SC-70 Evaluation Board User Guide
UG-112

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Evaluation Board for Single, High Speed Op Amps Offered in 5-Lead and 6-Lead SC-70 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., SC-70 evaluation board is designed to evaluate single, high speed op amps offered in 5-lead and 6-lead SC-70 packages. The evaluation board is a bare board that enables users to quickly prototype a variety of single op amp circuits, which minimizes risk and reduces time to market. Figure 1 shows the component side of the bare evaluation board. Figure 2 shows the circuit side of the bare evaluation board.

The 6-layer evaluation board accepts SMA edge-mounted connectors on the inputs and outputs for efficient connection to test equipment or other circuitry. The ground plane, component placement, and supply bypassing are designed to minimize parasitic inductance and capacitance. The evaluation board components are primarily SMT 0603 case size, with the exception of the electrolytic bypass capacitors (C1 and C2), which are 3528 case size.

Figure 3 shows the evaluation board schematic. The printed circuit board (PCB) assembly drawings are shown in Figure 4 and Figure 5. The layout pattern for the PCB is shown in Figure 6 and Figure 7.

EVALUATION BOARD COMPONENT AND CIRCUIT SIDES

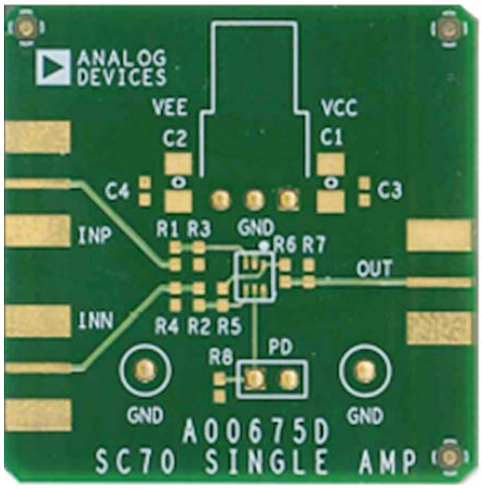

Figure 1. Component Side of Evaluation Board

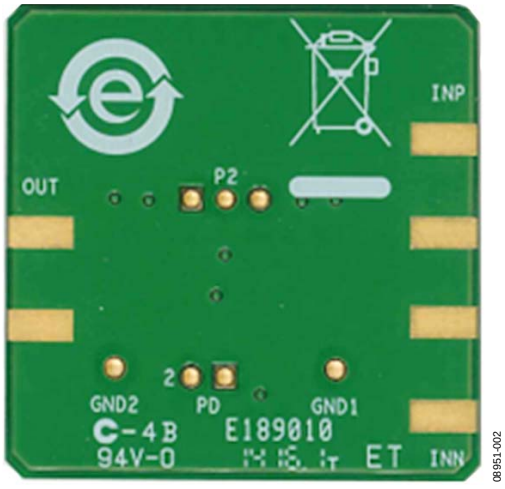

Figure 2. Circuit Side of Evaluation Board

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REVISION HISTORY

10/15—Rev. B to Rev. C

Changed C4 to C2, General Description Section 1
Changed +VS to V_{CC}, Figure 3 3

5/14—Rev. A to Rev. B

Changes to User Guide Title and General Description Section 1
Changes to Figure 1 and Figure 2 1
Changes to Figure 3, Figure 4, and Figure 5 3
Changes to Figure 6 and Figure 7 4
Changes to Table 1 5

4/11—Rev. 0 to Rev. A

Changes to User Guide Title and General Description Section 1
Changes to Figure 3 Captions 3

4/10—Revision 0: Initial Version

EVALUATION BOARD SCHEMATIC, ASSEMBLY DRAWINGS, AND LAYOUT PATTERNS

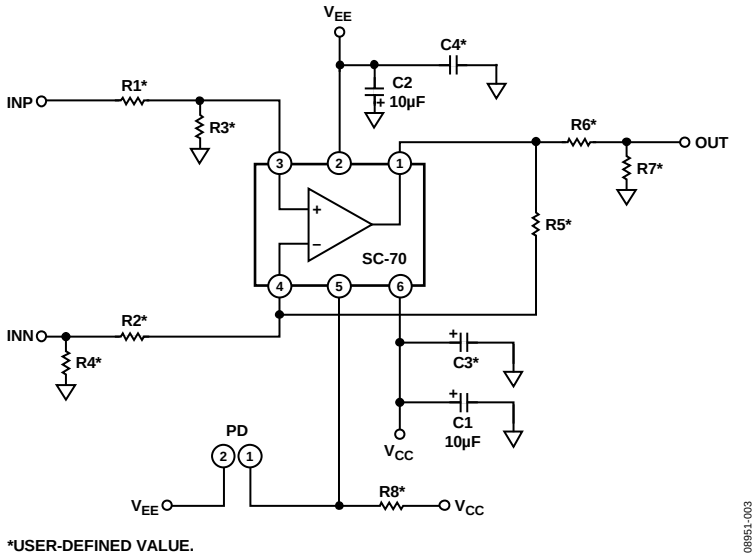

Figure 3. Evaluation Board Schematic

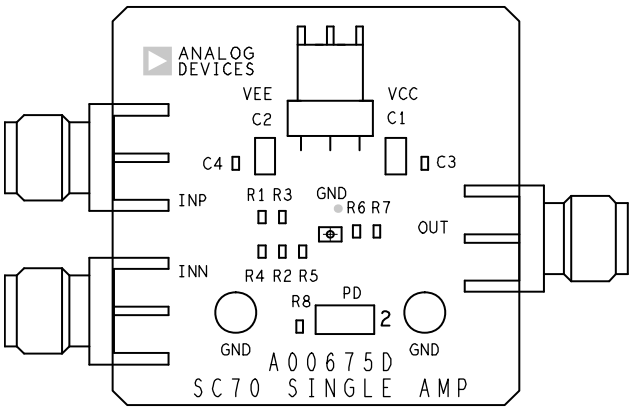

Figure 4. Component Side Assembly Drawing

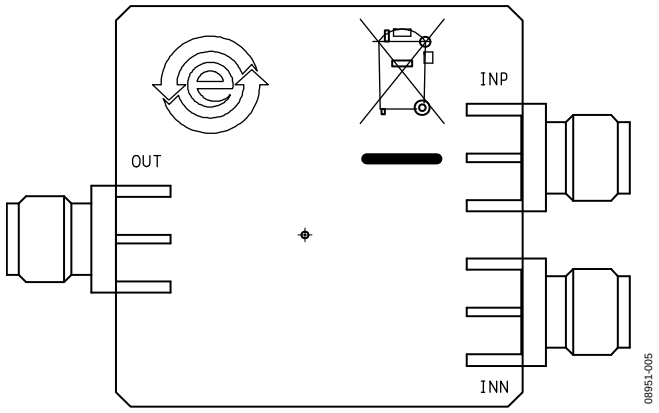

Figure 5. Circuit Side Assembly Drawing

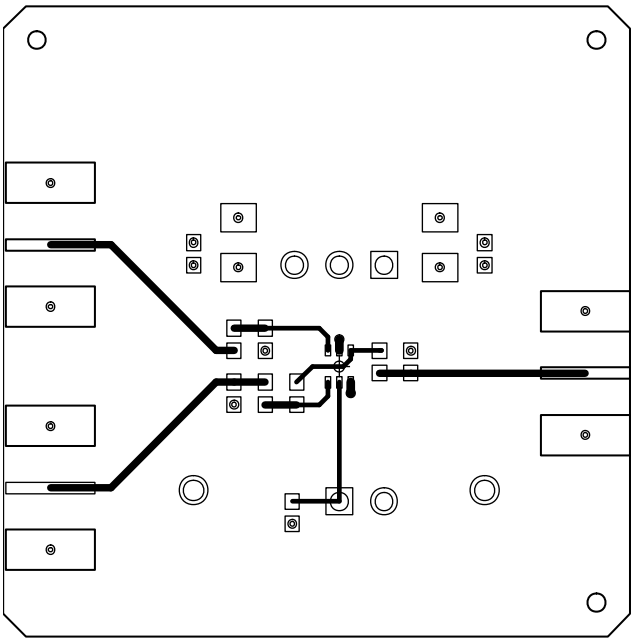

Figure 6. Component Side Layout Pattern

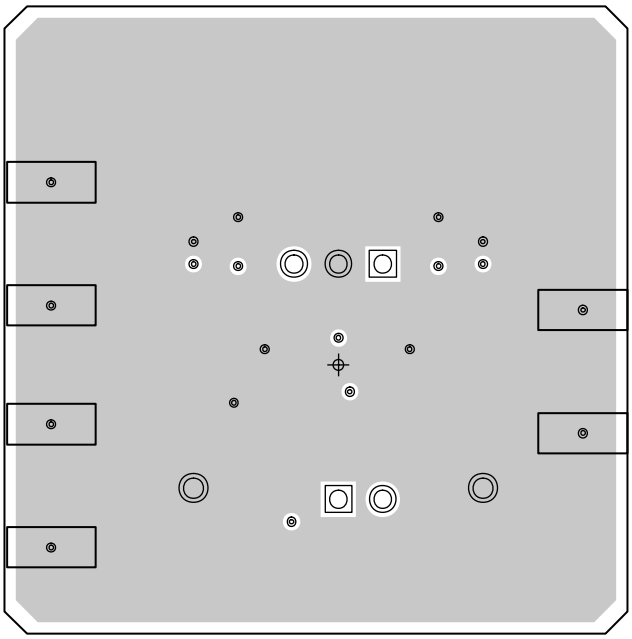

Figure 7. Circuit Side Layout Pattern

ORDERING INFORMATION

BILL OF MATERIALS

Table 1.

Quantity	Reference Designator	Description	Package
1	VEE, VCC, GND	Power connector	3-pin power connector
1	PD	Power-down/disable pin	2-pin header
2	GND	Test point	Test point pin
2	C1, C2	10 µF	3528
2	C3, C4	Capacitor, user defined	C603
3	INP, INN, OUT	SMA SMT	SMA SMT
8	R1 to R8	Resistor, user defined	R603
1	DUT	Amplifier	SC-70

ESD Caution

ESD (electrostatic discharge) sensitive device. Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.

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