

## Evaluation Board for Dual High Speed Differential Amplifiers

### FEATURES

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

### GENERAL DESCRIPTION

The EB-D24CP44-2Z is designed to aid in the evaluation of dual high speed differential amplifiers. The EB-D24CP44-2Z is a bare board (that is, there are no components soldered to the board) that enables users to quickly prototype a variety of differential amplifier circuits, which minimizes risk and reduces time to market. The EB-D24CP44-2Z evaluation board supports any of the Analog Devices, Inc., dual high speed differential amplifiers in 4 mm × 4 mm, lead frame chip scale packages (LFCSP).

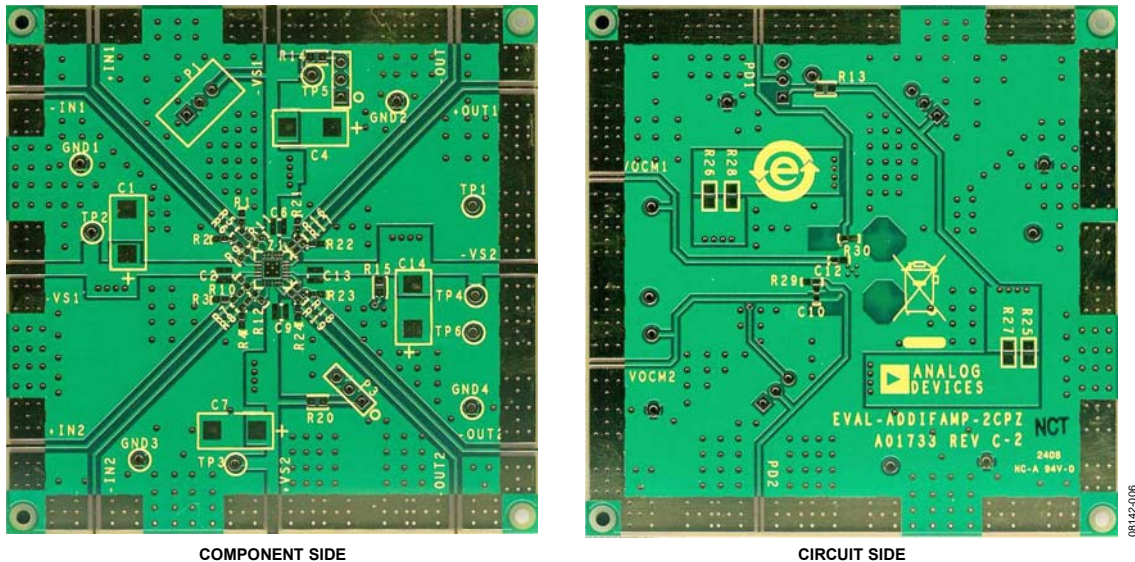
Figure 1 shows the component side and circuit side of the evaluation board. Figure 2 shows the evaluation board schematic.

The 4-layer evaluation board accepts edge-mounted SMA connectors on both inputs and outputs, which allows efficient and quick connection to test equipment or other circuitry.

The board ground plane, component placement, and power supply bypassing are optimized for maximum circuit flexibility and performance. The evaluation board uses a variety of SMT component case sizes: 0402, 0508, and 7343.

Figure 3 and Figure 5 show the evaluation board assembly drawings. Figure 4 and Figure 6 show the metal layout pattern for connecting the board to the op amp and to the supporting circuitry.

### DIGITAL PICTURE OF THE EVALUATION BOARD



#### NOTES

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

Figure 1. Component and Circuit Side of PCB

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**REVISION HISTORY**

**1/15—Rev. A to Rev. B**

Changes to General Description Section .....	1
Added Ordering Information Section and Table 1 .....	5

**2/10—Rev. 0 to Rev. A**

Changes to General Description and Figure 1 .....	1
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**7/09—Revision 0: Initial Version**

EVALUATION BOARD SCHEMATIC

08142-001

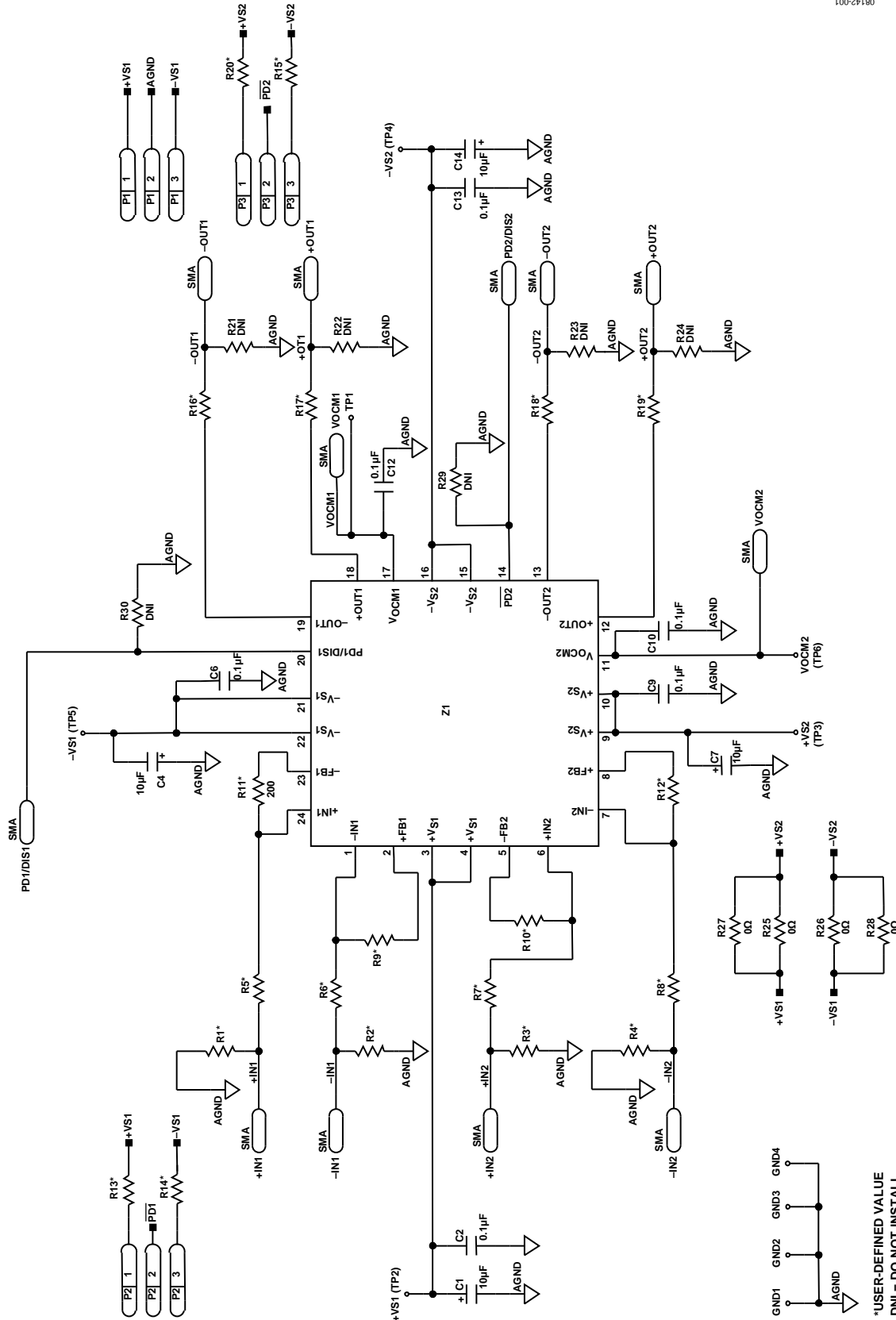


Figure 2. Dual Differential Amplifier Universal Evaluation Board Schematic

\*USER-DEFINED VALUE  
DNI = DO NOT INSTALL

ASSEMBLY DRAWING AND BOARD LAYOUT

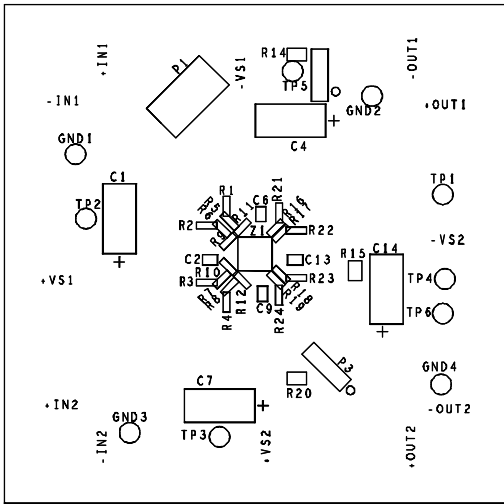


Figure 3. Board Assembly Drawing, Component Side

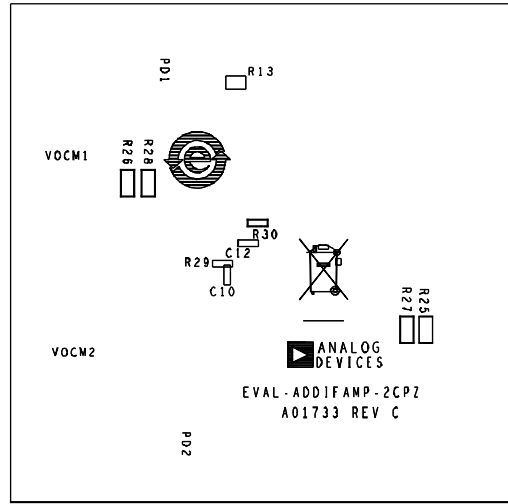


Figure 5. Board Assembly Drawing, Circuit Side

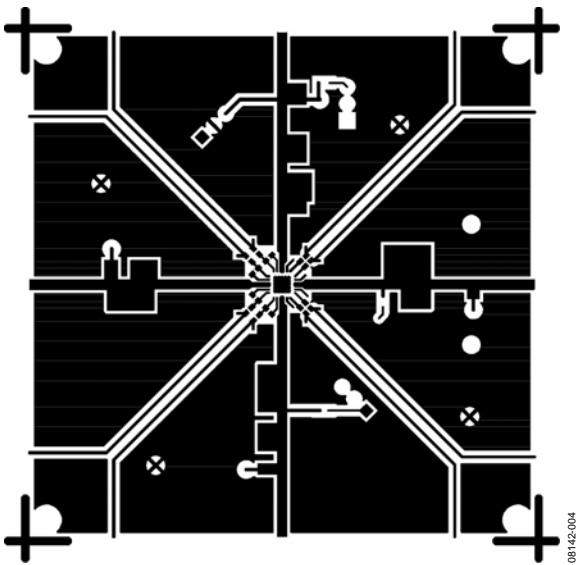


Figure 4. Board Layout Pattern, Component Side

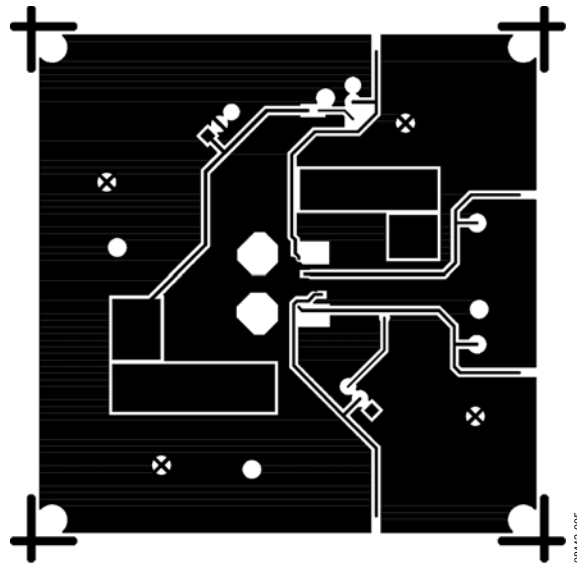


Figure 6. Board Layout Pattern, Circuit Side

## ORDERING INFORMATION

### BILL OF MATERIALS

Table 1.

Qty	Reference Designator	Description	Package	Part Number
10	GND1 to GND4, TP1 to TP6	Test point		
26	R1 to R24, R29 to R30	Resistor, user defined	0402	PXXXKLCT-ND
4	R25 to R28	Resistor, 0 $\Omega$	0603	P0.0GCT-ND
4	C1, C4, C7, C14	Capacitor, tantalum, 10 $\mu$ F	7343	399-3765-1-ND
4	C2, C6, C9, C13	Capacitor, 0.1 $\mu$ F	0508 or 0603	478-7414-1-ND or 399-1095-1-ND
2	C10, C12	Capacitor, 0.1 $\mu$ F	0402	399-3027-1-ND
12	+IN1, -IN1, +IN2, -IN2, VOXM1, VOXM2, PD1/DIS1, PD2/DIS2, +OUT1, -OUT1, +OUT2, -OUT2	SMA connector	End launch	J502-ND
3	P1 to P3	3-pin header, 100 mils spacing	TSW-103-08-G-S	SAM1038-03-ND
1	Z1	Dual differential amplifier	24-lead LFCSP	



#### 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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UG08142-0-1/15(B)



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#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.