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

CUI DEVICES

date 01/15/2020

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MODEL: CMM-2718AT-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	VDD = 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

lotes: 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		70	°C
RoHS	yes				

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	2.75 x 1.85 x 0.95				mm
acoustic port	top				
terminals	surface mount				
weight			0.02		g

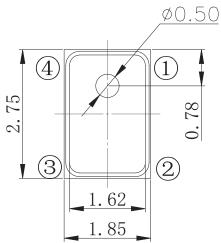
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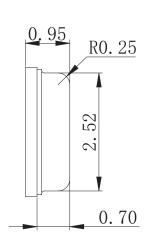
MECHANICAL DRAWING

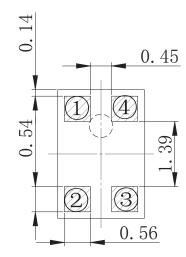
units: mm

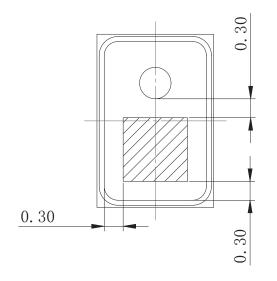
tolerance: ±0.1 mm

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

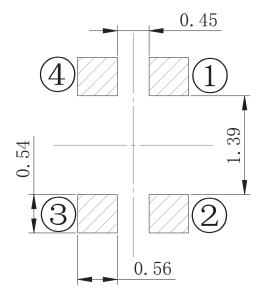






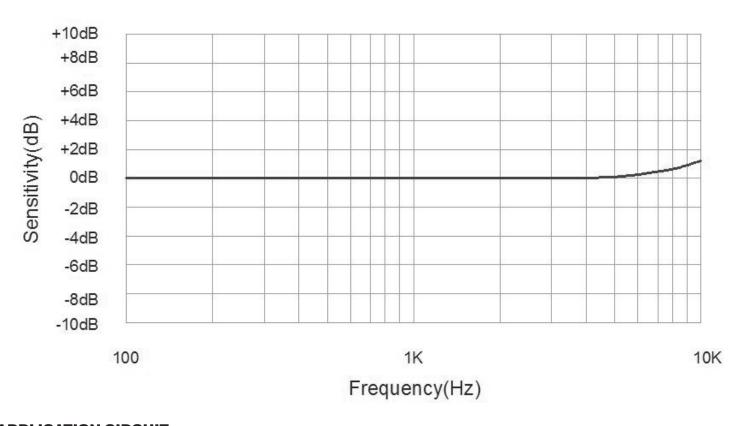


Recommended Vacuum Nozzle Pickup Top View

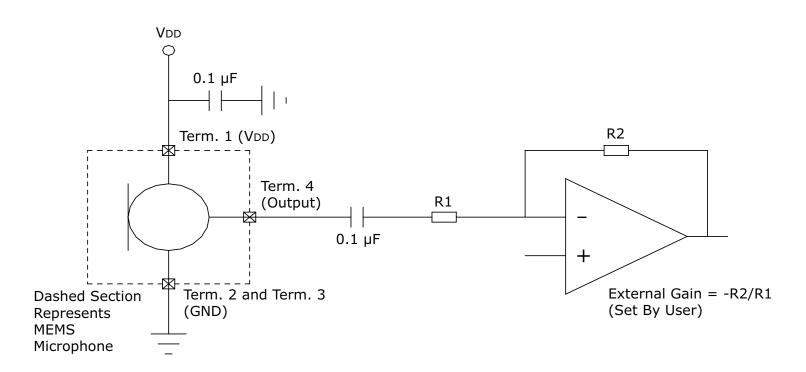


Recommended PCB Layout Top View

FREQUENCY RESPONSE CURVE



APPLICATION CIRCUIT

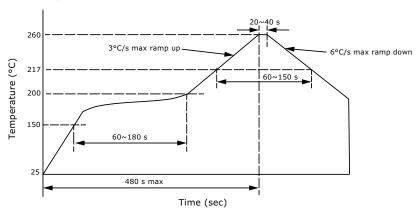


SOLDERABILITY

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

Note:

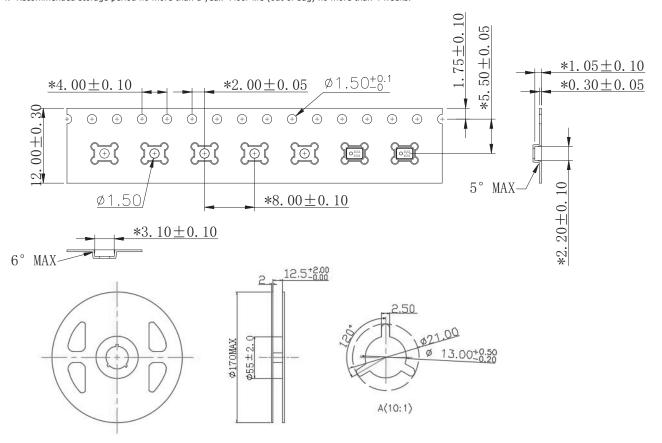
- Vacuuming over acoustical hole is not allowed.
 Not suitable for wash process.
 Not recommended to exceed 5 reflow cycles.



PACKAGING

parameter	conditions/description	min	typ	max	units
reel storage ⁴	at relative humidity <75%	-40		70	°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:



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CUI Devices | MODEL: CMM-2718AT-42316-TR | DESCRIPTION: MEMS MICROPHONE date 01/15/2020 | page 5 of 5

REVISION HISTORY

rev.	description	date
1.0	initial release	11/07/2018
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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