

T4086 Flex EVB User Guide

GENERAL DESCRIPTION

The T4086 is an analog single-ended MEMS microphone. This user guide provides information on how to use the flexible evaluation board for this part, EV_T4086-FX.

This is a simple evaluation board that allows quick evaluation of the performance of single-ended analog MEMS microphones. The small size and low profile of the flexible PCB enables direct placement of the microphone into a prototype or an existing design for an in situ evaluation. The evaluation board consists of a bottom port microphone soldered to a flexible PCB with color-coded wires attached. The only other component on the board is a 0.1 μF supply bypass capacitor.

Table 1 describes the functions of the three connection wires. Table 2 describes the performance specifications of the microphone flex board.

TABLE 1. PIN FUNCTION DESCRIPTIONS

Wire Color	Microphone Pin	Description
Red	VDD	Power Supply. 1.6 V DC to 3.6 V DC
White	OUTPUT	Analog Output Signal
Black	GND	Ground

TABLE 2. MICROPHONE PERFORMANCE SPECIFICATIONS

Sensitivity	Maximum Supply Current	Maximum Output Voltage	Output Impedance	DC Offset
-38 dBV +/- 1	140 μA	0.63 Vrms	250 Ω	0.74 V

EVALUATION BOARD CIRCUIT

Figure 1 shows the schematic of the evaluation board, and Figure 2 shows the flex board layout. See the respective microphone data sheets for complete descriptions and specifications of the microphones.

Figure 3 shows the dimensions of the flex board and identifies the location of the sound port.

Figure 4 shows the top and bottom views of the flex board.

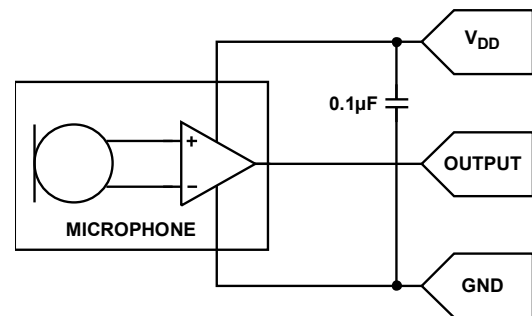


Figure 1. EV_T4086-FX Schematic

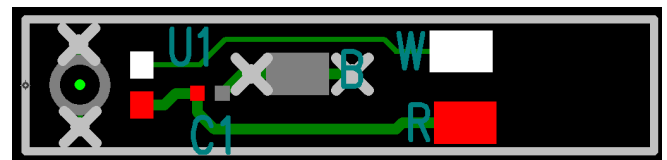


Figure 2. EV_T4086-FX Layout (Top View)

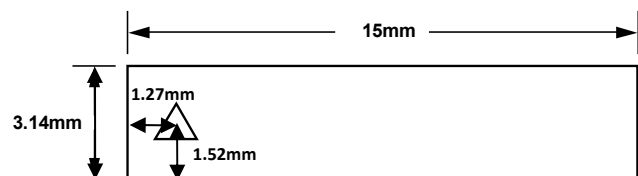


Figure 3. EV_T4086-FX Dimensions in Millimeters (Wires Not Included)

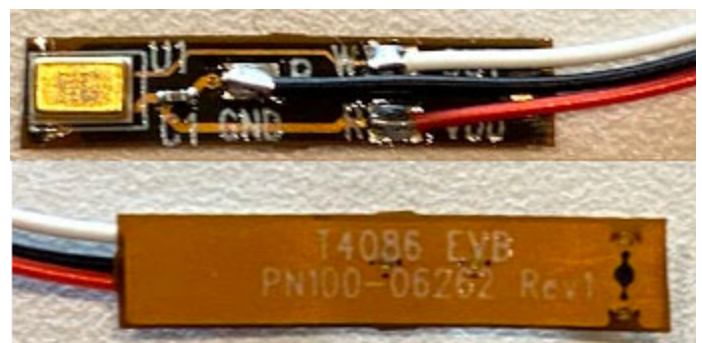


Figure 4. EV_T4086-FX Top and Bottom View

REVISION HISTORY

REVISION DATE	REVISION	DESCRIPTION
10/20/2020	1.0	Initial release

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