

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 _{DD}] | | 1.0 | 2.0 | 10 | V |
| current consumption | V _{DD} = 2.0 V, R _L = 2.2 k Ω | | | 0.5 | mA |
| sensitivity reduction | V _{DD} = 2.0 ~ 1.5 V | | | 3 | dB |
| frequency [f] | | 100 | | 10,000 | Hz |
| signal to noise ratio [S/N] | at 1 kHz, P _{in} = 1 Pa [A-weighted] | | 60 | | dBa |
| total harmonic distortion [THD] | at 94 dB SPL, 1 kHz at 115 dB SPL, 1 kHz | | | 1 3 | % % |
| acoustic overload point [AOP] | at 1 kHz | | | 115 | dB SPL |
| output impedance [Z _{out}] | at 1 kHz | | | 2.2 | k Ω |

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 | | | | |

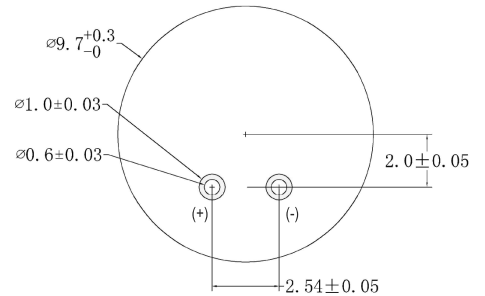
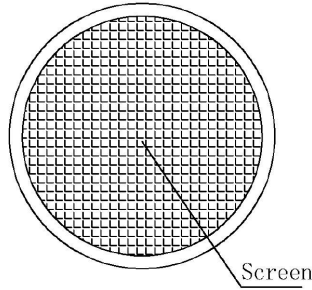
MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|---------------|------------------------|-----|------|-----|-------|
| dimensions | ∅9.7 x 4.5 | | | | mm |
| acoustic port | top | | | | |
| terminals | pins | | | | |
| weight | | | 0.73 | | g |

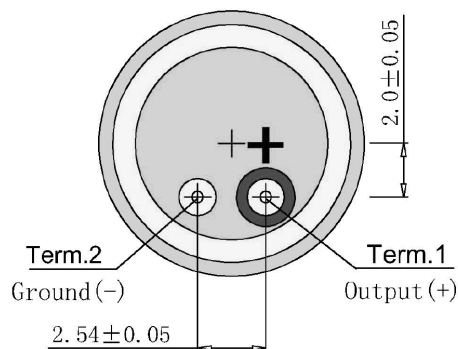
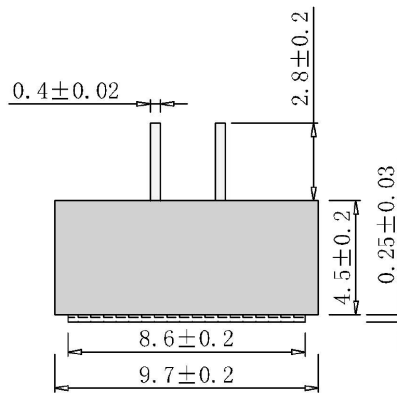
MECHANICAL DRAWING

units: mm
tolerance: ±0.2 mm

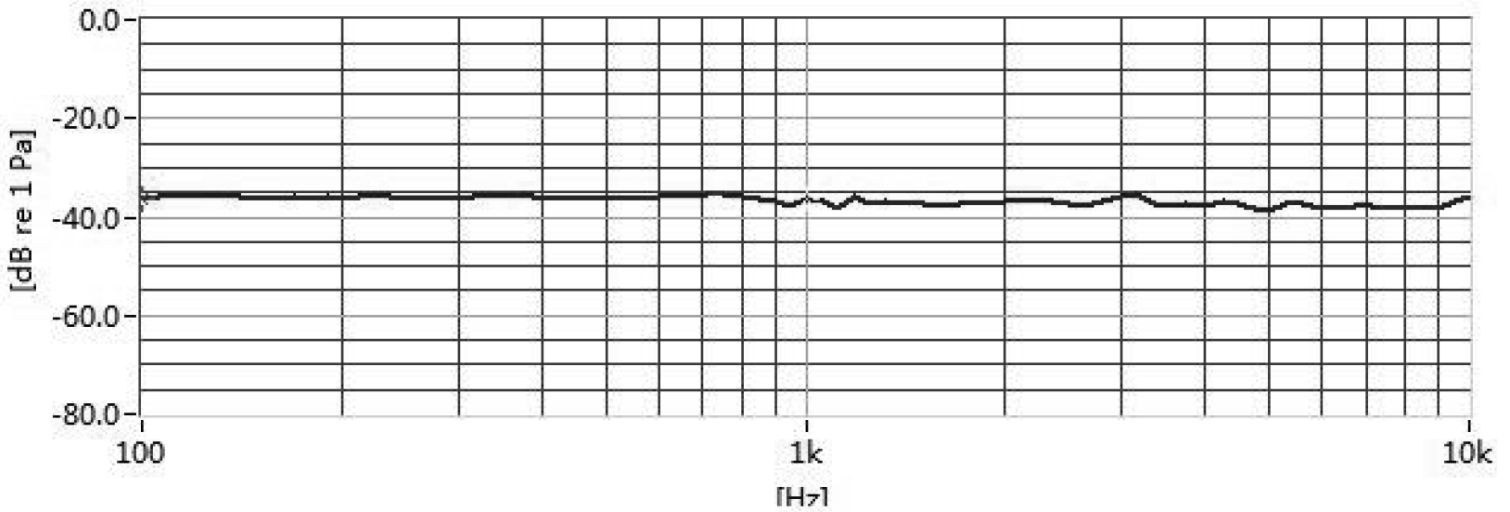
| TERMINAL CONNECTIONS | |
|----------------------|------------|
| TERM. | FUNCTION |
| 1 | Output (+) |
| 2 | GND (-) |



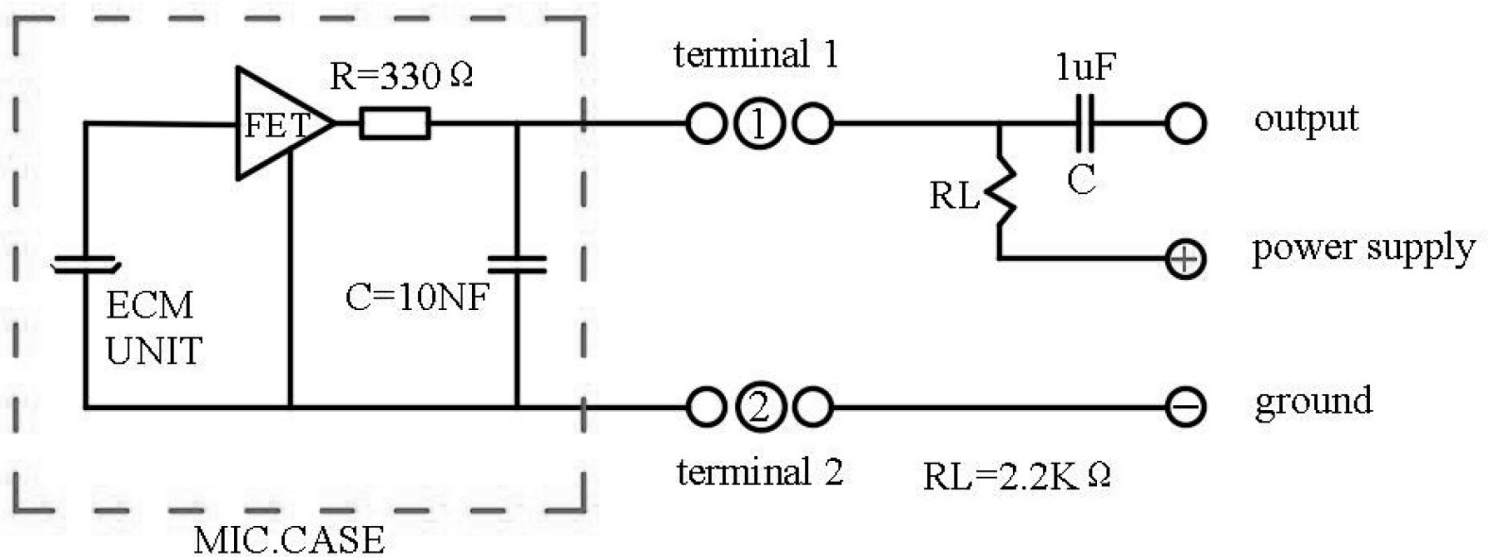
Recommended PCB Layout
Top View



FREQUENCY RESPONSE CURVE

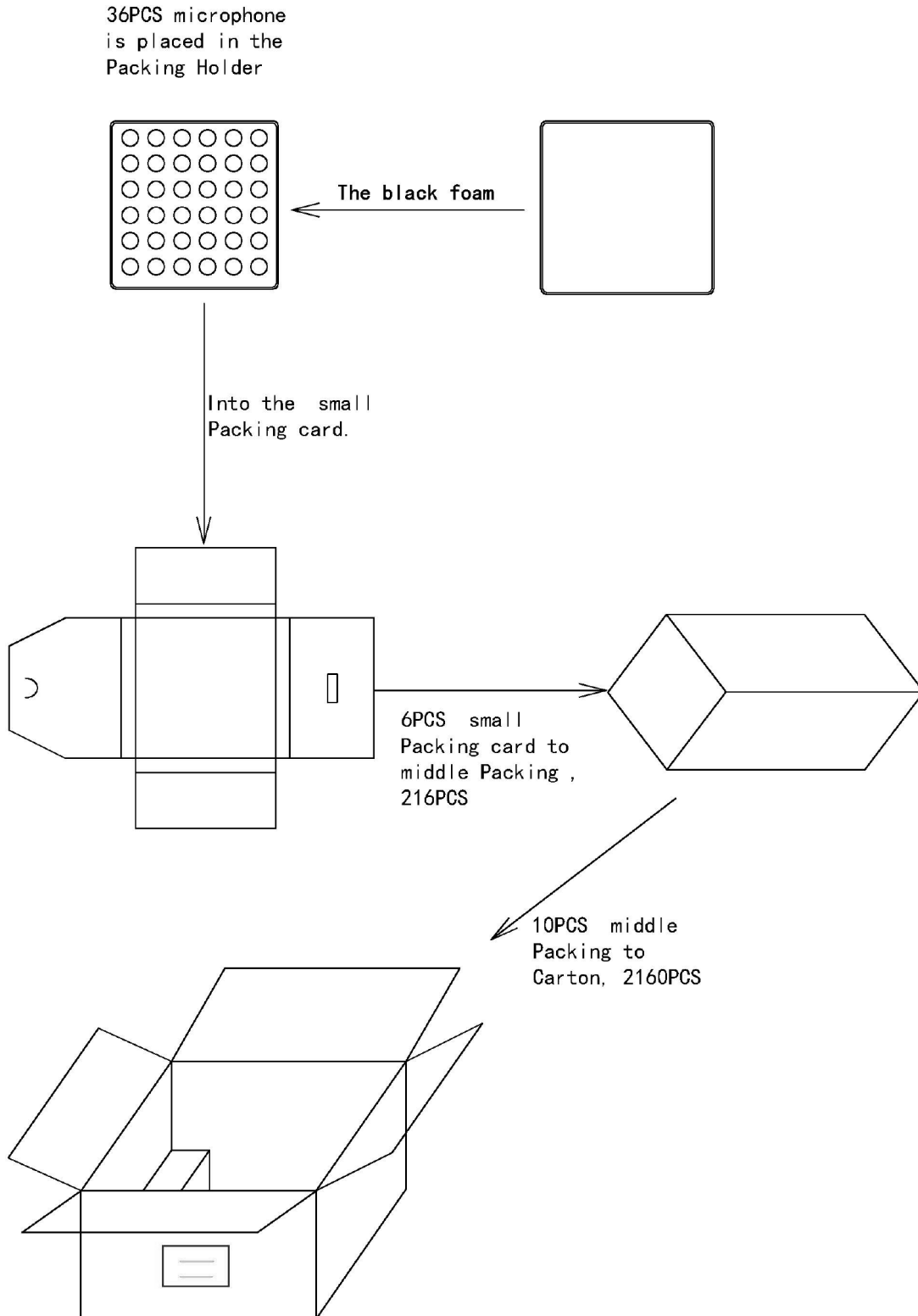


APPLICATION CIRCUIT



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 |

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



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