CUI DEVICES

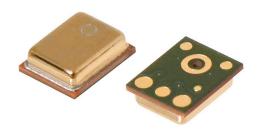
date 01/16/2020

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MODEL: CMM-3729AB-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 _{DD} = 2.0 V | | 80 | | 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) | | 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 | | | | |

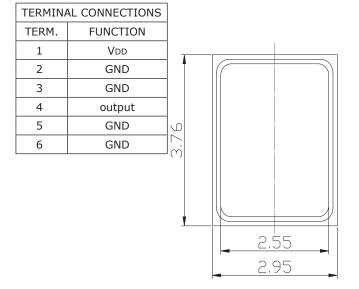
MECHANICAL

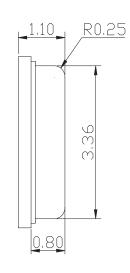
| parameter | conditions/description | min | typ | max | units |
|---------------|------------------------|-----|-------|-----|-------|
| dimensions | 3.76 x 2.95 x 1.10 | | | | mm |
| acoustic port | bottom | | | | |
| terminals | surface mount | | | | |
| weight | | | 0.024 | | g |

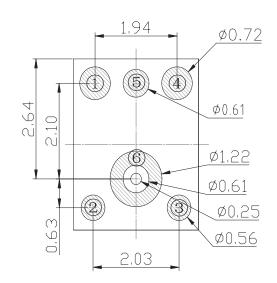
MECHANICAL DRAWING

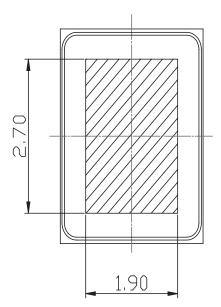
units: mm

tolerance: ±0.1 mm

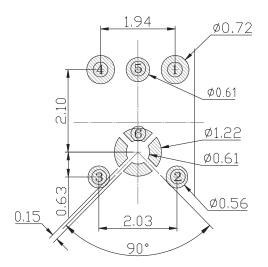






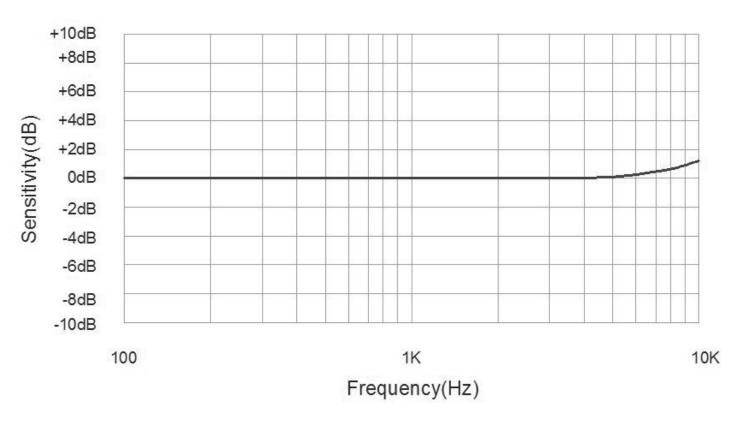


Recommended Vacuum Nozzle Pickup Top View

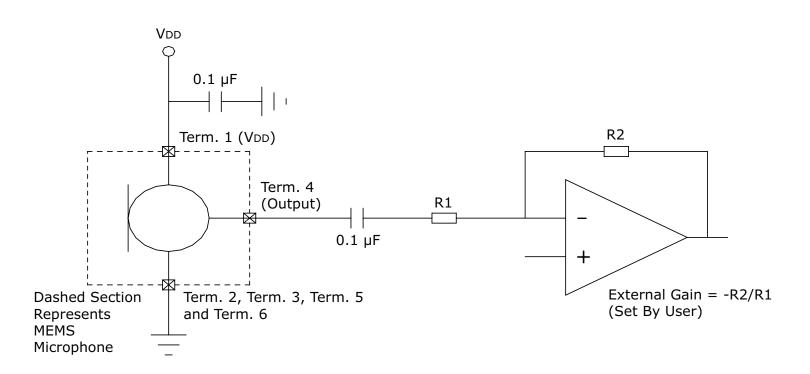


Recommended PCB Layout Top View

FREQUENCY RESPONSE CURVE



APPLICATION CIRCUIT

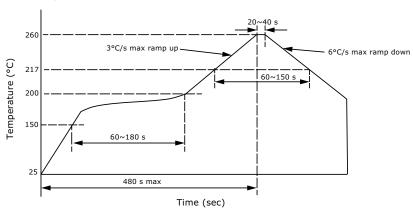


SOLDERABILITY

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

Note:

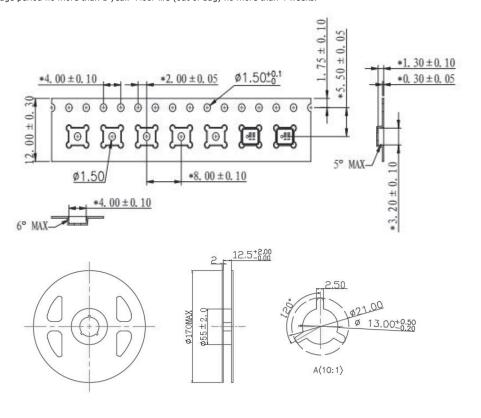
- Vacuuming over acoustical hole is not allowed.
 Not suitable for wash process.
 Not recommended to exceed 5 reflow cycles.



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 | | | | |

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-3729AB-38108-TR | DESCRIPTION: MEMS MICROPHONE date 01/16/2020 | page 5 of 5

REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 11/09/2018 |
| 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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