

Evaluation Board User Guide UG-115

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Universal Evaluation Board for Triple, High Speed Op Amps 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

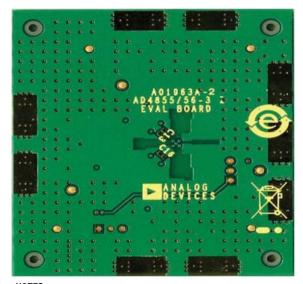
The EB-O16CP44-3Z universal evaluation board is designed to help users evaluate the triple, high speed op amps offered in 16-lead LFCSP packages. The EB-O16CP44-3Z is a bare board (that is, there are no components soldered to the board) that enables users to quickly prototype a variety of triple op amp 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 5.

The C1 to C9, C12, C21, and C22 capacitors are not needed for normal operation.

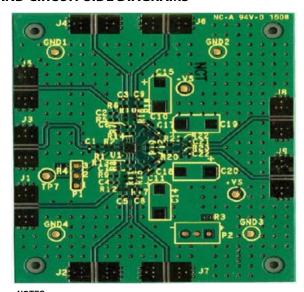
EVALUATION BOARD COMPONENT AND CIRCUIT SIDE DIAGRAMS



NOTES

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

Figure 1. EB-O16CP44-3Z Component Side of Evaluation Board



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

Figure 2. EB-O16CP44-3Z Circuit Side of Evaluation Board

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REVISION HISTORY

3/10—Revision 0: Initial Version

EVALUATION BOARD SCHEMATIC AND ARTWORK

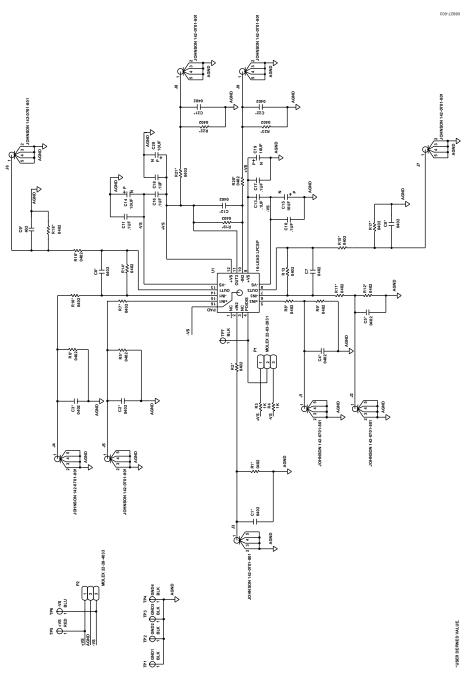


Figure 3. EB-O16CP44-3Z Universal Evaluation Board Schematic

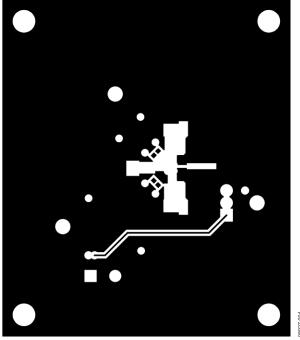


Figure 4. Board Layout Pattern, Component Side

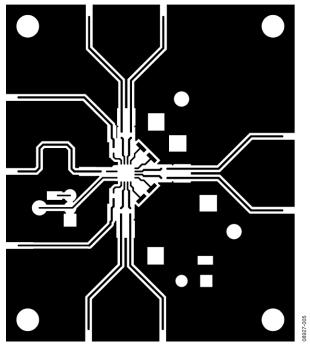


Figure 5. Board Layout Pattern, Circuit Side

ORDERING INFORMATION

BILL OF MATERIALS

Table 1.

Quantity	Reference Designator	Description	Package
1	P2	Connector, PCB, header	Molex 22-28-4033
1	U1	GEN_LFCSP16-4X4-PAD2_1X2_1	4 mm × 4 mm LFCSP
2	R3, R4	1 kΩ resistor	R0402
4	C14, C15, C19, C20	10 μF, 15 V capacitor	C7343
4	C10, C11, C17, C18	0.1 μF capacitor	C0508
2	C13, C16	0.1 μF, 25 V capacitor	C0508
1	P1	Connector, PCB, straight, header	Molex 22-03-2031
9	J1 to J9	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
1	TP6	Test point, blue	Components Corp. TP-104-01-06
12	C1 to C9, C12, C21, C22	User-defined capacitor	C0402
21	R1, R2, R5 to R23	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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