

**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                    |     |     |     |       |

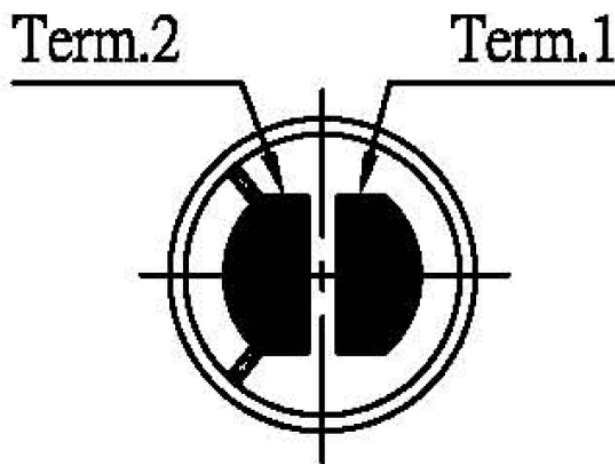
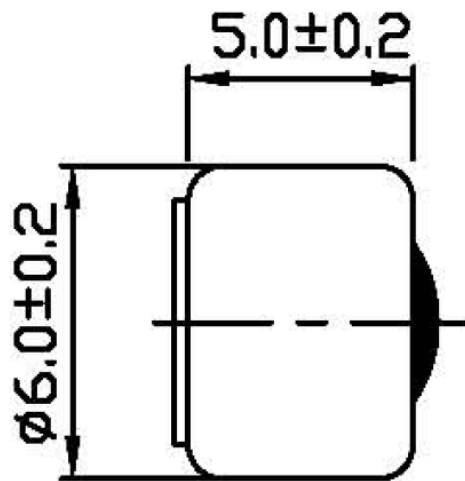
## MECHANICAL

| 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     |

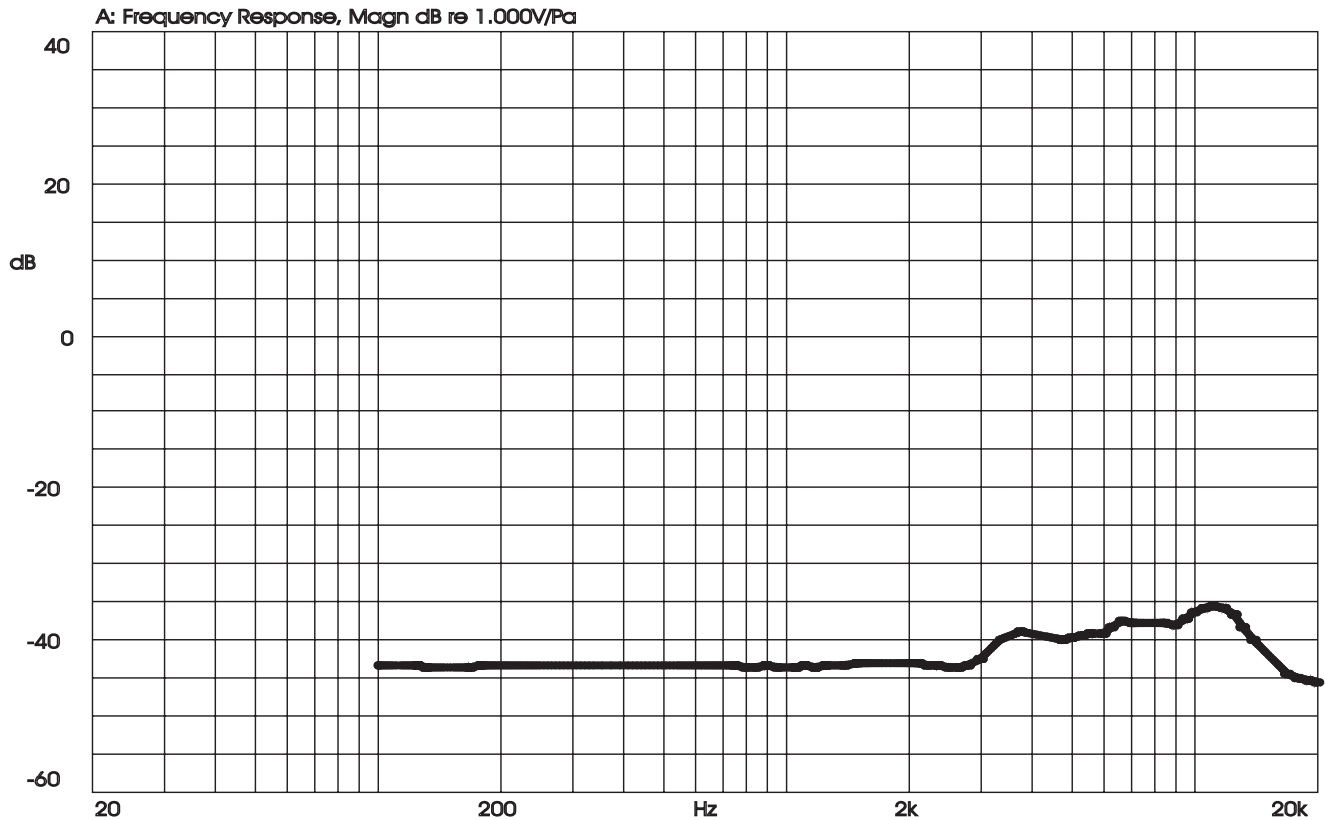
## MECHANICAL DRAWING

units: mm  
tolerance: ±0.2 mm

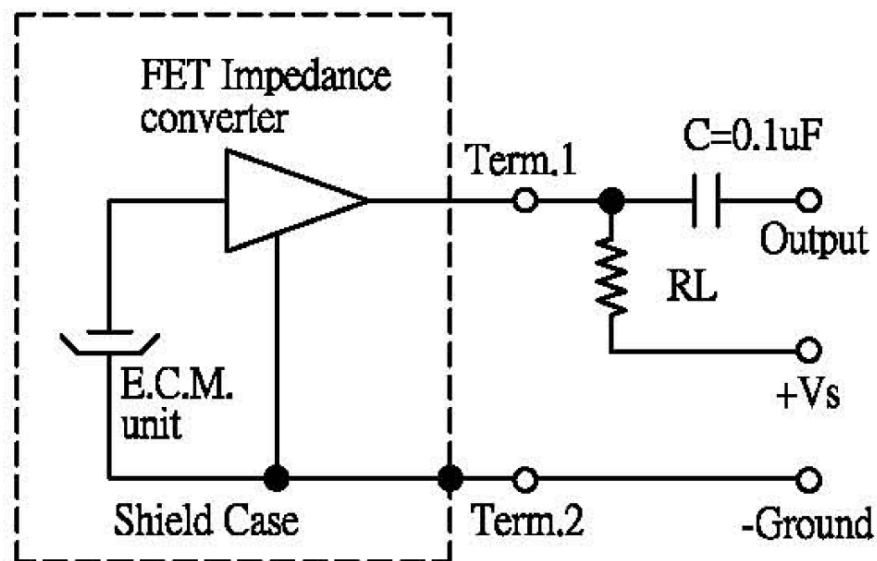
| TERMINAL CONNECTIONS |            |
|----------------------|------------|
| TERM.                | FUNCTION   |
| 1                    | Output (+) |
| 2                    | GND (-)    |



## FREQUENCY RESPONSE CURVE

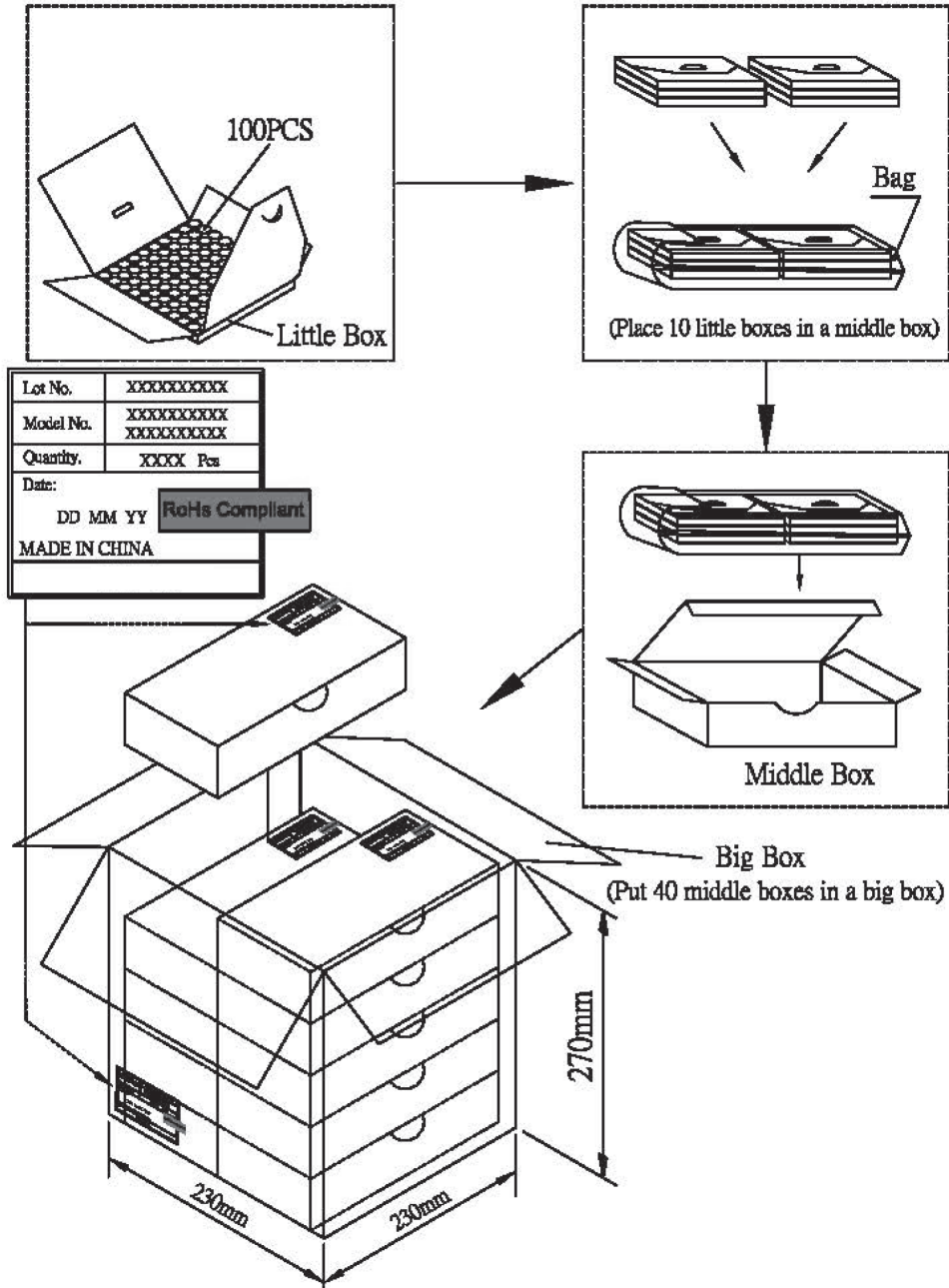


## APPLICATION CIRCUIT



## 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 |
| 1.04 | 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.

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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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