



**MODEL:** CUSA-TR80-18-2400-TH | **DESCRIPTION:** ULTRASONIC SENSOR

**FEATURES**

- aluminium can
- open type
- combination unit: receiver & transmitter
- sensitivity -68 dBV
- detectable range 18 meters

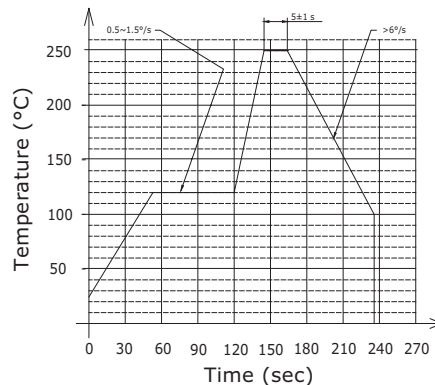


**SPECIFICATIONS**

| parameter             | conditions/description       | min   | typ   | max   | units     |
|-----------------------|------------------------------|-------|-------|-------|-----------|
| type                  | transmitter/receiver         |       |       |       |           |
| operating voltage     | at 39 kHz                    |       |       | 150   | Vp-p      |
| frequency             |                              | 38    | 39    | 40    | kHz       |
| sensitivity           |                              | -68   |       |       | dBV/μMbar |
| sound pressure level  | at 10 V, 30 cm, sine wave    | 115   |       |       | dB        |
| directivity           |                              |       | 80    |       | degree    |
| capacitance           | at 1 kHz                     | 1,920 | 2,400 | 2,880 | pF        |
| detectable range      |                              | 0.2   |       | 18    | m         |
| response time         |                              |       |       | 1.6   | ms        |
| dimensions            | Ø16.0 x 12.0                 |       |       |       | mm        |
| material              | aluminum                     |       |       |       |           |
| terminal              | pins (iron with tin plating) |       |       |       |           |
| weight                |                              |       | 2.31  |       | g         |
| operating temperature |                              | -20   |       | 70    | °C        |
| RoHS                  | yes                          |       |       |       |           |

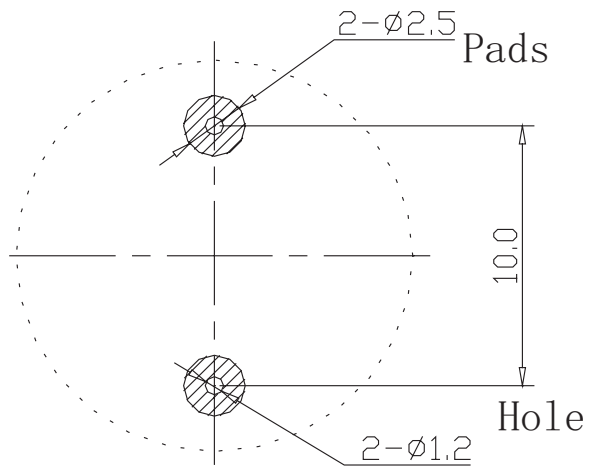
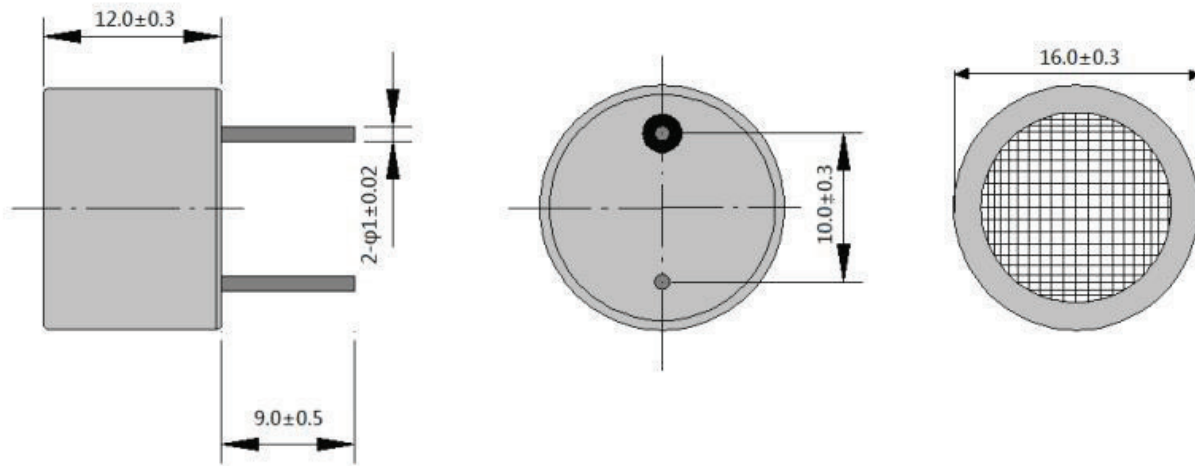
**SOLDERABILITY**

| parameter      | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| wave soldering |                        |     |     | 250 | °C    |



## MECHANICAL DRAWING

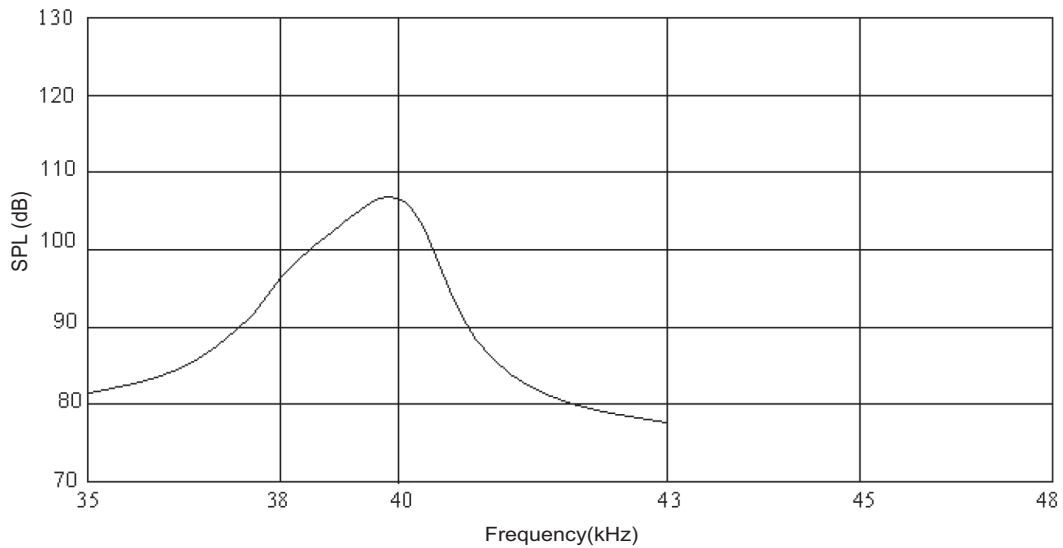
units: mm



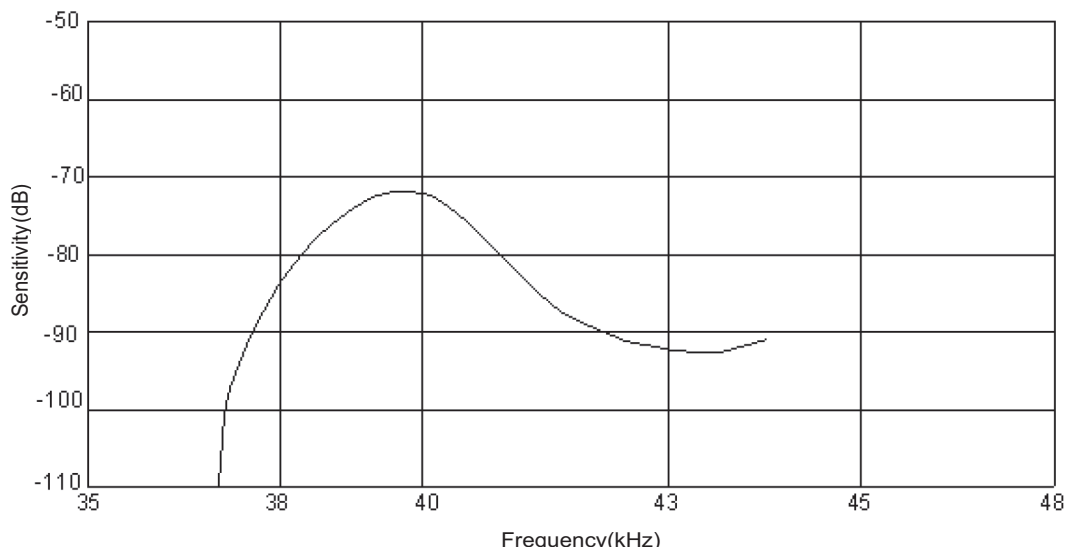
Recommended PCB Layout  
Top View

## BEAM PATTERNS

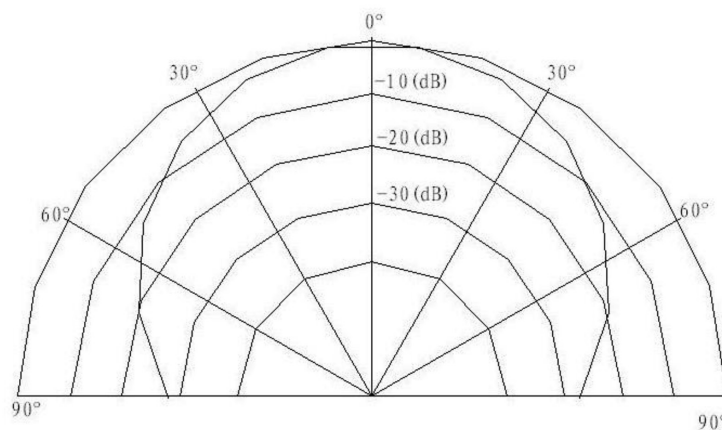
SPL vs. Frequency [Transmitter]



Sensitivity vs. Frequency [Receiver]



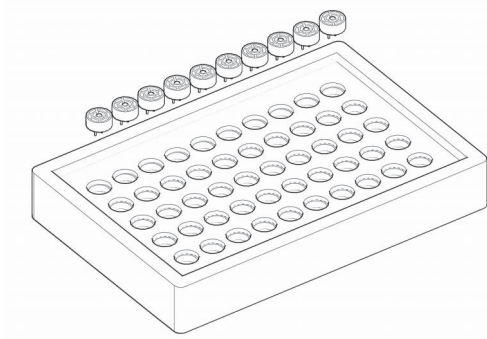
Directivity



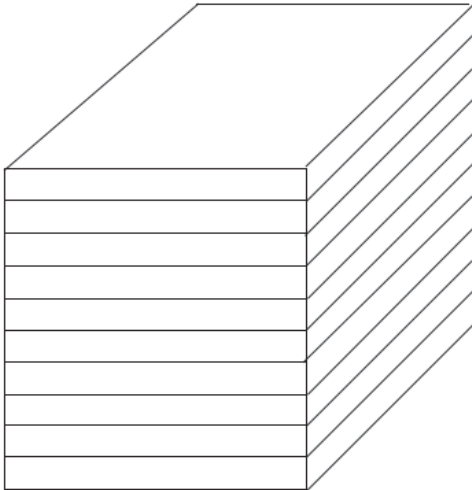
## PACKAGING

units: mm

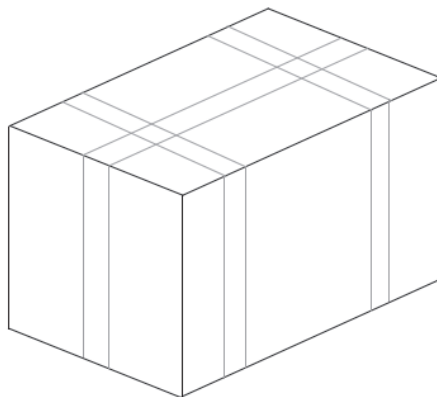
Tray Size: 240 x 160 x 30 mm  
Tray QTY: 50 pcs per tray  
Carton Size: 480 x 280 x 320 mm  
Carton QTY: 2,000 pcs per carton



50PCS/BOX  
BOX SIZE:24\*16\*3CM



10BOXES/STACK, TOTAL 500PCS  
STACK SIZE:24\*16\*24CM



2000PCS/CARTON  
CARTON SIZE:48\*28\*32CM

## REVISION HISTORY

| rev. | description                       | date       |
|------|-----------------------------------|------------|
| 1.0  | initial release                   | 12/02/2020 |
| 1.01 | logo, datasheet style update      | 08/05/2022 |
| 1.02 | CUI Devices rebranded to Same Sky | 09/12/2024 |

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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