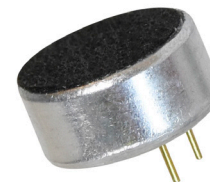


**MODEL:** CMEJ-9745-37-P | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE**FEATURES**

- 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<br>at 115 dB SPL, 1 kHz              |     |     | 1<br>3 | %<br>%     |
| 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 $^{\circ}$ C, humidity at 60~70%, unless otherwise noted.

**ENVIRONMENTAL**

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

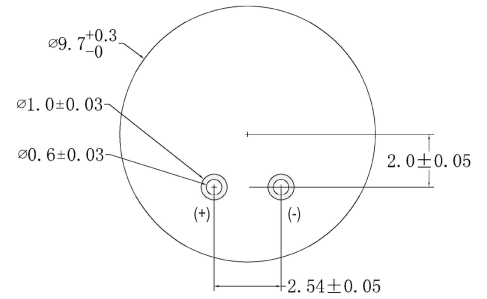
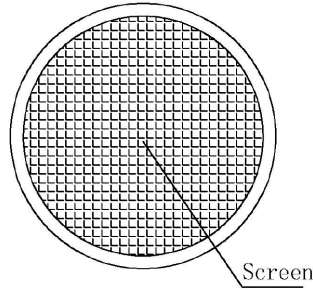
## MECHANICAL

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

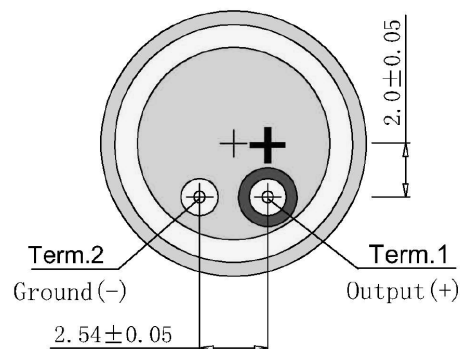
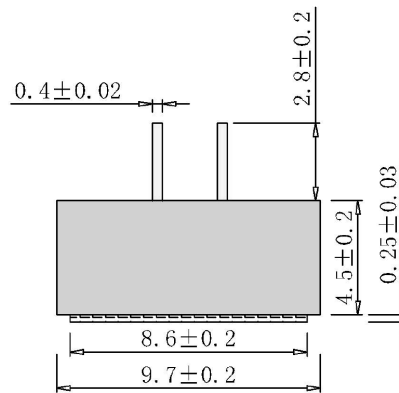
## MECHANICAL DRAWING

units: mm  
tolerance: ±0.2 mm

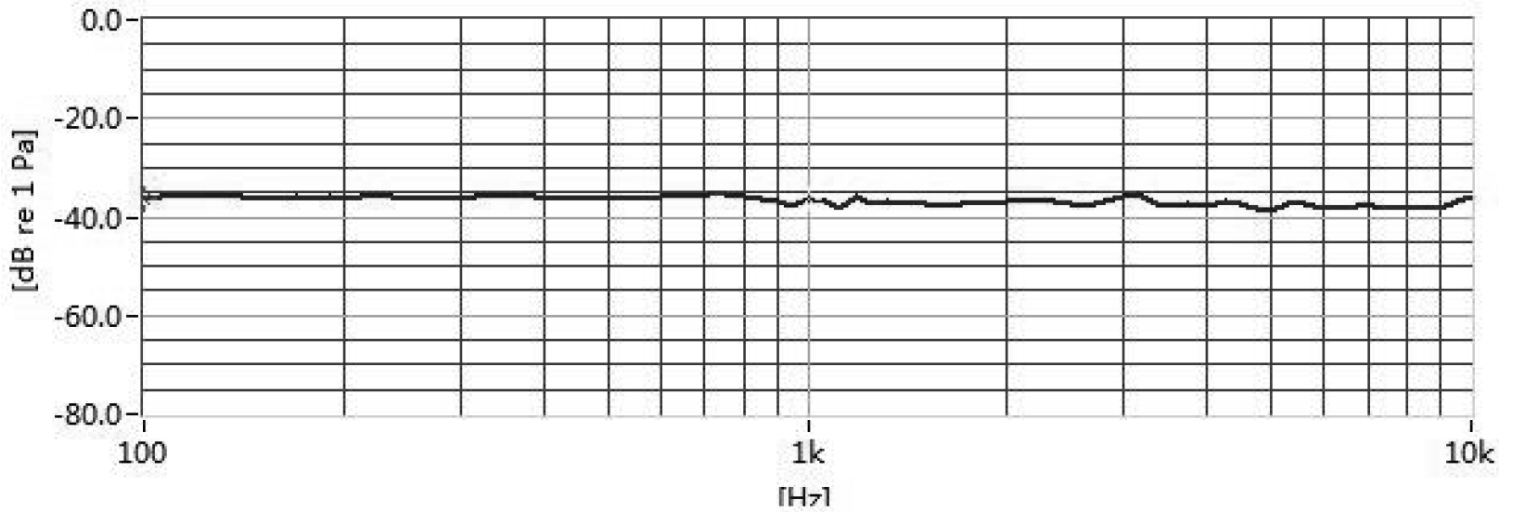
| TERMINAL CONNECTIONS |            |
|----------------------|------------|
| TERM.                | FUNCTION   |
| 1                    | Output (+) |
| 2                    | GND (-)    |



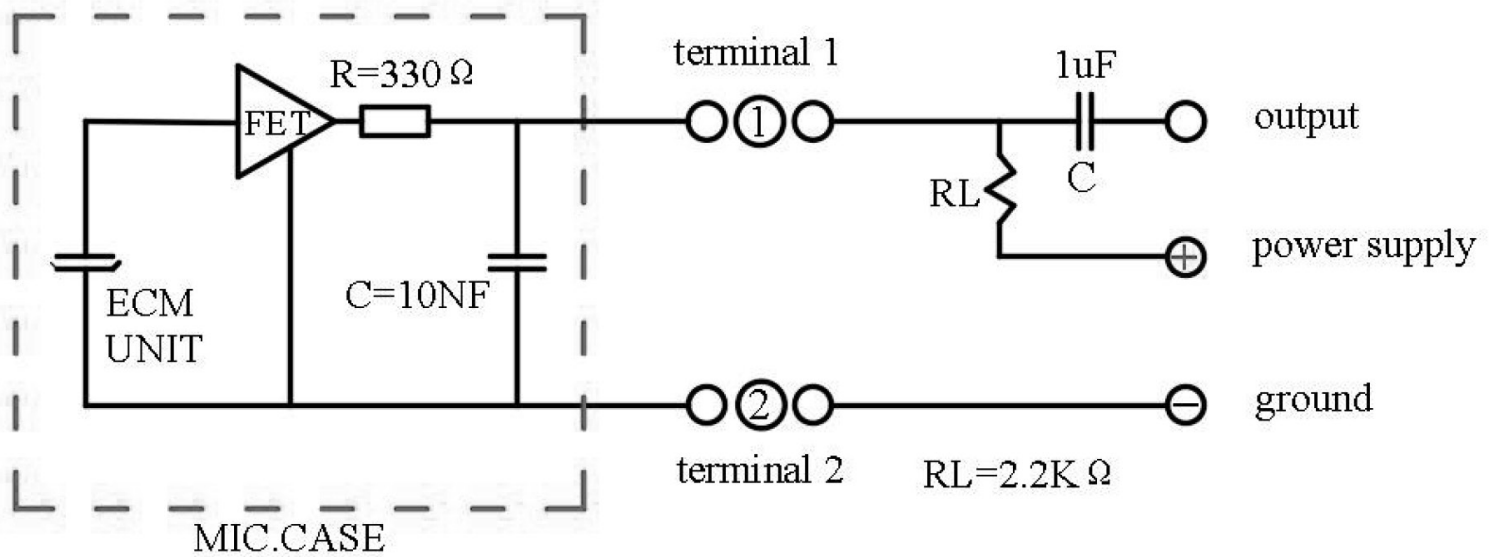
Recommended PCB Layout  
Top View



## FREQUENCY RESPONSE CURVE

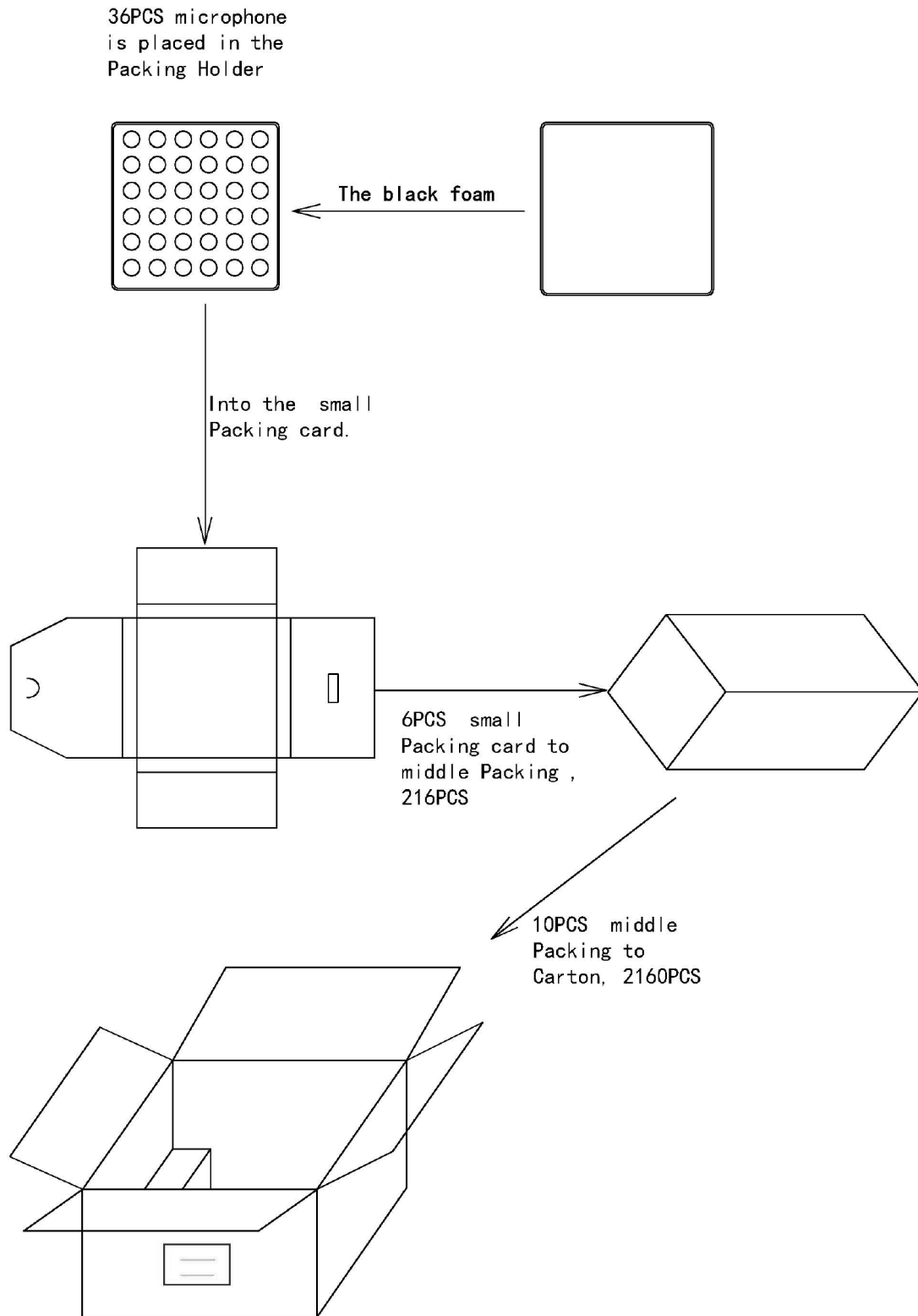


## APPLICATION CIRCUIT



## PACKAGING

Carton QTY: 2,160 pcs



## REVISION HISTORY

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| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 06/05/2019 |
| 1.01 | brand update    | 01/17/2020 |

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

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# CUI DEVICES

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