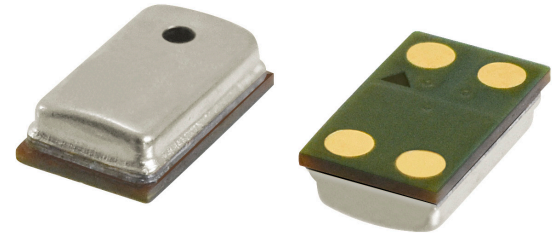


**MODEL:** CMM-3722AT-42116-TR | **DESCRIPTION:** MEMS MICROPHONE**FEATURES**

- 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                                                  | -43 | -42  | -41    | dB     |
| supply voltage [V <sub>DD</sub> ]      |                                                                      | 1.5 | 2.0  | 3.6    | V      |
| current consumption [I <sub>DD</sub> ] | V <sub>DD</sub> = 2.0 V                                              |     | 155  | 250    | μA     |
| frequency [f]                          |                                                                      | 100 |      | 10,000 | Hz     |
| signal to noise ratio [S/N]            | at 94 dB SPL, 1 kHz, BW=20-5 kHz (A-weighted)                        |     | 58   |        | dBA    |
|                                        | at 94 dB SPL, 1 kHz, BW=20-8 kHz (A-weighted)                        |     | 57   |        | dBA    |
|                                        | at 94 dB SPL, 1 kHz, BW=20-20 kHz (A-weighted)                       |     | 56   |        | dBA    |
| total harmonic distortion [THD]        | at 94 dB SPL, 1 kHz                                                  |     | 0.1  |        | %      |
| acoustic overload point [AOP]          | at 10% THD, 1 kHz                                                    |     | 130  |        | dB SPL |
| output impedance [Z <sub>out</sub> ]   | at 1 kHz                                                             |     |      | 100    | Ω      |
| PSRR                                   | 200 mVp-p sine wave @ 1 kHz, V <sub>DD</sub> = 2.0 V                 |     | 80   |        | dB     |
| PSR                                    | 100 mVp-p square wave @ 217 Hz, V <sub>DD</sub> = 2.0 V (A-weighted) |     | -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                    |     |     |     |       |

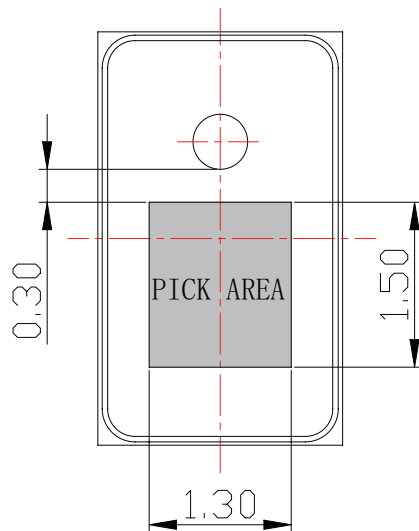
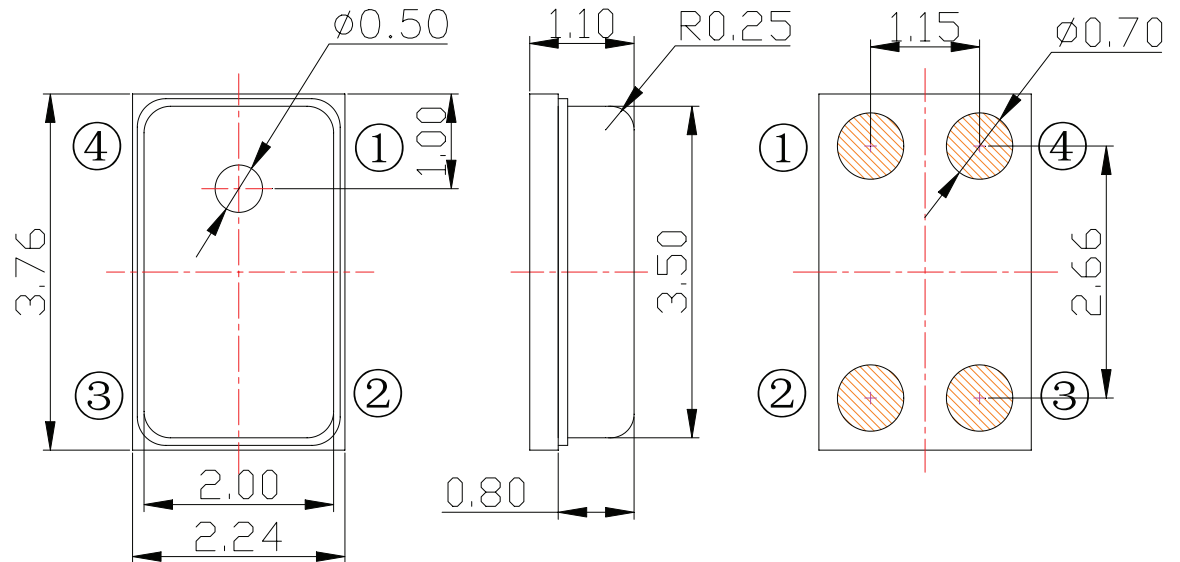
**MECHANICAL**

| parameter     | conditions/description | min | typ   | max | units |
|---------------|------------------------|-----|-------|-----|-------|
| dimensions    | 3.76 x 2.24 x 1.10     |     |       |     | mm    |
| acoustic port | top                    |     |       |     |       |
| terminals     | surface mount          |     |       |     |       |
| weight        |                        |     | 0.024 |     | g     |

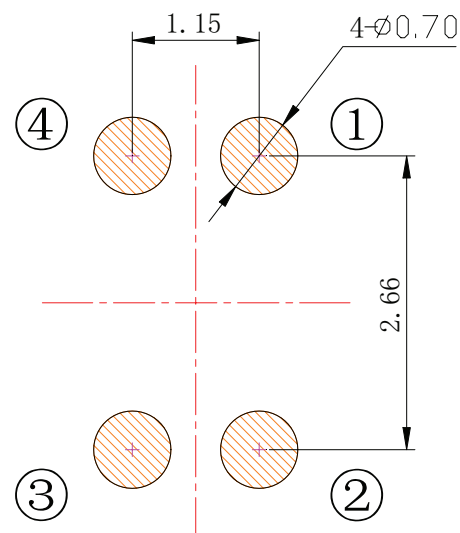
## MECHANICAL DRAWING

units: mm  
tolerance:  $\pm 0.1$  mm

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

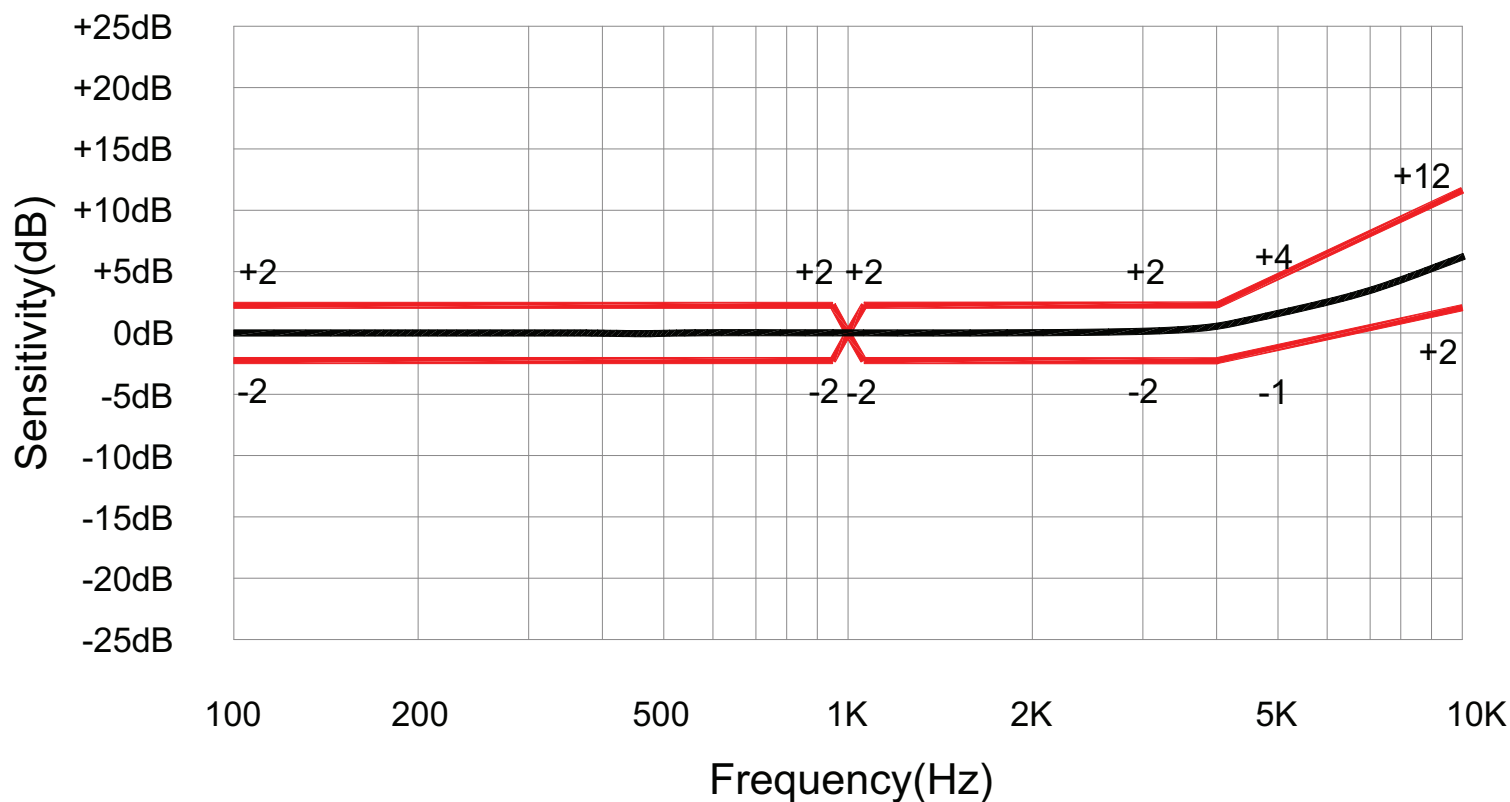


Recommended Vacuum Nozzle Pickup  
Top View

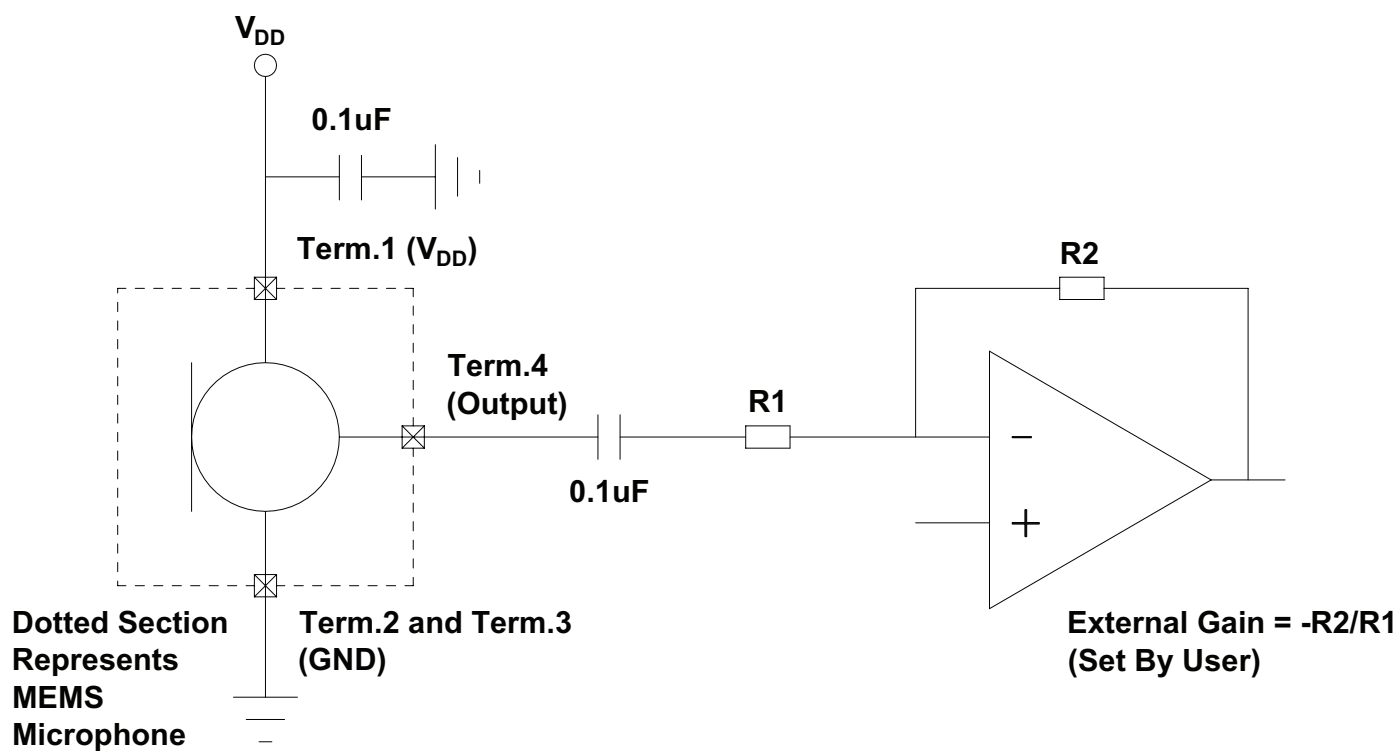


Recommended PCB Layout  
Top View

## FREQUENCY RESPONSE CURVE



## APPLICATION CIRCUIT

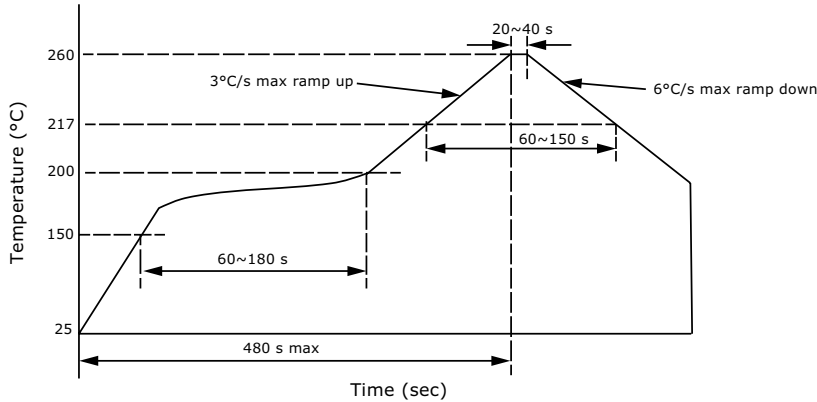


SOLDERABILITY

| 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 3 reflow cycles.

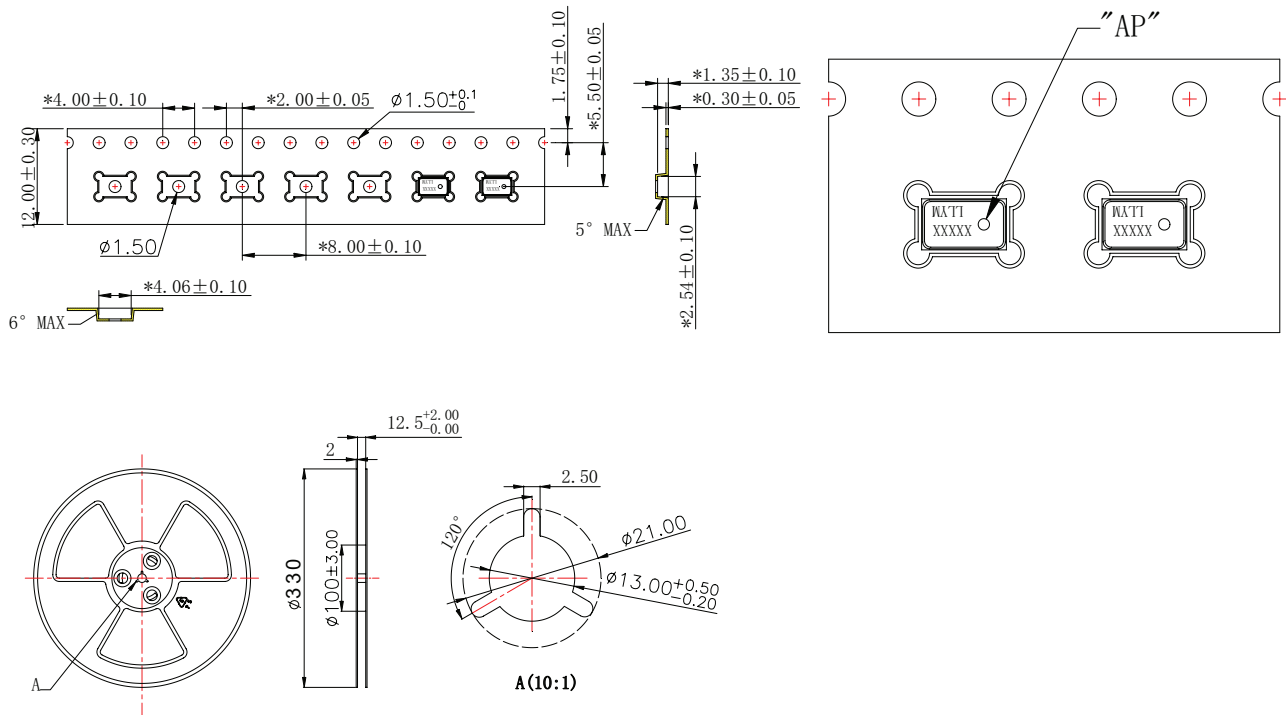


PACKAGING

| parameter                 | conditions/description    | min | typ | max | units |
|---------------------------|---------------------------|-----|-----|-----|-------|
| reel storage <sup>4</sup> | at relative humidity <75% | -40 |     | 85  | °C    |
| MSL                       | Class 1                   |     |     |     |       |
| reel size                 | Ø330 mm max               |     |     |     |       |
| reel QTY                  | 5,700 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                   | 11/08/2018 |
| 1.01 | brand update                      | 01/15/2020 |
| 1.02 | logo, datasheet style update      | 08/05/2022 |
| 1.03 | changed internal chip             | 07/18/2023 |
| 1.04 | CUI Devices rebranded to Same Sky | 09/11/2024 |
| 1.05 | internal chip update              | 07/08/2025 |

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



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

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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