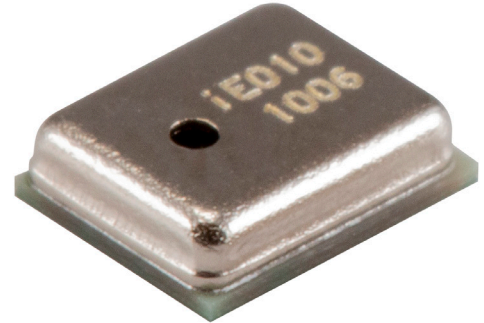




MODEL: CMM-3729AT-42308-TR | DESCRIPTION: MEMS MICROPHONE

FEATURES

- analog
- small package
- reflow solder compatible
- omnidirectional



ELECTRICAL

parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity [S]	at 94 dB SPL, 1 kHz	-45	-42	-39	dB
supply voltage [V _{DD}]		1.5	2.0	3.6	V
current consumption [I _{loss}]	V _{DD} = 2.0 V		150	250	μA
frequency [f]		100		10,000	Hz
signal to noise ratio [S/N]	at 94 dB SPL, 1 kHz (A-weighted)		57		dBA
total harmonic distortion [THD]	at 94 dB SPL, 1 kHz		0.1		%
acoustic overload point [AOP]	at 10% THD, 1 kHz		128		dB SPL
output impedance [Z _{out}]	at 1 kHz			300	Ω
PSRR	200 mVp-p sine wave @ 1 kHz, V _{DD} = 2.0 V		80		dB
PSR	100 mVp-p square wave @ 217 Hz, V _{DD} = 2.0 V		-105		dBV[A]

Notes: 1. All specifications measured at 23±2°C, humidity at 55±20%, unless otherwise noted.

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		-40		100	°C
storage temperature	in packaging	-40		85	°C
RoHS	yes				

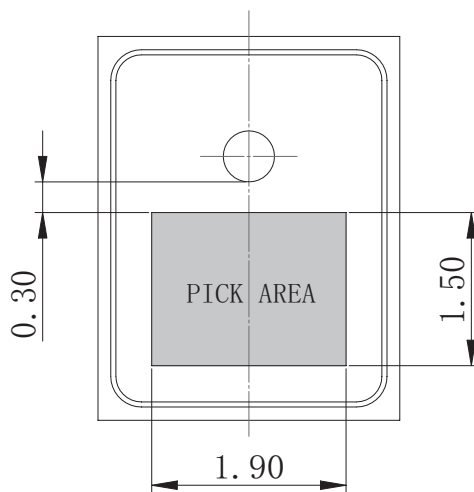
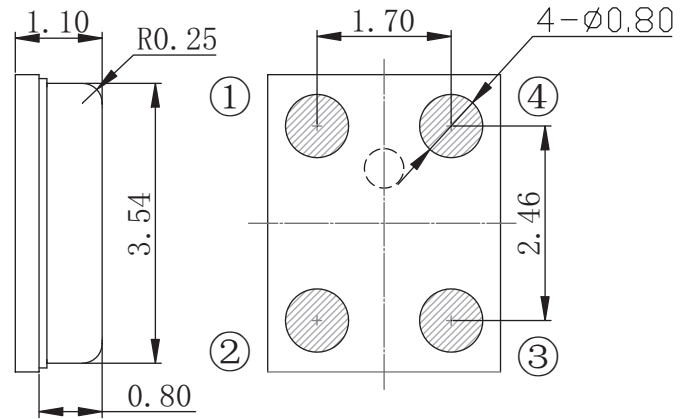
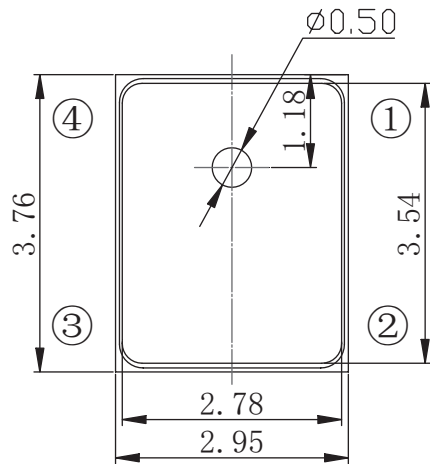
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	3.76 x 2.95 x 1.10				mm
acoustic port	top				
terminals	surface mount				
weight			0.024		g

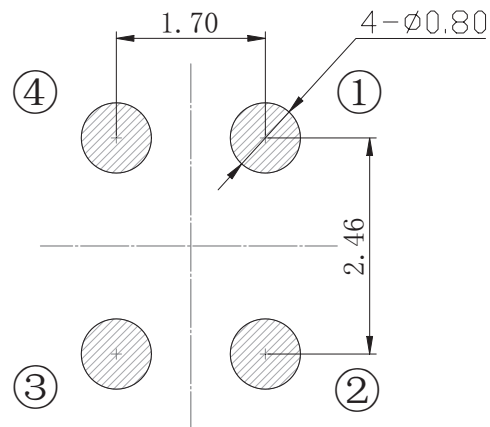
MECHANICAL DRAWING

units: mm
tolerance: ±0.1 mm

TERMINAL CONNECTIONS	
TERM.	FUNCTION
1	VDD
2	GND
3	GND
4	output

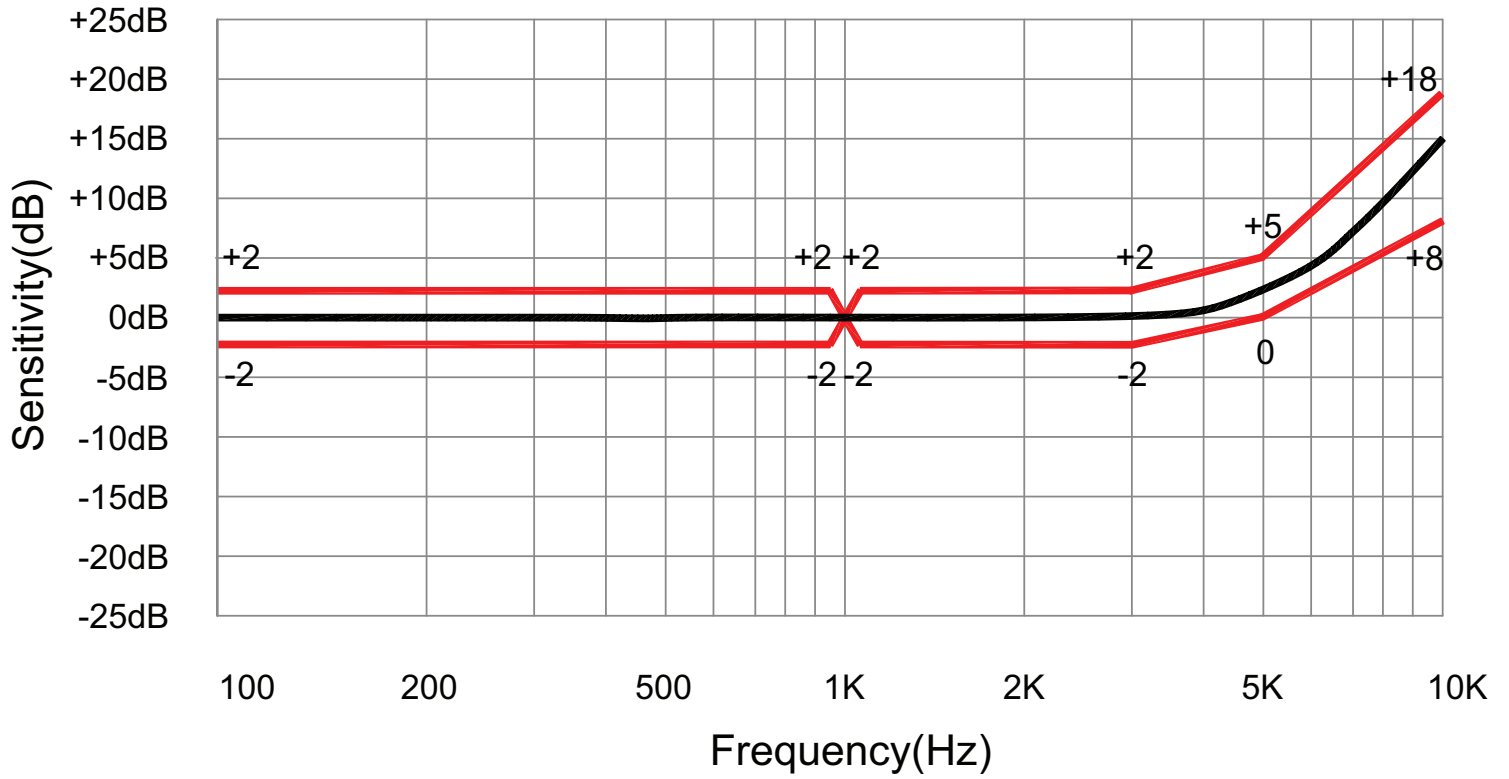


Recommended Vacuum Nozzle Pickup
Top View

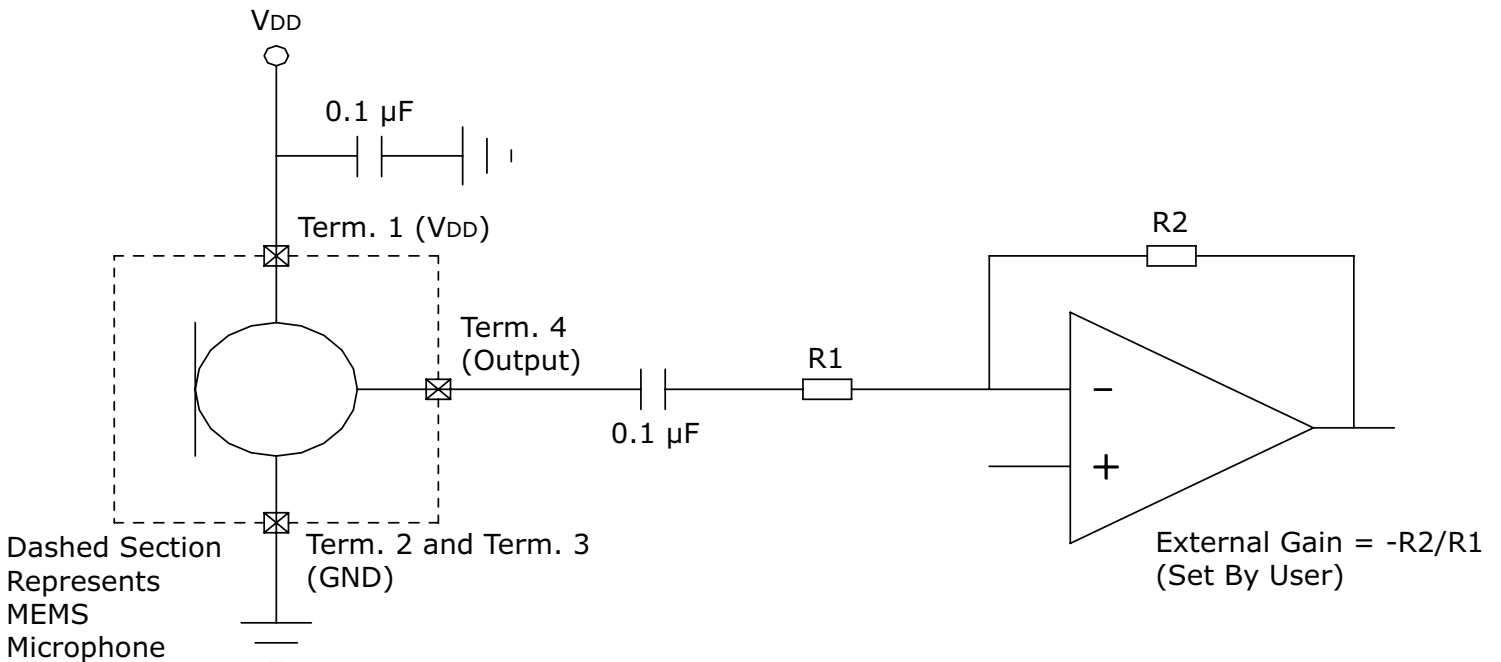


Recommended PCB Layout
Top View

FREQUENCY RESPONSE CURVE



APPLICATION CIRCUIT



SOLDERABILITY

parameter	conditions/description	min	typ	max	units
reflow soldering	see reflow profile			260	°C

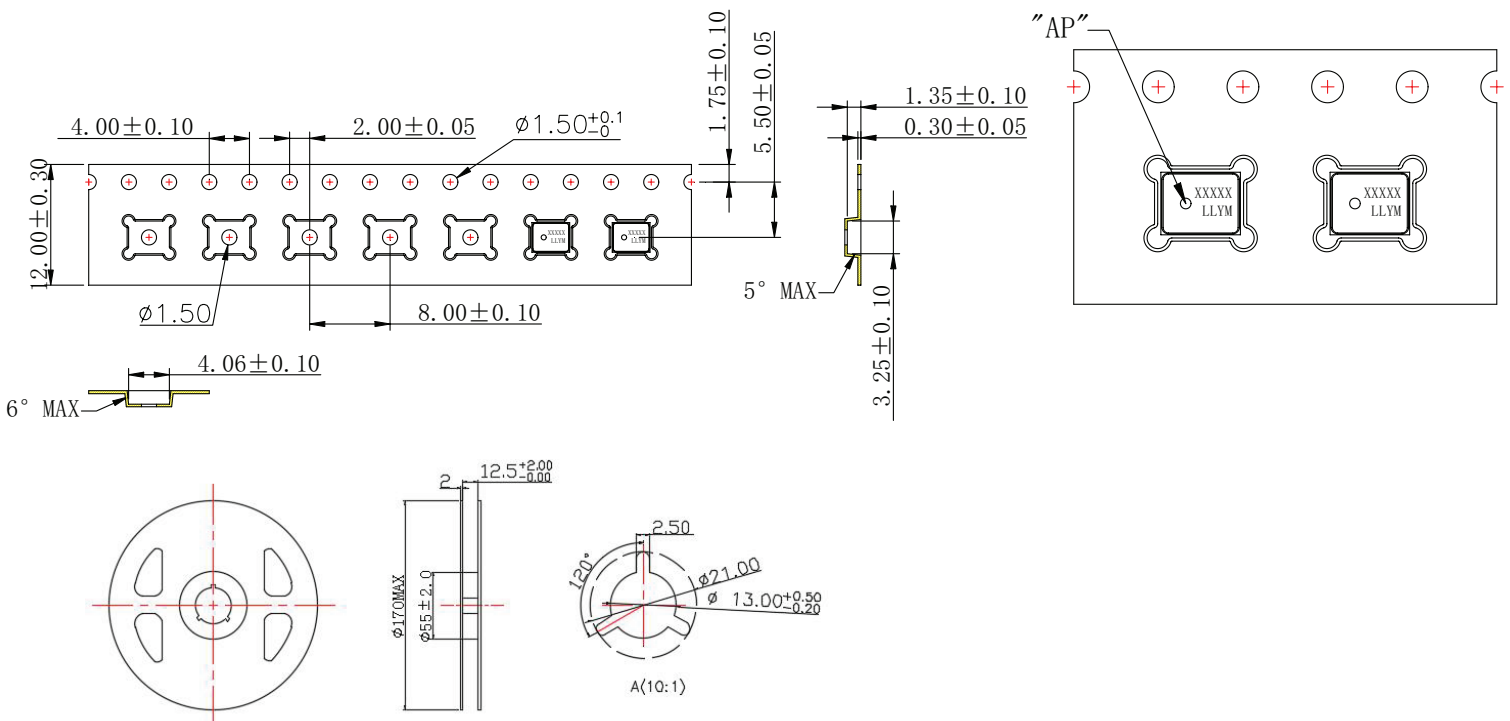
- Note:
1. Vacuuming over acoustical hole is not allowed.
 2. Not suitable for wash process.
 3. Not recommended to exceed 5 reflow cycles.



PACKAGING

parameter	conditions/description	min	typ	max	units
reel storage ⁴	at relative humidity <75%	-40		85	°C
MSL	Class 1				
reel size	Ø170 mm max				
reel QTY	1,000 pcs per reel				

- Note:
4. Recommended storage period no more than 1 year. Floor life (out of bag) no more than 4 weeks.



REVISION HISTORY

rev.	description	date
1.0	initial release	11/07/2018
1.01	brand update	01/16/2020
1.02	logo, datasheet style update	08/05/2022
1.03	changed internal chip	07/11/2023
1.04	updated datasheet	06/05/2024

The revision history provided is for informational purposes only and is believed to be accurate.



CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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