

**MODEL:** CUSP-TR80-15-2500-TH | **DESCRIPTION:** ULTRASONIC SENSOR**FEATURES**

- plastic can
- open type
- combination unit: receiver & transmitter
- sensitivity -75 dBV
- detectable range 15 meters

**SPECIFICATIONS**

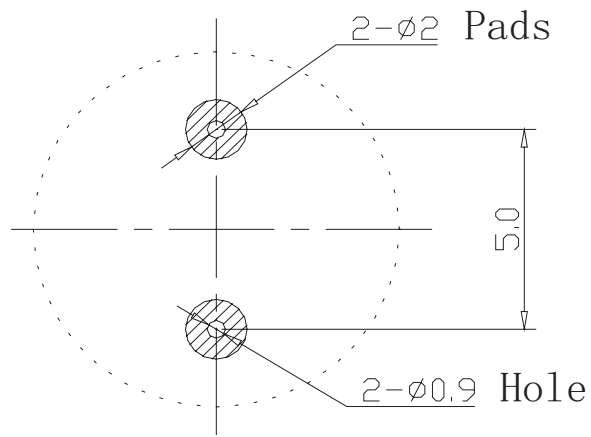
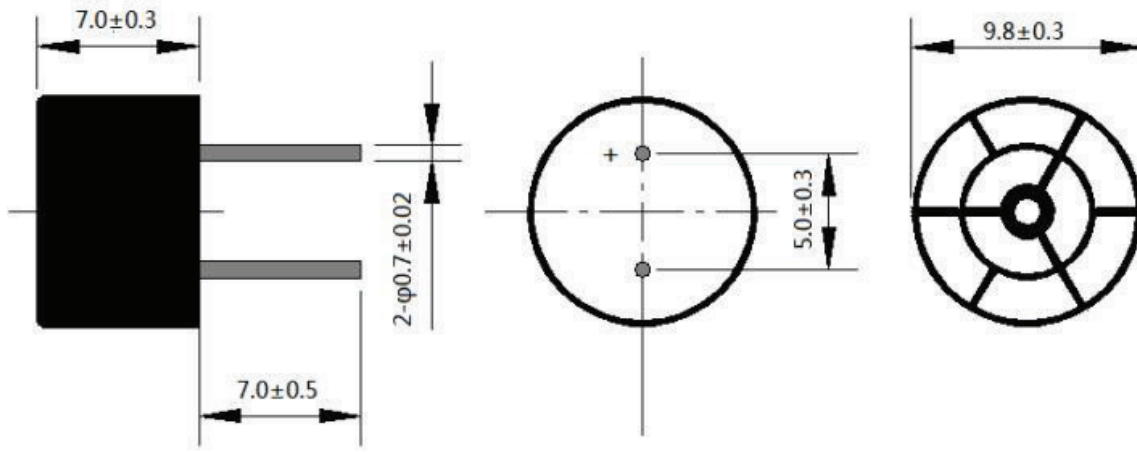
| parameter             | conditions/description       | min   | typ   | max   | units           |
|-----------------------|------------------------------|-------|-------|-------|-----------------|
| type                  | transmitter/receiver         |       |       |       |                 |
| operating voltage     | at 40 kHz                    |       |       | 80    | Vp-p            |
| frequency             |                              |       | 40    |       | kHz             |
| sensitivity           |                              | -75   |       |       | dBV/ $\mu$ Mbar |
| sound pressure level  | at 10 V, 30 cm, sine wave    | 105   |       |       | dB              |
| directivity           |                              |       | 80    |       | degree          |
| capacitance           | at 1 kHz                     | 1,500 | 2,000 | 2,500 | pF              |
| detectable range      |                              | 0.2   |       | 15    | m               |
| response time         |                              |       |       | 1.6   | ms              |
| dimensions            | $\varnothing 9.8 \times 7.0$ |       |       |       | mm              |
| material              | ABS                          |       |       |       |                 |
| terminal              | pins (iron with tin plating) |       |       |       |                 |
| weight                |                              |       | 0.58  |       | g               |
| operating temperature |                              | -20   |       | 80    | $^{\circ}$ C    |
| RoHS                  | yes                          |       |       |       |                 |

**SOLDERABILITY**

| parameter      | conditions/description  | min | typ | max | units        |
|----------------|-------------------------|-----|-----|-----|--------------|
| hand soldering | for $3 \pm 0.5$ seconds | 370 | 380 | 390 | $^{\circ}$ C |

## MECHANICAL DRAWING

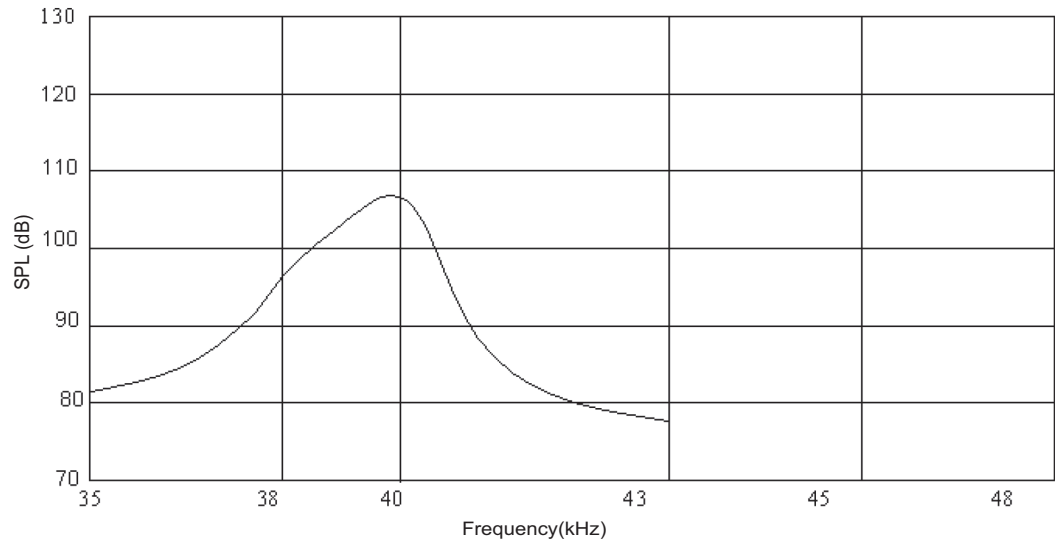
units: mm



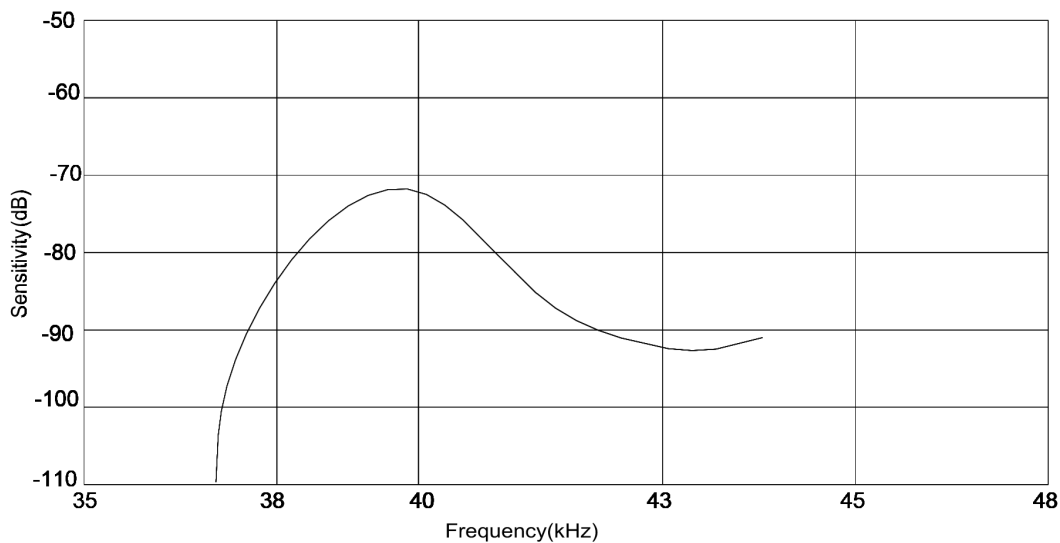
Recommended PCB Layout  
Top View

BEAM PATTERNS

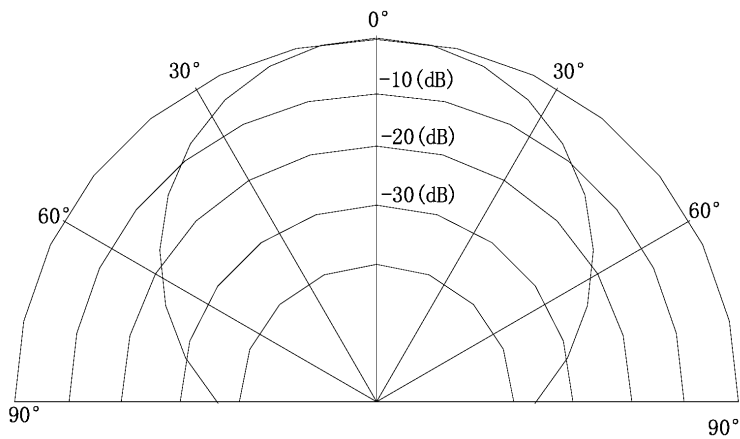
SPL vs. Frequency [Transmitter]



Sensitivity vs. Frequency [Receiver]



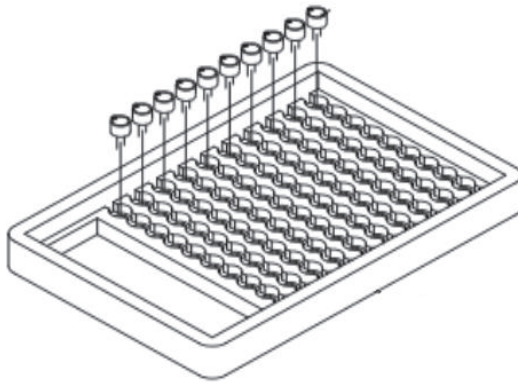
Directivity



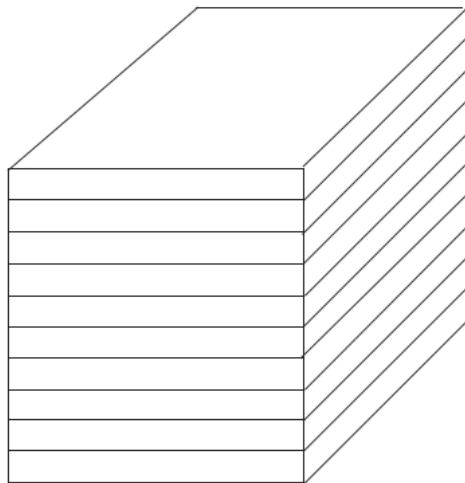
## PACKAGING

units: mm

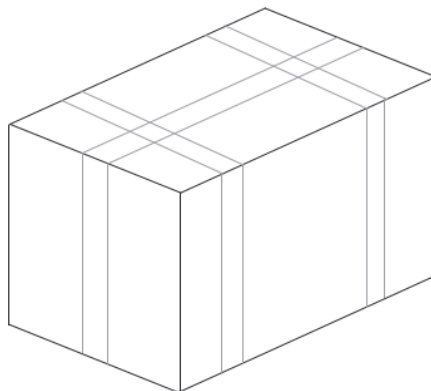
Tray Size: 230 x 135 x 35 mm  
Tray QTY: 100 pcs per tray  
Carton Size: 490 x 350 x 270 mm  
Carton QTY: 4,000 pcs per carton



100PCS/BOX  
BOX SIZE:23\*13.5\*5CM



10BOXES/STACK, TOTAL 1000PCS  
STACK SIZE:23\*13.5\*28CM



4000PCS/CARTON  
CARTON SIZE:49\*35\*27CM

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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