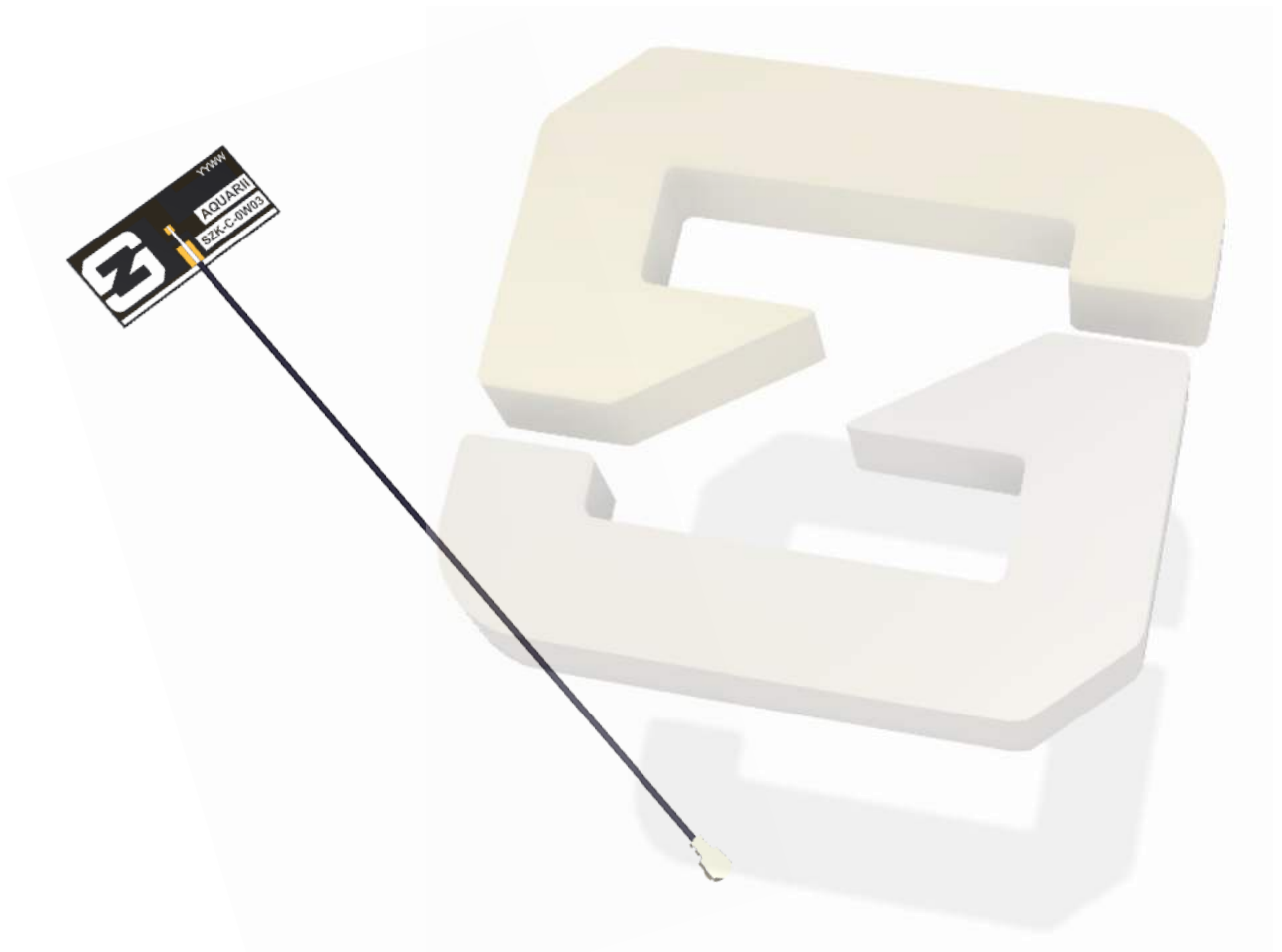




## Dual Band WLAN FPC Antenna

SZK-C-0W03

WLAN/BLE: 2400 – 2500; 4900 - 6000 MHz



**Name:** AQUARII

**Part Number:** SZK-C-0W03

**Description:** WLAN (802.11a/b/g/n/ac FPC with cable and connector IPEX MHF (U.FL))

- Flexible PCB Antenna using 3M 468 adhesive
- Dimensions: 25 x 11 x 0.2 (mm)
- Cable: 100mm length, 1.13mm diameter
- RoHS & Reach Compliant



## Dual Band WLAN FPC Antenna

SZK-C-0W03

WLAN/BLE: 2400 – 2500; 5150 - 5850 MHz

### Description

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

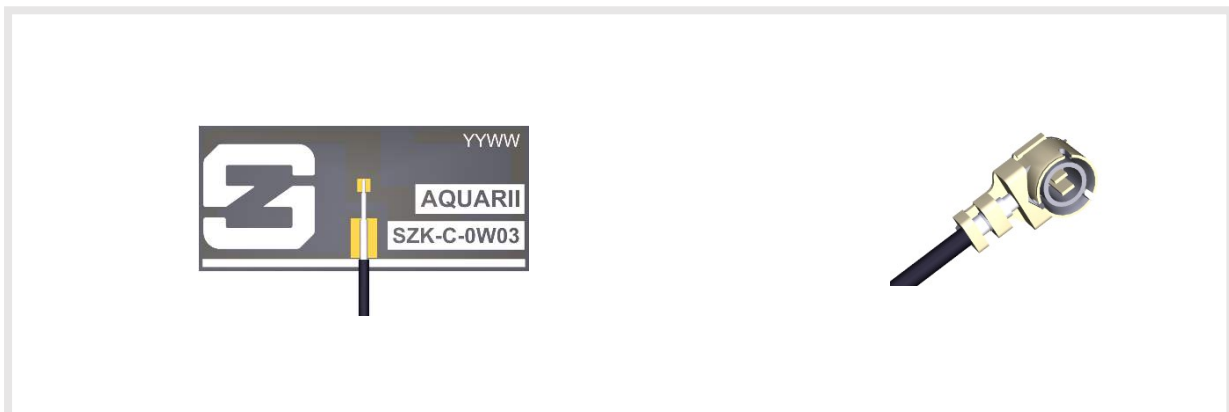
- For WLAN/Bluetooth/ISM Applications 2.4-2.5GHz; 4.9-6.0GHz
- Alternate cable lengths available upon request, contact [sales@synzen.com.tw](mailto:sales@synzen.com.tw)
- Ideal for MIMO systems 2x2, 4x4, 8x8.
- Simple integration, plug and operate the device without designing onboard antenna.
- Can be tuned for various environments and plastic thickness with additional Pi-network, free tuning service available.

### Applications

Access Points  
Smart Grid

M2M Industrial  
Healthcare

Smart Meters  
Set Top Box





## General Specifications

### Mechanical Specifications

<b>Part Number</b>	SZK-C-0W03
<b>Name</b>	AQUARII
<b>Dimensions</b>	25 x 11 x 0.2 (mm)
<b>Weight</b>	<1g
<b>Antenna Type</b>	FPC + Cable
<b>Cable Length</b>	100mm, Black
<b>Cable Type</b>	Mini Coax $\varnothing$ 1.13mm
<b>Connector</b>	MHFI (U.FL Compatible)
<b>Adhesive backing</b>	3M 468

### RF Specifications

<b>Frequency Range</b>	2400 – 2500MHz	4900 – 5850MHz
<b>Average Efficiency</b>	>65%	>65%
<b>Peak Gain</b>	1.85dBi	5.50
<b>S11 (max)</b>	<-10.4dB	<-10.3dB
<b>VSWR (max)</b>	1.85:1	1.90:1
<b>Impedance</b>		50 $\Omega$
<b>Polarization</b>		Linear
<b>Max Input Power</b>		3W

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

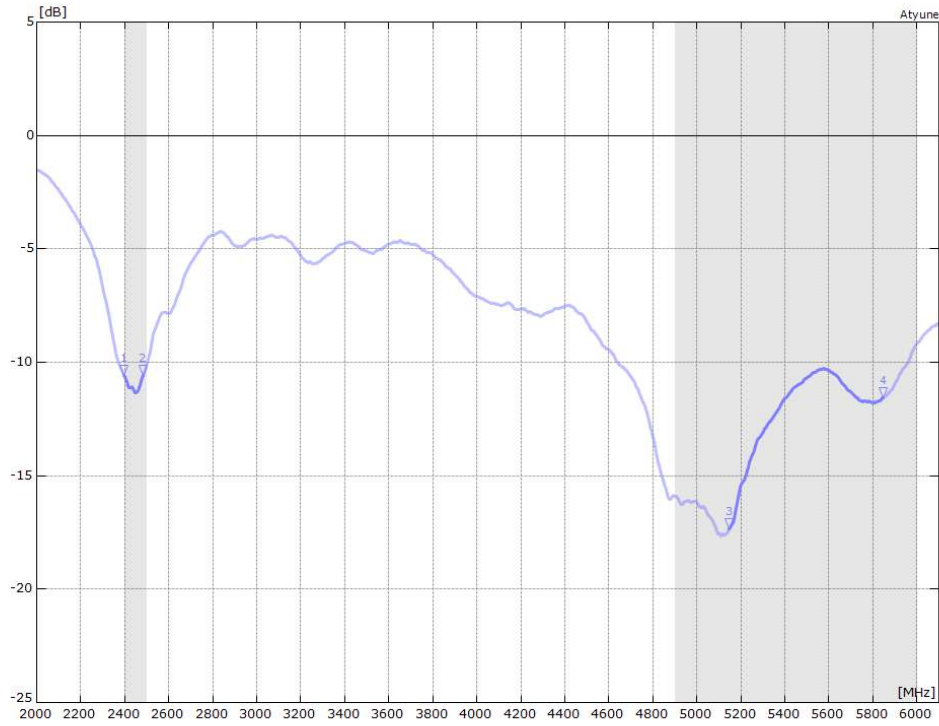
### Environmental Specifications

<b>Operational Temperature</b>	-40 to +85 (°C)
<b>Storage Temperature</b>	-10 to +40 (°C)
<b>Relative Humidity</b>	$\leq$ 75%

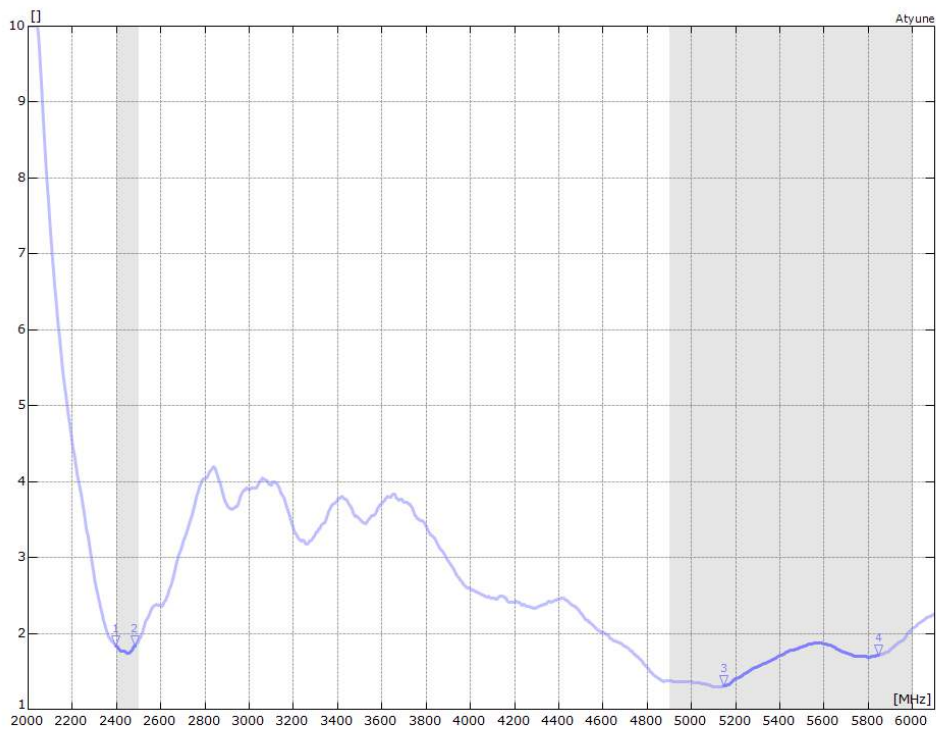


## RF Characteristics

### S11 Parameter



### VSWR

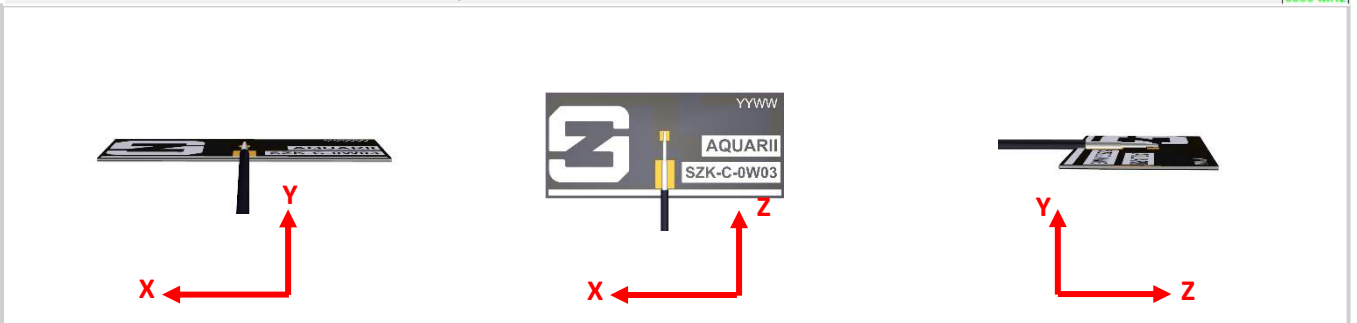
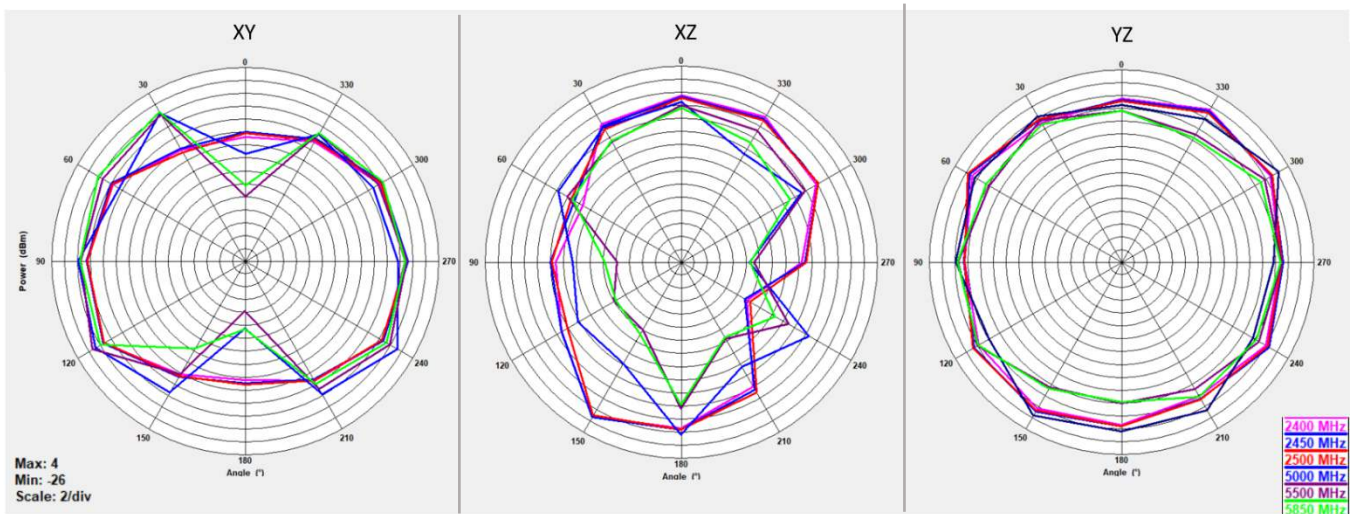




## Radiated Performance

### 2D Polar Plot

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

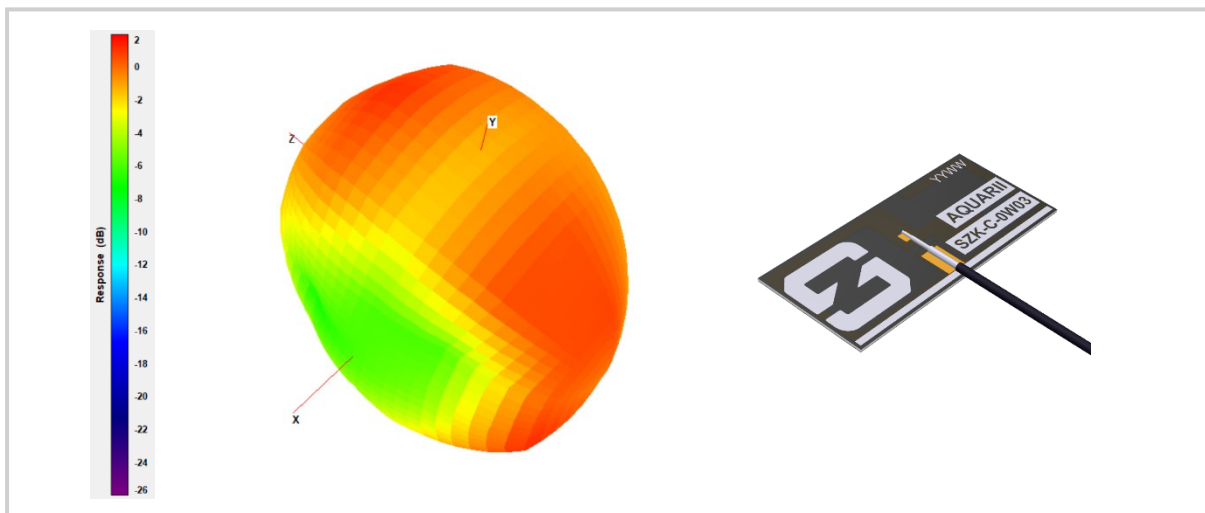
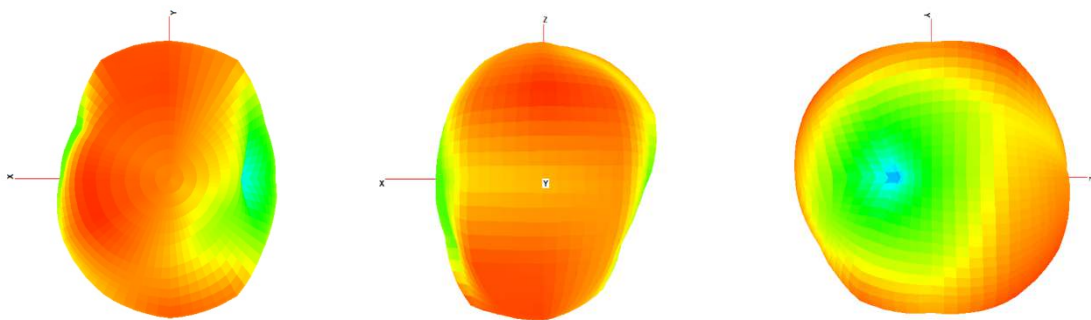
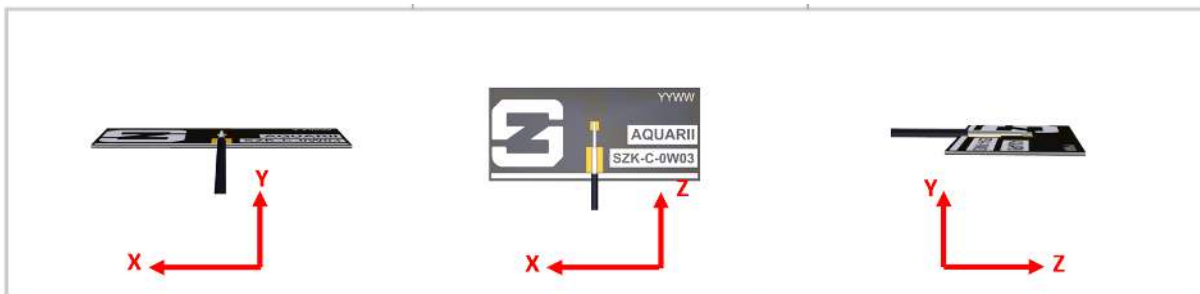




## Radiated Performance 2400-2500MHz

### 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 2450MHz.

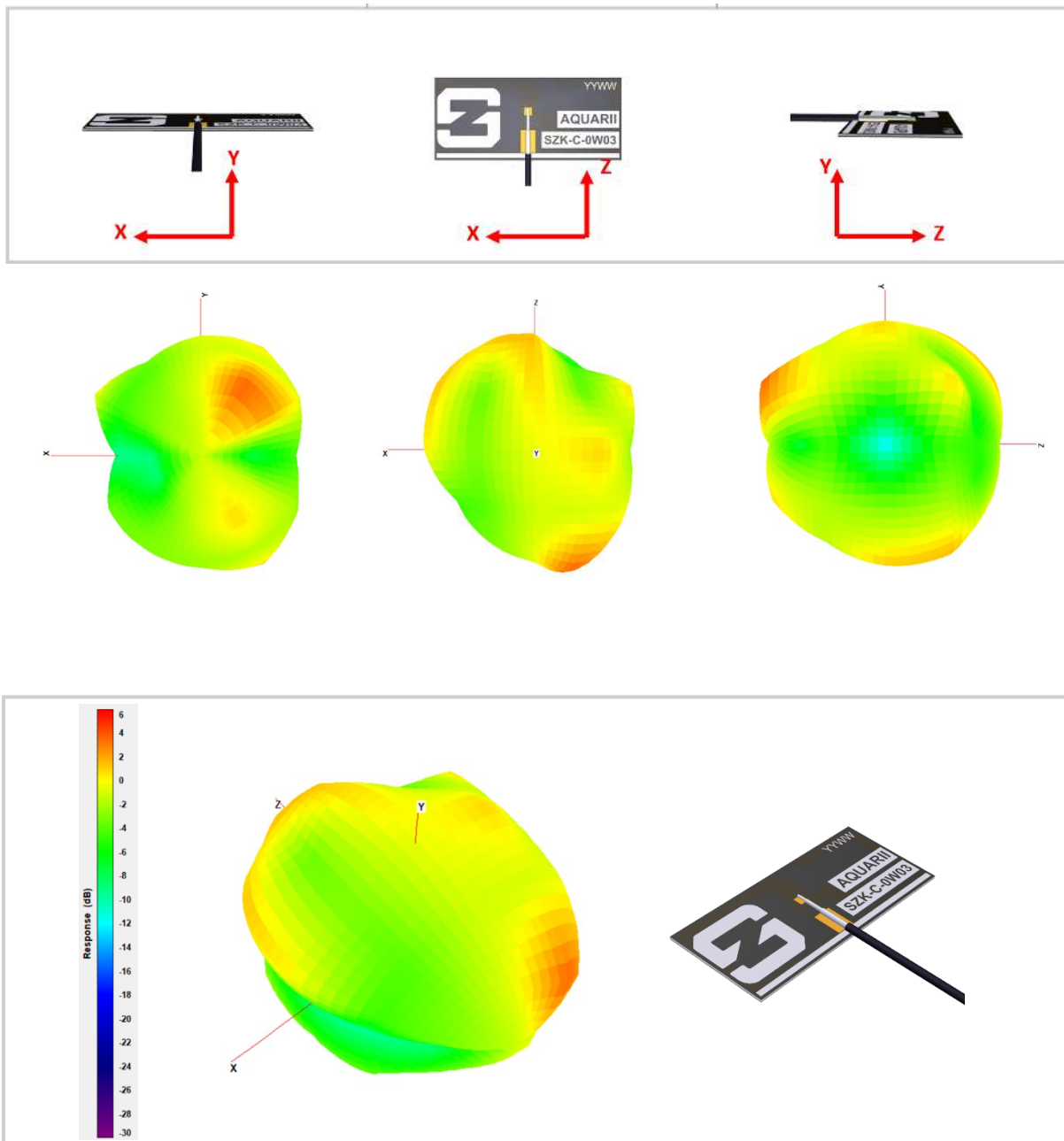




## Radiated Performance 4900-6000MHz

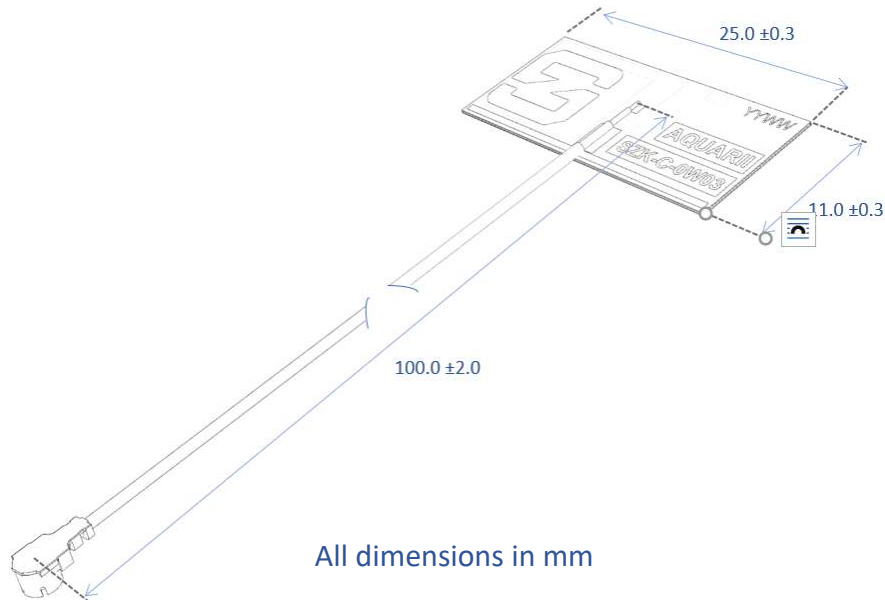
### 3D Radiation Pattern

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 5500MHz.

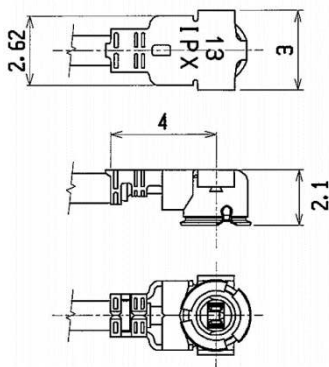


## Mechanical

### Antenna Mechanical Drawing



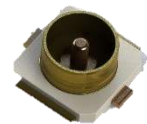
The plug connector on the antenna cable is an IPEX MHFI.



#### Suitable PCB mating connector (U.FL) example

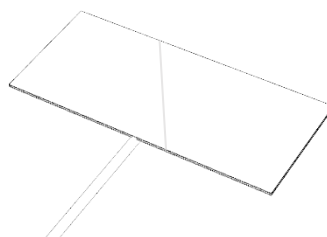
Joymax: Model: CT-MPB01X

[www.joymax.com.tw](http://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 Individually packed in PE bag (1 antenna per bag)





100pcs per larger PE bag with product label

Bag dimensions = 180 x 100(mm)



Label

		<b>SYNZEN</b> SYNZEN PRECISION TECHNOLOGY
Part Number:	SZK-C-0W03	
		
Description :	WLAN Dual-Band FPC Antenna	
Name:	AQUARII	<small>A3, 4F, No. 58, Zhouzi St, Neihu Dist., Taipei City, 11493, Taiwan Tel: +886 (02) 2659 8030 www.synzen.com.tw</small>
Quantity:	1000	
Date code:	YYWW	

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



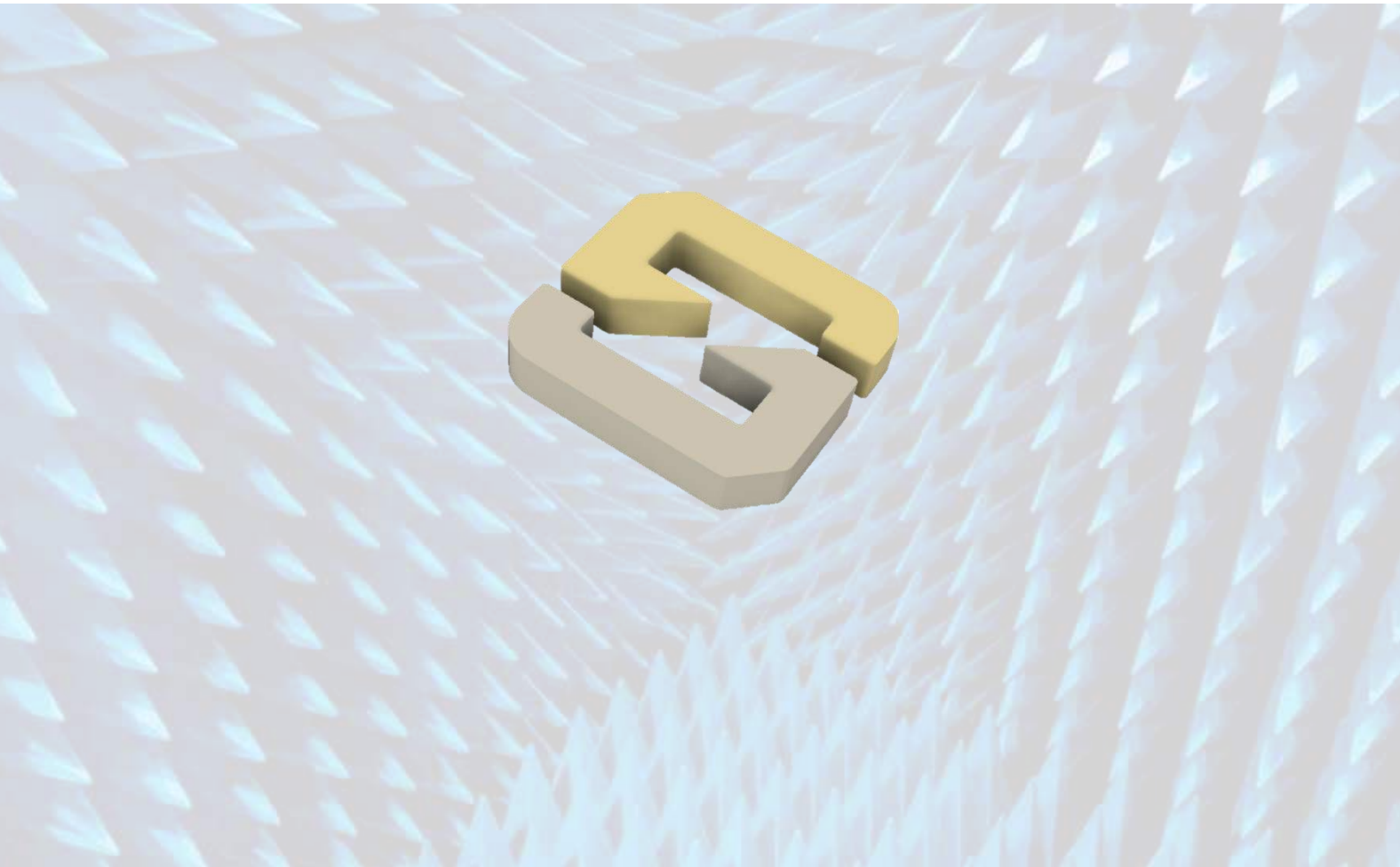
## Environmental

### Material Regulation

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



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