

Bottom Port Digital MEMS Microphone Evaluation Board

GENERAL DESCRIPTION

This user guide applies to the following MEMS microphone evaluation boards:

- EVAL_INMP421Z
- EVAL_INMP521Z

This is a simple evaluation board that allows quick evaluation of the performance of the INMP421 and INMP521 bottom port digital output omnidirectional microphones. The evaluation board has a dual-row 12-pin, 0.1 inch spaced header for access to all microphone pins. The board is designed to plug directly into the digital microphone connectors on the Analog Devices, Inc., EVAL-ADAU1361Z, EVAL-ADAU1761Z, EVAL-ADAU1781Z and EVAL-ADAU1772Z evaluation boards.

The dimensions of the microphone evaluation board are 13 mm x 18 mm. The evaluation board is RoHS compliant.

EVALUATION BOARD CIRCUIT

The schematic of this board is shown in Figure 1. See the INMP421 and INMP521 data sheets for complete description and specifications of the microphones.

The PCB layout is shown in Figure 2. The 0.1 μF capacitor, C1, is a bypass capacitor that reduces supply noise and ensures proper microphone operation. The connector pin functions are described in Table 1.

TABLE 1. CONNECTOR PIN DESCRIPTIONS

Pin No.	Description
1	GND
2, 4, 5, 6, 8, 10, 12	Not connected
3	CLK
7	L/R SELECT
9	DATA

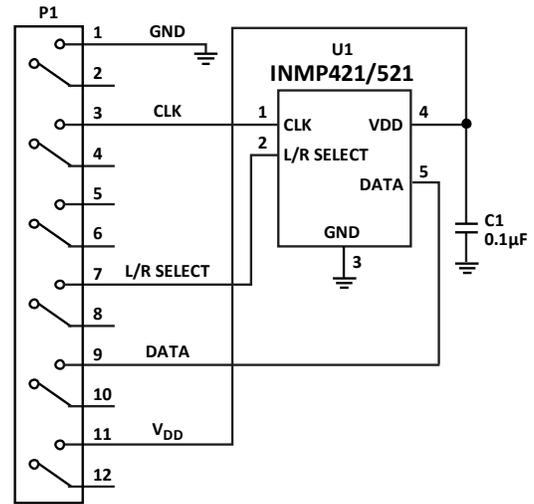


Figure 1. Evaluation Board Schematic

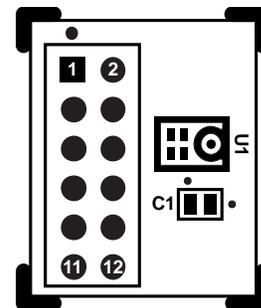


Figure 2. PCB Layout

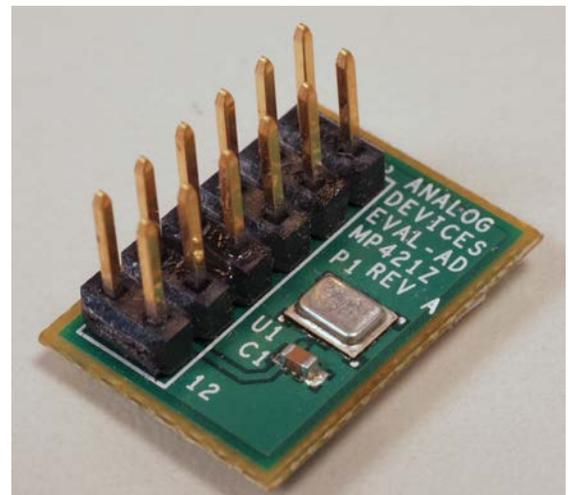


Figure 3. Evaluation Board Photo

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