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

# **CUI** DEVICES

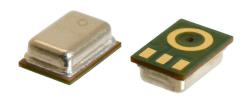
**date** 01/16/2020

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MODEL: CMM-2718AB-38108-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	-39	-38	-37	dB
supply voltage (VDD)		1.6	2.0	3.6	V
current consumption (IDSS)	V <sub>DD</sub> = 2.0 V		80		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)		65		dBA
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz		0.2		%
acoustic overload point (AOP)	at 10% THD, 1 kHz		130		dB SPL
output impedance (Zout)	at 1 kHz			300	Ω

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**

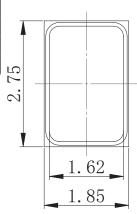
parameter	conditions/description	min	typ	max	units
dimensions	2.75 x 1.85 x 0.95				mm
acoustic port	bottom				
terminals	surface mount				
weight			0.02		g

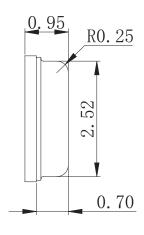
## **MECHANICAL DRAWING**

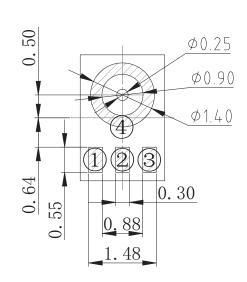
units: mm

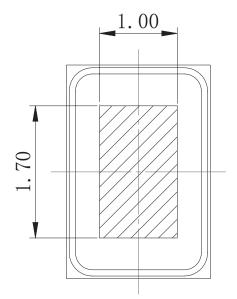
tolerance: ±0.1 mm

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

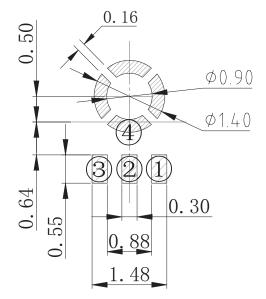






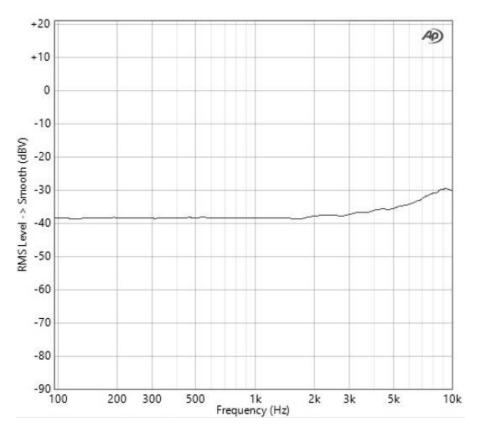


Recommended Vacuum Nozzle Pickup Top View

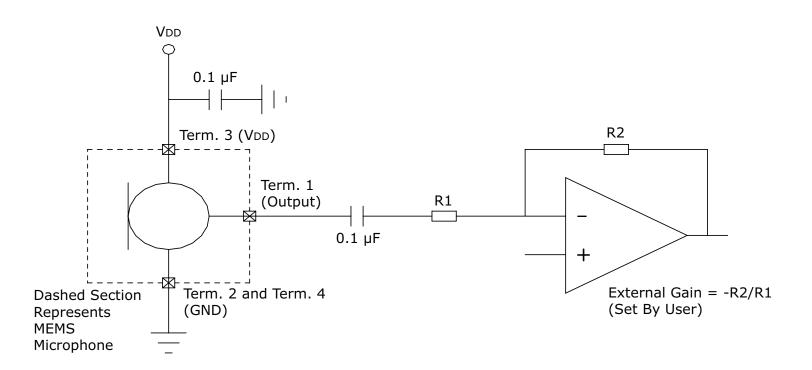


Recommended PCB Layout Top View

## **FREQUENCY RESPONSE CURVE**



## **APPLICATION CIRCUIT**

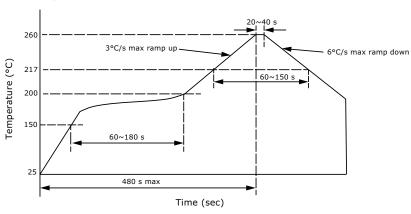


## **SOLDERABILITY**

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

Note:

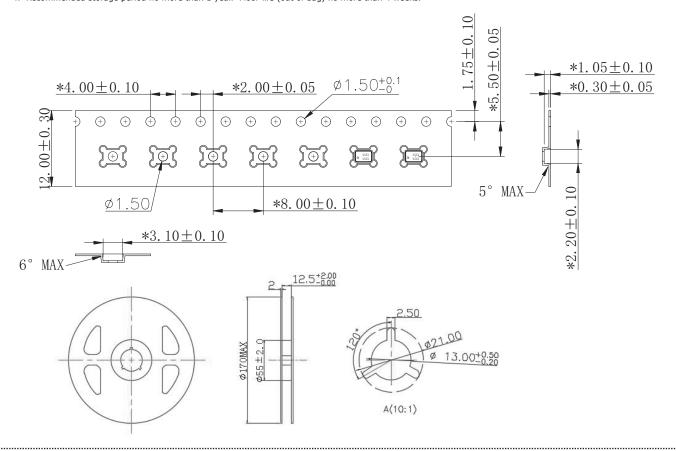
- Vacuuming over acoustical hole is not allowed.
  Not suitable for wash process.
  Not recommended to exceed 5 reflow cycles.



### **PACKAGING**

parameter	conditions/description	min	typ	max	units
reel storage <sup>4</sup>	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.



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

CUI Devices | MODEL: CMM-2718AB-38108-TR | DESCRIPTION: MEMS MICROPHONE date 01/16/2020 | page 5 of 5

#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	11/07/2018
1.01	updated frequency response curve	05/22/2019
1.01	brand update	01/16/2020

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

# **CUI** DEVICES

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