Additional Resources: Product Page | 3D Model | PCB Footprint

CUI DEVICES

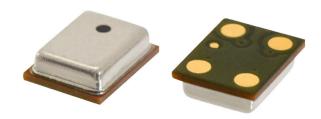
date 01/15/2020

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MODEL: CMM-3729AT-42316-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 (VDD)		1.6	2.0	3.6	V
current consumption (IDSS)	V _{DD} = 2.0 V		160		μΑ
sensitivity reduction	V _{DD} = 3.6 ∼ 1.6 V		-0.5		dB
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		0.2		%
acoustic overload point (AOP)	at 10% THD, 1 kHz		125		dB SPL
output impedance (Zout)	at 1 kHz			300	Ω
				1	-

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		105	°C
storage temperature	in packaging	-40		85	°C
RoHS	yes				

MECHANICAL

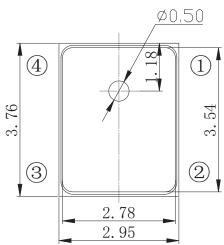
parameter	conditions/description	min	typ	max	units
dimensions	3.76 x 2.95 x 1.10				mm
acoustic port	top				
terminals	surface mount				
weight			0.024		g

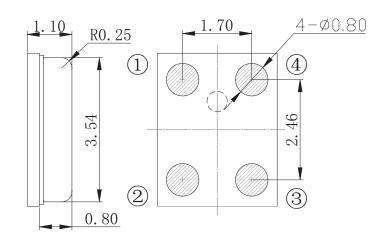
MECHANICAL DRAWING

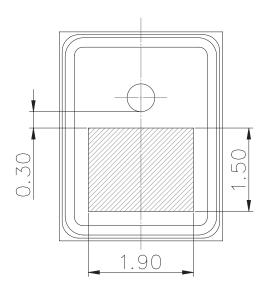
units: mm

tolerance: ±0.1 mm

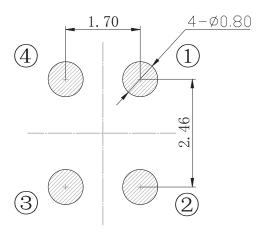
TERMINAL CONNECTIONS				
TERM.	FUNCTION			
1	Vdd			
2	GND			
3	GND			
4 output				





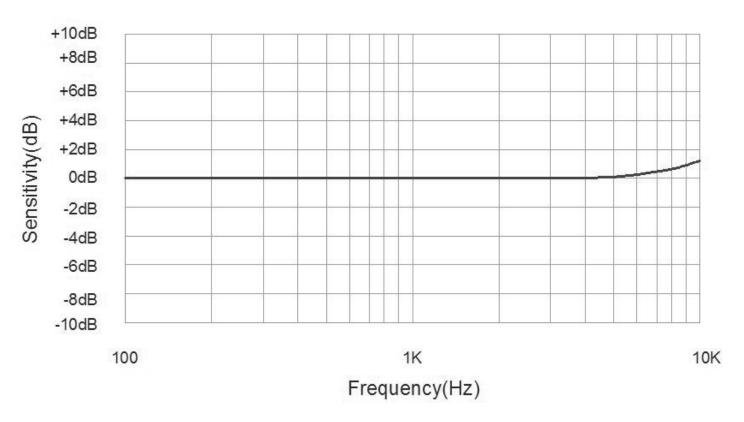


Recommended Vacuum Nozzle Pickup Top View

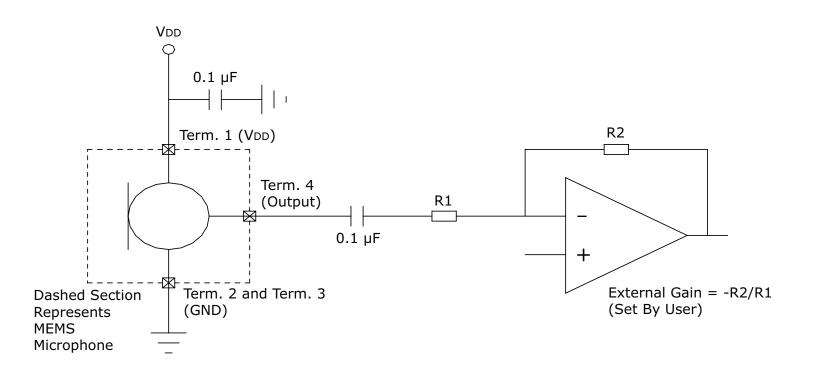


Recommended PCB Layout Top View

FREQUENCY RESPONSE CURVE



APPLICATION CIRCUIT

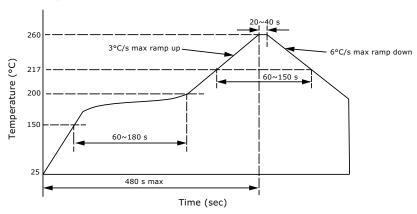


SOLDERABILITY

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

Note:

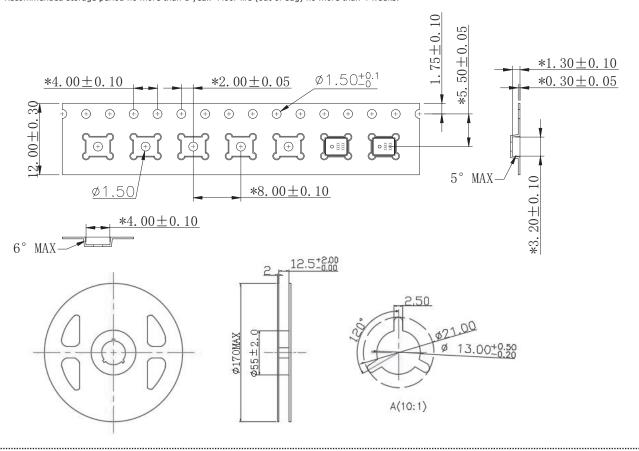
- Vacuuming over acoustical hole is not allowed.
 Not suitable for wash process.
 Not recommended to exceed 5 reflow cycles.



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				

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



Additional Resources: Product Page | 3D Model | PCB Footprint

CUI Devices | MODEL: CMM-3729AT-42316-TR | DESCRIPTION: MEMS MICROPHONE date 01/15/2020 | page 5 of 5

REVISION HISTORY

rev.	description	date
1.0	initial release	11/08/2018
1.01	brand update	01/15/2020

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

CUI DEVICES

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

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