



## DATASHEET

DRACO | SZK-C-5L36 | Flexible Self-Adhesive Antenna | 5G NR / RedCap

### Features:

5G NR: 617-6000MHz

>3.0dBi Peak Gain, >50% Efficiency

Dimensions: 42.5 x 15.0 x 0.2 mm

Cable Length: 100mm, 0.81mmØ

Connector: MHF1 (U.FL compatible)

RoHs Compliant

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## Introduction

ELNATH is a high-performance flexible printed circuit antenna designed for the full range of 5G NR, RedCap, and LTE bands from 617 MHz to 6000 MHz. It delivers consistent efficiency and stable radiation throughout the entire sub-6 GHz spectrum, providing both excellent low-band coverage and high-band speed in a compact form factor.

Engineered for next-generation IoT and cellular devices, ELNATH maintains reliable performance across different mounting conditions and materials. Its flexible structure and low-profile layout enable easy integration into gateways, routers, and embedded systems that require wideband connectivity without compromising space or efficiency.

### Features

- Full 5G NR / RedCap / 4G LTE coverage from 617 MHz to 6000 MHz
- Compact, low-profile FPC structure for simple integration
- High efficiency and stable radiation across all sub-6 GHz bands
- Ground-plane-independent performance for flexible mounting
- Supports MIMO architecture and multi-band cellular systems
- Available with custom cable length and connector options

### Applications

- 5G NR and RedCap IoT devices
- LTE/4G industrial routers and gateways
- Smart meters and telemetry systems
- Asset tracking and monitoring equipment
- M2M and smart infrastructure applications



## Mechanical Specifications

Parameter	
<b>Part Number</b>	SZK-C-5L36
<b>Name</b>	DRACO
<b>Dimensions (mm)</b>	42.5 x 15.0 x 0.2
<b>Weight (g)</b>	<1.0
<b>Antenna Type</b>	FPC + Cable
<b>Cable Length (mm)</b>	100.0, 1.13 $\phi$ *
<b>Connector Type</b>	MHF1 (U. FL compatible)
<b>Part Number with cable + connector</b>	SZK-C-5L36-100-01
<b>Adhesive backing</b>	3M 468 MP

## Electrical / RF Specifications

Band	Frequency Range (MHz)	Average Efficiency (%)	Peak Gain (dBi)	VSWR (worst case)	Impedance
5G NR/4G LTE B5,8,12,13,14,17,18,20,26,27,28,29,71	617-960	50.0	1.89	3.56:1	50 $\Omega$
5G NR/4G LTE B24	1427-1660.5	67.2	3.42	6.96:1	
5G NR/4G LTE B1,2,3,4,9,23,35,39,66	1710-2200	61.0	4.28	2.55:1	
5G NR/4G LTE B40	2300-2400	54.2	2.58	2.36:1	
5G NR/4G LTE B7,38,41	2490-2690	52.0	1.60	2.50:1	
5G NR/4G LTE B22,42,43,48,77,78	3300-5000	63.5	6.88	2.50:1	
5G NR B47, LTE5200, Wi-Fi 5800	5150-5925	68.7	5.04	2.86:1	

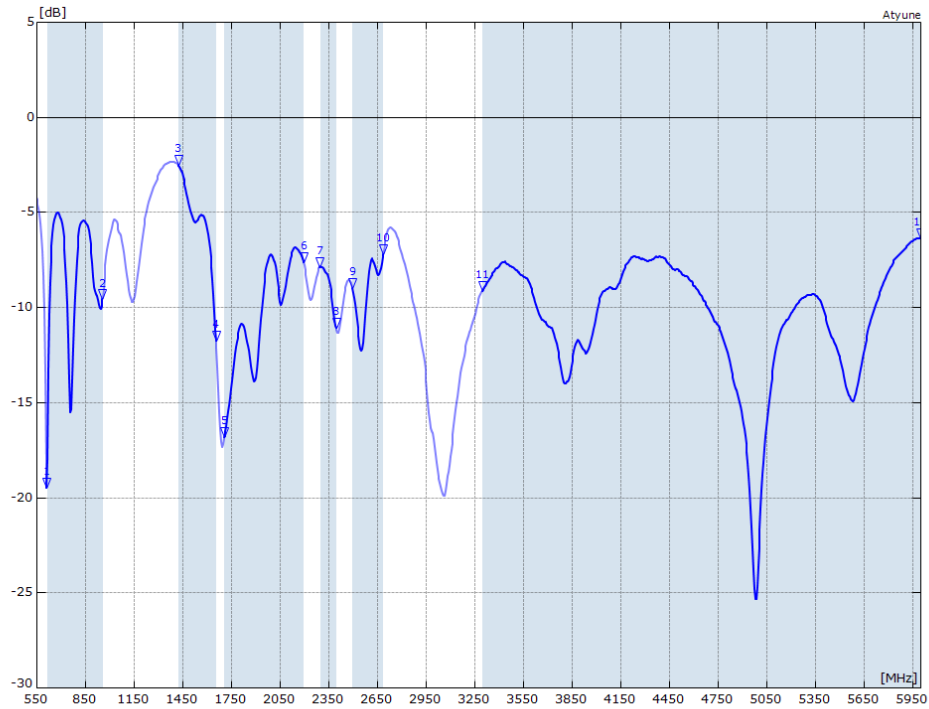
Note: The antenna performance was measured on a 2mm thick ABS plastic sheet

## Environmental

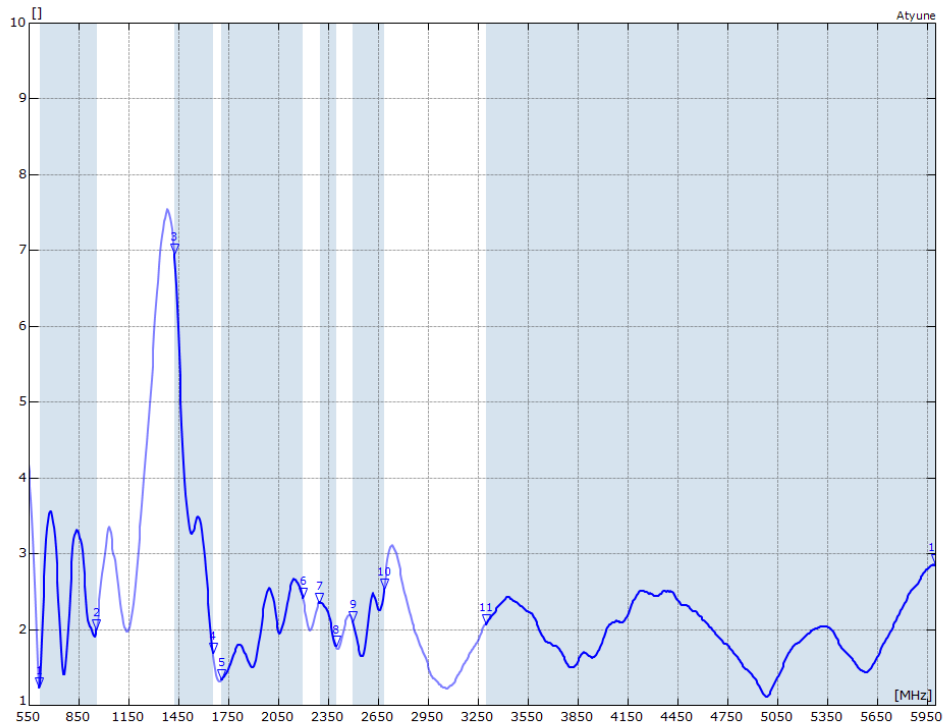
Parameter	
Operational Temperature	-40 to +85°C
Storage Temperature	-10 to +85°C
Relative Humidity (Storage)	65 $\pm$ 20% RH
Moisture Sensitivity	1
RoHs and REACH compliant	Yes

# RF Characteristics

## Return loss



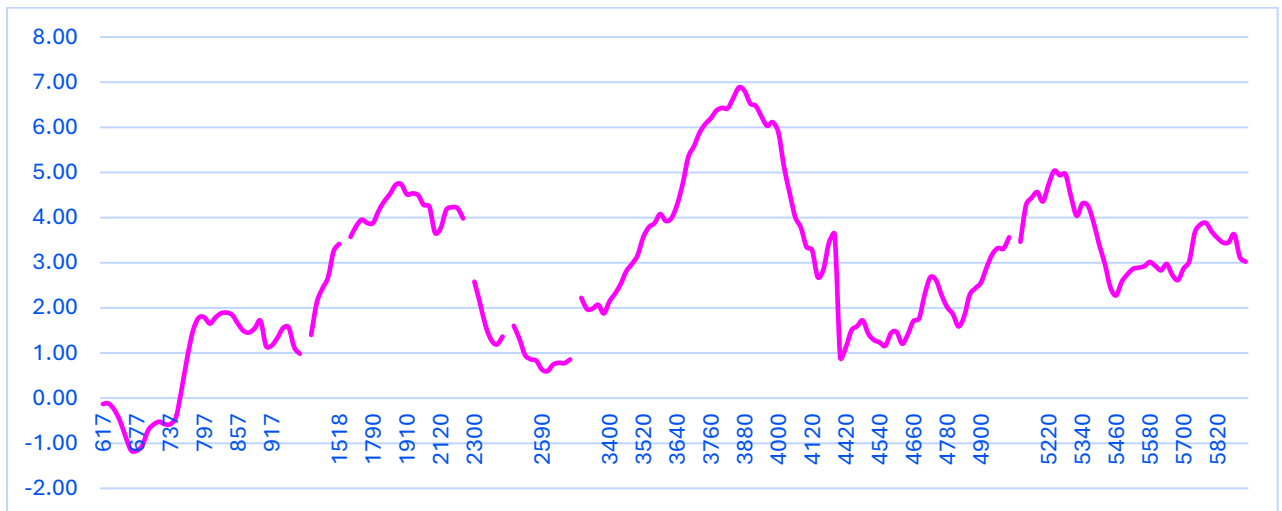
## VSWR



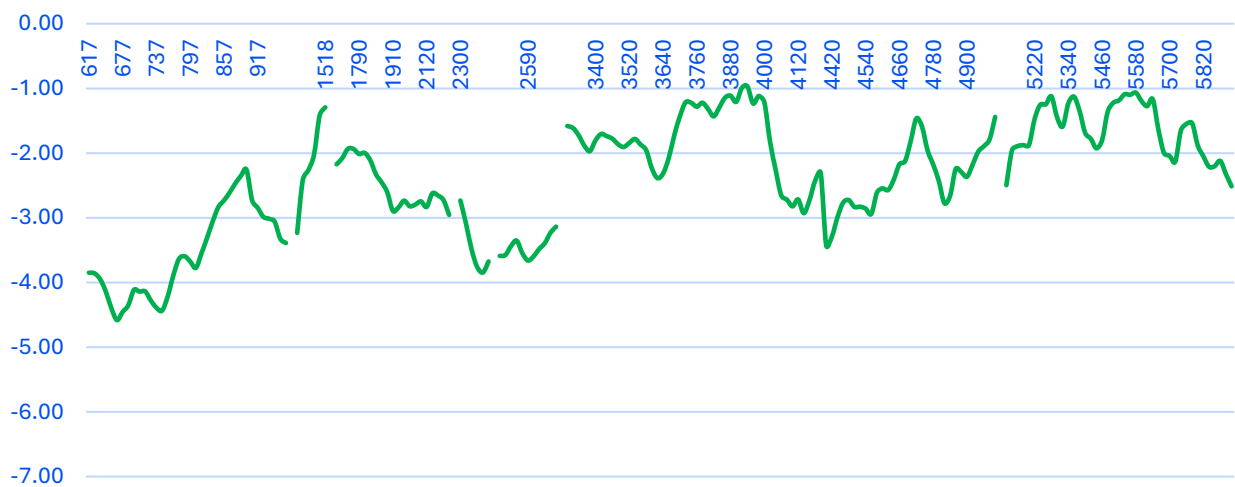
### Efficiency



### Peak Gain

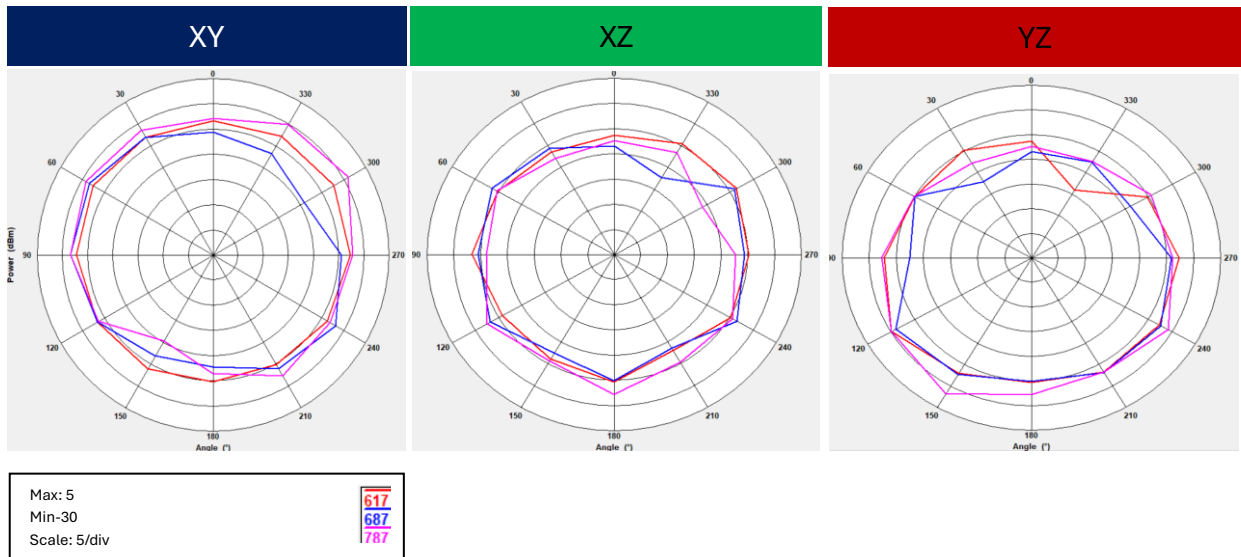
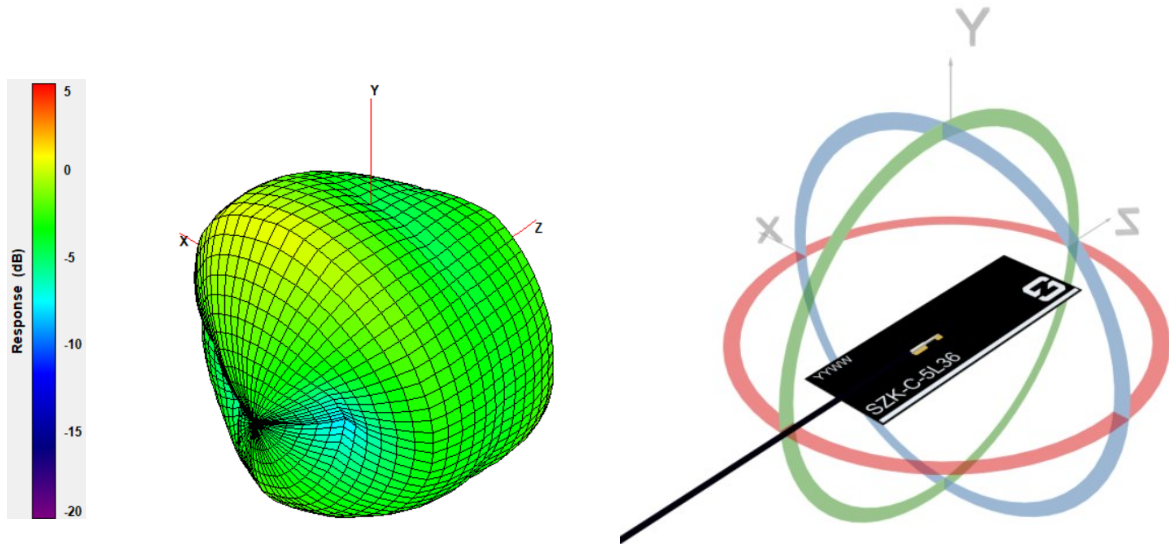


### Average Gain

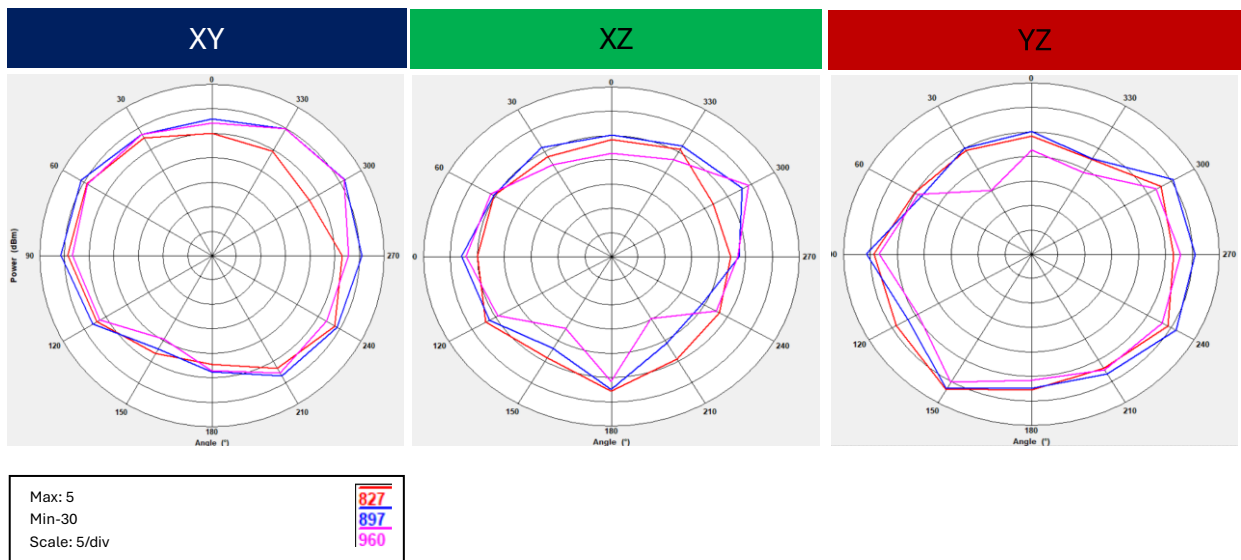
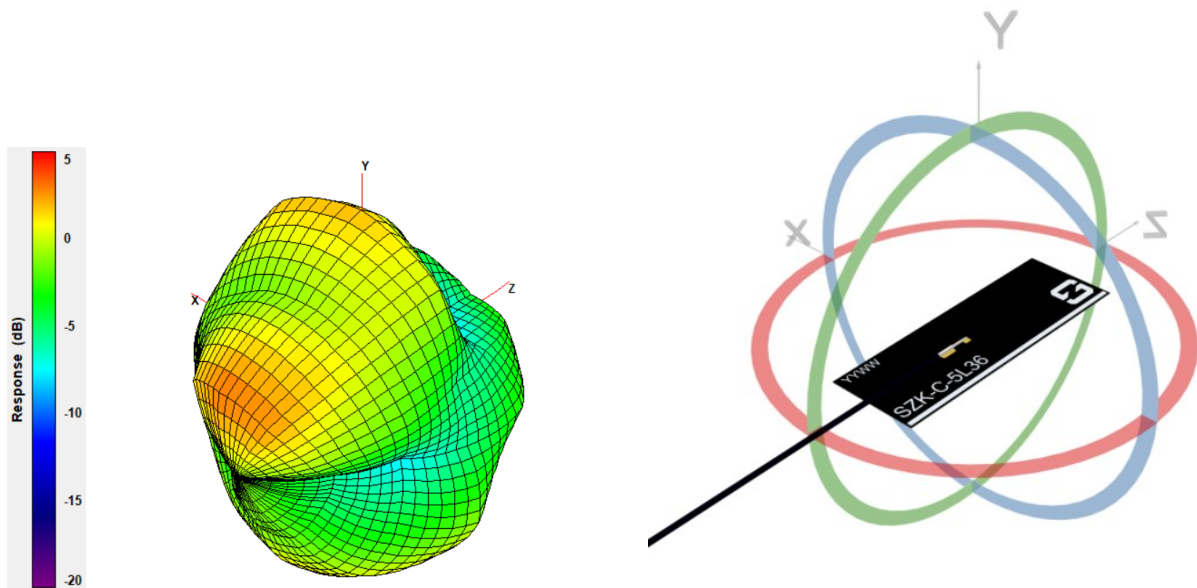


# RF Radiation Patterns

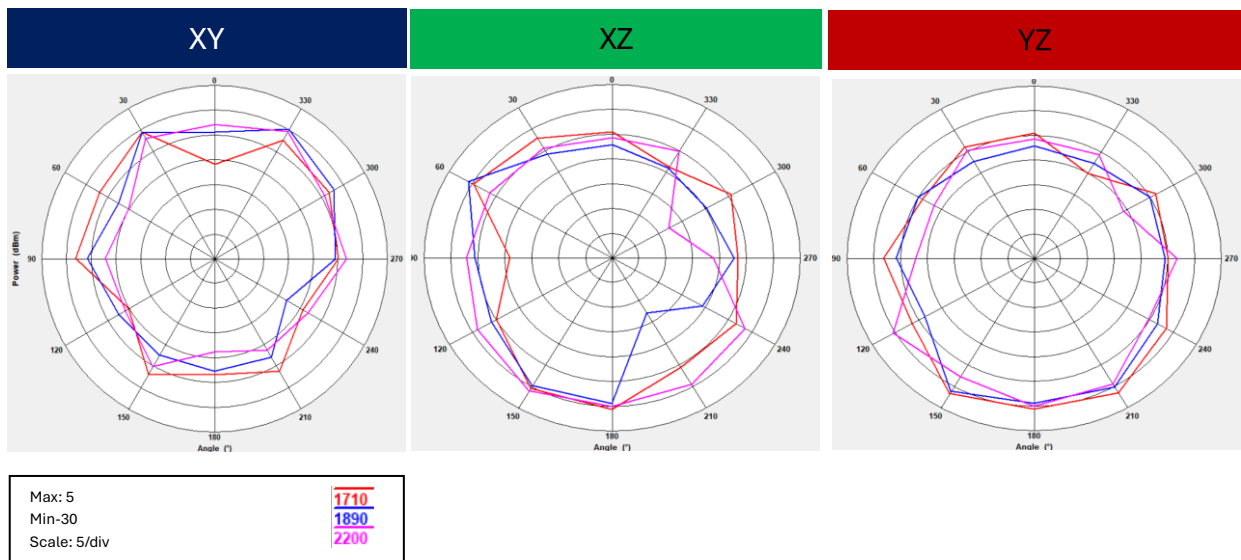
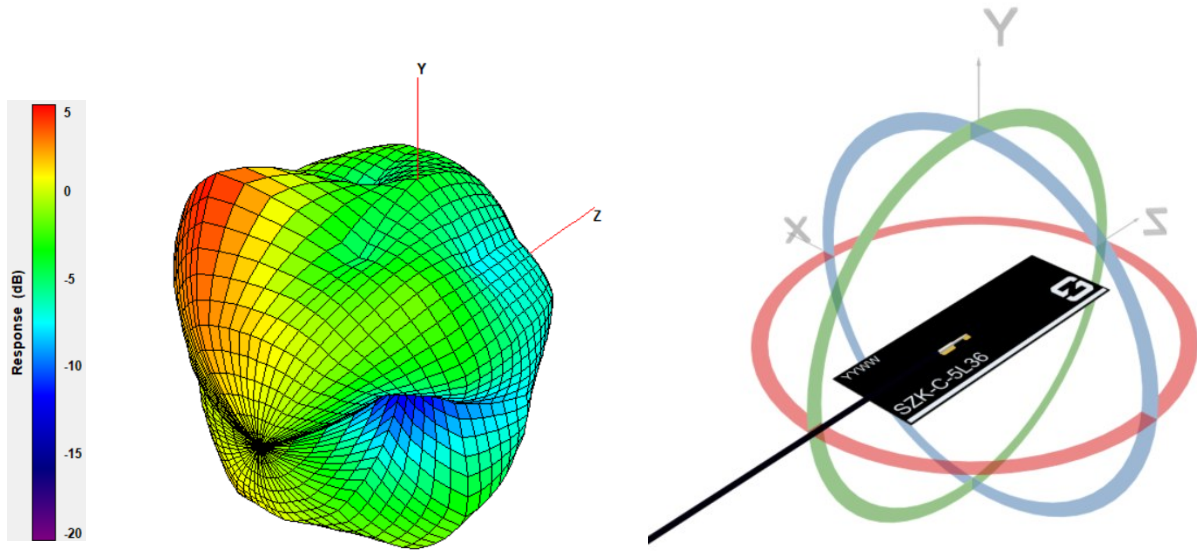
## RF Radiation Patterns at 650MHz



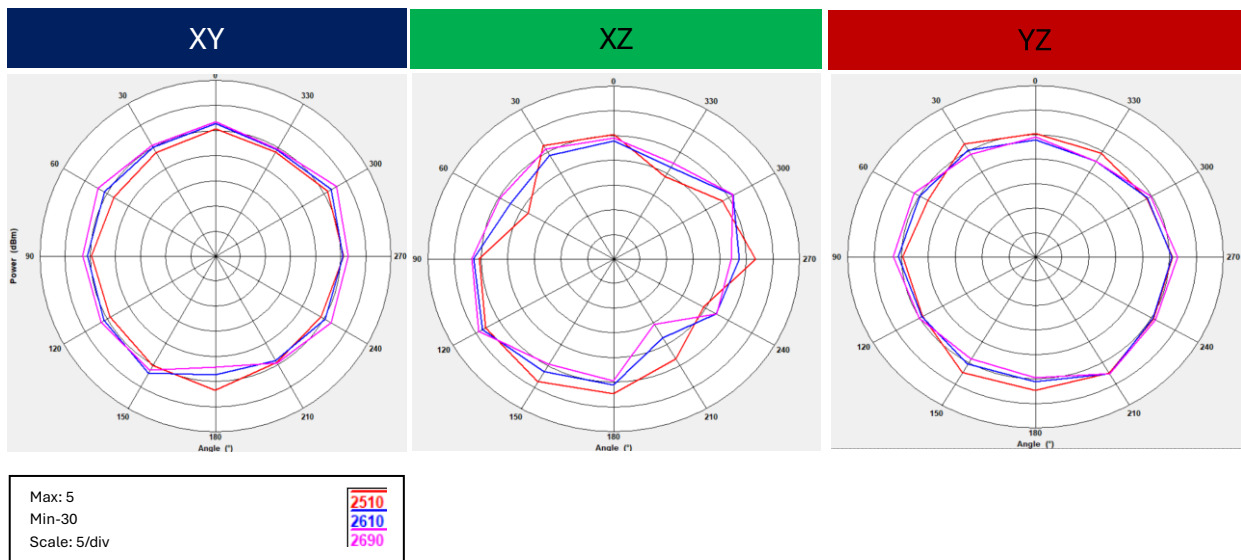
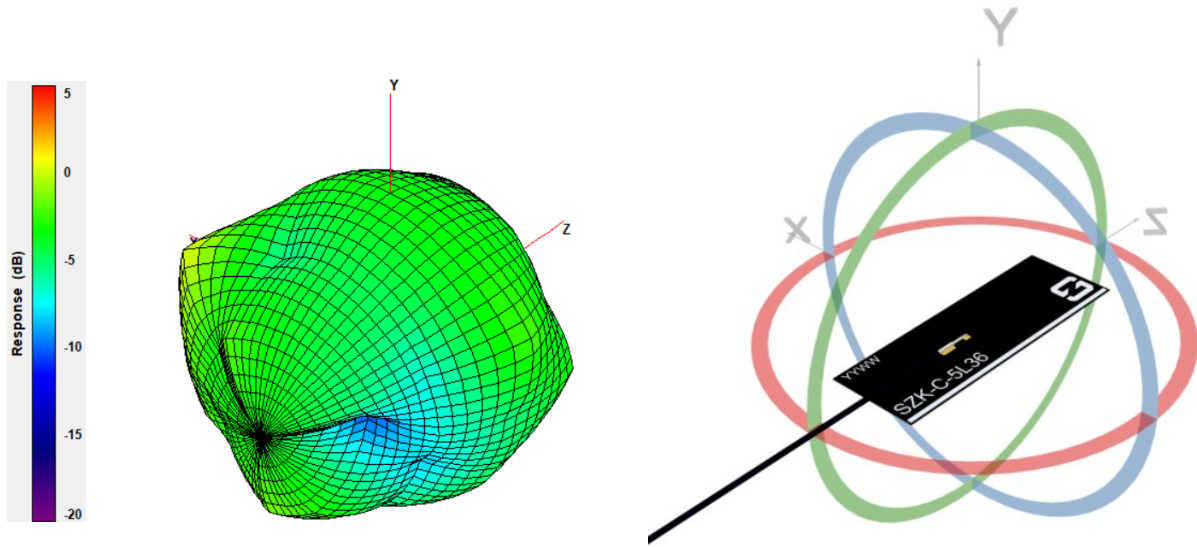
# RF Radiation Patterns at 880MHz



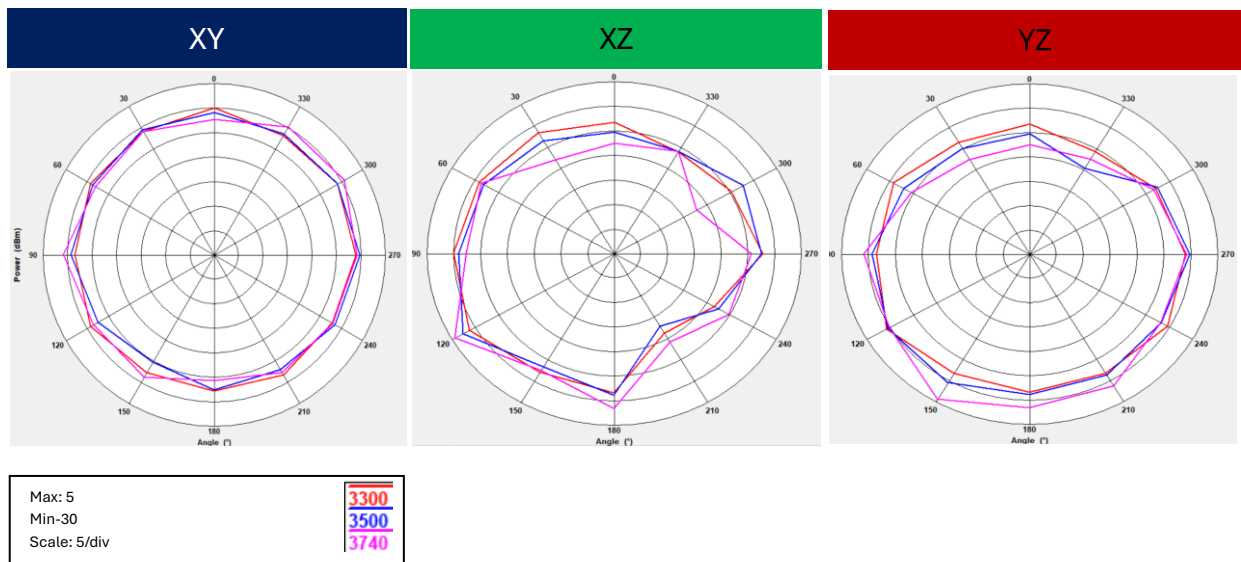
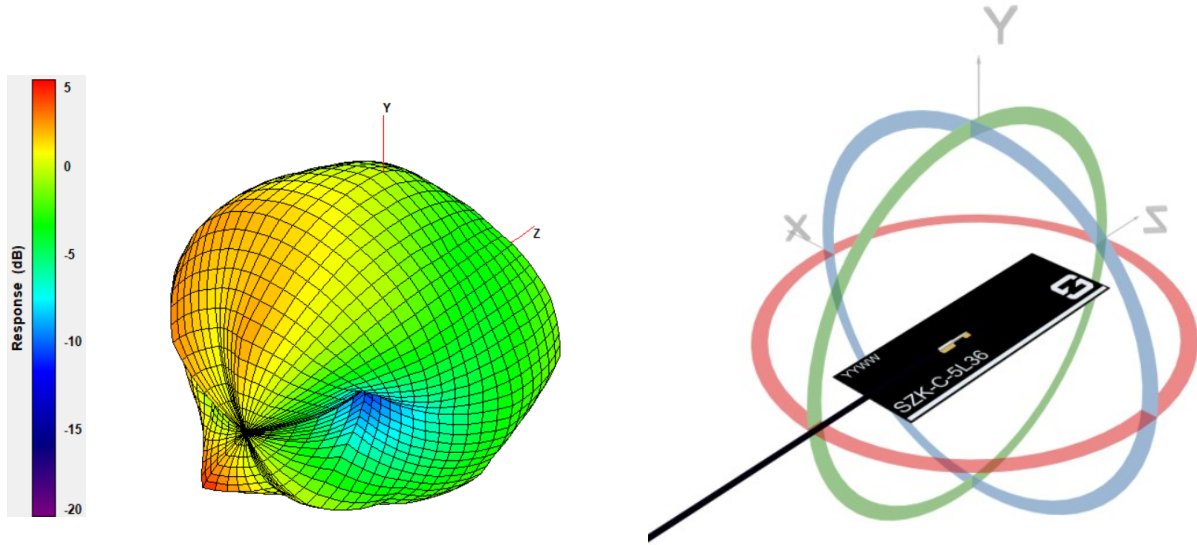
# RF Radiation Patterns at 1880MHz



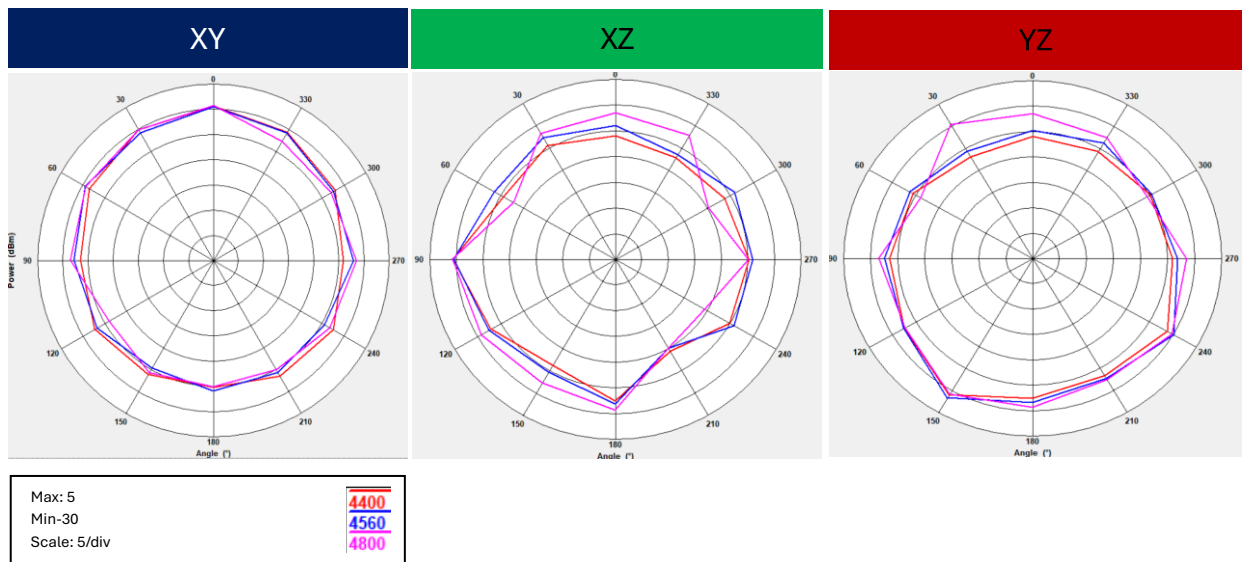
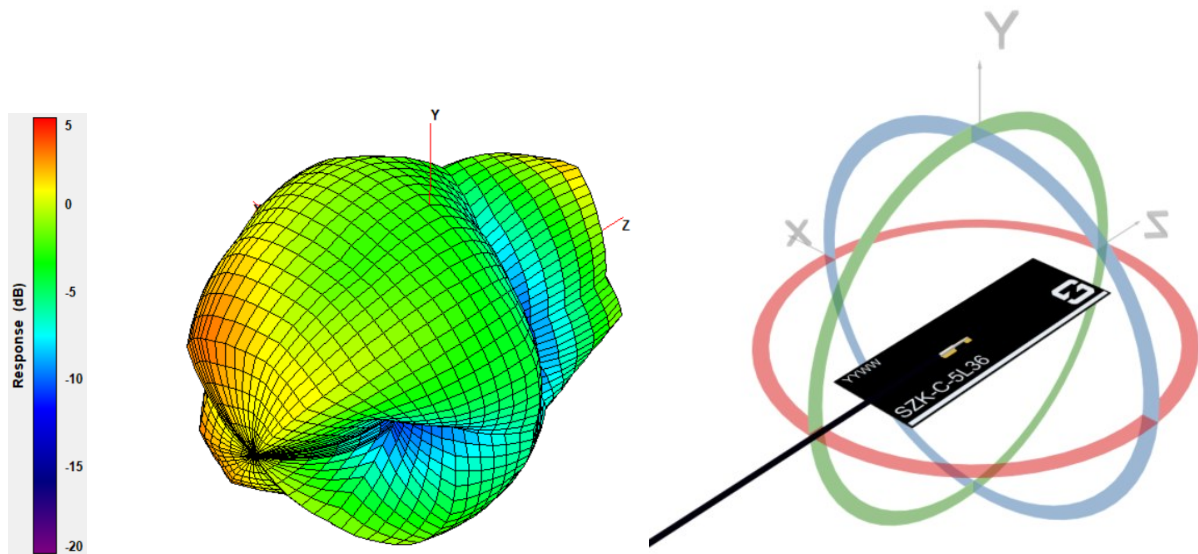
# RF Radiation Patterns at 2600MHz



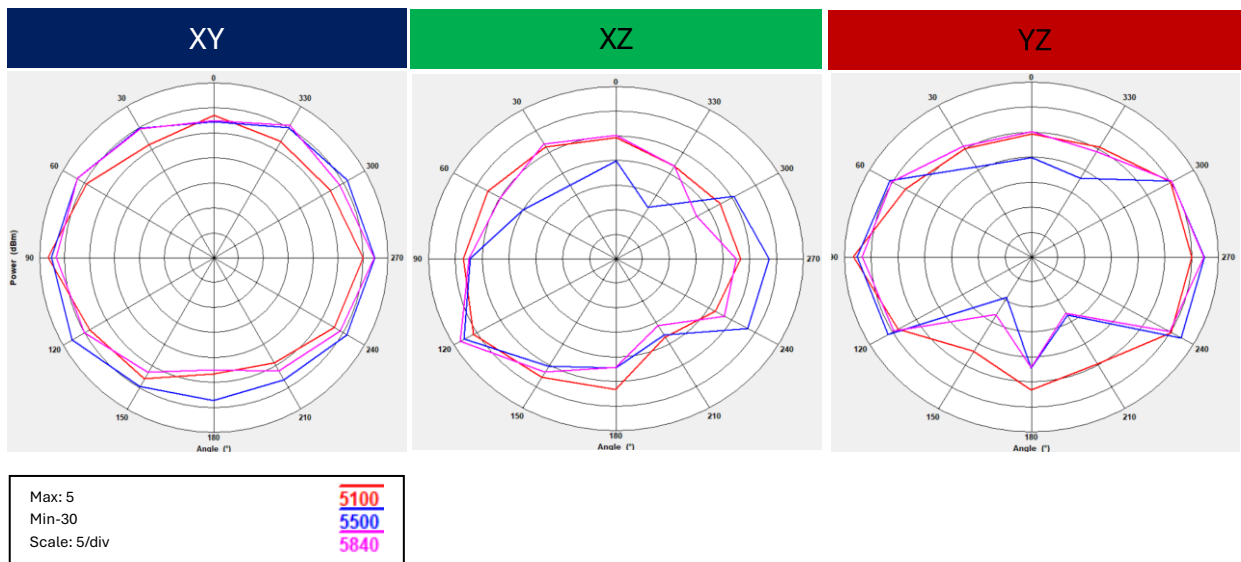
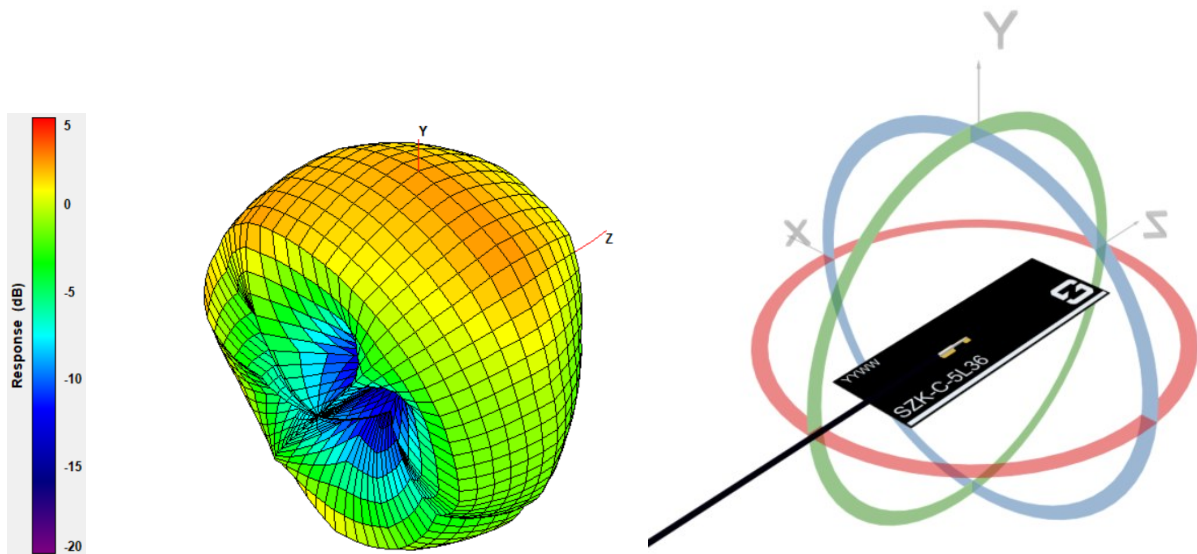
# RF Radiation Patterns at 3600MHz



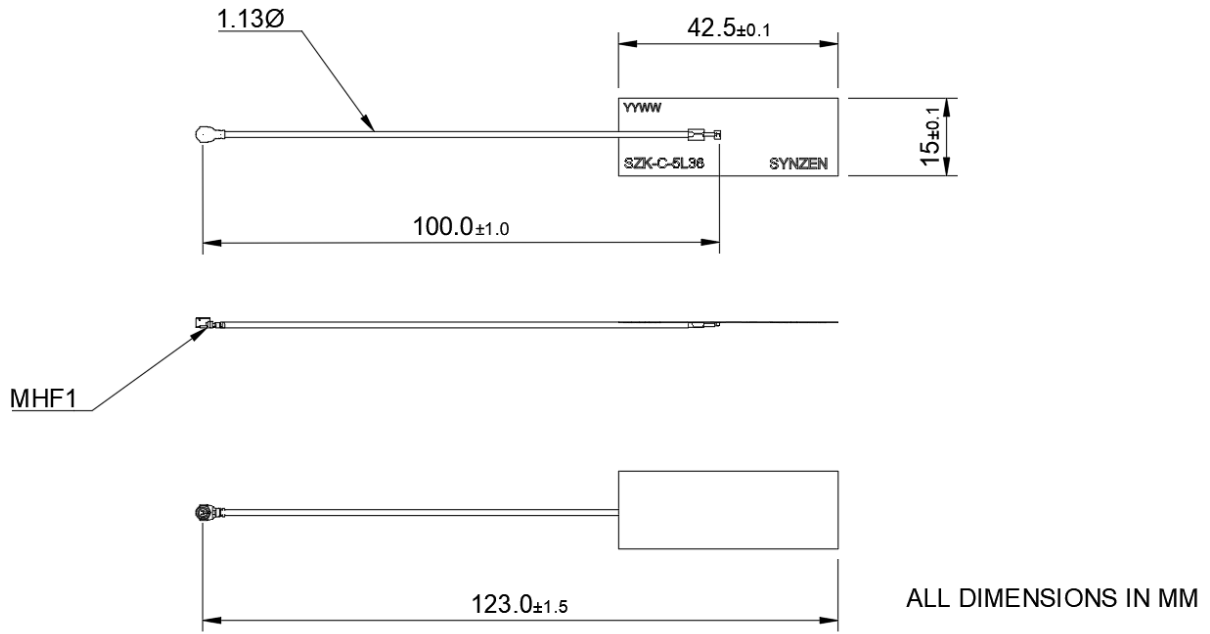
# RF Radiation Patterns at 4400MHz



# RF Radiation Patterns at 5500MHz



# Mechanical Drawing



## Packaging

Antennas packed in PE bag (20 per bag)

Small bag dimensions: 28.5 x 9.5 (cm)

100pcs per larger PE bag with product label

Bag dimensions = 30 x 19 (cm)

## Material Regulation

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

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