

Universal Evaluation Board for Triple, High Speed Op Amps with Charge Pump Offered in 16-Lead, 4 mm × 4 mm LFCSP 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 EB-O16CP44CP-3Z universal evaluation board is designed to help users evaluate the triple, high speed op amps with charge pump offered in 16-lead LFCSP packages. The EB-O16CP44CP-3Z is a bare board (that is, there are no components soldered to the board) that enables users to quickly prototype a variety of triple op amp circuits, which minimizes risk and reduces time to market. Figure 1 shows the component side of the bare evaluation board, and Figure 2 shows the circuit side of the bare evaluation board.

The evaluation board is a 2-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, component placement, and supply bypassing are designed to minimize parasitic inductances and capacitances.

Figure 3 shows the evaluation board schematic. The PCB layout pattern for the component side is shown in Figure 4, and the PCB layout pattern for the circuit side is shown in Figure 6. The board assembly drawing for the component side is shown in Figure 5, and the board assembly drawing for the circuit side is shown in Figure 7.

The C6 to C9, C11 to C14, C17 to C19, and C22 capacitors are not needed for normal operation.

EVALUATION BOARD COMPONENT AND CIRCUIT SIDE DIAGRAMS



Figure 1. EB-O16CP44CP-3Z Evaluation Board, Component Side

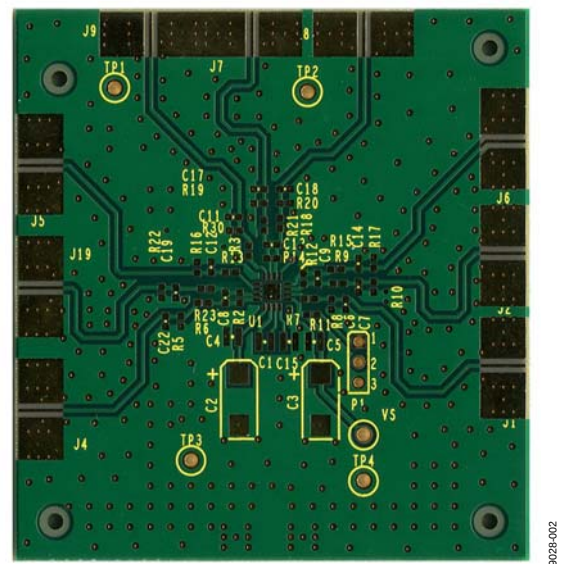


Figure 2. EB-O16CP44CP-3Z Evaluation Board, Circuit Side

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REVISION HISTORY

5/10—Revision 0: Initial Version

Figure 3. EB-O16CP44CP-3Z Universal Evaluation Board Schematic

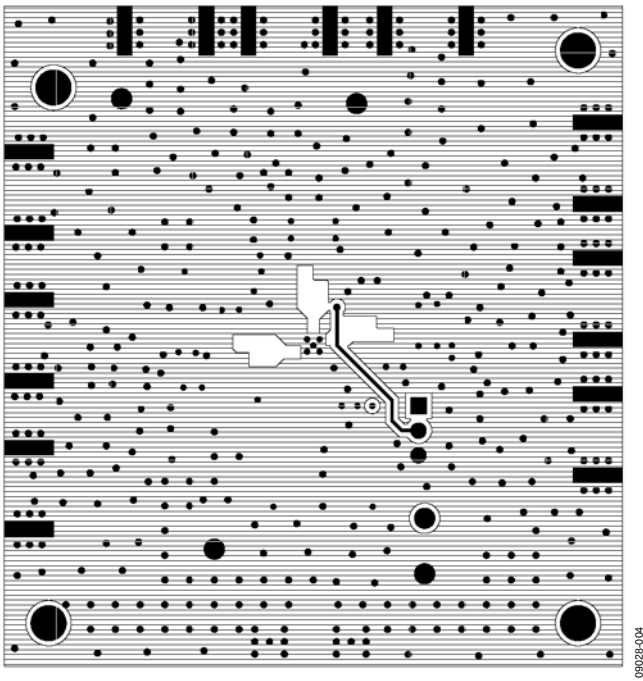


Figure 4. Board Layout Pattern, Component Side

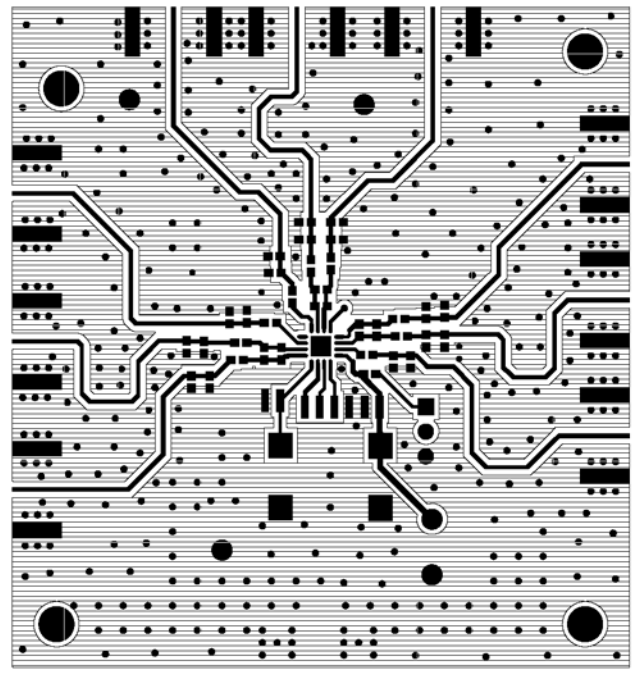


Figure 6. Board Layout Pattern, Circuit Side

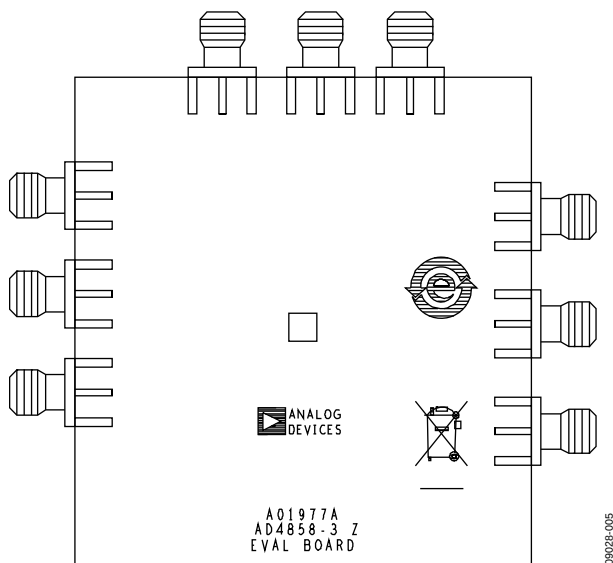


Figure 5. Board Assembly Drawing, Component Side

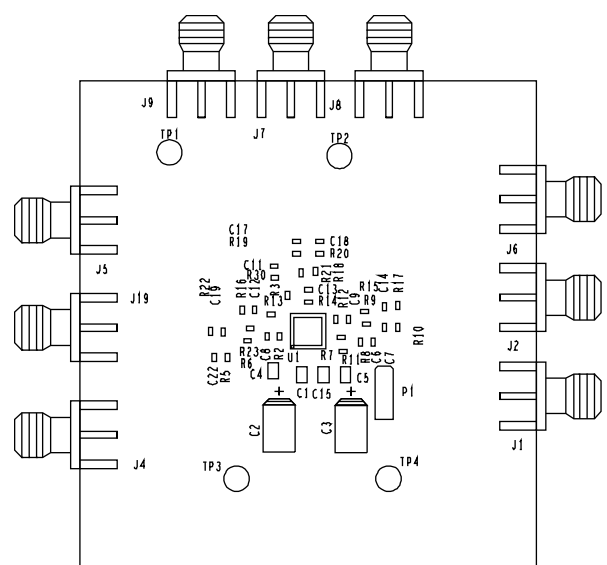


Figure 7. Board Assembly Drawing, Circuit Side

ORDERING INFORMATION

BILL OF MATERIALS

Table 1.

Quantity	Reference Designator	Description	Package
1	U1	GEN_LFCSP16-4X4-PAD2_1X2_1	4 mm × 4 mm LFCSP
1	R11	1 k Ω resistor	R0402
2	C2, C3	10 μ F, 15 V capacitor	C7343
4	C1, C4, C5, C15	0.1 μ F capacitor	C0508
1	P1	Connector, PCB, straight, header	Molex 22-03-2031
9	J1, J2, J4 to J9, J19	SMA, end launch receptacle connector	Johnson 142-0701-801
1	TP5	Test point, red	Components Corp. TP-104-01-02
4	TP1 to TP4	Test point, black	Components Corp. TP-104-01-00
12	C6 to C9, C11 to C14, C17 to C19, C22	User-defined capacitor	C0402
21	R2, R3, R5 to R10, R12 to R23, R30	User-defined resistor	R0402

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**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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