data format is selectable and the operation mode is also selectable by function switches on the board.

International Airport Industrial Park • Mailing Address: PO Box 11400 • Tucson, AZ 85734 • Street Address: 6730 S. Tucson Blvd. • Tucson, AZ 85706
Tel: (602) 746-1111 • Twx: 910-952-1111 • Cable: BBRCORP • Telex: 066-6491 • FAX: (602) 889-1510 • Immediate Product Info: (800) 548-6132

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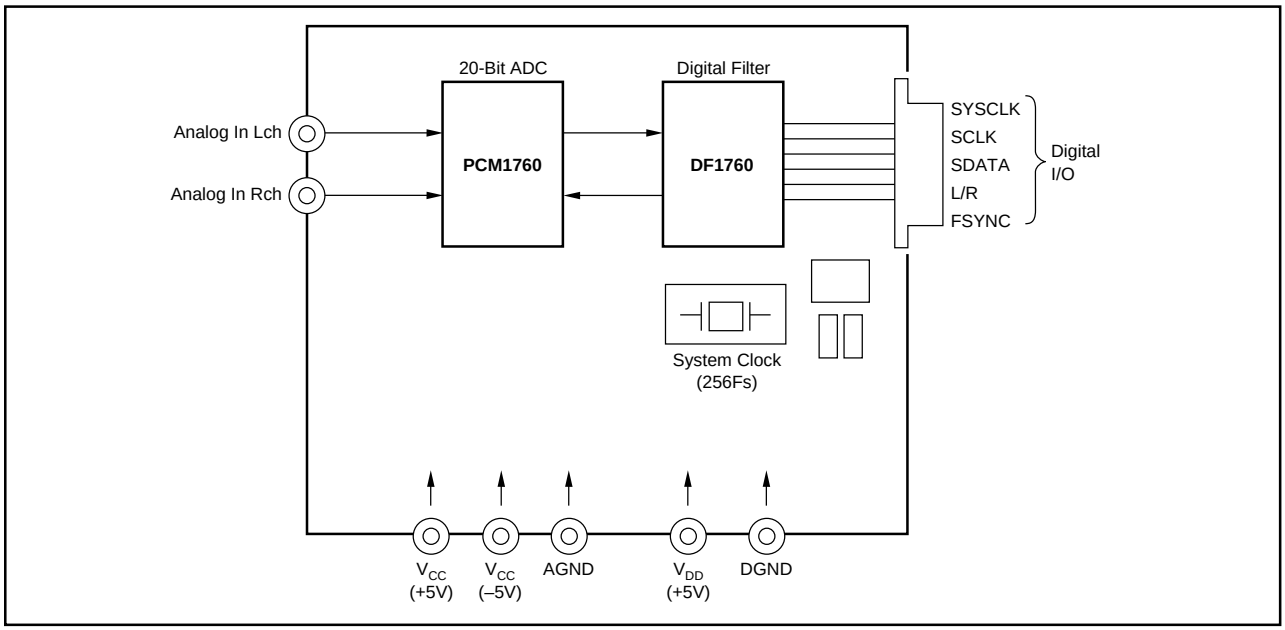
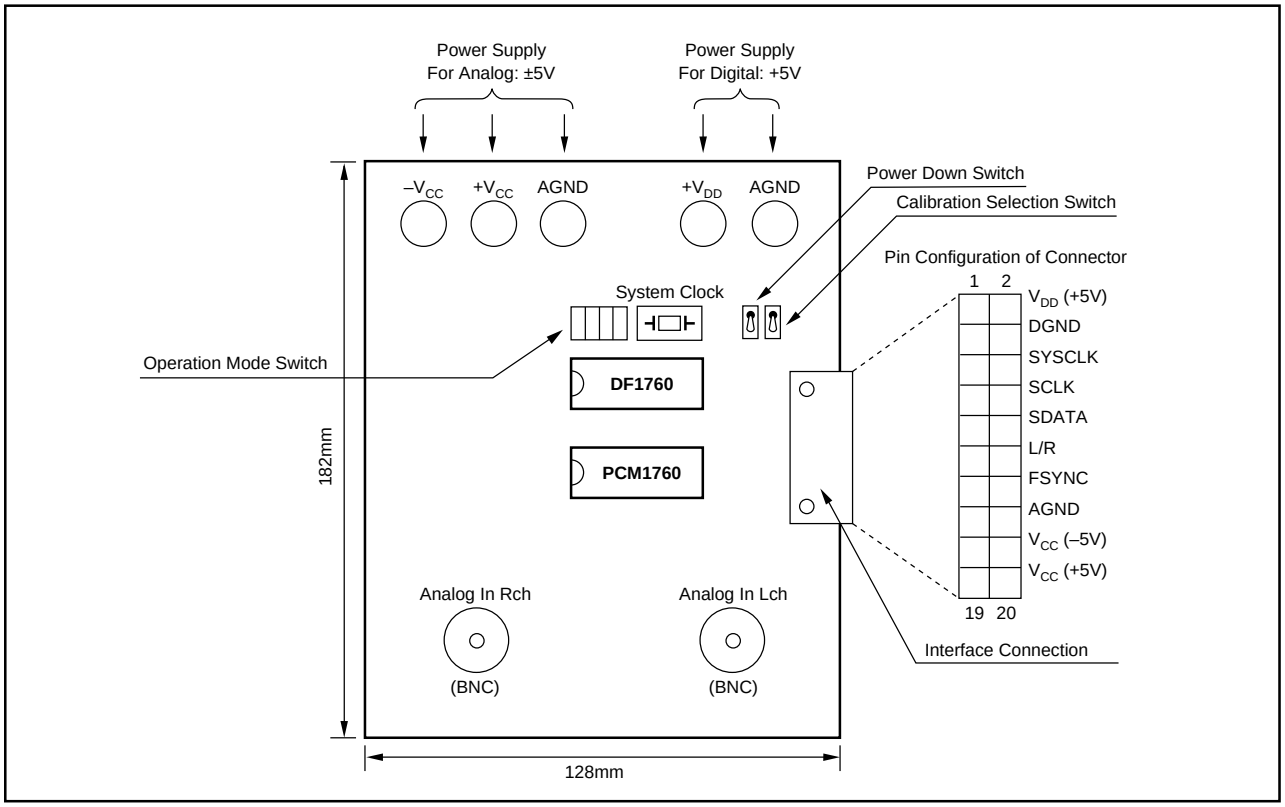
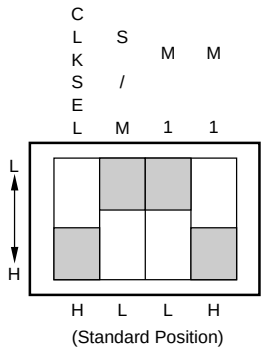
Printed in U.S.A. July, 1994

BLOCK DIAGRAM



COMPONENT LOCATION AND FUNCTION





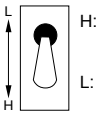
NAME	FUNCTION	H	L
CLKSEL	Master Clock Select	265fs	384fs
S/M	Slave/Master Select	Slave	Master
M1, M2	Output Format	Table of Below	

OUTPUT FORMAT	M1	M2
MSB First, 16-Bit, Falling Edge	H	H
MSB First, 20-Bit, Falling Edge	L	H
MSB First, 20-Bit, Rising Edge	H	L
MSB First, 20-Bit, Falling Edge	L	L

NOTE: The detailed timing information of output format is referred to the data sheet of PCM1760/DF1760.

FIGURE 1. Operation Mode Select Switch.

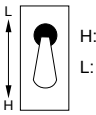
CALIBRATION SELECT SWITCH (CALD)



H: Calibration off

L: Calibration on

POWER DOWN SWITCH (PD)



H: Normal Mode

L: Power Down Mode and Trigger of Calibration
CALD = L, (Start at Rising Edge of PD)

COMBINATION WITH DEM-PCM1702

The DEM-PCM1760 can be directly combined with the DEM-PCM1702 (20-bit stereo D/A conversion system) through the interface connector on the board.

In this case, the power supply should be connected to the DEM-PCM1702 and jumper line should be connected between the connector pin of the DEM-PCM1760 and the connector pin of the DEM-PCM1702.

The power supply for the DEM-PCM1760 is supplied from the DEM-PCM1702 through the jumper line and the DEM-PCM1760 outputs serial data for the DEM-PCM1702.

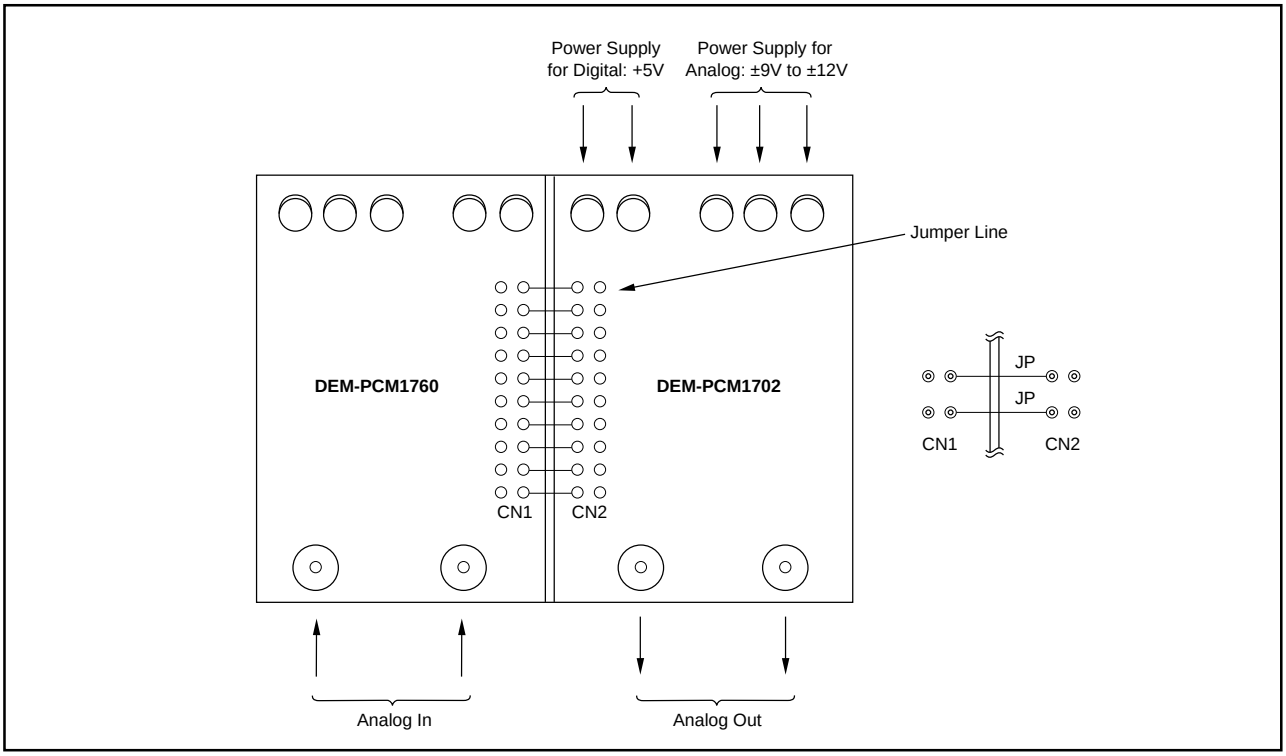


FIGURE 2.

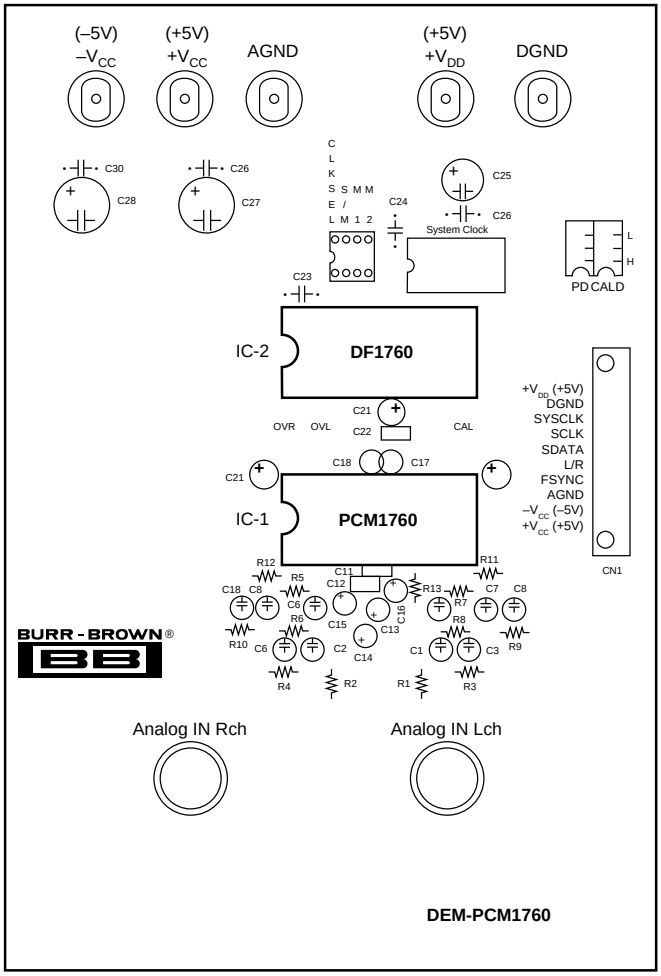
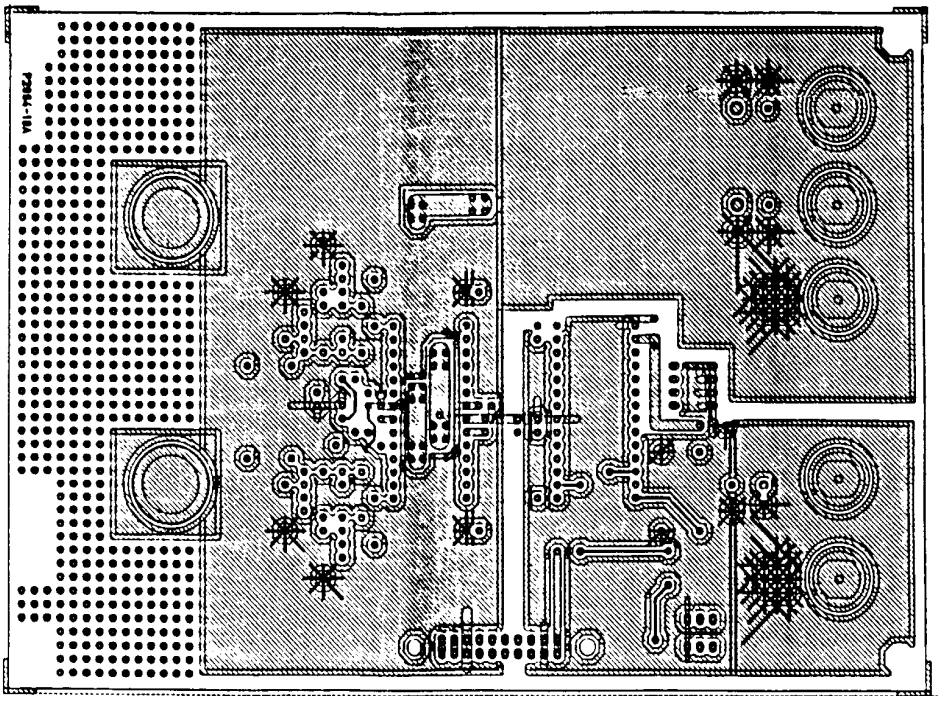
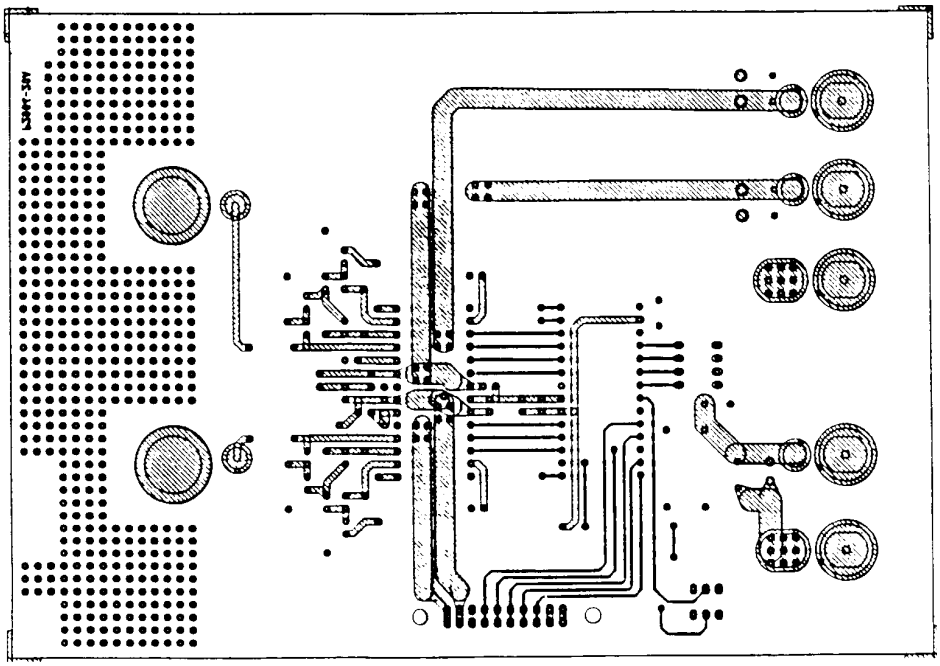


FIGURE 3. DEM-PCM1760 Board Layout—Component Layout.



LAYER 1 (TOP)



LAYER 2 (BOTTOM)

FIGURE 4.

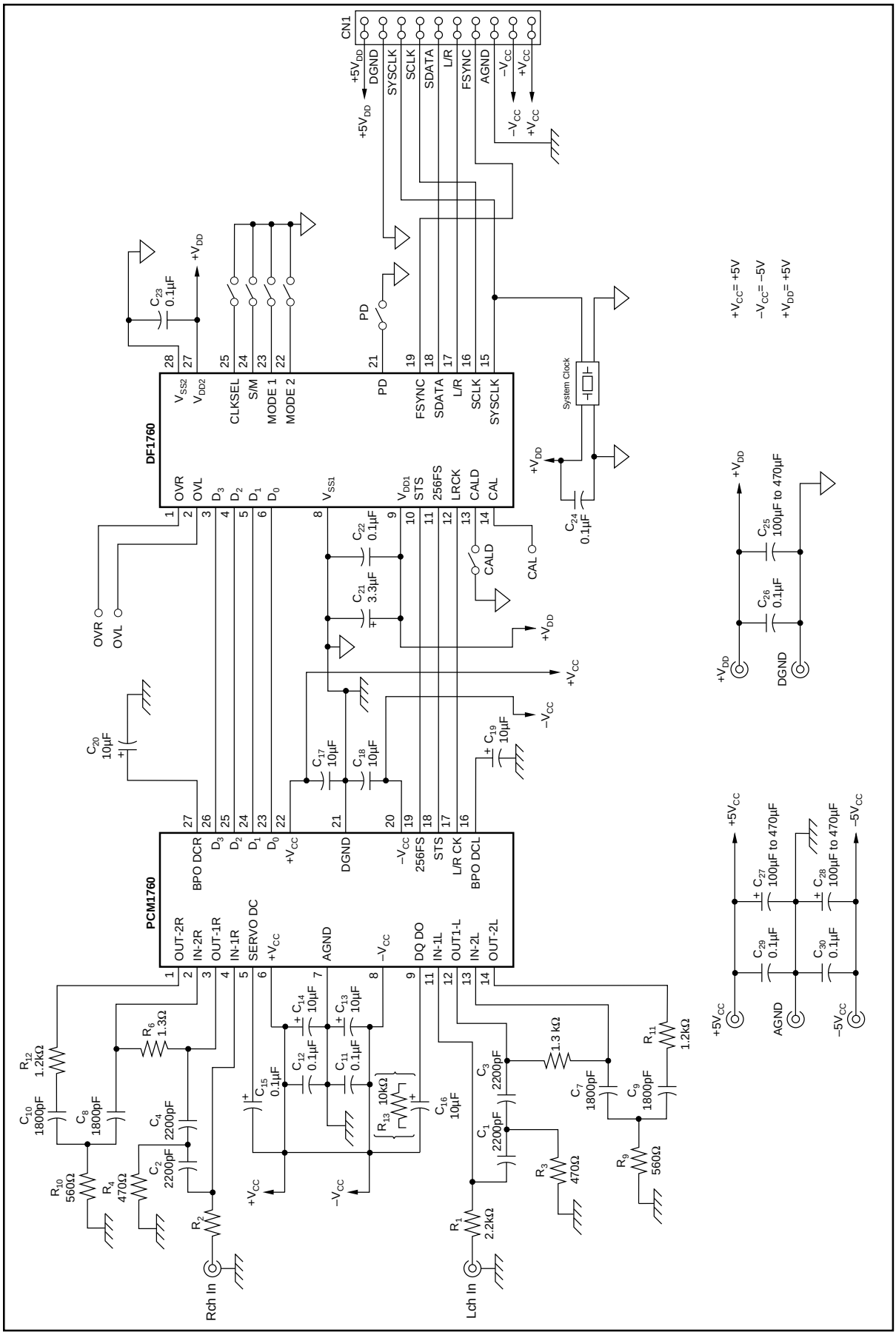


FIGURE 5. Circuit Diagram.