

## Universal Evaluation Board for Dual, High Speed Op Amps Offered in 10-Lead MSOP Packages

### FEATURES

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

### GENERAL DESCRIPTION

The Analog Devices, Inc., dual, 10-lead MSOP universal evaluation board is designed to help users evaluate dual, high speed op amps offered in 10-lead mini small outline packages (MSOP). The dual MSOP board is a bare board (that is, no components are soldered to the board) that enables users to quickly prototype a variety of dual op amp circuits, thereby minimizing risk and reducing time to market.

Figure 1 shows the component side of the bare evaluation board, and Figure 2 shows the solder side of the evaluation board.

The evaluation board is a 6-layer printed circuit board (PCB) that accepts SMA edge mounted connectors on the inputs and outputs for efficient connection to test equipment or other circuitry. The ground plane and component placement are designed to minimize parasitic inductances and capacitances. The evaluation board components are primarily 0603 case size, with the exception of the electrolytic bypass capacitors (C1 and C2), which are 1206 case size.

Figure 3 shows the evaluation board schematic. Figure 4 and Figure 5 show the assembly drawing and the layout pattern of the component side, respectively. The bill of materials is listed in Table 1.

### EVALUATION BOARD LAYOUT PATTERN

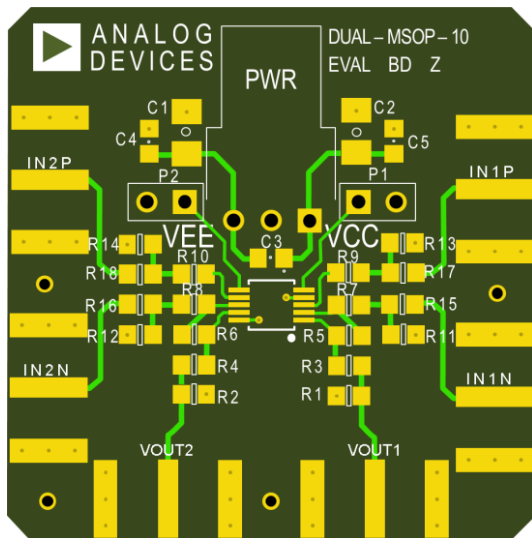


Figure 1. Evaluation Board, Component Side

10312-001

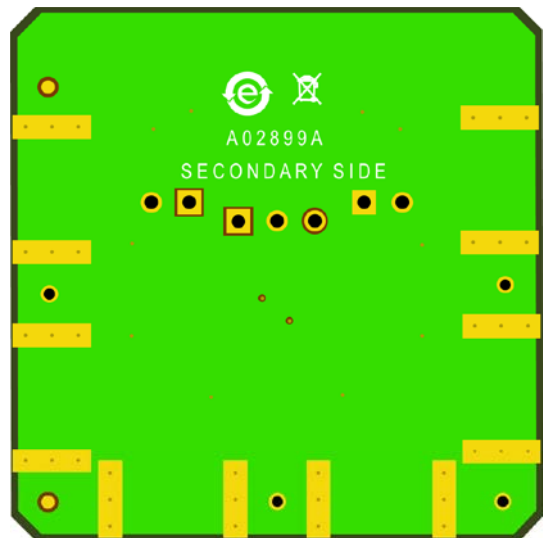


Figure 2. Evaluation Board, Solder Side

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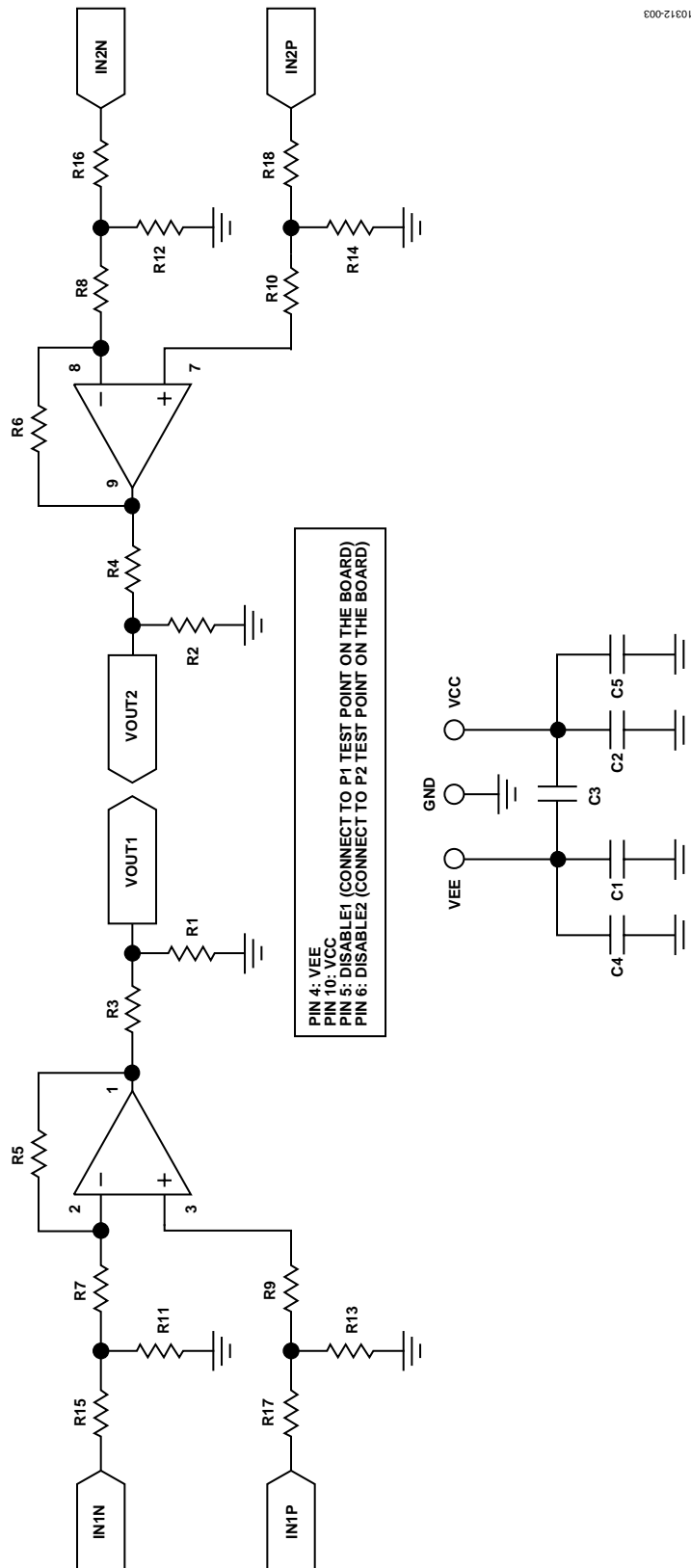
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**REVISION HISTORY**

3/12—Revision 0: Initial Version

# EVALUATION BOARD SCHEMATIC AND ARTWORK



10312-003

Figure 3. Dual, 10-Lead MSOP Evaluation Board Schematic

EVALUATION BOARD ASSEMBLY DRAWING AND LAYOUT PATTERN

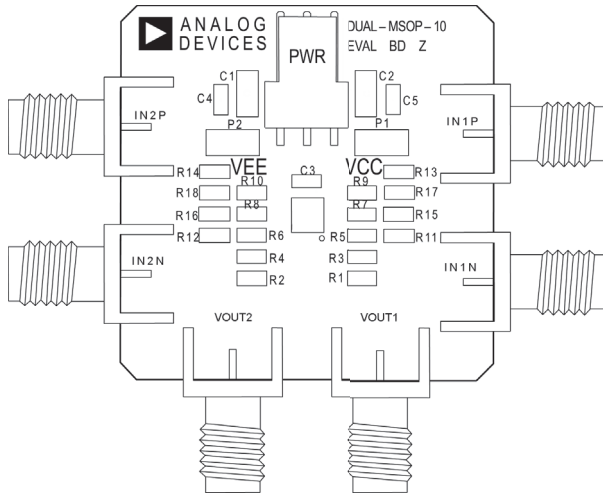


Figure 4. Component Side Assembly Drawing

10312-004

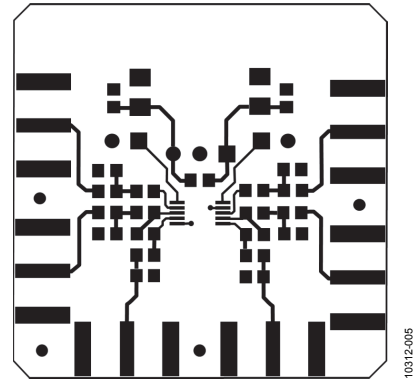


Figure 5. Component Side Layout Pattern

10312-005

## ORDERING INFORMATION

### BILL OF MATERIALS

Table 1.

Quantity	Reference Designator	Description
5	VCC, VEE, GND, P1, P2	Test point
2	C1, C2	10 $\mu$ F capacitor, 1206 case size
3	C3, C4, C5	Capacitor, user defined, 0603 case size
1	DUT	Dual op amp, 10-lead MSOP
6	IN1P, IN1N, IN2P, IN2N, VOUT1, VOUT2	SMA/SMT connector
18	R1 to R18	Resistor, user defined, 0603 case size

**NOTES**

**NOTES**

## NOTES

**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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