

**MODEL:** CMC-5044TF-A | **DESCRIPTION:** ELECTRET CONDENSER MICROPHONE

**FEATURES**

- omnidirectional
- analog
- solder pads


**ELECTRICAL**

| parameter                            | conditions/description                           | min | typ | max    | units  |
|--------------------------------------|--|-----|-----|--------|--------|
| directivity                          | omnidirectional                                  |     |     |        |        |
| sensitivity [S]                      | at 1 kHz [0 dB = 1 V/Pa]                         | -47 | -44 | -41    | dB     |
| supply voltage [V <sub>DD</sub> ]    |  |     | 2.0 | 10     | V      |
| current consumption                  | V <sub>DD</sub> = 2.0 V, R <sub>L</sub> = 2.2 kΩ |     |     | 0.5    | mA     |
| sensitivity reduction                | V <sub>DD</sub> = 2.0 ~ 1.5 V                    |     |     | -3     | dB     |
| frequency [f]                        |  | 100 |     | 20,000 | 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 115 dB SPL, 1 kHz                             |     |     | 10     | %      |
| acoustic overload point [AOP]        | at 1 kHz   |     |     | 115    | dB SPL |
| output impedance [Z <sub>out</sub> ] | at 1 kHz   |     |     | 2.2    | kΩ     |

Notes: 1. All specifications measured at 5-35°C, humidity at 45-85%, under 86-106 kPa pressure, unless otherwise noted.

**ENVIRONMENTAL**

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | -20 |     | 70  | °C    |
| storage temperature   |                        | -20 |     | 70  | °C    |
| hand soldering        | for 2±0.5 seconds      | 310 | 320 | 330 | °C    |
| RoHS                  | yes                    |     |     |     |       |

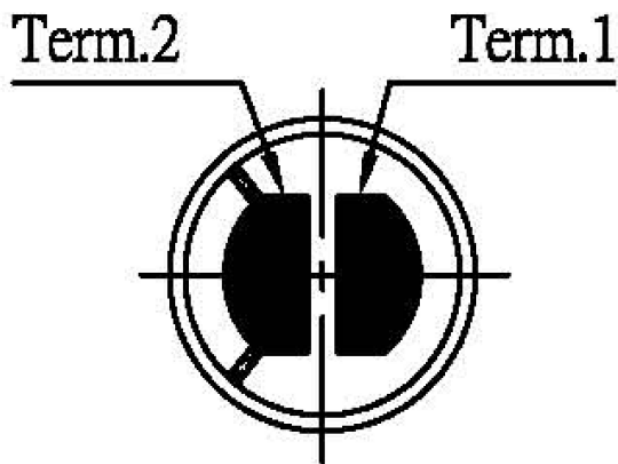
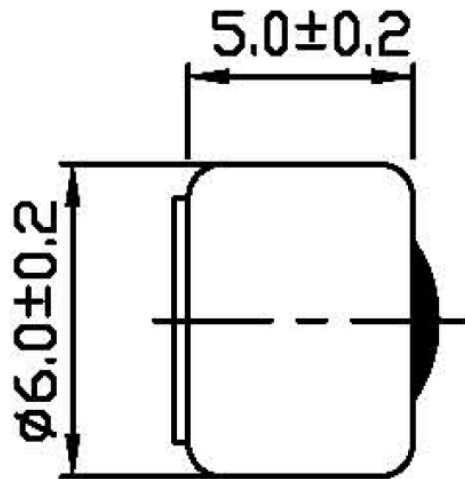
## MECHANICAL

| parameter     | conditions/description | min | typ  | max | units |
|---------------|------------------------|-----|------|-----|-------|
| dimensions    | Ø6.0 x 5               |     |      |     | mm    |
| acoustic port | top                    |     |      |     |       |
| material      | AL                     |     |      |     |       |
| terminals     | solder pads            |     |      |     |       |
| weight        |                        |     | 0.30 |     | g     |

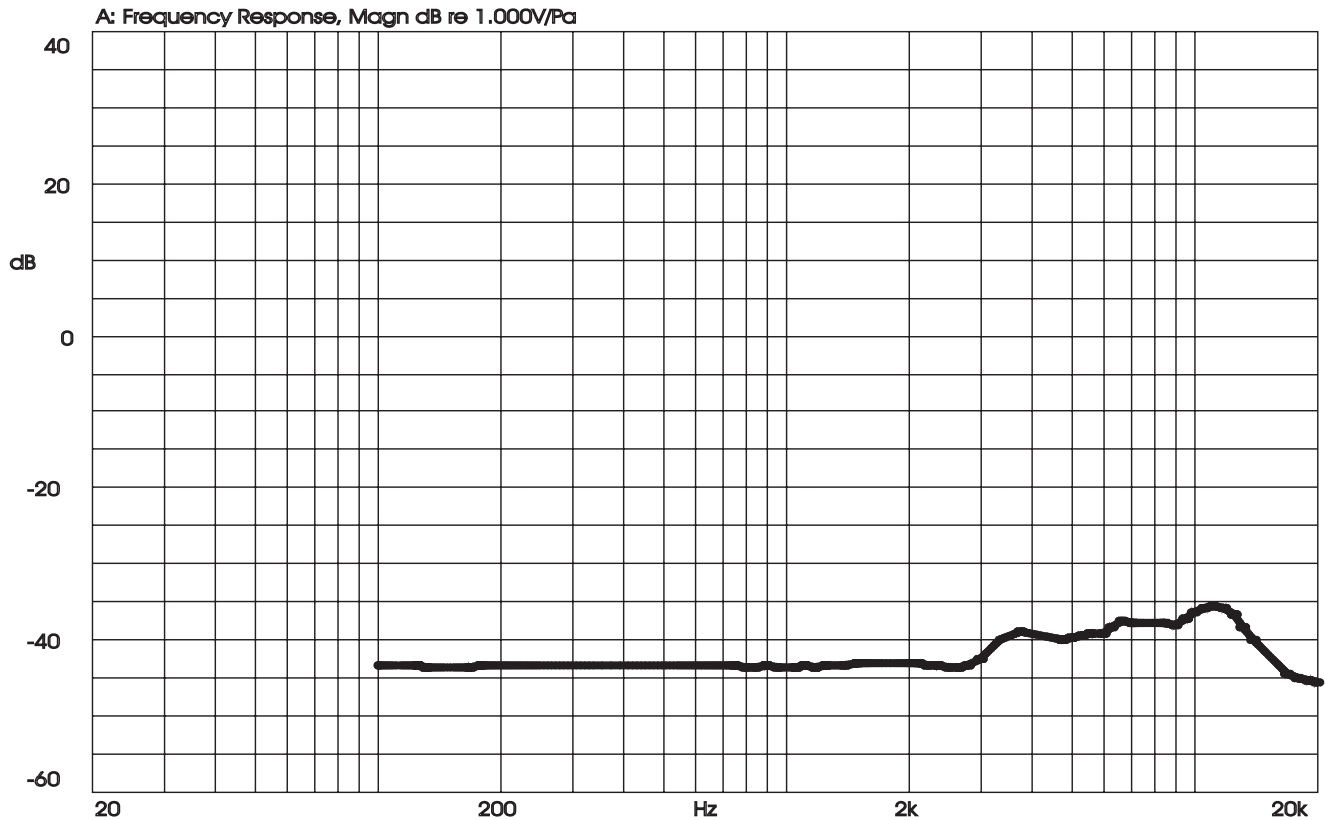
## MECHANICAL DRAWING

units: mm  
tolerance: ±0.2 mm

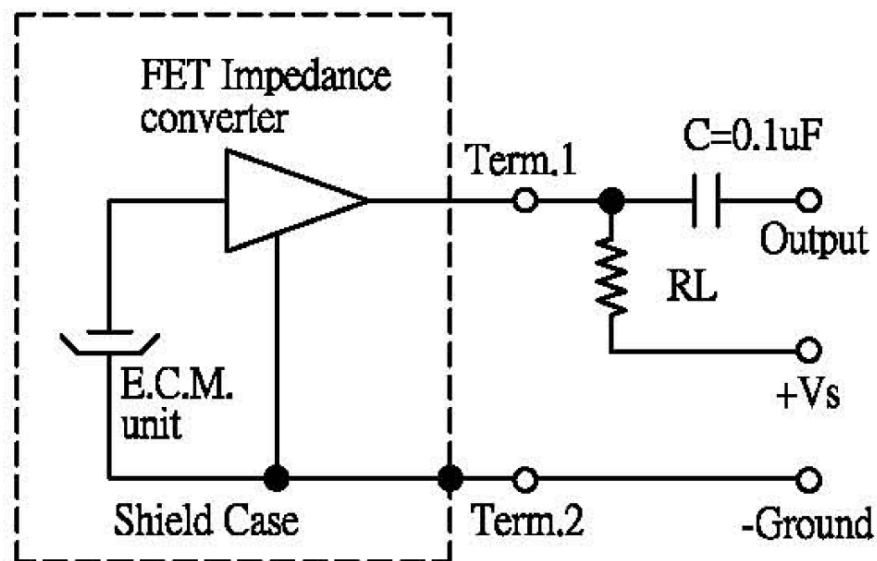
| TERMINAL CONNECTIONS |            |
|----------------------|------------|
| TERM.                | FUNCTION   |
| 1                    | Output (+) |
| 2                    | GND (-)    |



## FREQUENCY RESPONSE CURVE

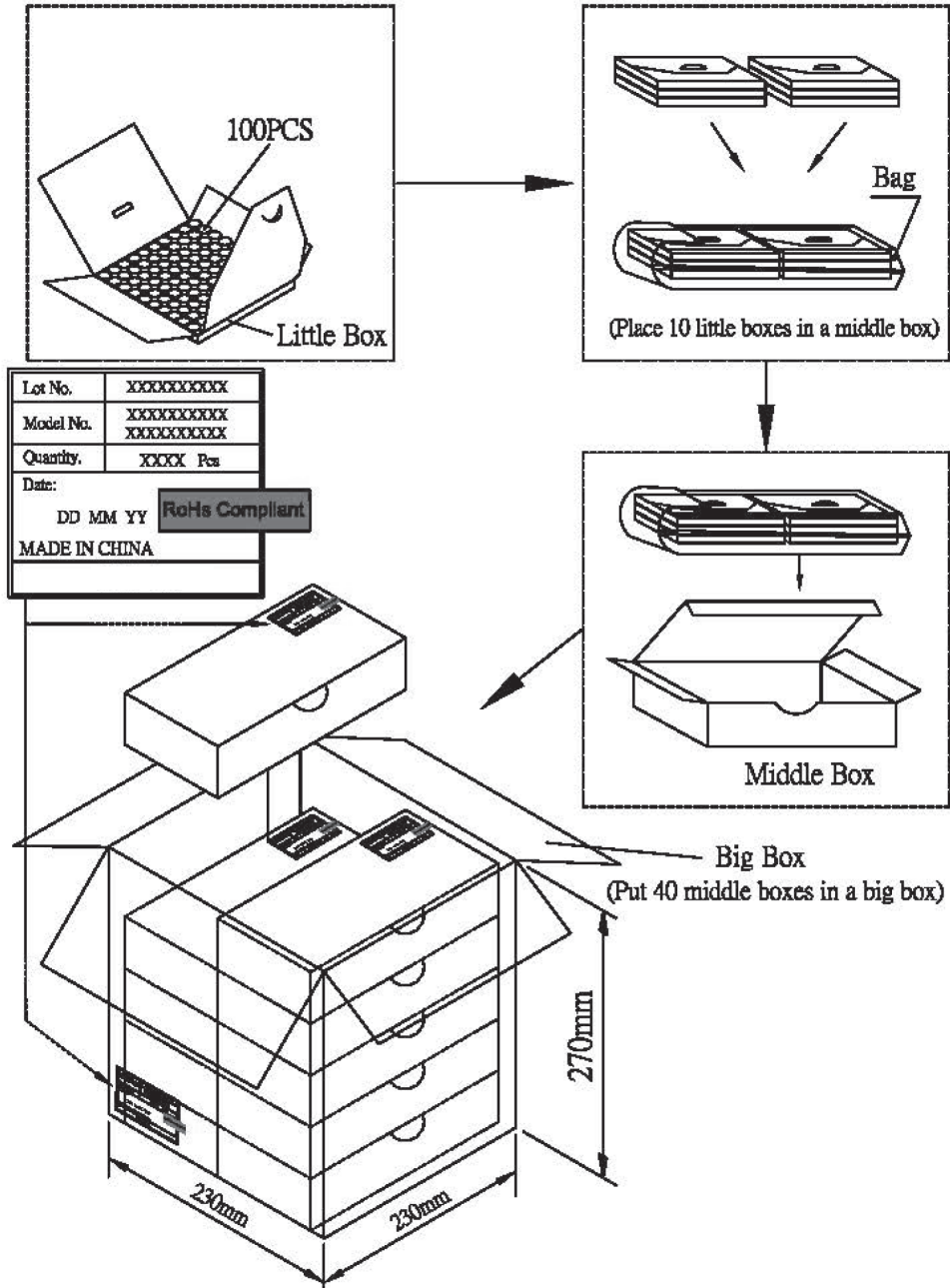


## APPLICATION CIRCUIT



## PACKAGING

Small Box Size: 63 x 63 x 8 mm  
 Medium Box Size: 125 x 65 x 45 mm  
 Carton Size: 230 x 230 x 270 mm  
 Small Box QTY: 100 pcs per box  
 Carton QTY: 40,000 pcs per carton



## REVISION HISTORY

| rev. | description                  | date       |
|------|------------------------------|------------|
| 1.0  | initial release              | 07/21/2008 |
| 1.01 | changed color of mesh cloth  | 06/24/2019 |
| 1.02 | brand update                 | 01/17/2020 |
| 1.03 | 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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