

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

FEATURES

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


SPECIFICATIONS

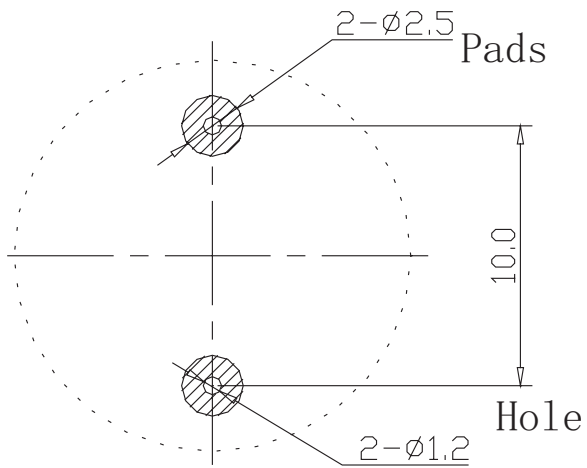
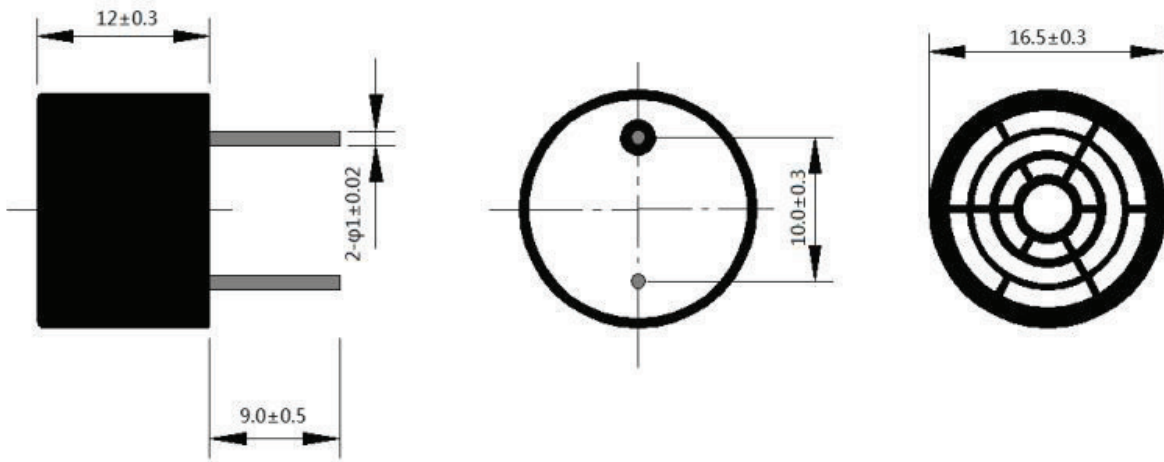
| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------------|-------|-------|-------|-----------------|
| type | transmitter/receiver | | | | |
| operating voltage | at 39 kHz | | | 150 | Vp-p |
| frequency | | 38 | 39 | 40 | kHz |
| sensitivity | | -68 | | | dBV/ μ Mbar |
| 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 | \varnothing 16.5 x 12.0 | | | | mm |
| material | ABS | | | | |
| terminal | pins (iron with tin plating) | | | | |
| weight | | | 2.0 | | g |
| operating temperature | | -20 | | 70 | $^{\circ}$ C |
| RoHS | yes | | | | |

SOLDERABILITY

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

MECHANICAL DRAWING

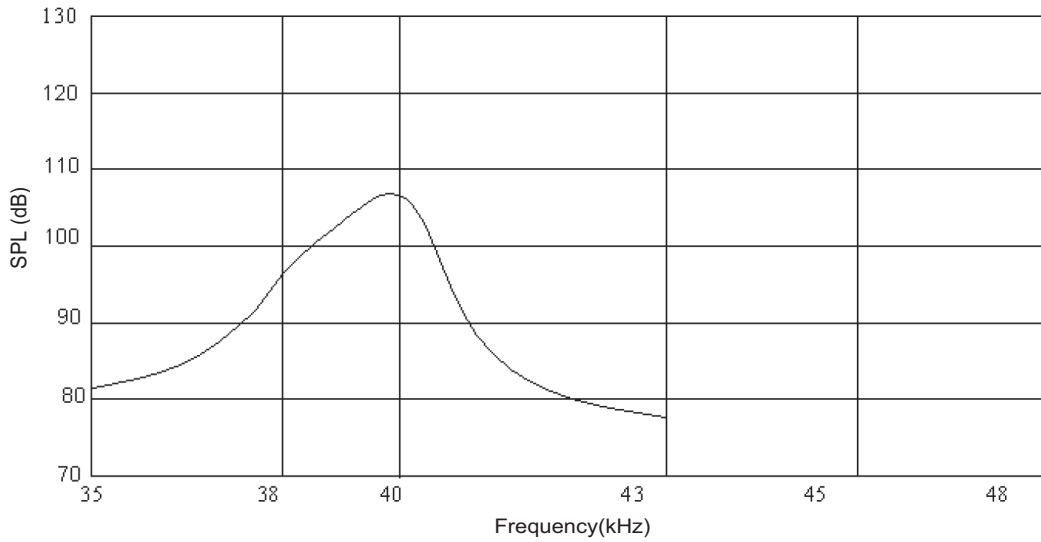
units: mm



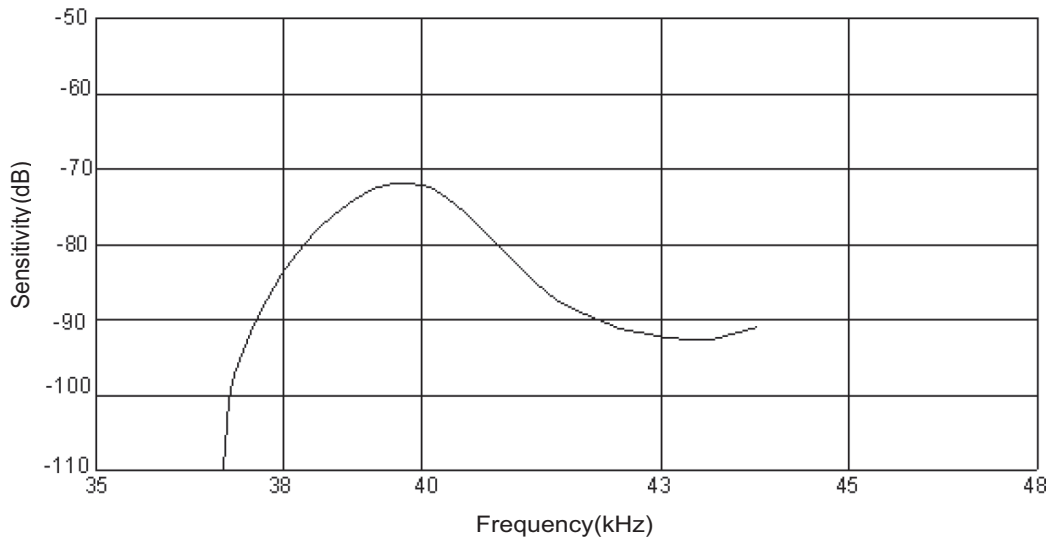
Recommended PCB Layout
Top View

BEAM PATTERNS

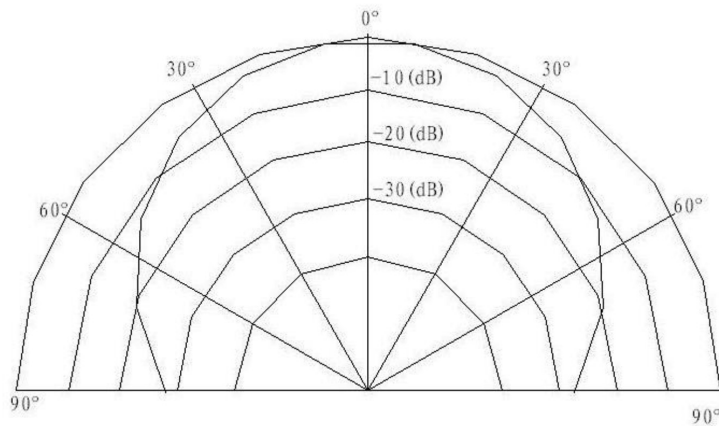
SPL vs. Frequency [Transmitter]



Sensitivity vs. Frequency [Receiver]



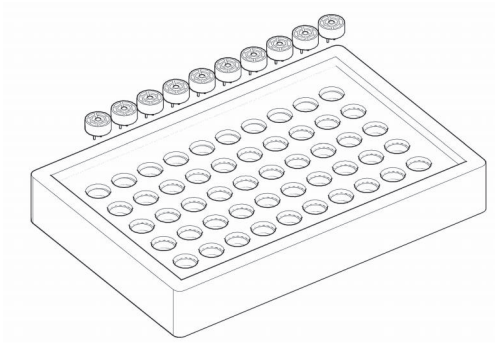
Directivity



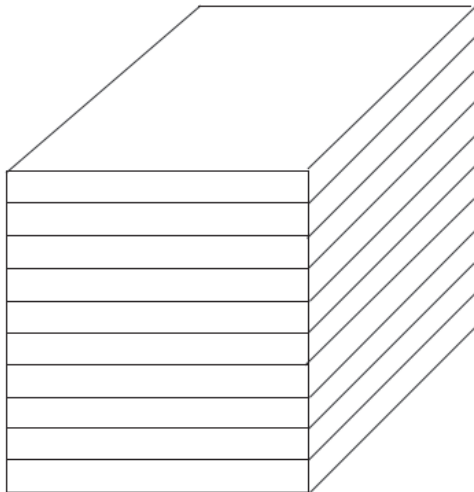
PACKAGING

units: mm

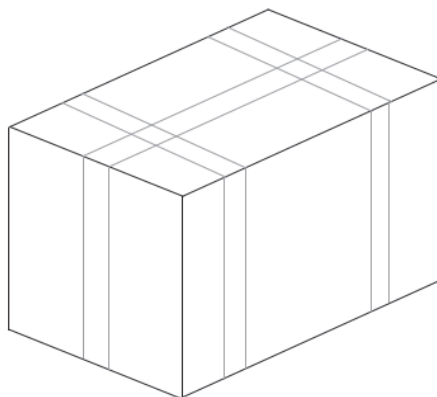
Tray Size: 240 x 160 x 30 mm
Tray QTY: 50 pcs per tray
Carton Size: 480 x 280 x 320 mm
Carton QTY: 2,000 pcs per carton



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 |

The revision history provided is for informational purposes only and is believed to be accurate.



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