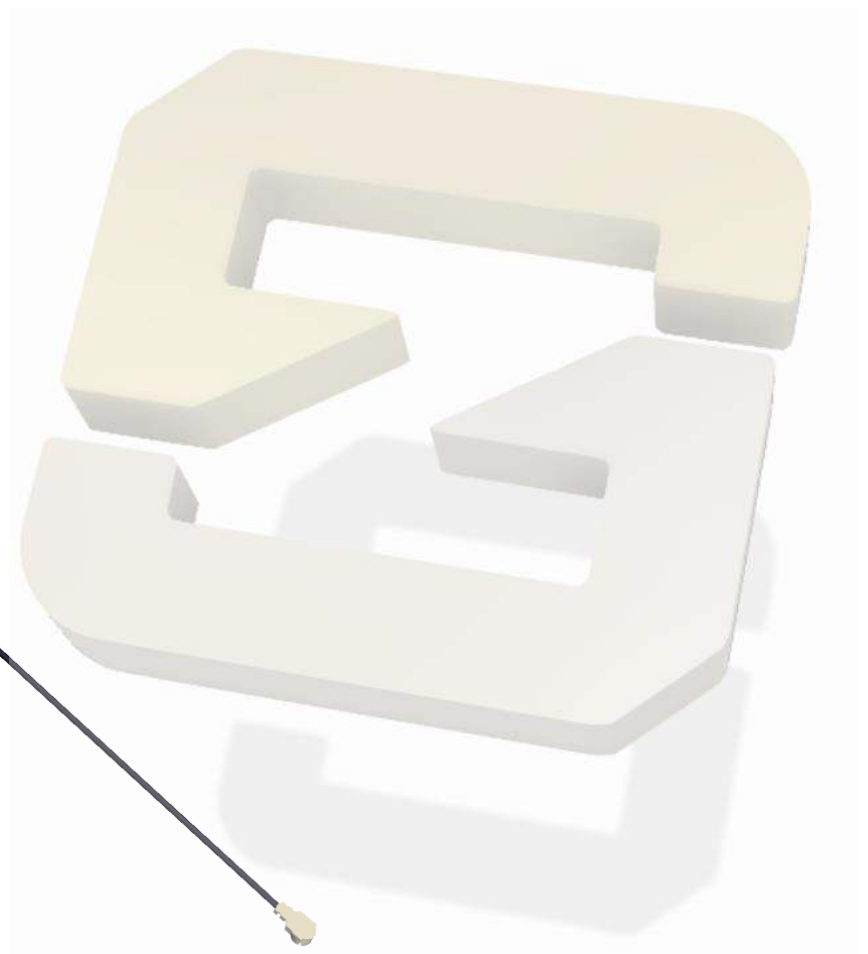
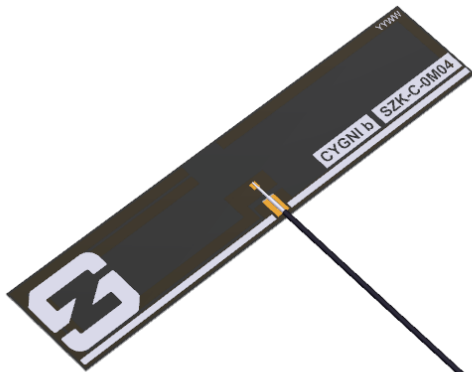




ISM / LoRa FPC Antenna

SZK-C-0M04

ISM / LoRa: 863 – 870 MHz



Name: CYGNi b

Part Number: SZK-C-0M04

Description: 868MHz ISM/LoRa FPC with cable and connector IPEX MHF (U.FL)

- Flexible PCB Antenna using 3M 468 adhesive
- Dimensions: 70 x 15 x 0.2 (mm)
- Cable: 100mm length, 1.13mm diameter
- RoHS & Reach Compliant



ISM / LoRa FPC Antenna

SZK-C-0M04

ISM / LoRa: 863 – 870 MHz

Description

A Flexible antenna for ISM/LoRa applications. For use internal to a device which requires an integrated antenna solution. High performance with a small form factor for simple integration.

- For ISM/LoRa/ SigFox/Weightless P Applications 863 - 870MHz
- Clean resonance with no unwanted out of band response.
- Simple integration, plug and operate the device without designing onboard antenna.
- Can be tuned for various environments and plastic thickness with additional Pi network, free tuning service available.
- Alternate cable lengths available upon request, contact sales@synzen.com.tw

Applications

Industrial/Scientific/Medical
Smart Grid

M2M Industrial
Healthcare

Smart Meters





General Specifications

Mechanical Specifications

| | |
|-------------------------|--------------------------------|
| Part Number | SZK-C-0M04 |
| Name | CYGNIB |
| Dimensions | 70 x 15 x 0.2 (mm) |
| Weight | <1g |
| Antenna Type | FPC + Cable |
| Cable Length | 100mm, Black |
| Cable Type | Mini Coax \varnothing 1.13mm |
| Connector | MHFI (U.FL Compatible) |
| Adhesive backing | 3M 468 |

RF Specifications

| | |
|---------------------------|--------------|
| Frequency Range | 863 – 870MHz |
| Average Efficiency | >70% |
| Peak Gain | 1.21dBi |
| S11 (max) | <-20.0dB |
| VSWR (max) | 1.20:1 |
| Impedance | 50 Ω |
| Polarization | Linear |
| Max Input Power | 5W |

Note: All performance stated is measured 2.0mm ABS plastic, RF chokes used to prevent cable radiation.

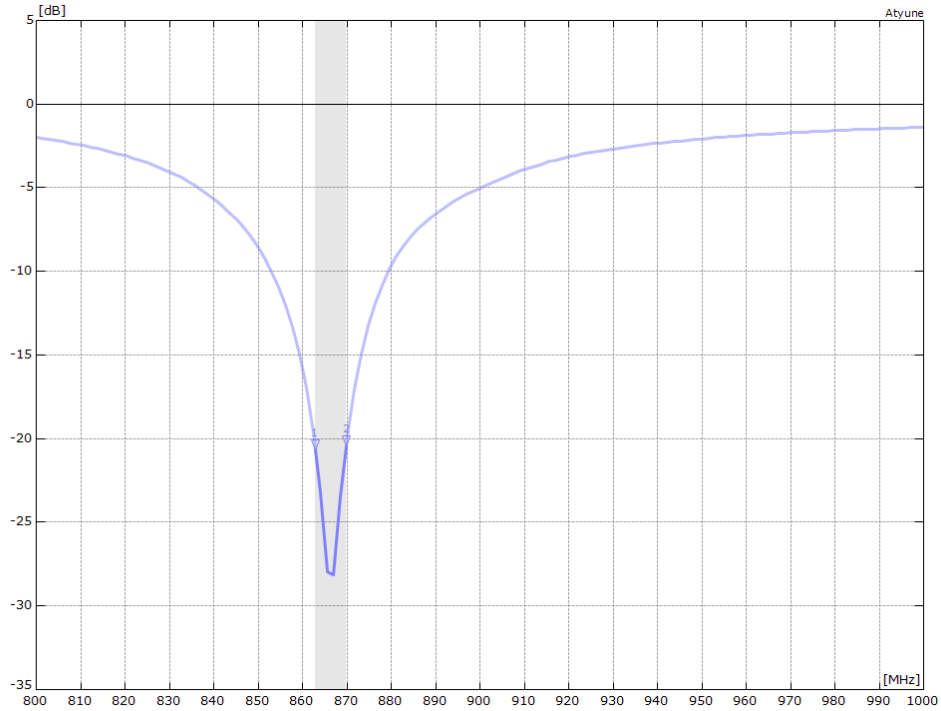
Environmental Specifications

| | |
|--------------------------------|-----------------|
| Operational Temperature | -40 to +85 (°C) |
| Storage Temperature | -10 to +40 (°C) |
| Relative Humidity | \leq 75% |

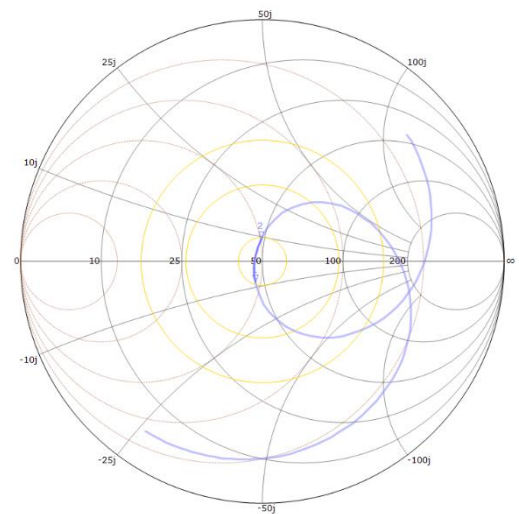
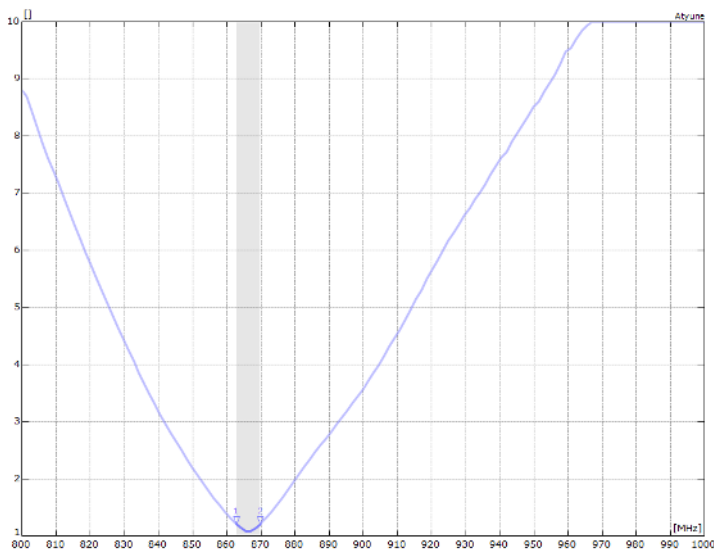


RF Characteristics

S11 Parameter



VSWR / SMITH CHART

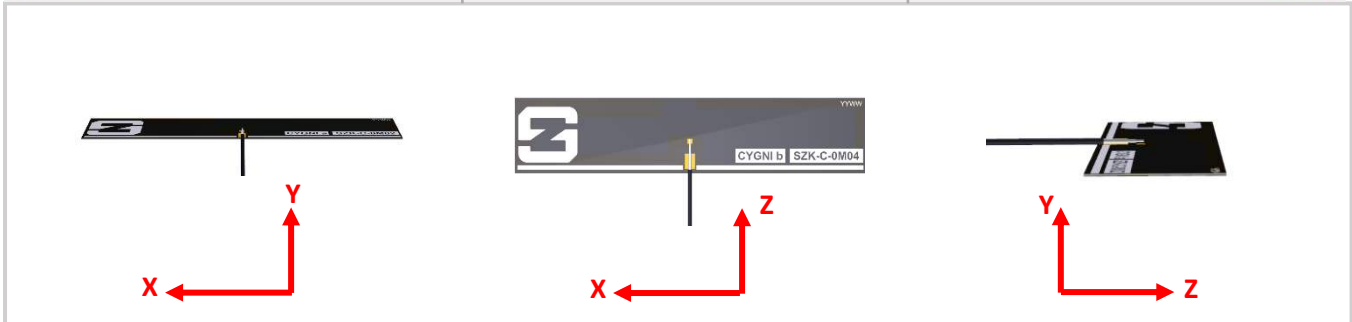




Radiated Performance

2D Polar Plot

The data shown was measured on 2.0mm ABS plastic, RF chokes used to prevent cable radiation.

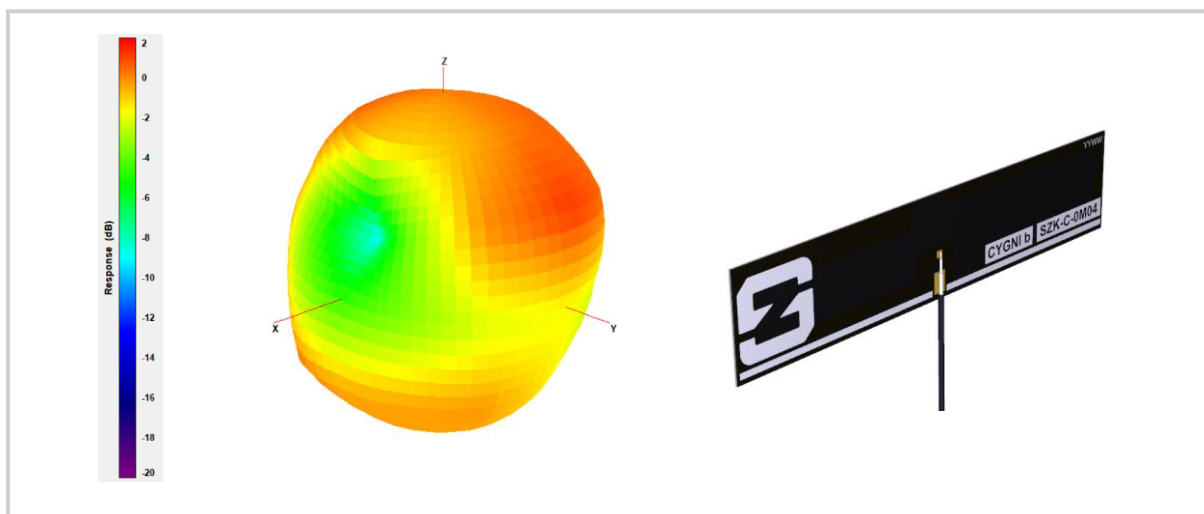
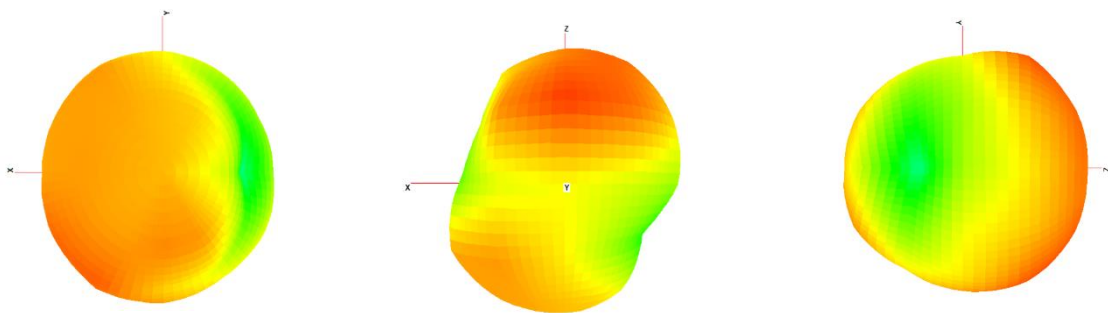
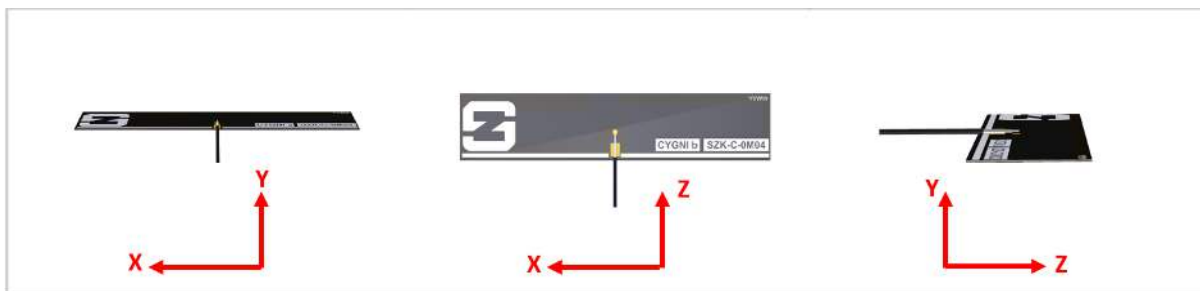




Radiated Performance

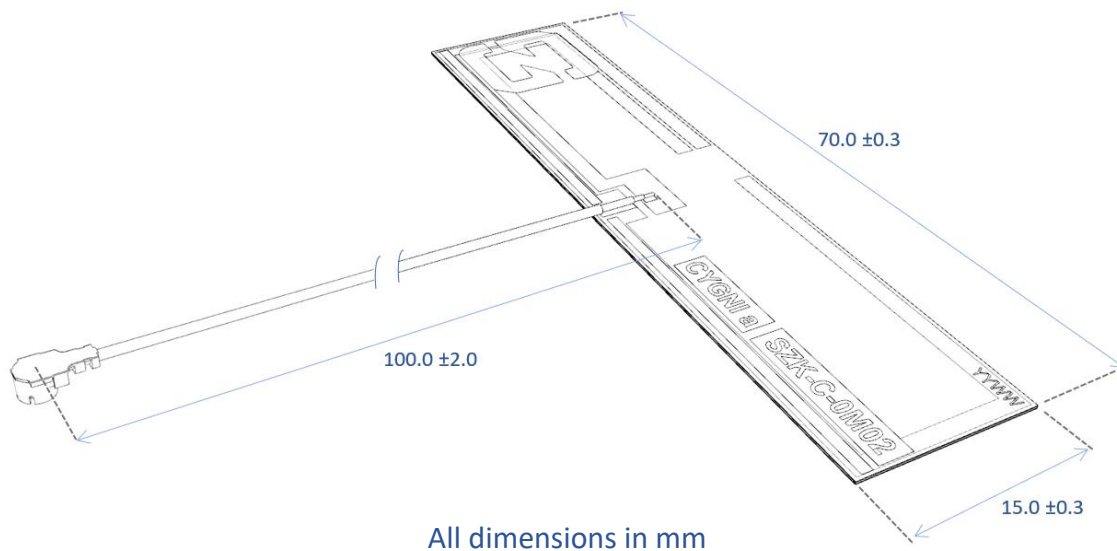
3D Radiation Pattern

The data shown was measured on measured on 2.0mm ABS plastic, RF chokes used to prevent cable radiation. The frequency point shown here is 868MHz.

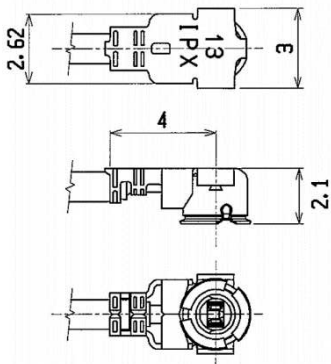


Mechanical

Antenna Mechanical Drawing



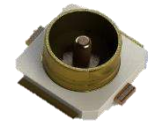
The plug connector on the antenna is an IPEX MHFI.



Suitable PCB mating connector (U.FL) example

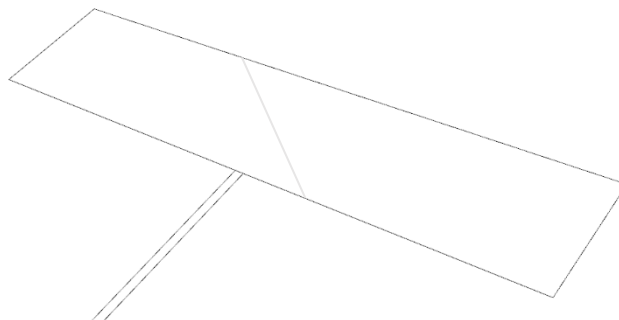
Joymax: Model: CT-MPB01X

www.joymax.com.tw



Adhesive Backing

The antenna comes with 3M 468 adhesive backing upon a PI Kapton substrate. An easy peel cut is on the back side for easy cover removal.



Packaging

Bag and Packaging Information



Antennas packed in PE bag (20 antenna per bag)

Small bag dimensions: 9.5 x 28.5 (cm)



100pcs per larger bag with product label

Bag dimensions = 19 x 30 (cm)

| | |
|--|---|
|  | |
| SYNZEN SYNZEN PRECISION TECHNOLOGY | |
| Part Number: | SZK-C-0M04 |
| |  |
| Description : | ISM/LoRa FPC Antenna |
| Name: | CYGNIB |
| Quantity: | 1000 |
| Date code: | YYWW |
| <small>A3, 4F, No. 58, Zhouzi St, Neihu Dist., Taipei City, 11493, Taiwan Tel: +886 (02) 2659 8030 www.synzen.com.tw</small> | |

- 1000pcs per carton
- Carton dimensions = 33.7 x 32.2 x 10 (cm)



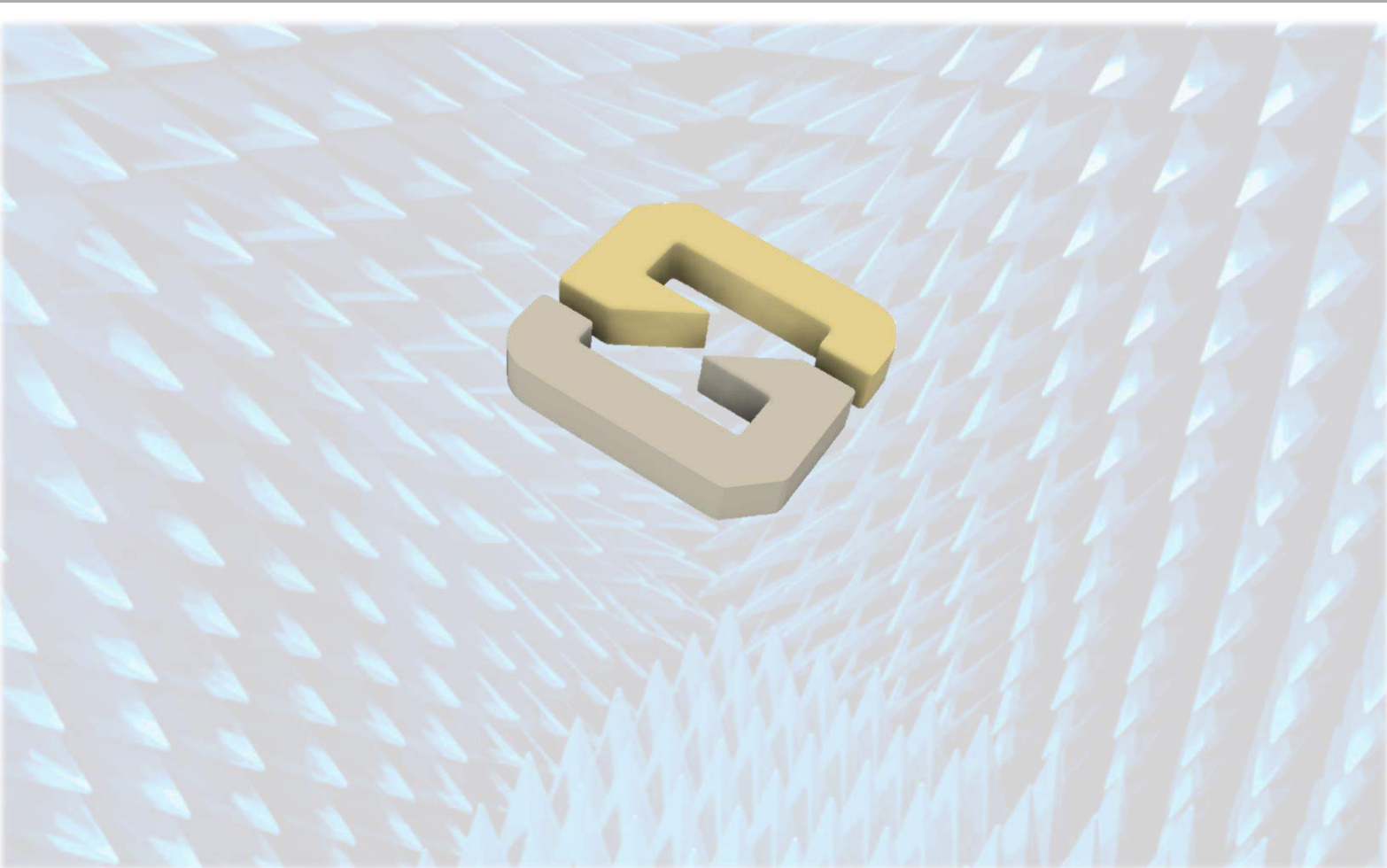
Environmental

Material Regulation

The antenna has been tested to conform to RoHS requirements. A certificate of conformance is available upon request.



Synzen Precision Technology Ltd



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