

**MODEL:** CMM-2718AT-381Z-TR | **DESCRIPTION:** MEMS MICROPHONE**FEATURES**

- top port
- compact size
- sensitivity -38±1 dBV

**ELECTRICAL**

| parameter                              | conditions/description                                               | min  | typ  | max    | units  |
|----------------------------------------|----------------------------------------------------------------------|------|------|--------|--------|
| directivity                            | omnidirectional                                                      |      |      |        |        |
| sensitivity [S]                        | at 94 dB SPL, 1 kHz                                                  | -39  | -38  | -37    | dB     |
| supply voltage [V <sub>DD</sub> ]      |                                                                      | 1.6  | 2.0  | 3.6    | V      |
| current consumption [I <sub>DD</sub> ] | V <sub>DD</sub> = 2.0 V                                              | 100  | 160  | 250    | µA     |
| frequency [f]                          |                                                                      | 100  |      | 10,000 | Hz     |
| signal to noise ratio [S/N]            | BW = 20 Hz~5 kHz [A-weighted]                                        | 56   | 58   | 60     | dBA    |
| total harmonic distortion [THD]        | at 94 dB SPL, 1 kHz                                                  | 0.05 | 0.10 | 0.50   | %      |
| acoustic overload point [AOP]          | at 10% THD, 1 kHz                                                    | 126  | 128  | 130    | dB SPL |
| phase                                  | 500 Hz~10 kHz at 94 dB                                               | -5   | 0    | 5      | deg    |
| output impedance [Z <sub>out</sub> ]   | at 1 kHz                                                             | 60   | 100  | 300    | Ω      |
| dc output                              | V <sub>DD</sub> =2.0 V                                               | 0.65 | 0.90 | 1.3    | V      |
| PSRR                                   | 200 mVp-p sine wave @ 1 kHz, V <sub>DD</sub> = 2.0 V                 | 65   | 75   | 85     | dB     |
| PSR                                    | 100 mVp-p square wave @ 217 Hz, V <sub>DD</sub> = 2.0 V [A-weighted] | -115 | -105 | -95    | 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 |     | 100 | °C    |
| RoHS                  | yes                    |     |     |     |       |

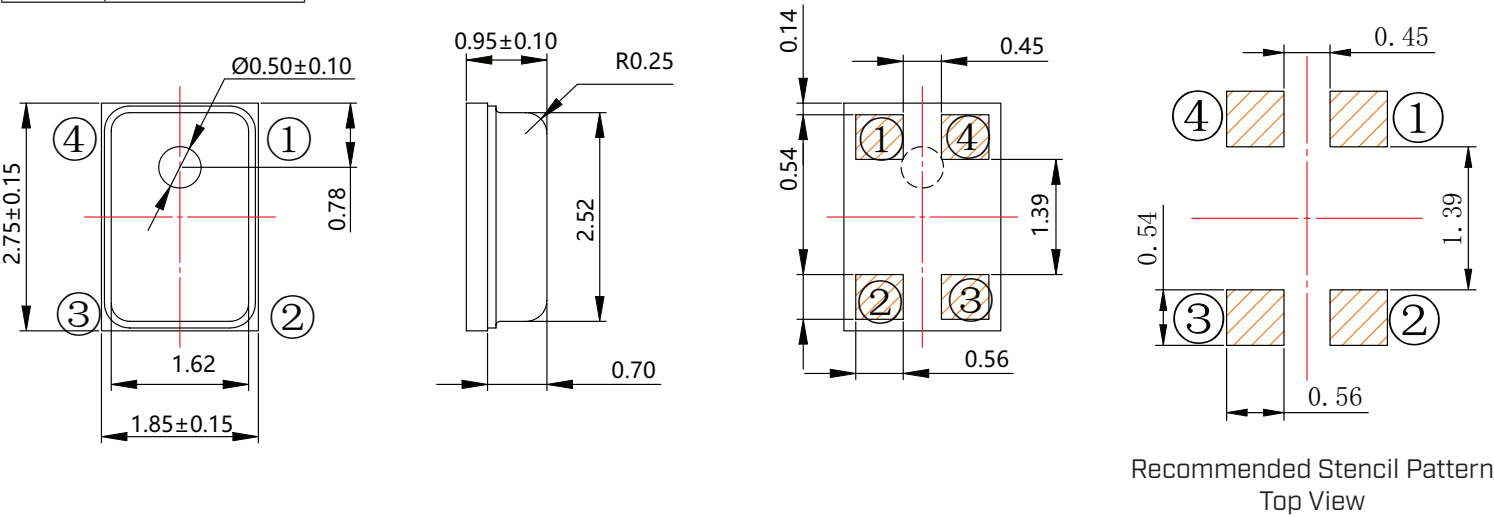
**MECHANICAL**

| parameter     | conditions/description | min    | typ    | max    | units |
|---------------|------------------------|--------|--------|--------|-------|
| dimensions    | 2.75 x 1.85 x 0.95     |        |        |        | mm    |
| acoustic port | top                    |        |        |        |       |
| terminals     | surface mount          |        |        |        |       |
| weight        |                        | 0.0088 | 0.0118 | 0.0148 | g     |

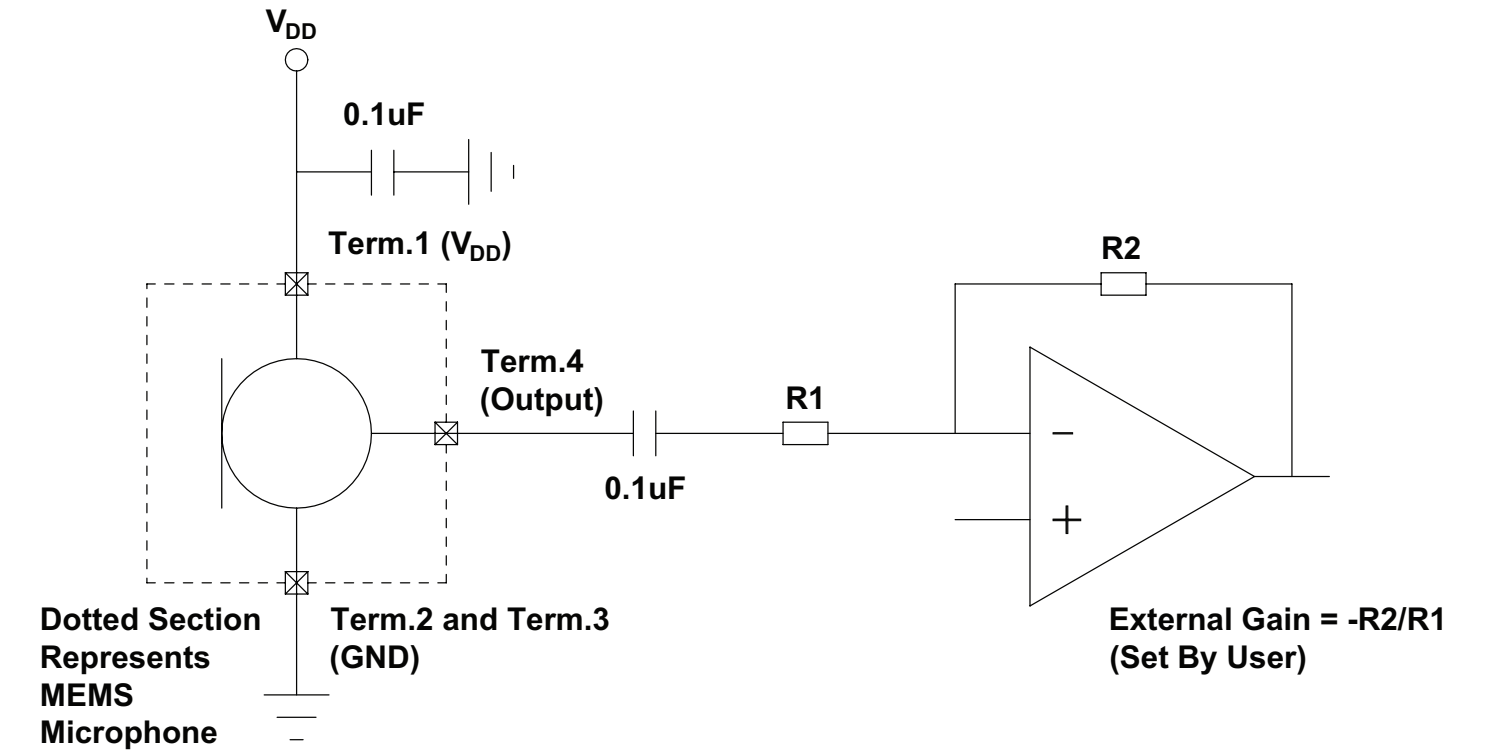
MECHANICAL DRAWING

units: mm  
tolerance: ±0.1 mm

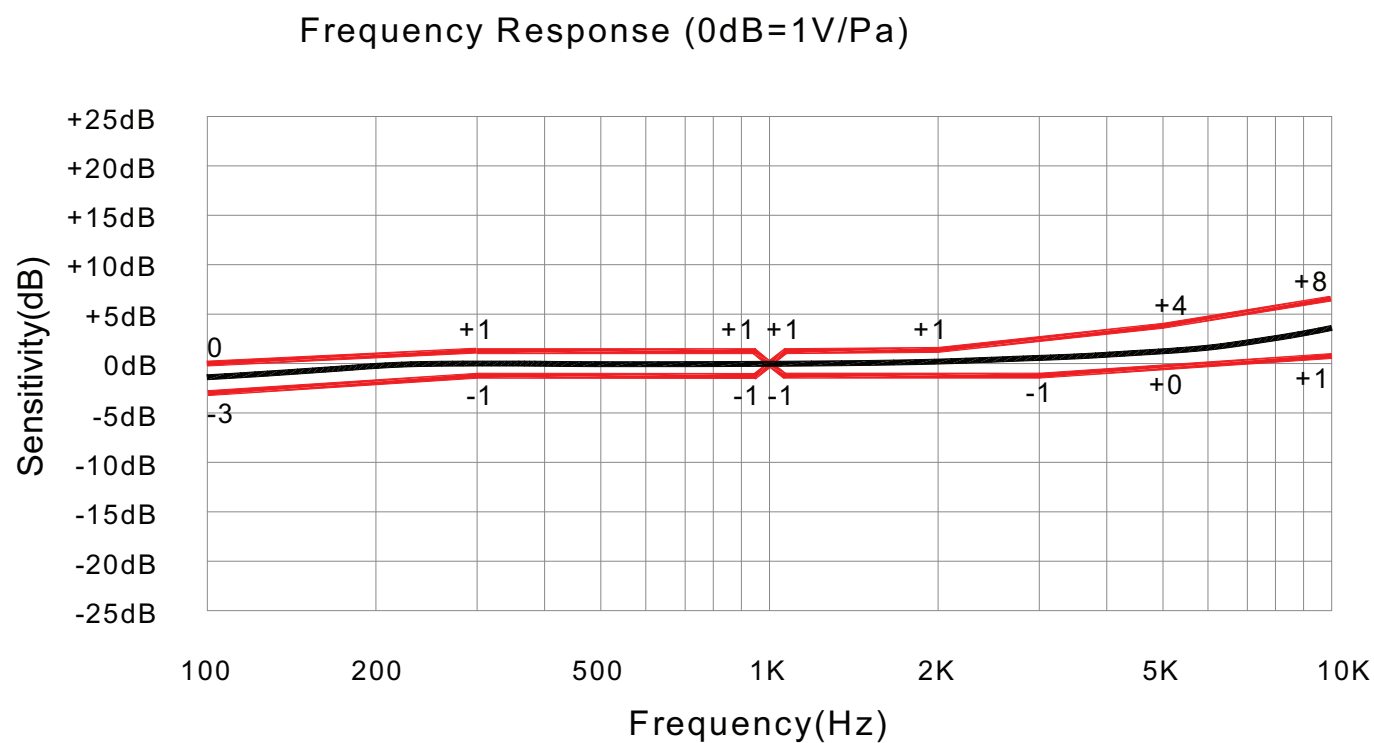
| TERMINAL CONNECTIONS |                 |
|----------------------|-----------------|
| TERM.                | FUNCTION        |
| 1                    | V <sub>DD</sub> |
| 2                    | GND             |
| 3                    | GND             |
| 4                    | output          |



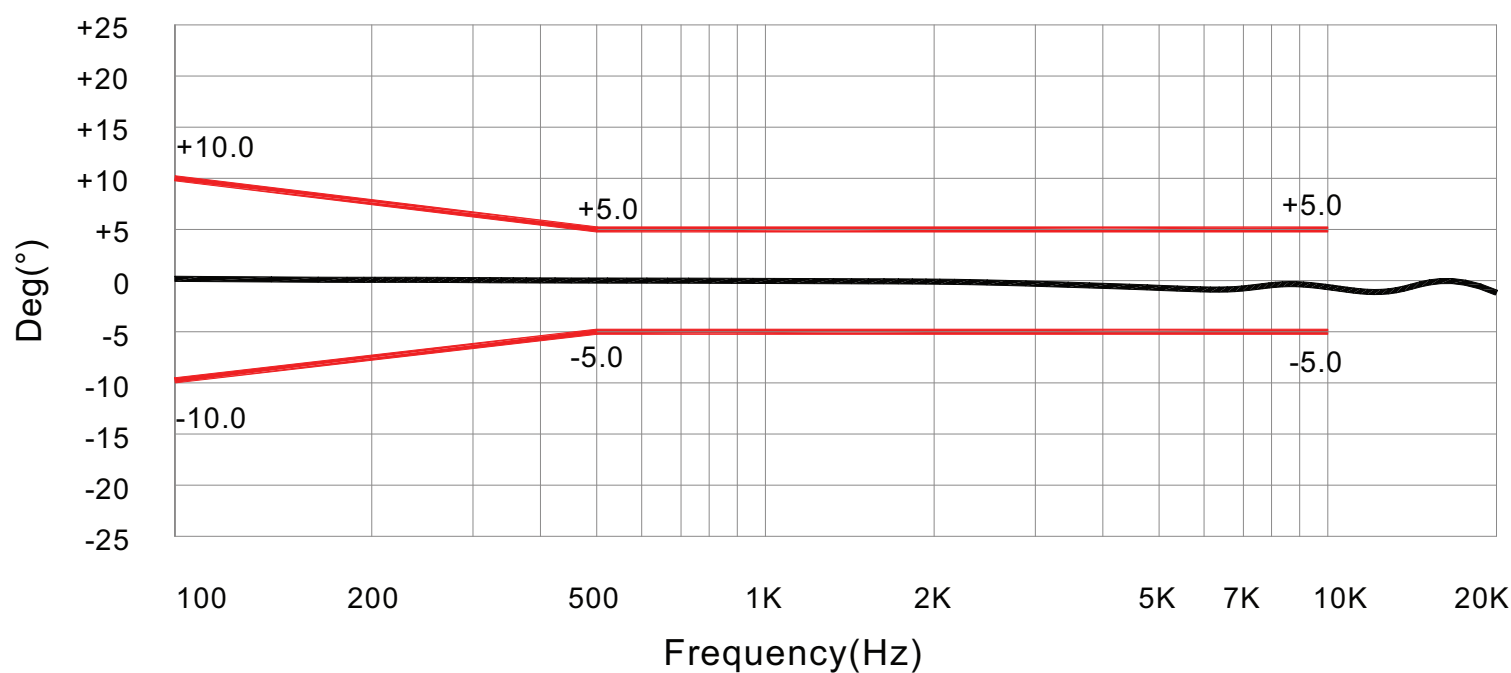
INTERFACE CIRCUIT



## FREQUENCY RESPONSE CURVE



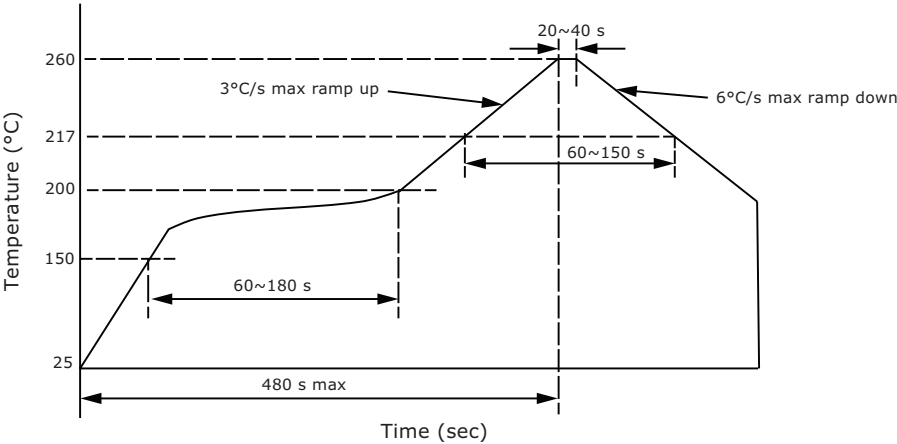
## PHASE CURVE



SOLDERABILITY

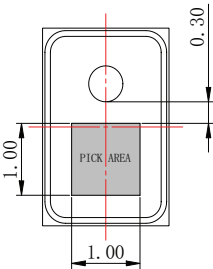
| parameter                     | conditions/description | min | typ | max | units |
|-------------------------------|------------------------|-----|-----|-----|-------|
| reflow soldering <sup>2</sup> | see reflow profile     |     |     | 260 | °C    |

Note: 2. Not recommended to exceed 3 reflow cycles.



HANDLING RECOMMENDATIONS

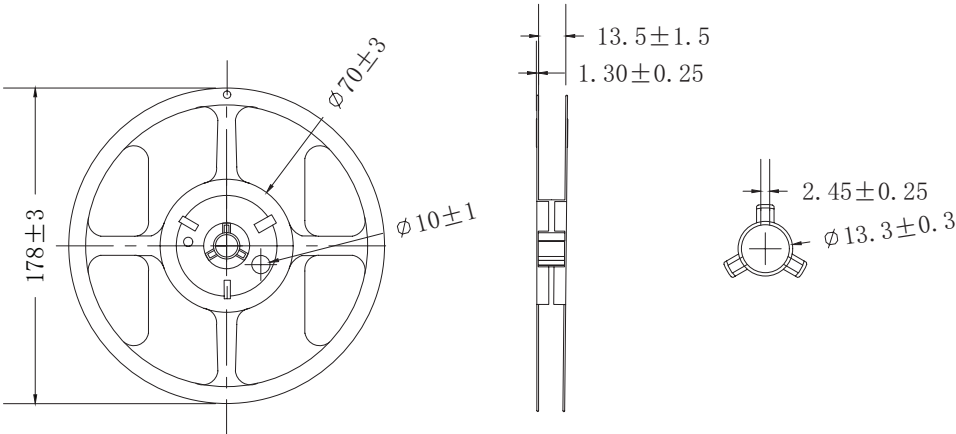
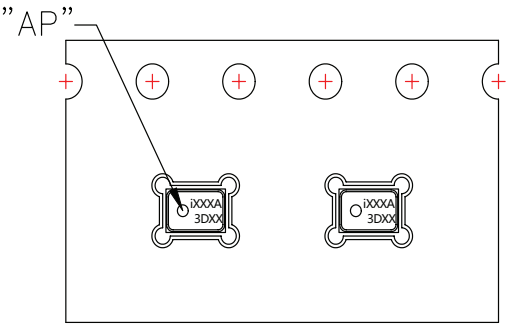
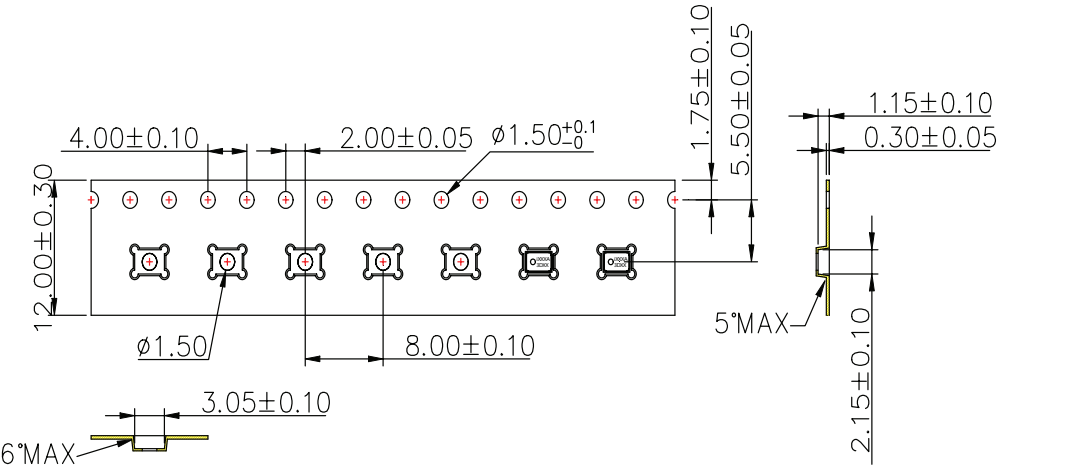
1. Not recommended to blow air heavily over acoustic port as debris could impact mic function.
2. Not suitable for wash process after reflow.
3. Not recommended to brush board with or without solvents after reflow process.
4. Not recommended to directly expose to ultrasonic processing or cleaning.
5. Not recommended to insert any object in port of device at any time.
6. Not recommended to apply over 30 psi of air pressure into the port hole.
7. Not recommended to pull a vacuum over port hole.
8. Not recommended to apply a vacuum when repackaging into sealed bag a rate faster than 0.5 atm/sec.
9. Not recommended to clean table or carried plate with air guarding system that could induce particle floating inside mic.



Recommended Vacuum Nozzle Pickup  
Top View

PACKAGING

| parameter   | conditions/description | min | typ | max | units |
|-------------|------------------------|-----|-----|-----|-------|
| reel size   | Ø178 mm                |     |     |     |       |
| reel QTY    | 1,000 pcs per reel     |     |     |     |       |
| carton size | 415 x 235 x 215 mm     |     |     |     |       |
| carton QTY  | 20,000 pcs             |     |     |     |       |



REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 09/14/2026 |

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



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