

# UHF RFID ANTENNA CA504005D-US

## Summary

CA504005D-US is based on ceramics, with a double feed point design and a flat structure. It has the characteristics of low reflection loss, small axial ratio, and high gain. The ultra-wide microwave receiving frequency range is 902-928MHz, with a center frequency of 922.5MHz. UHF RFID ceramic antennas are mainly used in production process identification, product anti-counterfeiting detection and other systems.

The ceramic antenna can operate normally at temperatures ranging from -40 °C to 80 °C, and with the UHF RFID reader module, the optimal recognition distance can reach about 3m to 5m. The antenna design has very high stability, and there is no directional requirement for reading RFID electronic tags.

## Antenna electrical performance characteristics

| NO | PROJECT                 | INDEX         | Allowable error |
|----|-------------------------|---------------|-----------------|
| 1  | Frequency range         | 902MHz—928MHz | ±5.0MHz         |
| 2  | Center frequency        | 920MHz        | ±2.0MHz         |
| 3  | Bandwidth               | 10MHzMin      | ±0.5MHz         |
| 4  | Standing wave ratio     | 1.2Min        | ±0.2            |
| 5  | Gain                    | +4.0DBI       | ±0.2            |
| 6  | Output Impedance        | 50Ohm         | ±0.5            |
| 7  | temperature coefficient | 20max         | ----            |

## MECHANICAL SPECIFICATIONS

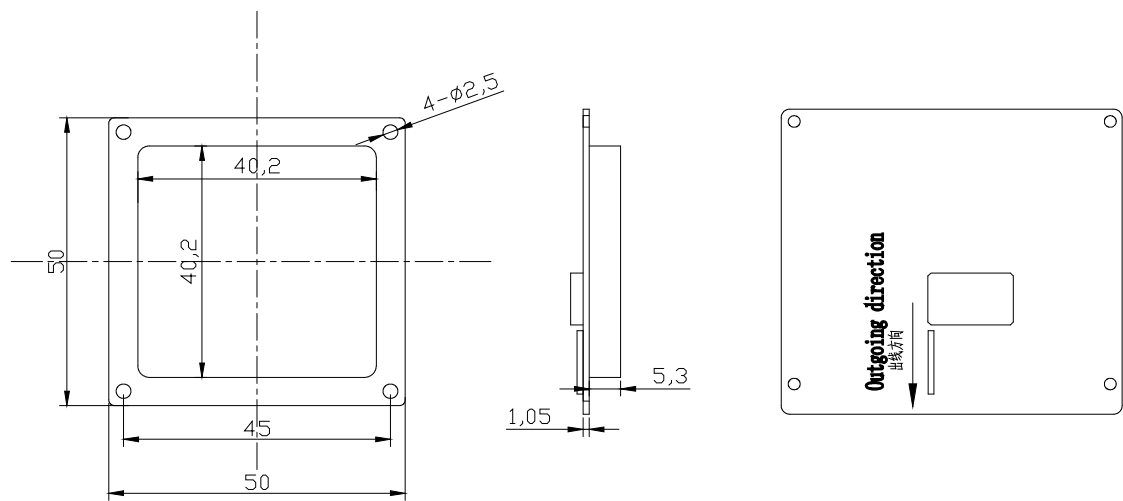
|                     |                    |
|---------------------|--------------------|
| Antenna Dimension   | 50×50×8mm          |
| RF output Connector | Customizable       |
| Mounting Method     | Screw installation |
| Shockproof Grade    | IK08               |

## ENVIRONMENTAL CONDITIONS

|                 |           |
|-----------------|-----------|
| Operating Temp. | -40℃～+85℃ |
| Storage Temp.   | -40℃～+85℃ |

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ANTENNA DIMENSIONS (Unit:mm)



Unmarked dimensional tolerance $\pm 0.2$

