

**MODEL:** CMC-9745-130T | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE**FEATURES**

- high AOP of 130 dB
- omnidirectional
- 9.7 mm diameter
- solder terminals
- IP67 rated

**SPECIFICATIONS**

| parameter                       | conditions/description                     | min | typ | max    | units  |
|---------------------------------|--|-----|-----|--------|--------|
| directivity                     | omnidirectional                            |     |     |        |        |
| sensitivity (S)                 | f = 1 kHz, 1 Pa, 0 dB = 1 V/Pa             | -45 | -42 | -39    | dB     |
| standard operating voltage (Vs) |  |     | 2   |        | Vdc    |
| max operating voltage           |  |     |     | 10     | Vdc    |
| output impedance (Zout)         | f = 1 kHz, 1 Pa                            |     | 2.2 |        | kΩ     |
| sensitivity reduction (ΔS-Vs)   | f = 1 kHz, 1 Pa, Vs = 2.0 ~ 1.5 Vdc        |     | -3  |        | dB     |
| frequency (f)                   |  | 100 |     | 20,000 | Hz     |
| current consumption (IDSS)      | Vs = 2.0 Vdc, RL = 2.2 kΩ                  |     | 0.5 |        | mA     |
| signal to noise ratio (S/N)     | f = 1 kHz, 1 Pa, A-weighted                |     | 60  |        | dB     |
| acoustic overload point (AOP)   | at 1 kHz, THD <10%                         |     |     | 130    | dB SPL |
| total harmonic distortion       | at 1 kHz, 94 dB SPL                        |     |     | 1      | %      |
| dimensions                      | Ø9.7 x 4.5                                 |     |     |        | mm     |
| material                        | Al   |     |     |        |        |
| terminal                        | solder pads                                |     |     |        |        |
| weight                          |  |     |     | 0.80   | g      |
| operating temperature           |  | -20 |     | 70     | °C     |
| storage temperature             |  | -20 |     | 70     | °C     |
| RoHS                            | yes  |     |     |        |        |
| IP level                        | IP67 (IEC standard 529 edition 2.0 (1989)) |     |     |        |        |

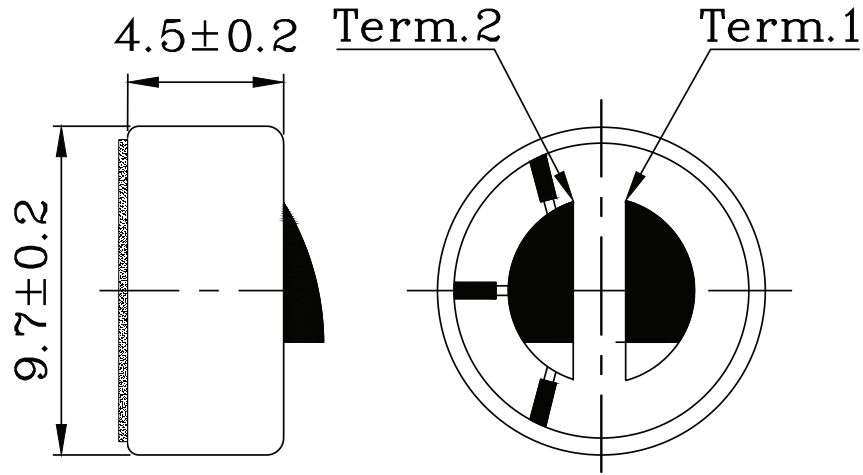
Notes: 1. We use the "Pascal (Pa)" indication of sensitivity as per the recommendation of I.E.C. (International Electrotechnical Commission). The sensitivity of "Pa" will increase 20 dB compared to the "ubar" indication. Example: -60 dB (0 dB = 1 V/ubar) = -40 dB ( 1V/Pa)  
 2. All specifications measured at 5~35°C, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.

**SOLDERABILITY**

| parameter      | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| hand soldering | for maximum 2 seconds  | 340 | 350 | 360 | °C    |

## MECHANICAL DRAWING

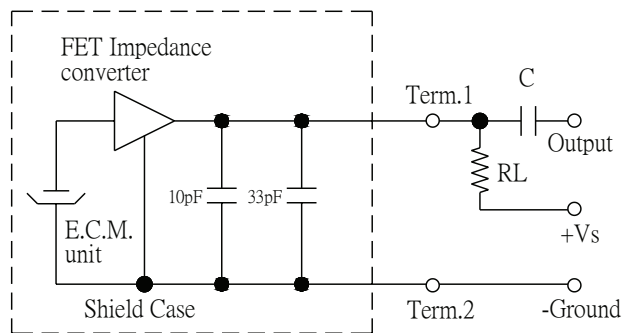
units: mm  
tolerance:  $\pm 0.20$  mm



## FREQUENCY RESPONSE CURVE



## MEASUREMENT CIRCUIT

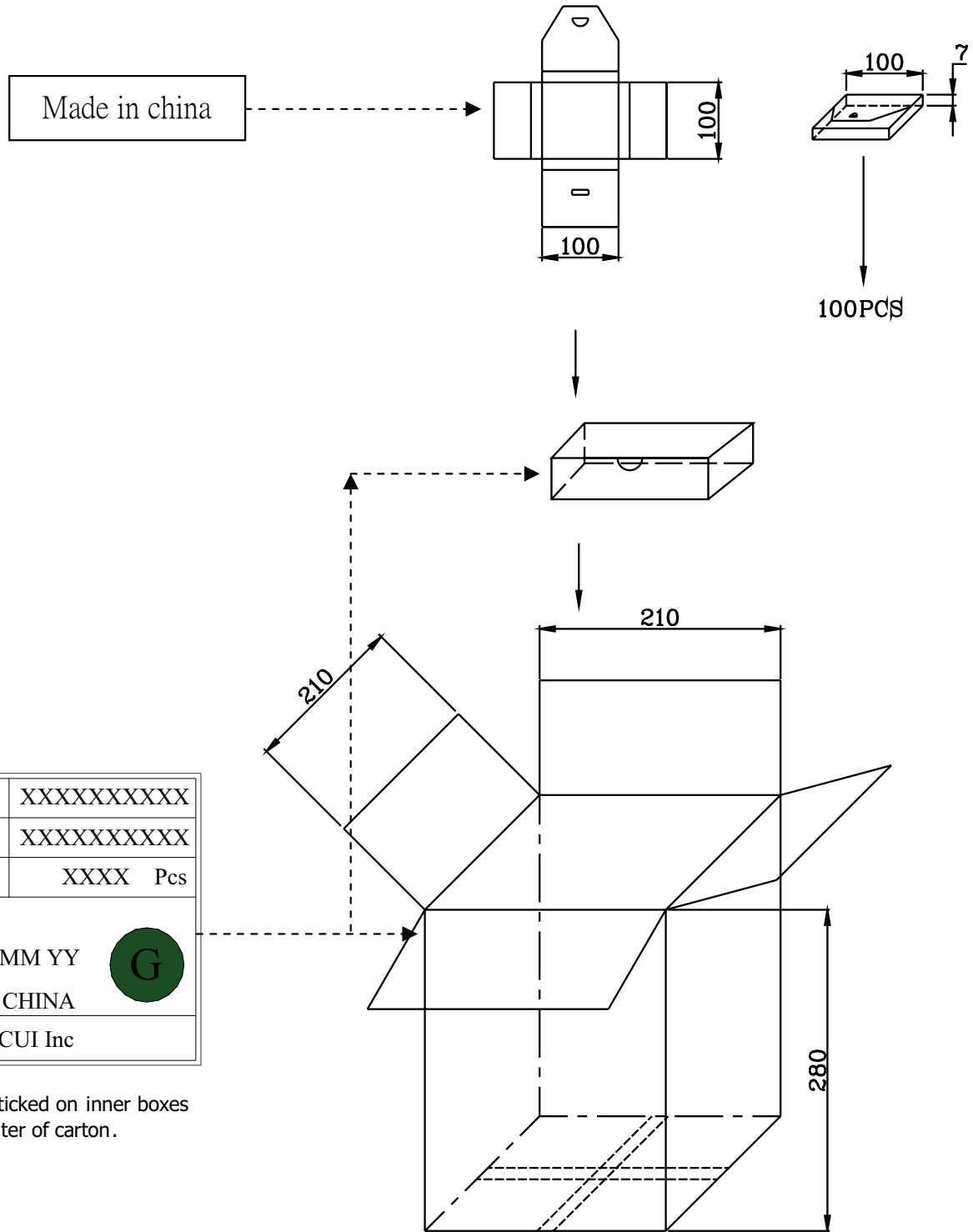


RL = 2.2 kΩ  
C = 1 μF

## PACKAGING

units: mm

Inner Box Size: 100 x 100 x 7 mm  
 Middle Box Size: 205 x 105 x 54 mm  
 Carton Size: 210 x 210 x 280 mm  
 Inner Box QTY: 100 pcs  
 Middle Box QTY: 1,000 pcs  
 Carton QTY: 10,000 pcs per carton



\* The label stuck on inner boxes and the outer of carton.

## REVISION HISTORY

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| rev. | description       | date       |
|------|-------------------|------------|
| 1.0  | initial release   | 09/29/2017 |
| 1.01 | updated datasheet | 03/14/2019 |
| 1.02 | brand update      | 01/15/2020 |

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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