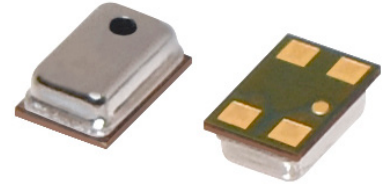


MODEL: CMM-2718AT-42316-TR | **DESCRIPTION:** MEMS MICROPHONE

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 [V _{DD}] | | 1.5 | 2.0 | 3.6 | V |
| current consumption [I _{loss}] | V _{DD} = 2.0 V | | | 250 | μA |
| 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 | | 0.15 | | % |
| acoustic overload point [AOP] | at 10% THD, 1 kHz | | 128 | | dB SPL |
| output impedance [Z _{out}] | 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 | | 100 | °C |
| storage temperature | in packaging | -40 | | 70 | °C |
| RoHS | yes | | | | |

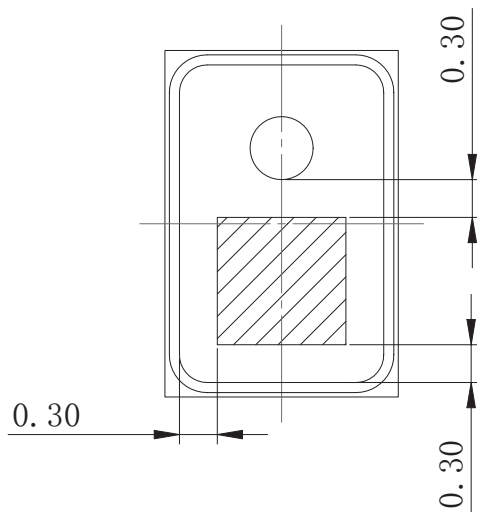
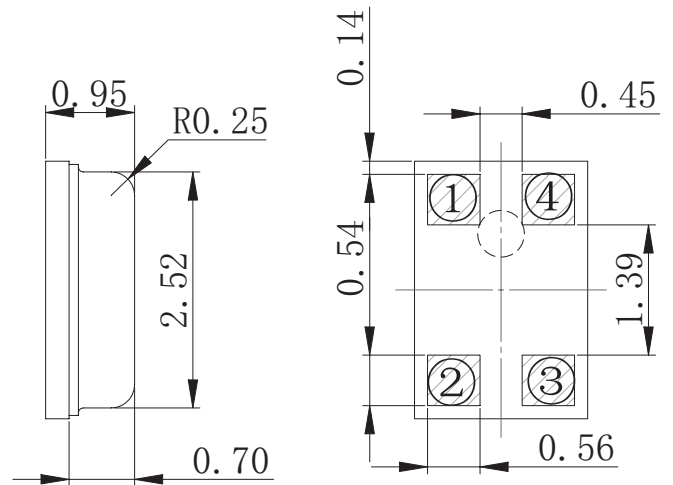
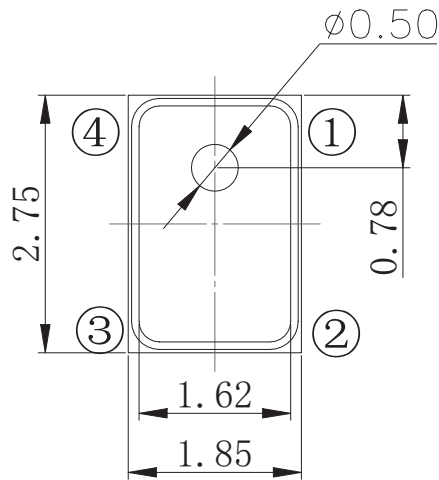
MECHANICAL

| 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 |

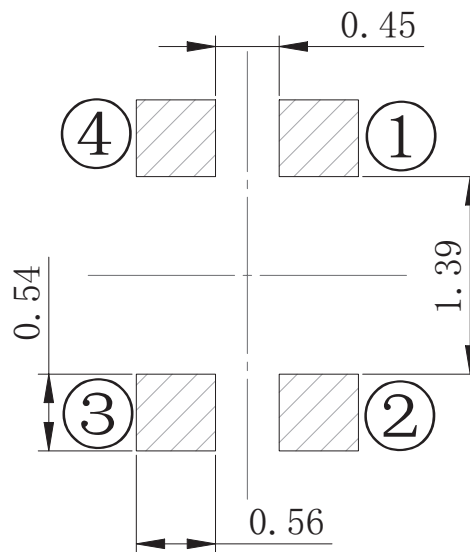
MECHANICAL DRAWING

units: mm
tolerance: ±0.1 mm

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

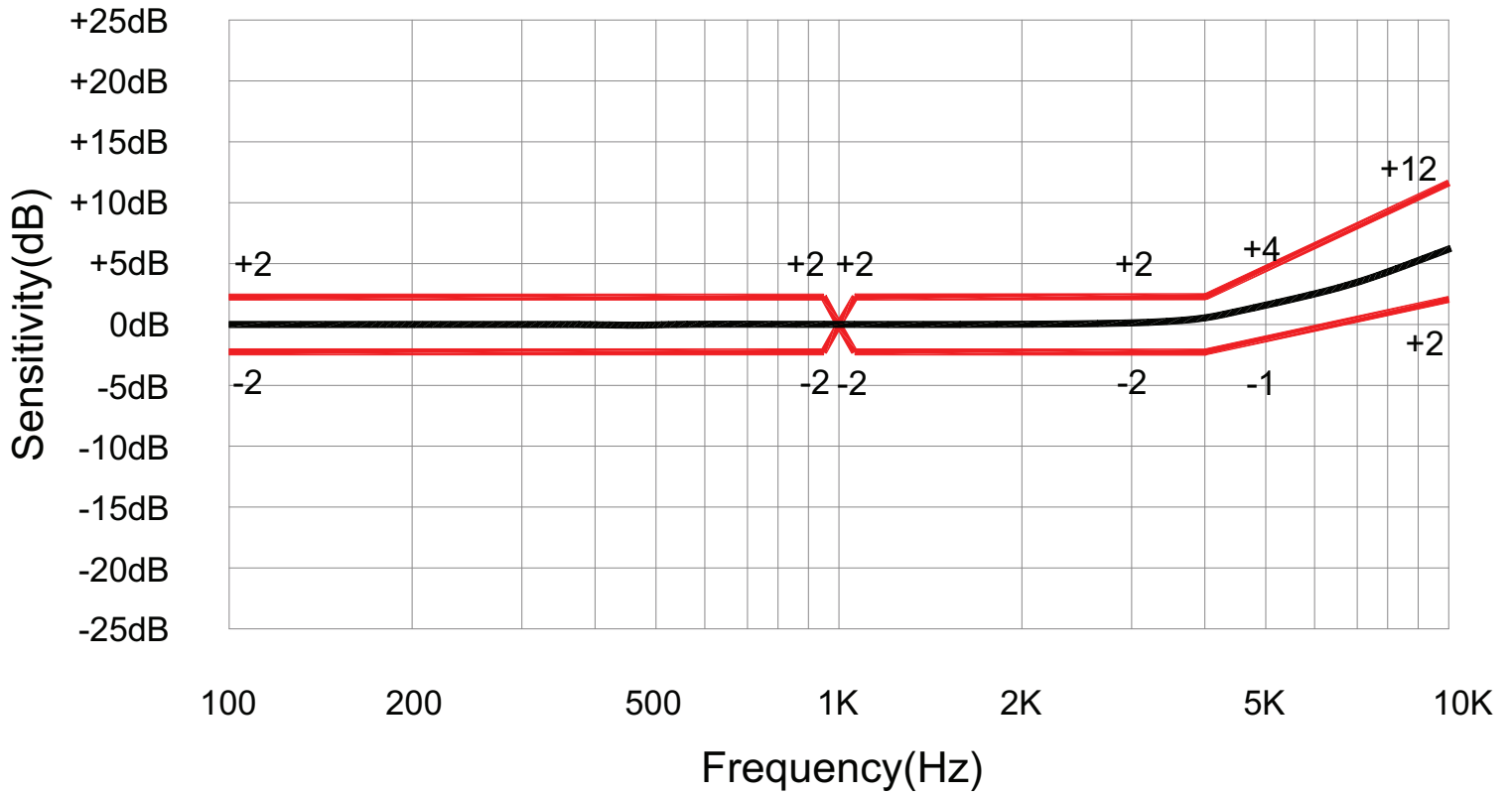


Recommended Vacuum Nozzle Pickup
Top View

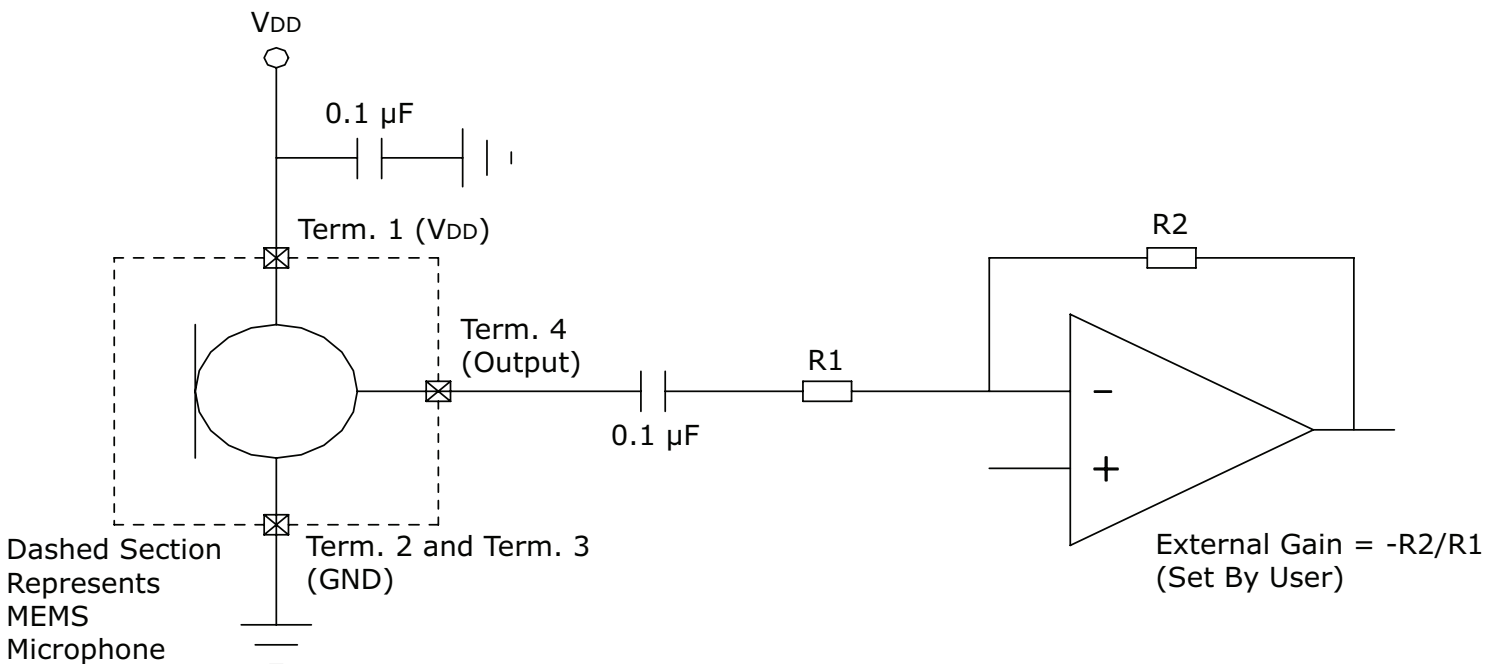


Recommended PCB Layout
Top View

FREQUENCY RESPONSE CURVE



APPLICATION CIRCUIT



SOLDERABILITY

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

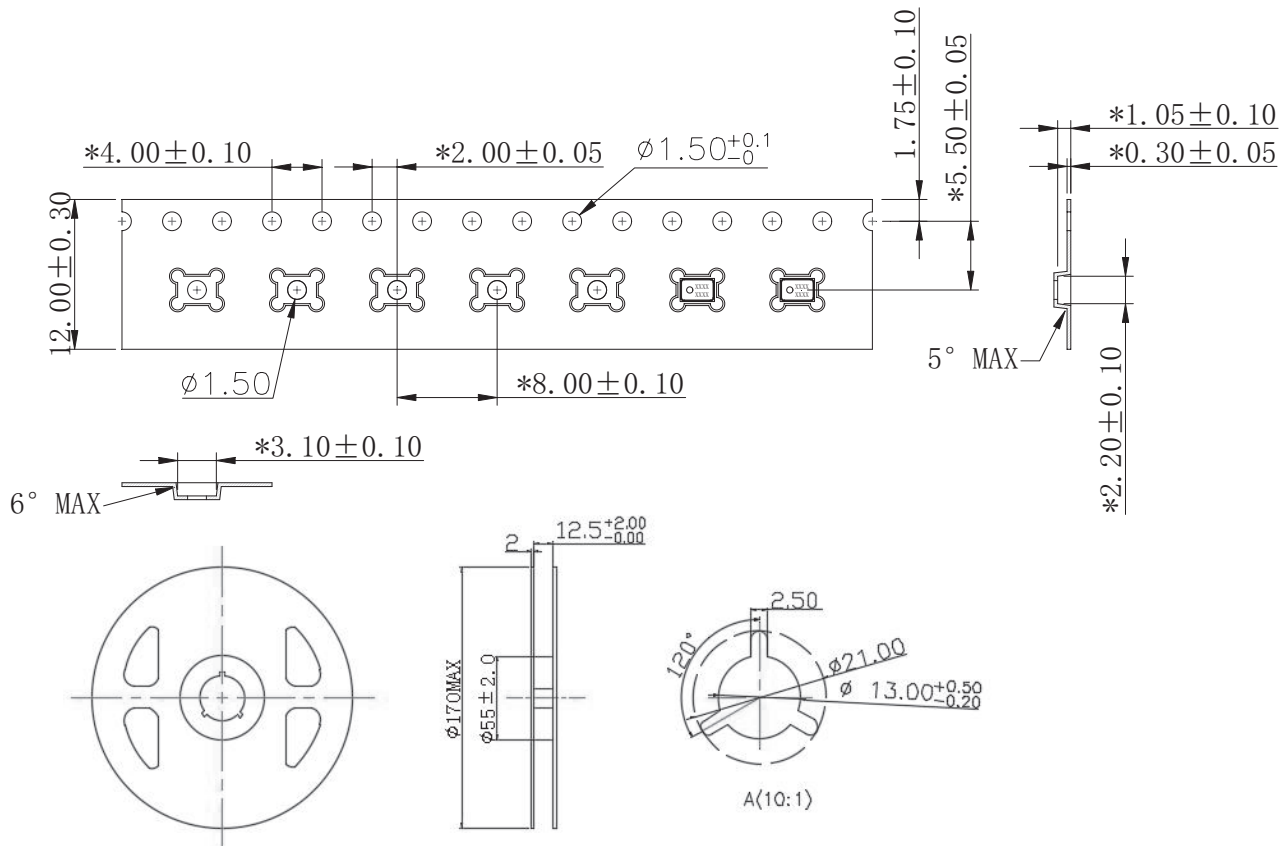
Note:
 1. Vacuuming over acoustical hole is not allowed.
 2. Not suitable for wash process.
 3. Not recommended to exceed 5 reflow cycles.



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 | | | | |

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 | 11/07/2018 |
| 1.01 | brand update | 01/15/2020 |
| 1.02 | logo, datasheet style update | 08/05/2022 |
| 1.03 | modified design | 04/27/2023 |

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



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