

**MODEL:** CUSA-TR65-065-2200-TH68 | **DESCRIPTION:** ULTRASONIC SENSOR

**FEATURES**

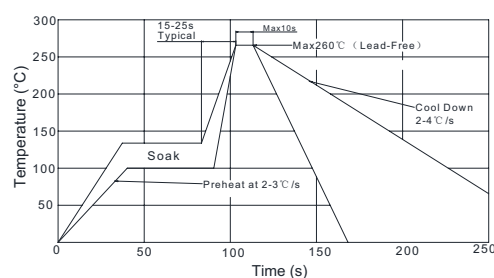
- aluminum can
- IP68 rated
- combination unit: receiver & transmitter
- through hole


**SPECIFICATIONS**

| parameter             | conditions/description                               | min       | typ       | max       | units              |
|-----------------------|--|-----------|-----------|-----------|--------------------|
| type                  | transmitter/receiver                                 |           |           |           |                    |
| operating voltage     | at 40 kHz  |           |           | 150       | Vp-p               |
| frequency             |  | 38.5      | 40        | 41.5      | kHz                |
| echo sensitivity      | at 1 m   | 120       |           |           | mV                 |
| sound pressure level  | at 10 V, 30 cm, sine wave                            | 100       |           |           | dB                 |
| directivity           | horizontal angle at -6 dB<br>vertical angle at -6 dB | 105<br>50 | 120<br>65 | 135<br>80 | degree<br>degree   |
| capacitance           | at 1 kHz   | 1,760     | 2,200     | 2,640     | pF                 |
| detectable range      |  | 0.4       |           | 6.5       | m                  |
| response time         |  |           |           | 1.8       | ms                 |
| impedance             |  |           |           | 3,000     | $\Omega$           |
| dimensions            | $\varnothing 14 \times 9.0$                          |           |           |           | mm                 |
| material              | aluminum   |           |           |           |                    |
| terminal              | pins (brass with tin plating)                        |           |           |           |                    |
| weight                |  |           | 2.92      |           | g                  |
| operating temperature |  | -40       |           | 80        | $^{\circ}\text{C}$ |
| storage temperature   |  | -40       |           | 85        | $^{\circ}\text{C}$ |
| RoHS                  | yes  |           |           |           |                    |
| IP level              | IP68   |           |           |           |                    |

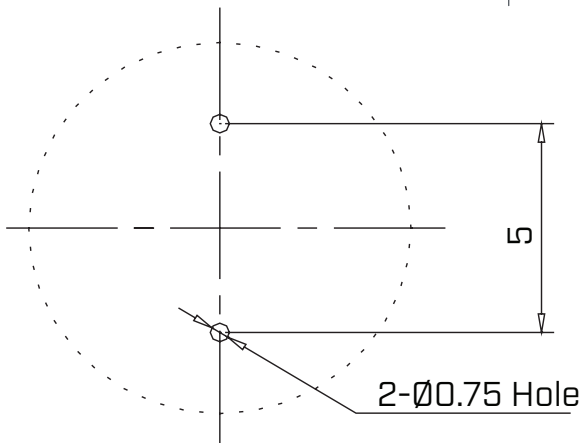
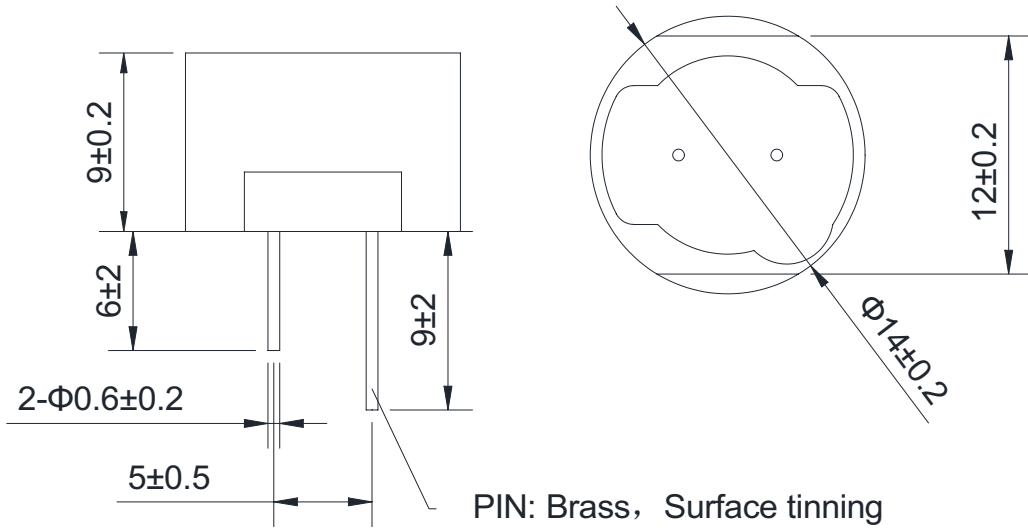
**SOLDERABILITY**

| parameter      | conditions/description | min | typ | max | units              |
|----------------|------------------------|-----|-----|-----|--------------------|
| wave soldering |                        |     |     | 260 | $^{\circ}\text{C}$ |



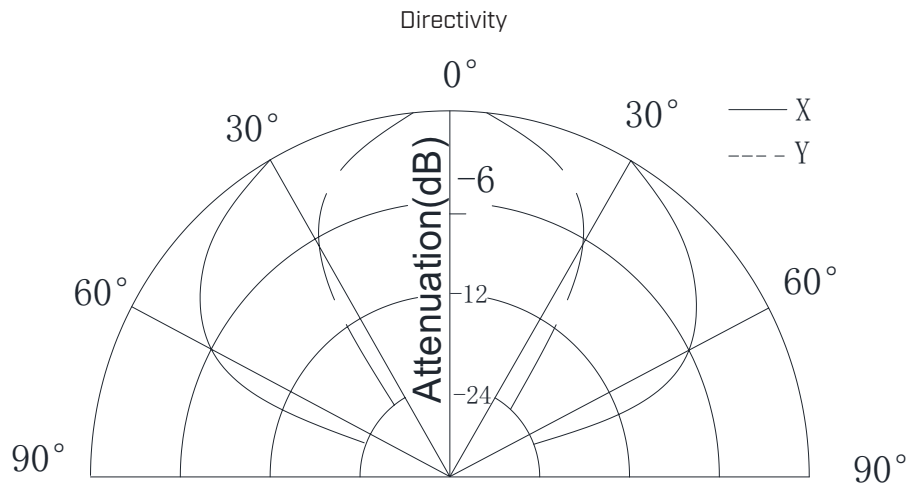
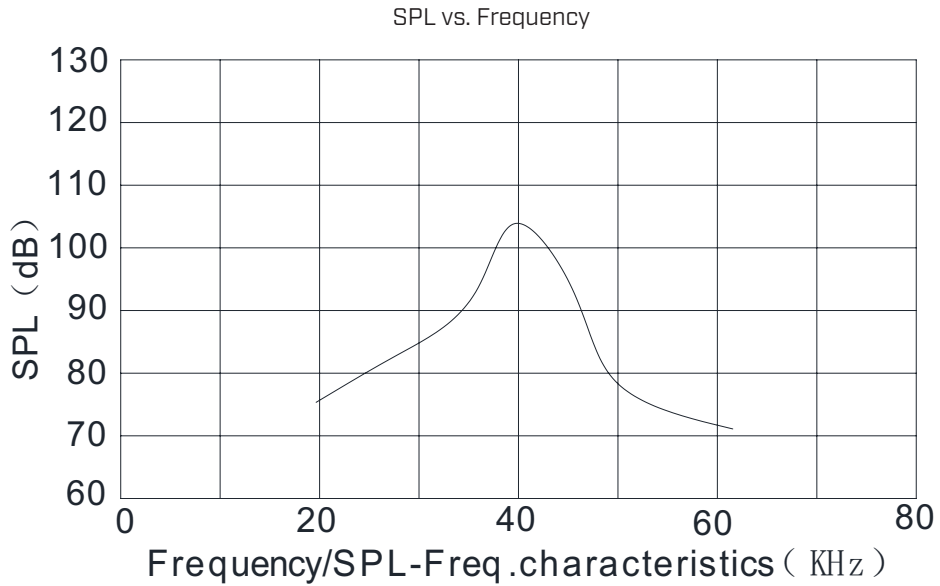
## MECHANICAL DRAWING

units: mm



Recommended PCB Layout  
Top View

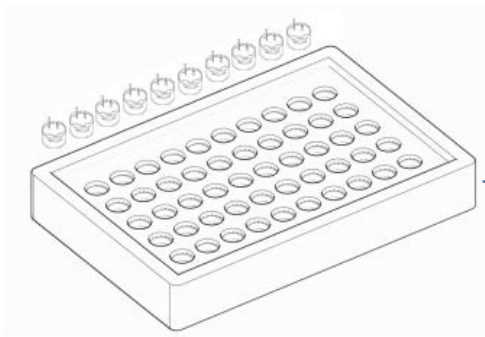
## BEAM PATTERNS



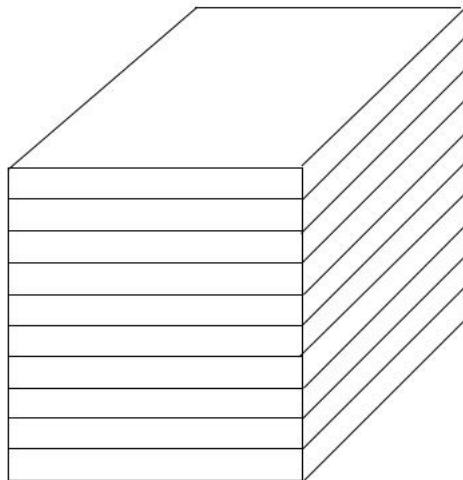
## PACKAGING

units: mm

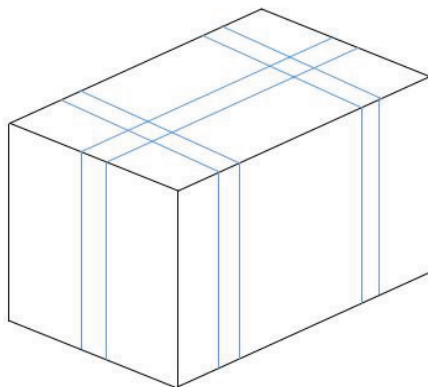
Tray Size: 235 x 135 x 30 mm  
Tray QTY: 50 pcs per tray  
Carton Size: 280 x 285 x 240 mm  
Carton QTY: 1,000 pcs per carton



50PCS/BOX  
BOX SIZE:23.5\*13.5\*3CM



10BOXES/STACK, TOTAL 500PCS  
STACK SIZE:23.5\*13.5\*31CM



1000PCS/CARTON  
CARTON SIZE:28\*28.5\*24CM

## REVISION HISTORY

| rev. | description                  | date       |
|------|------------------------------|------------|
| 1.0  | initial release              | 05/18/2022 |
| 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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