DEMO MANUAL DC2233A

Differential to Single-Ended Adaptor for High-Speed DAC Demo Systems

DESCRIPTION

Demonstration circuit 2233 is an adaptor board to be used with the LTC2000. It is designed to receive a differential signal from J1 and J2 and output a single-ended signal on J3. This is done with a pair of transformers with a range from 5MHz to 1000MHz. The spacing of J1 and J2 is 0.8". This spacing mates with the analog outputs of the LTC2000 demo board (the DC2085). This board was designed with a 50Ω output impedance to drive a spectrum analyzer, or other 50Ω ports.

Jumper JP1 allows the center tap of the transformers to be driven to ground or to an external reference per the application requirements.

Design files for this circuit board are available at http://www.linear.com/demo/DC2233A

QUICK START PROCEDURE

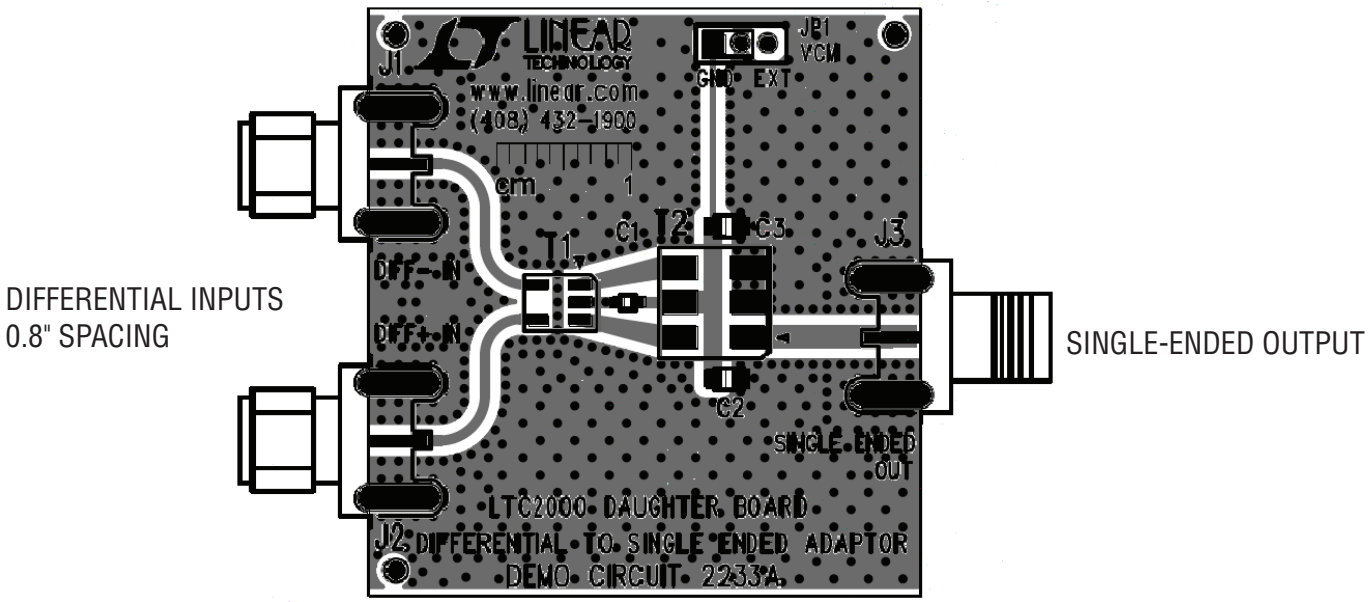
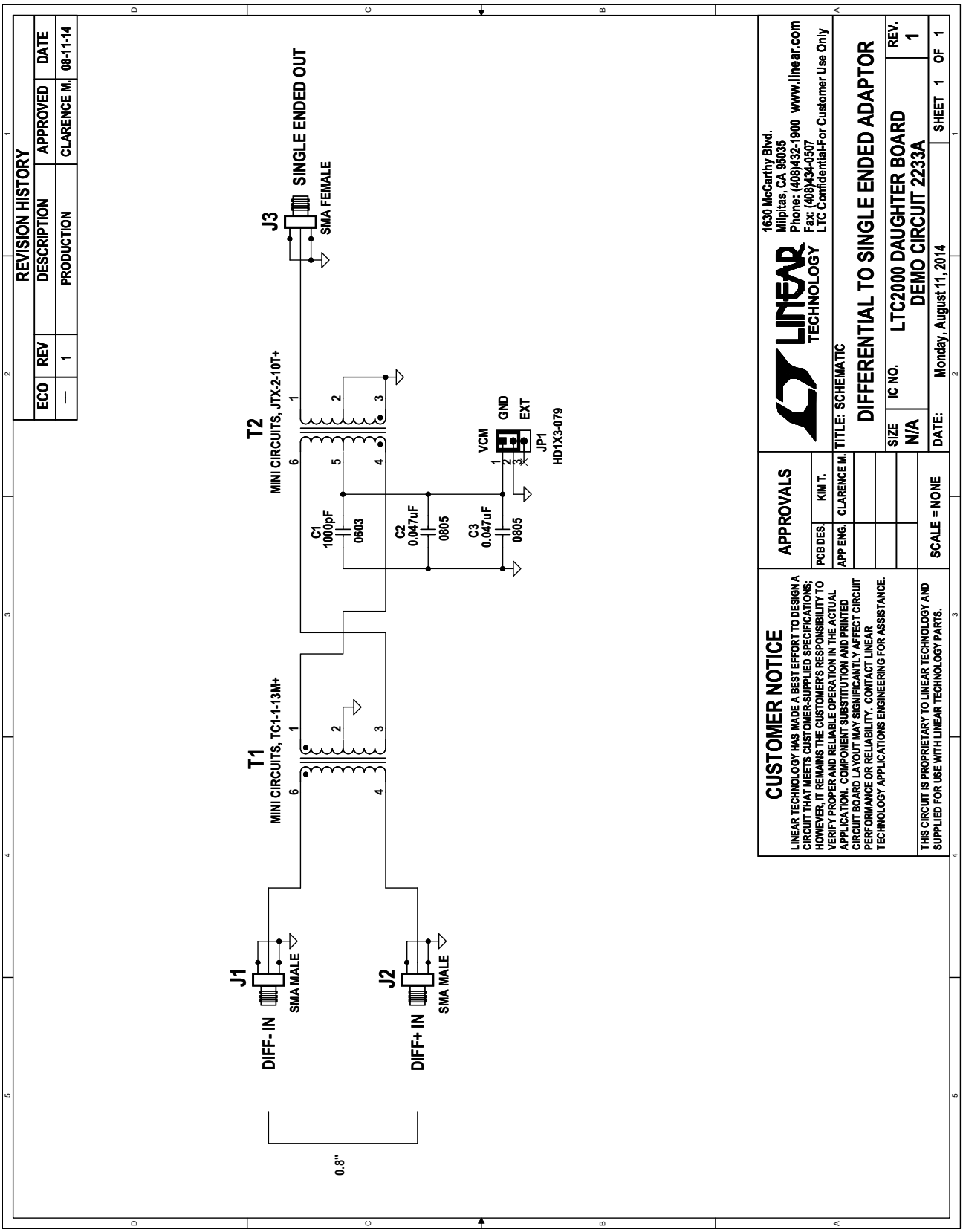


Figure 1

PARTS LIST

ITEM	QTY	REFERENCE	PART DESCRIPTION	MANUFACTURER/PART NUMBER
1	1	C1	CAP., X7R, 1000pF, 16V, 10%, 0603	AVX, 0603YC102KAT2A
2	2	C2, C3	CAP., X7R, 0.047µF, 16V, 10%, 0805	AVX, 0805YC473KAT2A
3	2	J1, J2	CONN, SMA 50Ω, MALE	E.F. JOHNSON, 142-0801-801
4	1	J3	CONN, SMA 50Ω, FEMALE	E.F. JOHNSON, 142-0701-851/ 132357
5	1	JP1	HEADER, HD1X3-079	SULLINS, NRPN031PAEN-RC
6	1	T1	XMER, RF, 4.5-3000MHz	MINI CIRCUITS, TC1-1-13M+
7	1	T2	XMER, RF, 75W, 50MHz TO 1000MHz	MINI CIRCUITS, JTX-2-10T+

SCHEMATIC DIAGRAM



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This notice contains important safety information about temperatures and voltages. For further safety concerns, please contact a LTC application engineer.

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