

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 EVAL-FDA-2CPZ-24 is designed to aid in the evaluation of dual high speed differential amplifiers. The EVAL-FDA-2CPZ-24 is a bare board (that is, there are no components soldered to the evaluation board) that enables users to quickly prototype a variety of differential amplifier circuits, which minimizes risk and reduces time to market. The EVAL-FDA-2CPZ-24 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).

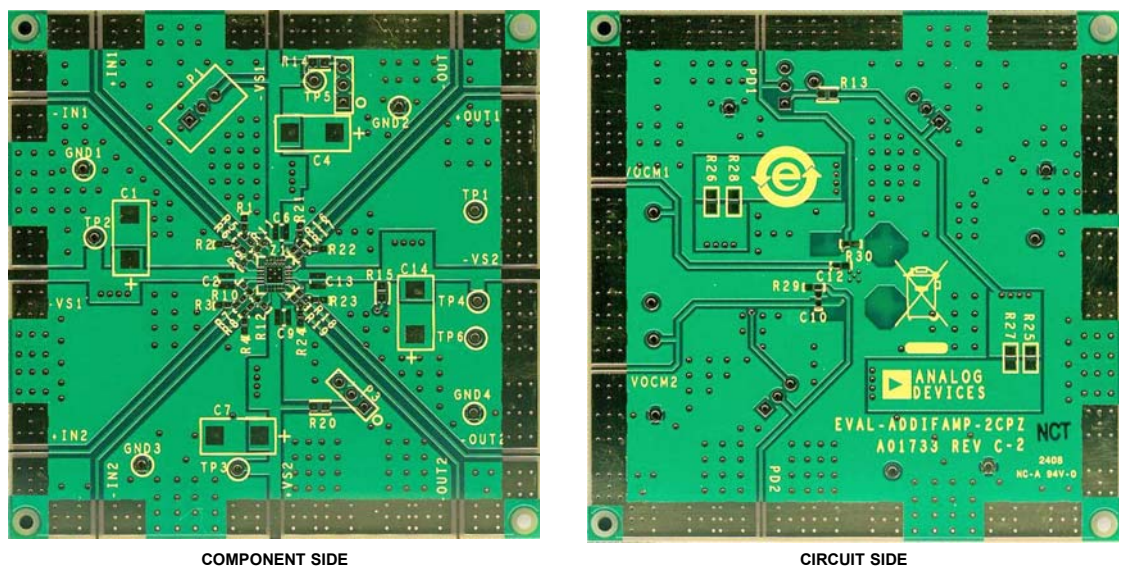
Figure 1 shows the component side and circuit side of the evaluation board. Figure 2 shows the evaluation board schematic.

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

The evaluation board ground plane, component placement, and power supply bypassing are optimized for maximum circuit flexibility and performance. The evaluation board uses a variety of surface-mount technology (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 operational amplifier and to the supporting circuitry.

DIGITAL PICTURE OF THE EVALUATION BOARD



NOTES

- 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

8/2016—Rev. B to Rev. C	
Changed EB-D24CP44-2Z to EVAL-FDA-2CPZ-24	Throughout
Changes to Table 1	5
1/2015—Rev. A to Rev. B	
Changes to General Description Section	1
Added Ordering Information Section and Table 1	5
2/2010—Rev. 0 to Rev. A	
Changes to General Description and Figure 1	1
7/2009—Revision 0: Initial Version	

EVALUATION BOARD SCHEMATIC AND ARTWORK

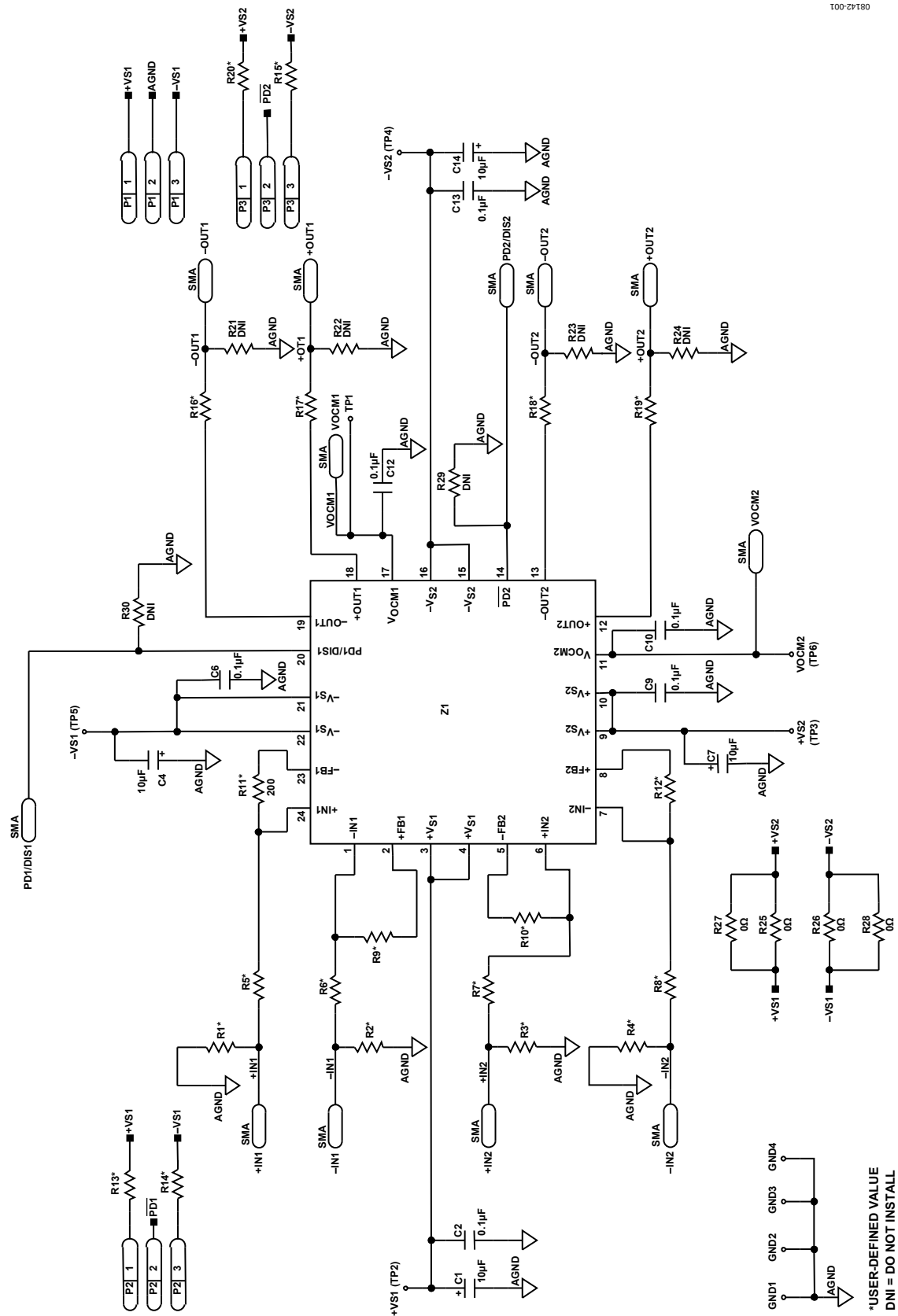


Figure 2. Dual Differential Amplifier Universal Evaluation Board Schematic

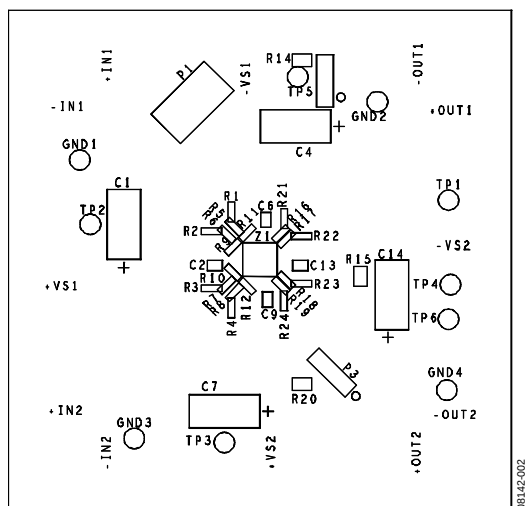


Figure 3. Board Assembly Drawing, Component Side

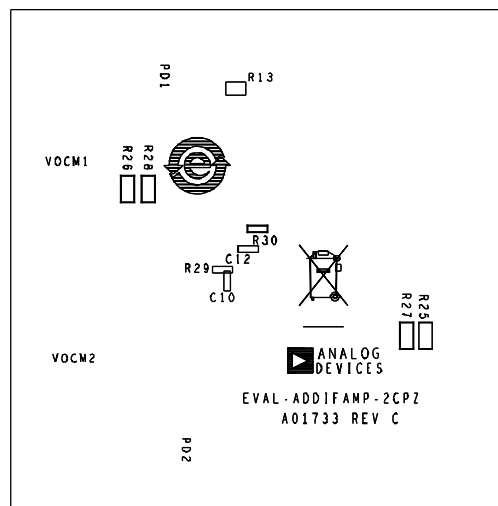


Figure 5. Board Assembly Drawing, Circuit Side

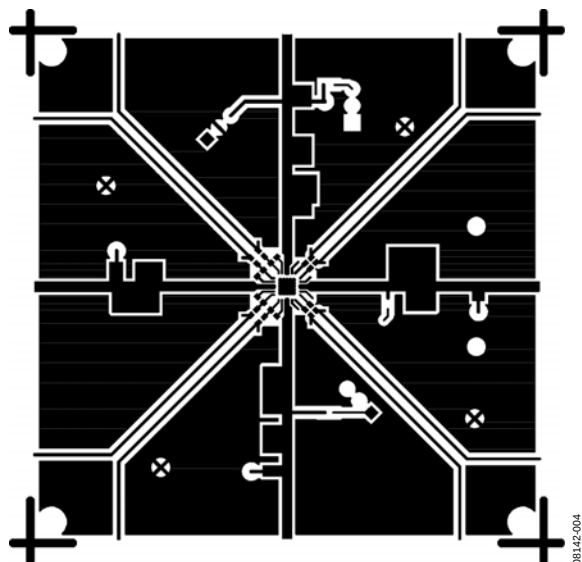


Figure 4. Board Layout Pattern, Component Side

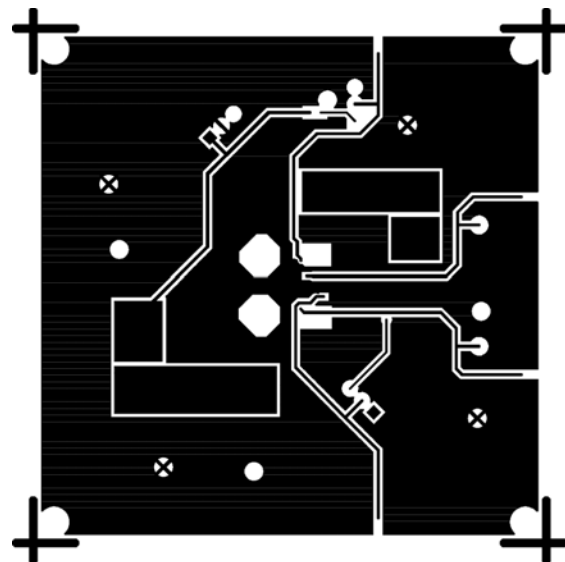


Figure 6. Board Layout Pattern, Circuit Side

ORDERING INFORMATION

BILL OF MATERIALS

Table 1.

Qty	Reference Designator	Description	Package	Part Number
10	GND1 to GND4, TP1 to TP6	Test points		
26	R1 to R24, R29 to R30	Resistors, user defined	0402	PXXXKLCT-ND
4	R25 to R28	Resistors, 0 Ω	0603	P0.0GCT-ND
4	C1, C4, C7, C14	Capacitors, tantalum, 10 μ F	7343	399-3765-1-ND
4	C2, C6, C9, C13	Capacitors, 0.1 μ F	0508 or 0603	478-7414-1-ND or 399-1095-1-ND
2	C10, C12	Capacitors, 0.1 μ F	0402	399-3027-1-ND
12	+IN1, -IN1, +IN2, -IN2, VOCM1, VOCM2, PD1/DIS1, PD2/DIS2, +OUT1, -OUT1, +OUT2, -OUT2	SMA connectors	End launch	J502-ND
3	P1 to P3	3-pin headers, 100 mils spacing	TSW-103-08-G-S	SAM1038-03-ND
1	Z1	Dual differential amplifier	24-lead LFCSP	ADA4927-2, ADA4930-2, ADA4937-2, ADA4938-2, ADA4939-2, or ADA4940-2

**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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