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Evaluation Board for Dual, High Speed Op Amps Offered in 8-Lead SOIC Packages

FEATURES

Enables quick breadboarding/prototyping
User-defined circuit configuration
Edge-mounted SMA connector provisions
Easy connection to test equipment and other circuits
RoHS compliant

GENERAL DESCRIPTION

The Analog Devices, Inc., 8-lead SOIC package, dual, high speed evaluation board is designed to help customers quickly prototype new dual op amp circuits and reduce design time. The evaluation board can be used with almost any Analog Devices dual op amp in various configurations and applications. The evaluation board is a bare board (that is, there are no components or amplifier soldered to the board; these must be ordered separately). Figure 1 shows the component side of the evaluation board, and Figure 2 shows the circuit side of the evaluation board.

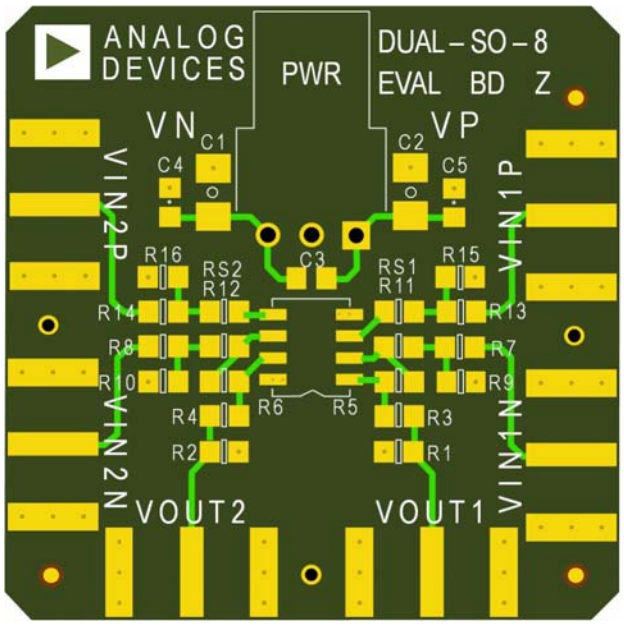
This evaluation board is a 6-layer PCB, designed to provide internal, wideband, power supply bypassing without the use of external capacitors. The close spacing between the VCC supply plane (Layer 3) and the inner ground plane (Layer 4) provides the necessary capacitance to bypass the VCC supply. Similarly, the close spacing between the inner ground layer (Layer 4) and the VEE supply plane (Layer 5) provides the necessary capacitance to bypass the VEE supply.

The evaluation board components are primarily SMT 0603 case size, with the exception of the electrolytic bypass capacitors (C1, C2), which are 1206 case size.

Two options are available for supply bypassing. The first option is to use the internal interplanar capacitance. No external bypass capacitors are required. Capacitors C1 to C5 can be left off the board. If additional supply bypassing is required, C1 and C2 can accommodate 1206 tantalum or nonpolarized capacitors. C3, C4, and C5 accommodate 0603 capacitors.

Figure 3 shows the evaluation board schematic. Figure 4 and Figure 5 show the evaluation board assembly drawings.

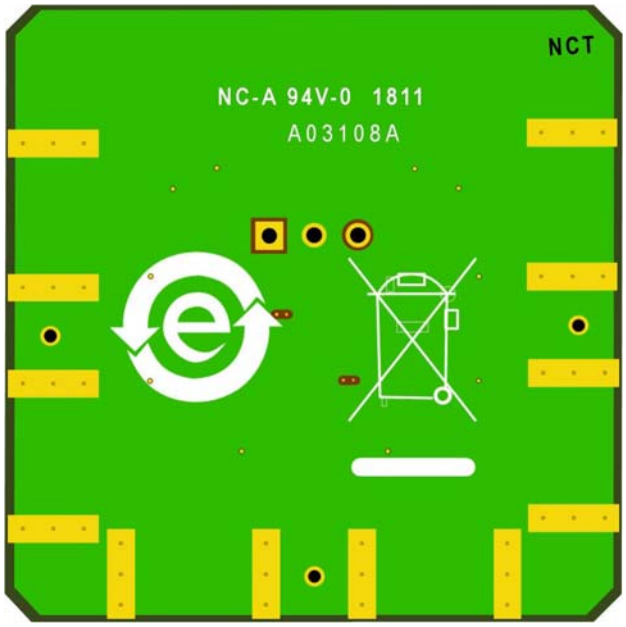
EVALUATION BOARD COMPONENT AND CIRCUIT SIDES



NOTES
1. THE EVALUATION BOARD SILKSCREEN PART NUMBER LABELING ON YOUR BOARD MAY BE DIFFERENT FROM WHAT IS SHOWN HERE.

08982-001

Figure 1. Component Side of Evaluation Board



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08982-002

Figure 2. Circuit Side of Evaluation Board

TABLE OF CONTENTS

REVISION HISTORY

8/11—Rev. A to Rev. B

Changes to General Description Section, Figure 1, and Figure 2 1
Changed Evaluation Board Schematic Section to Evaluation Board Schematic and Assembly Drawings Section 3
Changes to Figure 3, Figure 4, and Figure 5 3
Deleted Figure 6 and Figure 7; Renumbered Sequentially 4
Added Evaluation Board Layer Stackup Section 4
Added Figure 6; Renumbered Sequentially 4
Changes to Table 1 5

4/11—Rev. 0 to Rev. A

Changes to Product Title, General Description Section, Figure 1 and Figure 2 1
Changed Evaluation Board Schematic and Artwork Section to Evaluation Board Schematic Section 3
Added Evaluation Board Assembly Drawings and Layout Patterns Section 4
Changes to Figure 4 through Figure 7 4

4/10—Revision 0: Initial Version

EVALUATION BOARD SCHEMATIC AND ASSEMBLY DRAWINGS

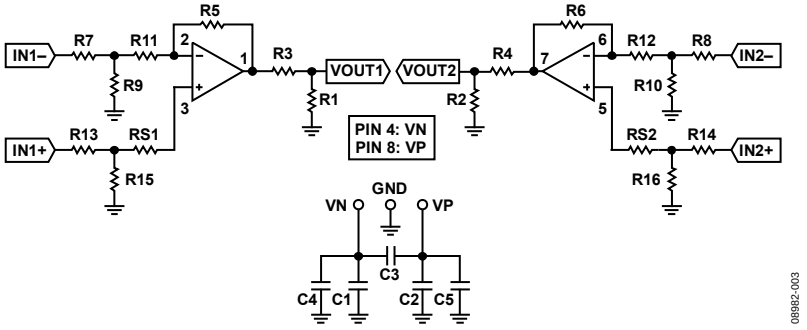

Figure 3. Evaluation Board Schematic

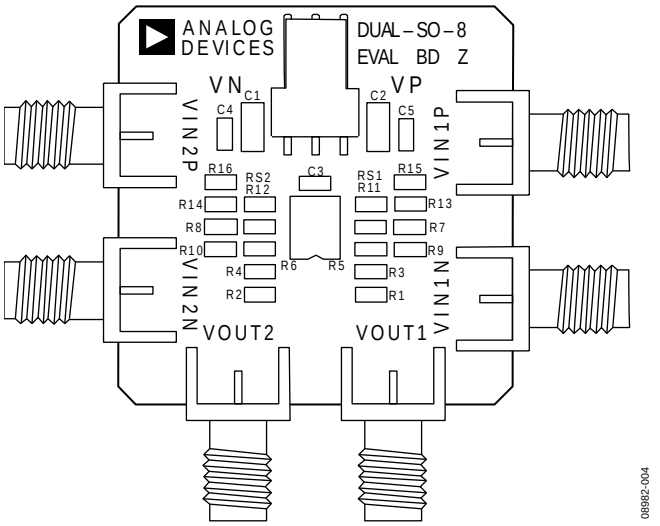

Figure 4. Component Side Assembly Drawing

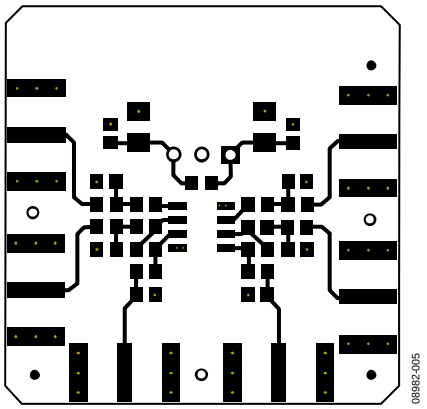

Figure 5. Component Side Copper

EVALUATION BOARD LAYER STACKUP

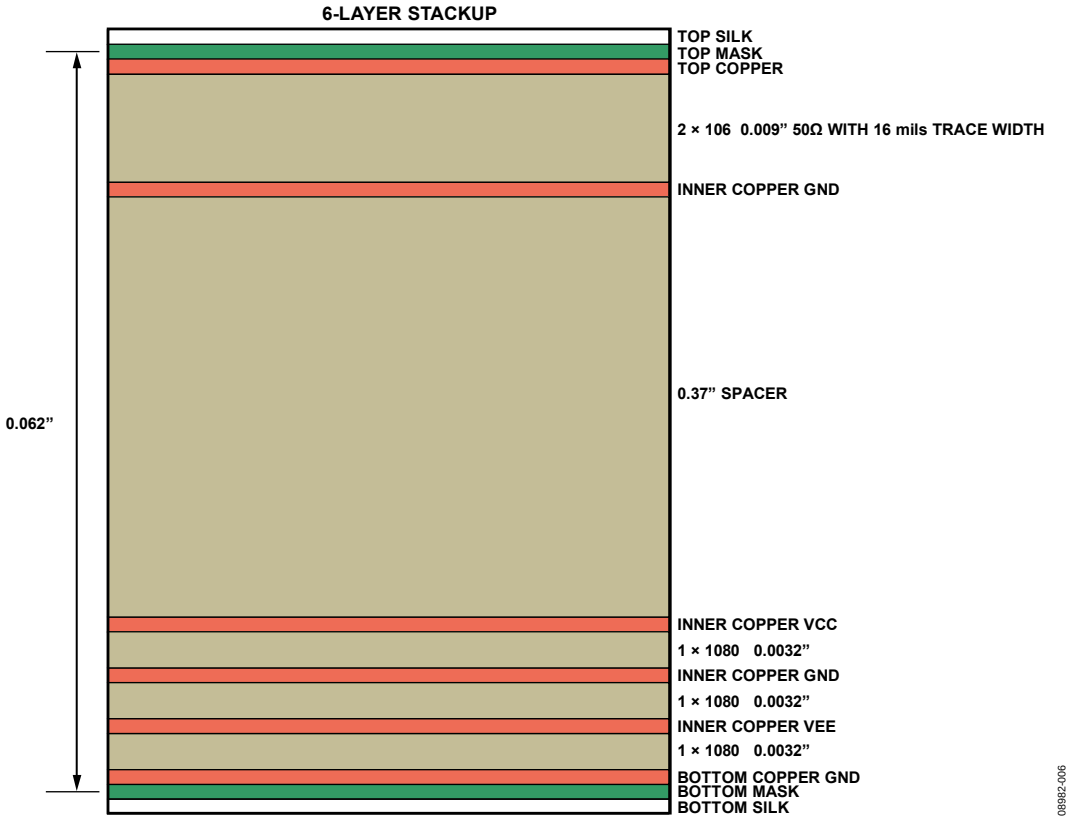

Figure 6. Evaluation Board Stackup

ORDERING INFORMATION

BILL OF MATERIALS

Table 1.

Quantity	Reference Designator	Description	Package
1	PWR	Power connector	0.1 inch spacing
2	C1, C2	10 µF capacitor	C1206
3	C3, C4, C5	User-defined capacitor	C0603
1	DUT	Device	8-lead SOIC
6	VIN1P, VIN2P, VIN1N, VIN2N, VOUT1, VOUT2	SMA/SMT	SMA/SMT
18	R1 to R16, RS1, RS2	User-defined resistor	R0603

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