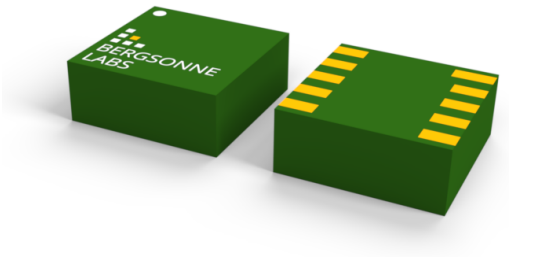




Sense.MIC

I2C-output MEMS microphone

The Sense.MIC pairs a Same Sky CMM-2718AT-38164W-TR analog MEMS microphone (omnidirectional, 20 Hz to 20 kHz, -38 dBV/Pa, 64 dBA SNR, 128 dB SPL overload) with an Analog Devices AD8605 amplifier and a Maxim MAX11645 12-bit ADC read over I2C (up to 1.7 MHz). The amplified microphone signal is also brought out to pad 8. Suited to sound-level monitoring and event detection: claps, knocks, voice presence, quiet versus busy.



Overview

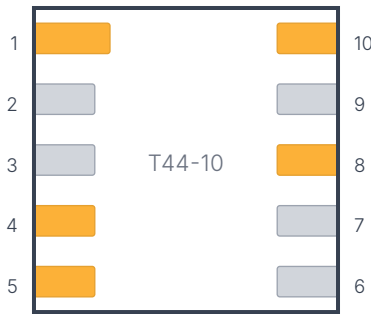
Revision	a
Package	T44-10
Packaging	12 mm tape and reel, 500 per 7 in reel
Power	2.7-3.6V (About 1.2 mA: AD8605 1 mA and the microphone 175 µA run continuously; +0.33 mA with the ADC internal reference on.)
Component	MAX11645
Component	CMM-2718AT-38164W-TR
Component	AD8605
Interfaces	I2C

Configuration

Use AOUT analog output

Pad 6 carries the chip's filtered analog audio output. Opt in to read it via a Core ADC pad in addition to the I2C digital path.

Pad Assignments



(top view)

PAD	TYPE	FUNCTION	NOTE
1	power	GND	
4	digital	I2C.CLK	
5	digital	I2C.DAT	
8	analog	AOUT	Amplified microphone signal (AD8605 output, also the ADC input). Rests near 0 V and carries the positive half of the sound.
10	power	V+	2.7-3.6V



Interfaces

I2C

I2C

Mode

slave

Max Clock

1.7MHz

Address

0x36 (default)

FUNCTION	REQ	PAD(S)
I2C.CLK	Yes	4
I2C.DAT	Yes	5

Packaging

Method	Tape and reel, EIA-481
Carrier tape	12 mm embossed, cold seal cover tape
Pocket	4.3 × 4.3 × 1.8 mm (A0 × B0 × K0)
Pocket pitch	8 mm (P1)
Reel	7 in (178 mm)
Quantity	500 per reel
Pin 1	Quadrant 1 per EIA-481: keyed land toward the sprocket holes, tile face up Tape and reel drawing (PDF)

