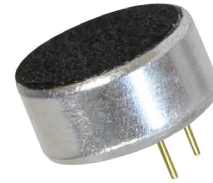


**MODEL:** CMEJ-9745-37-P | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE**FEATURES**

- omnidirectional
- 9.7 mm diameter
- through hole

**ELECTRICAL**

| parameter                            | conditions/description                                   | min | typ | max    | units      |
|--------------------------------------|----------------------------------------------------------|-----|-----|--------|------------|
| directivity                          | omnidirectional                                          |     |     |        |            |
| sensitivity [S]                      | at 1 kHz [0 dB = 1 V/Pa]                                 | -40 | -37 | -34    | dB         |
| supply voltage [V <sub>DD</sub> ]    |                                                          | 1.0 | 2.0 | 10     | V          |
| current consumption                  | V <sub>DD</sub> = 2.0 V, R <sub>L</sub> = 2.2 k $\Omega$ |     |     | 0.5    | mA         |
| sensitivity reduction                | V <sub>DD</sub> = 2.0 ~ 1.5 V                            |     |     | 3      | dB         |
| frequency [f]                        |                                                          | 100 |     | 10,000 | Hz         |
| signal to noise ratio [S/N]          | at 1 kHz, P <sub>in</sub> = 1 Pa [A-weighted]            |     | 60  |        | dBA        |
| total harmonic distortion [THD]      | at 94 dB SPL, 1 kHz                                      |     |     | 1      | %          |
|                                      | at 115 dB SPL, 1 kHz                                     |     |     | 3      | %          |
| acoustic overload point [AOP]        | at 1 kHz                                                 |     |     | 115    | dB SPL     |
| output impedance [Z <sub>out</sub> ] | at 1 kHz                                                 |     |     | 2.2    | k $\Omega$ |

Notes: 1. All specifications measured at 20 $\pm$ 2°C, humidity at 60~70%, unless otherwise noted.

**ENVIRONMENTAL**

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | -40 |     | 70  | °C    |
| storage temperature   |                        | -40 |     | 85  | °C    |
| operating humidity    | non-condensing         | 30  |     | 85  | %     |
| storage humidity      | non-condensing         | 30  |     | 75  | %     |
| hand soldering        | for 1~3 seconds        | 340 | 350 | 360 | °C    |
| RoHS                  | yes                    |     |     |     |       |

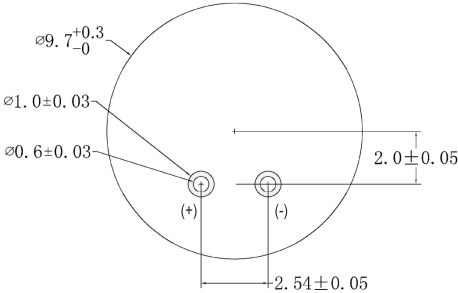
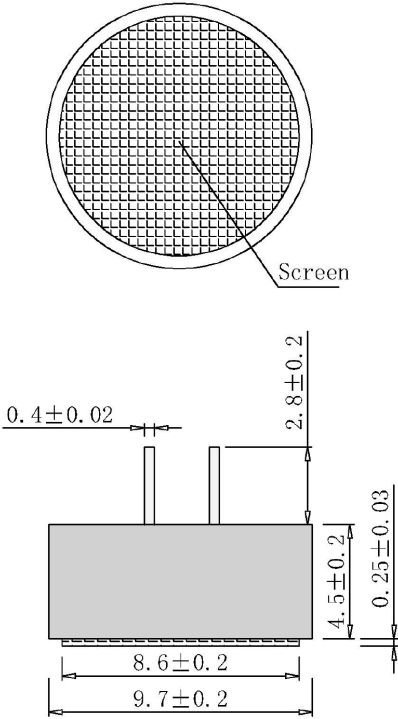
MECHANICAL

| parameter     | conditions/description | min | typ  | max | units |
|---------------|------------------------|-----|------|-----|-------|
| dimensions    | Ø9.7 x 4.5             |     |      |     | mm    |
| acoustic port | top                    |     |      |     |       |
| terminals     | pins                   |     |      |     |       |
| weight        |                        |     | 0.73 |     | g     |

MECHANICAL DRAWING

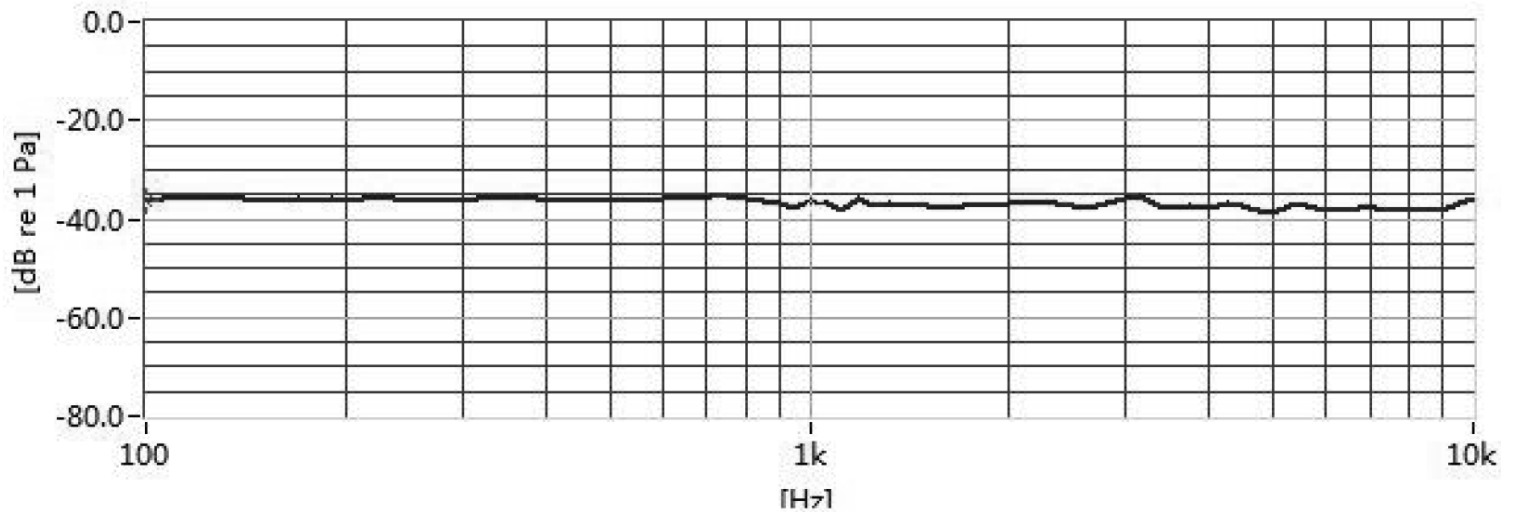
units: mm  
tolerance: ±0.2 mm

| TERMINAL CONNECTIONS |            |
|----------------------|------------|
| TERM.                | FUNCTION   |
| 1                    | Output (+) |
| 2                    | GND (-)    |

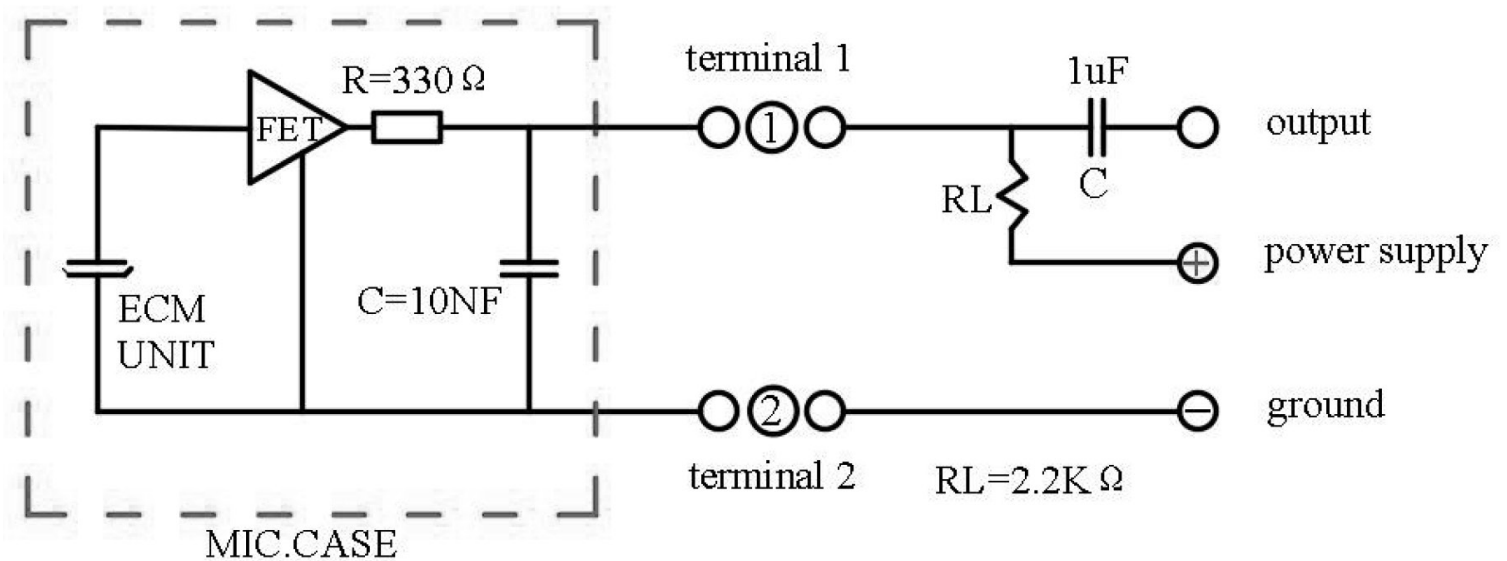


Recommended PCB Layout  
Top View

## FREQUENCY RESPONSE CURVE

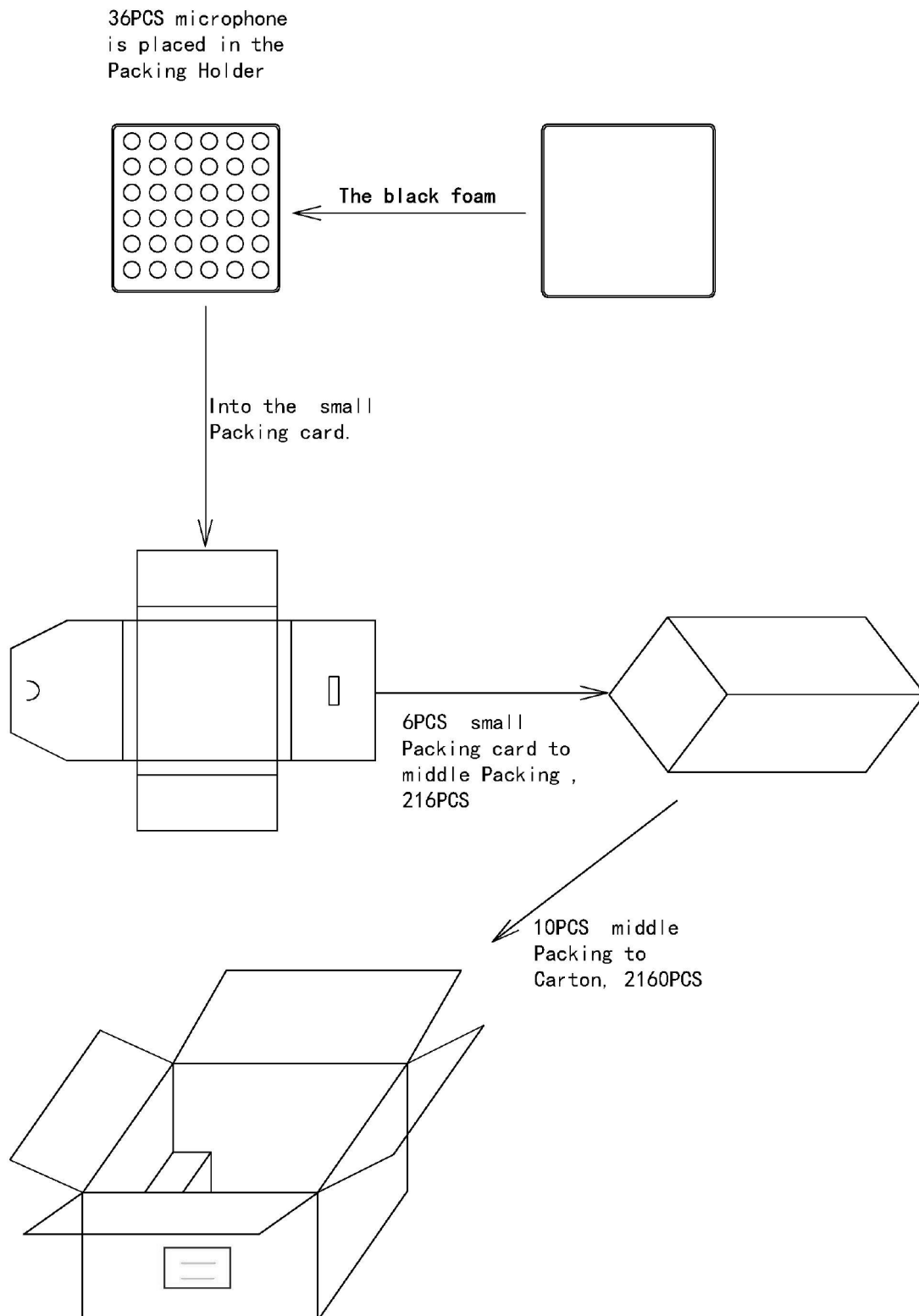


## APPLICATION CIRCUIT



## PACKAGING

Carton QTY: 2,160 pcs



REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 06/05/2019 |
| 1.01 | brand update                      | 01/17/2020 |
| 1.02 | logo, datasheet style update      | 08/05/2022 |
| 1.03 | CUI Devices rebranded to Same Sky | 09/11/2024 |

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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