TAOGLAS

Datasheet

Blade

Part No:
TD.66.AH31

Description:

5G/4G 600-6000MHz Connector Mount Antenna

With N-Type Male Connector

Features:

600-6000MHz Wideband 5G/4G Cellular Antenna

Fantastic Efficiency Across all Bands

Robust External Antenna for exterior mounting

IP67 Rated Waterproof, suitable for outdoor applications

Omnidirectional Gain Patterns for Optimum Coverage

Connector: N-Type Male

Dimensions: 228 * Ø22.8 mm

RoHS and REACH Compliant

1. Introduction

The Taoglas TD.66 is a robust antenna designed to cover all global 5G/4G frequencies between 600MHz and 6GHz. The TD.66 uses a robust PC/ABS enclosure along with an IP67 rating, which is ideal for outdoor applications. The TD.66 is supplied with an N-Type male connector meaning can be directly installed on gateways and routers which come with N-Type connectors. The TD.66 performs excellently at 5G bands with efficiencies above 50% across the entire 5G/4G spectrum while also maintaining stable radiation patterns.

The Blade TD.66 has been evolved from the highly successful TD.95 and is part of the ever-growing portfolio of 5G antennas offered by Taoglas.

Typical Applications include:

- Gateways and Routers
- Cameras and Security
- Public Safety
- Point of Sales Terminals
- Smart Home Automation
- Robotics / Autonomous

The TD.66 comes with a N-Type Male connector as standard and this can be customized subject to MOQ and NRE, contact your regional Taoglas customer support team for more information.

2. Specifications

Electrical								
Band	**Frequency (MHz)**	**Efficiency (%)**	**Average Gain (dB)**	**Peak Gain (dBi)**	**Impedance**	**Max Input Power**	**Polarization**	**Radiation Pattern**
5GNR/4G Band 71	**617~698**	78	-1.04	1.8	50 Ω	10W	Linear	Omni-Directional
4G/3G Band 12,13,14,17,28,29	**698~824**	51	-2.9	1.6				
4G/3G/NB-IoT/Cat M Band 5,8,18,19,20,26,27	**824~960**	49	-3.09	2.6				
5GNR/4G Band 21,32,74,75,76	**1427~1518**	79	-1.04	3.9				
4G/3G Band 1,2,3,4,9,23,25,35,39,66	**1710~2200**	70	-1.54	2.5				
4G/3G Band 7,30,38,40,41	**2300~2690**	57	-2.41	3.9				
5GNR/4G Band 22,42,48,77,78,79	**3300~5000**	75	-1.21	4.4				
LTE5200/ Wi-Fi 5800	**5150~5925**	66	-1.79	5.4				

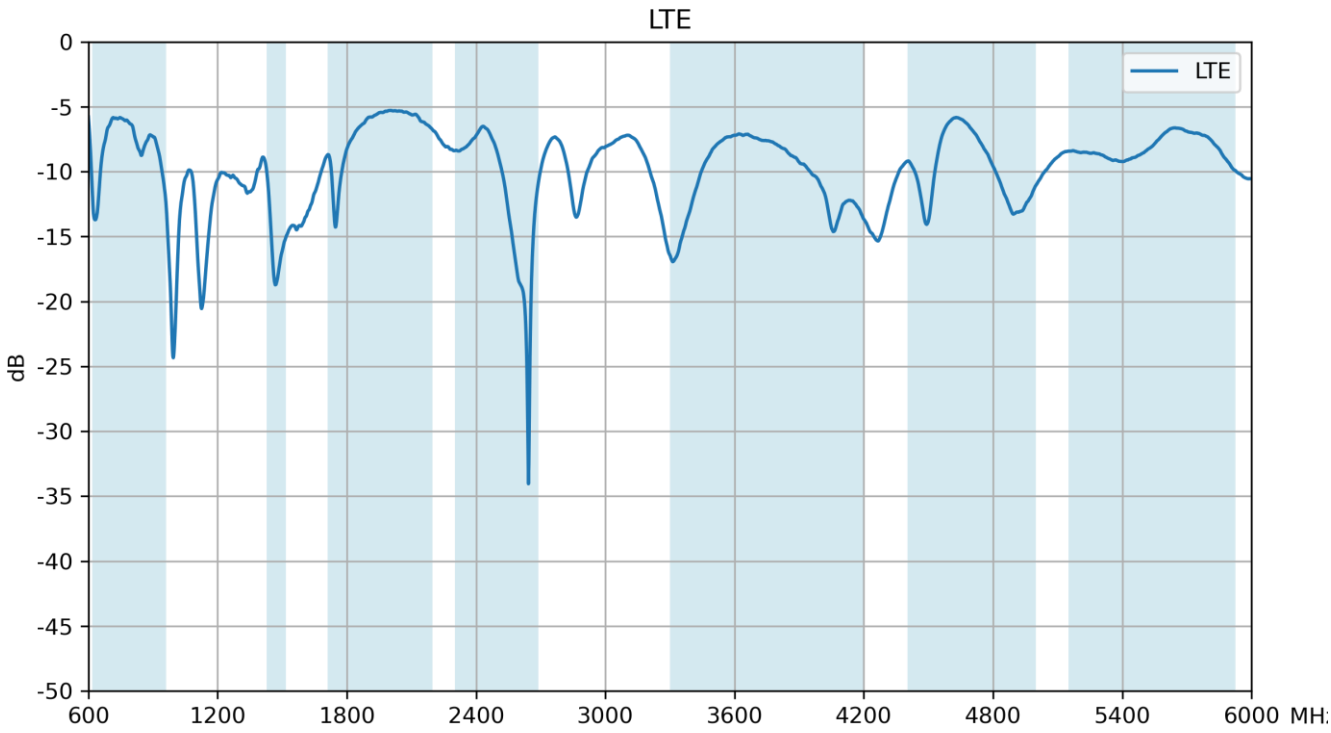
*Tested in free space

Mechanical	
Dimensions	229 x 23 mm
Weight	70g
Plastic Material	PC/ABS
Connector	N-Type Male
Environmental	
Temperature Range	-40°C to 85°C

5G/4G Bands			
Band Number	5GNR / FR1 / LTE / LTE-Advanced / WCDMA / HSPA / HSPA+ / TD-SCDMA		
	Uplink	Downlink	Covered
1	UL: 1920 to 1980	DL: 2110 to 2170	✓
2	UL: 1850 to 1910	DL: 1930 to 1990	✓
3	UL: 1710 to 1785	DL: 1805 to 1880	✓
4	UL: 1710 to 1755	DL: 2110 to 2155	✓
5	UL: 824 to 849	DL: 869 to 894	✓
7	UL: 2500 to 2570	DL:2620 to 2690	✓
8	UL: 880 to 915	DL: 925 to 960	✓
9	UL: 1749.9 to 1784.9	DL: 1844.9 to 1879.9	✓
11	UL: 1427.9 to 1447.9	DL: 1475.9 to 1495.9	✓
12	UL: 699 to 716	DL: 729 to 746	✓
13	UL: 777 to 787	DL: 746 to 756	✓
14	UL: 788 to 798	DL: 758 to 768	✓
17	UL: 704 to 716	DL: 734 to 746	✓
18	UL: 815 to 830	DL: 860 to 875	✓
19	UL: 830 to 845	DL: 875 to 890	✓
20	UL: 832 to 862	DL: 791 to 821	✓
21	UL: 1447.9 to 1462.9	DL: 1495.9 to 1510.9	✓
22	UL: 3410 to 3490	DL: 3510 to 3590	✓
23	UL:2000 to 2020	DL: 2180 to 2200	✓
24	UL:1625.5 to 1660.5	DL: 1525 to 1559	✓
25	UL: 1850 to 1915	DL: 1930 to 1995	✓
26	UL: 814 to 849	DL: 859 to 894	✓
27	UL: 807 to 824	DL: 852 to 869	✓
28	UL: 703 to 748	DL: 758 to 803	✓
29	UL: -	DL: 717 to 728	✓
30	UL: 2305 to 2315	DL: 2350 to 2360	✓
31	UL: 452.5 to 457.5	DL: 462.5 to 467.5	✗
32	UL: -	DL: 1452 - 1496	✓
35	1850 to 1910		✓
38	2570 to 2620		✓
39	1880 to 1920		✓
40	2300 to 2400		✓
41	2496 to 2690		✓
42	3400 to 3600		✓
43	3600 to 3800		✓
48	3550 to 3700		✓
66	UL: 1710-1780	DL: 2110-2200	✓
71	617 to 698		✓
74/75/76	1427 to 1518		✓
77	3300 to 4200		✓
78	3300 to 3800		✓
79	4400 to 5000		✓

3. Antenna Characteristics

3.1 Return Loss



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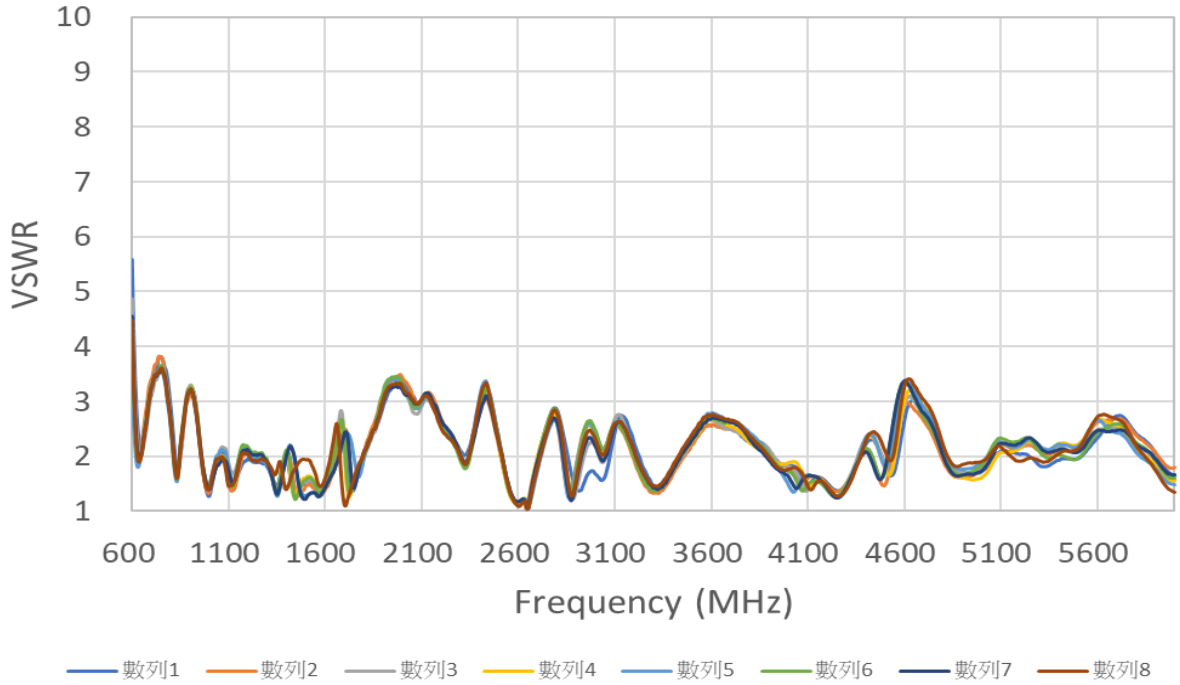

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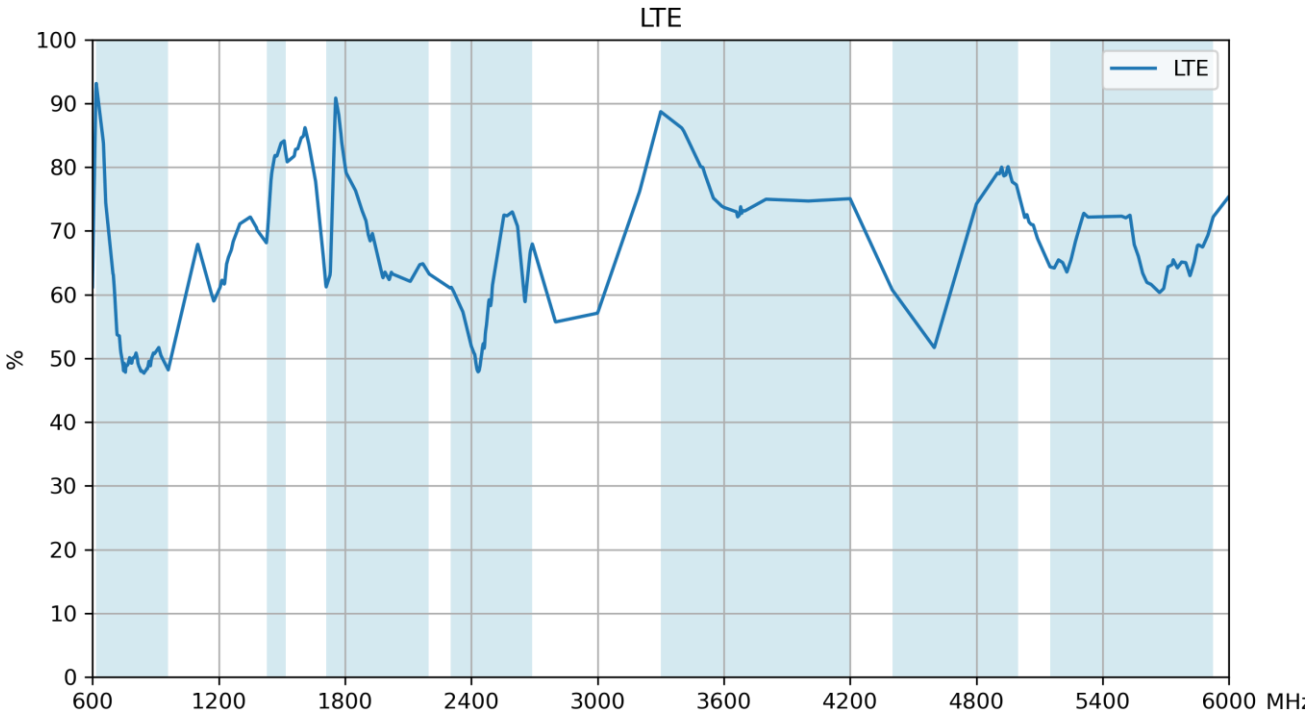

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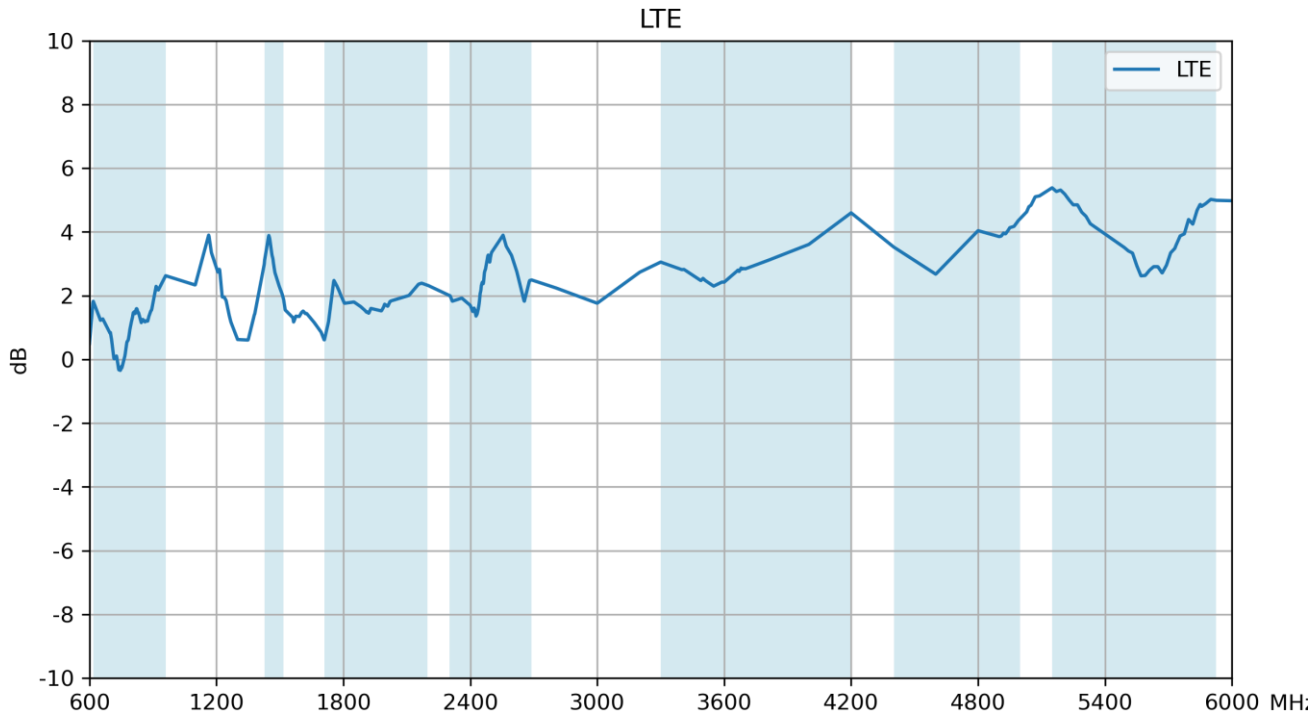

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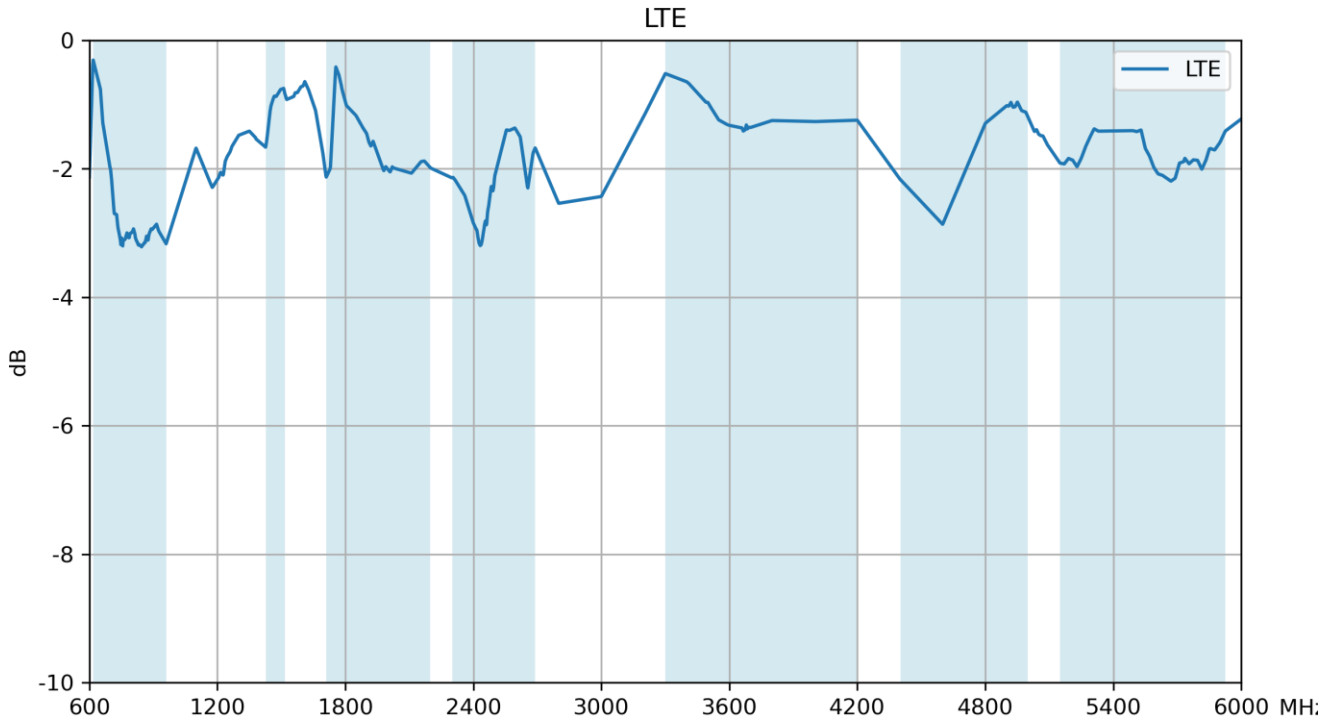
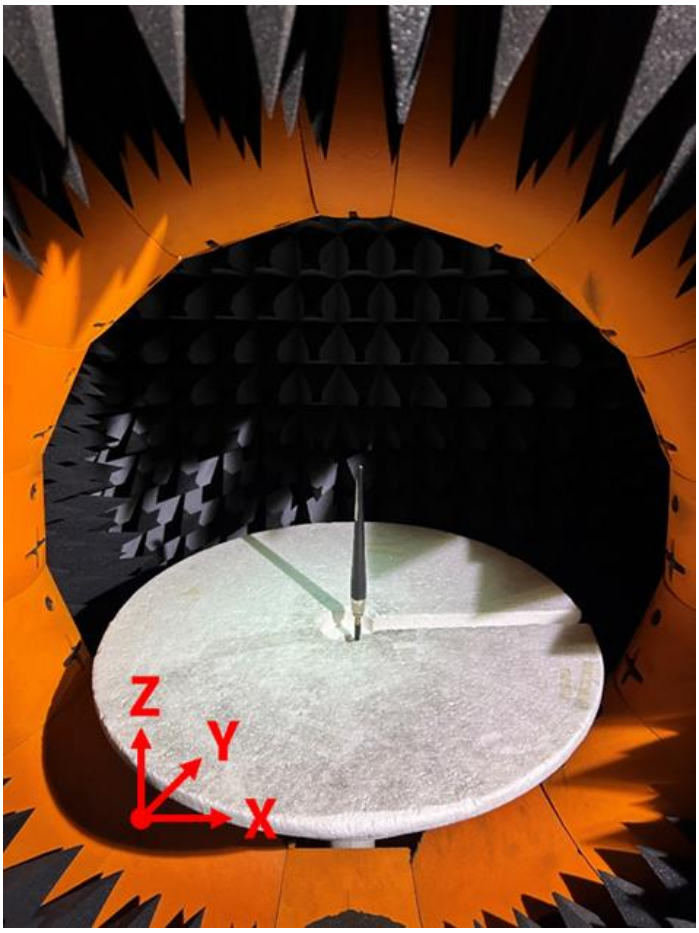


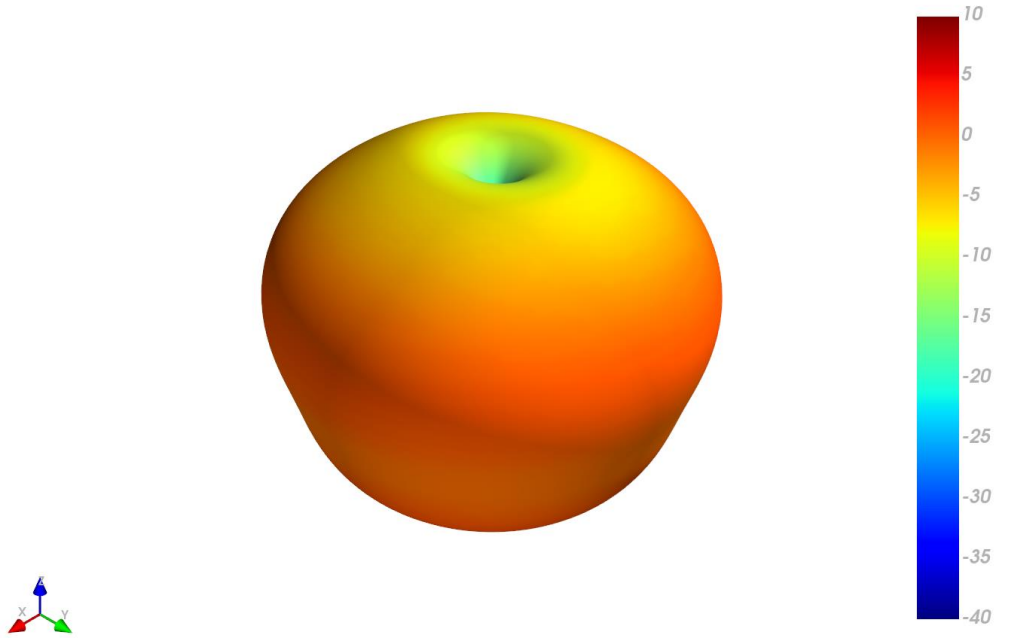
4. Radiation Patterns

4.1 Test Setup

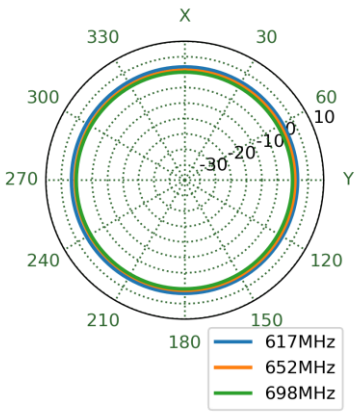


4.2 3D and 2D Radiation Patterns – Straight

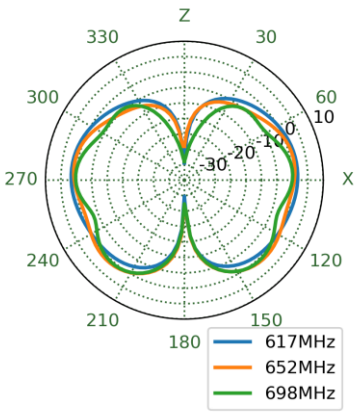
663MHz



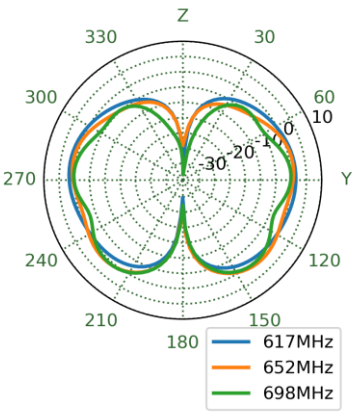
XY Plane



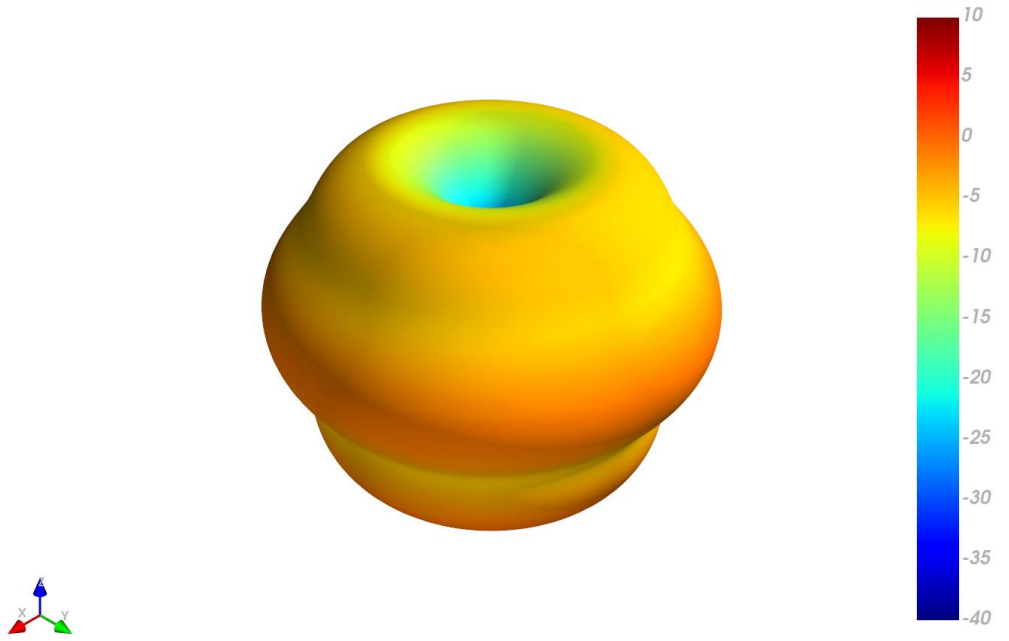
XZ Plane



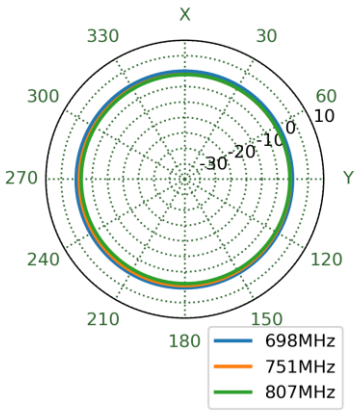
YZ Plane

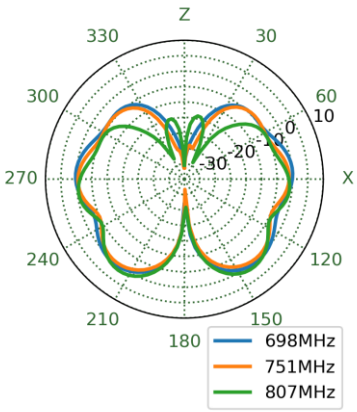


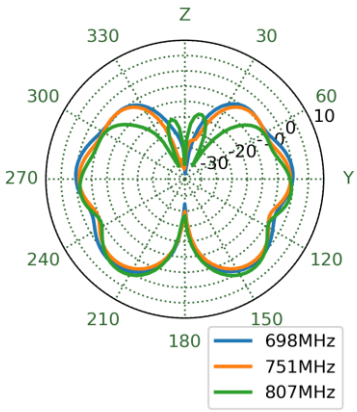
751MHz



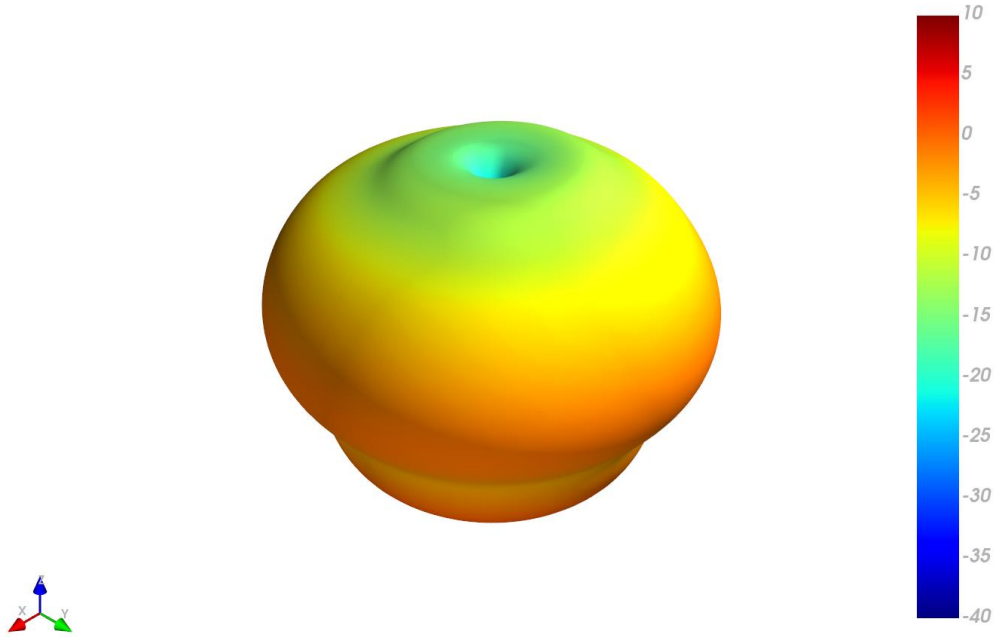
XY Plane	XZ Plane	YZ Plane

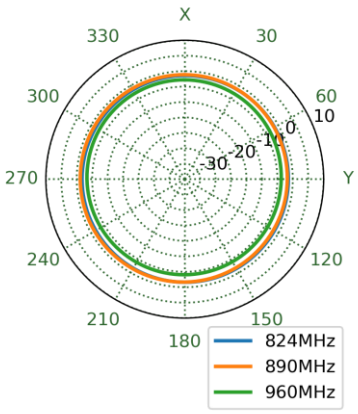
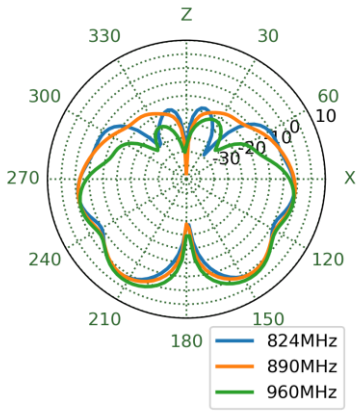
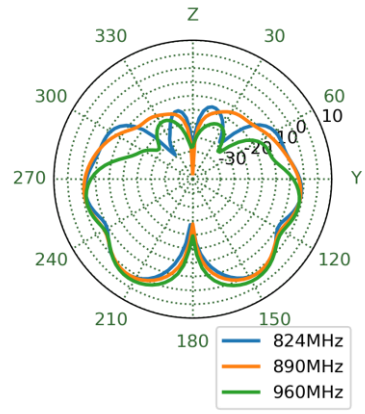




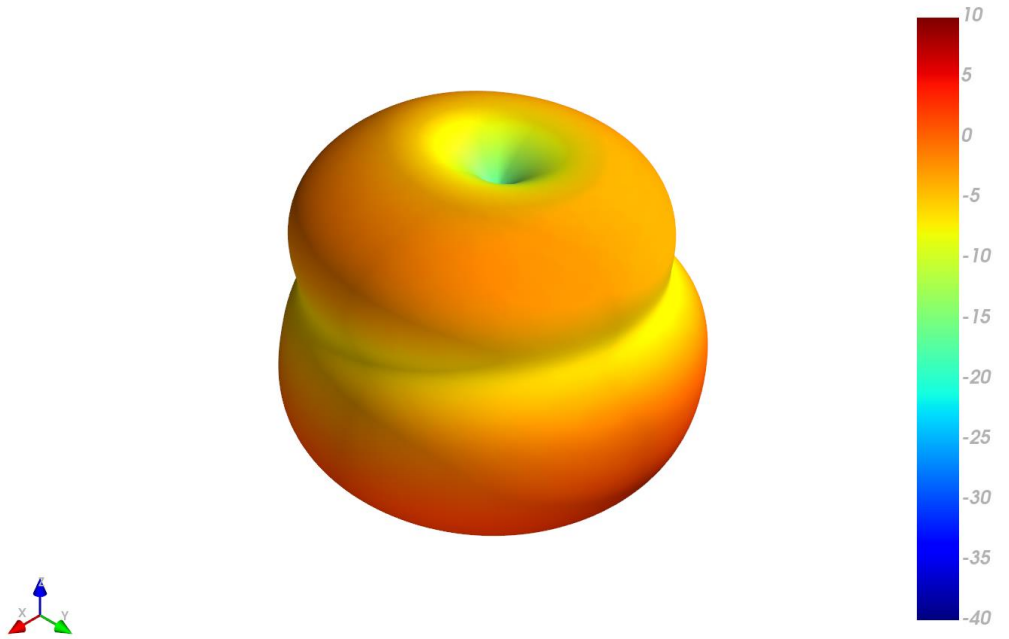


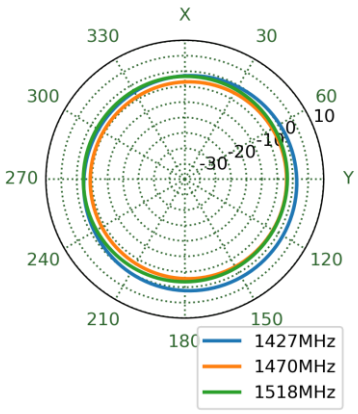
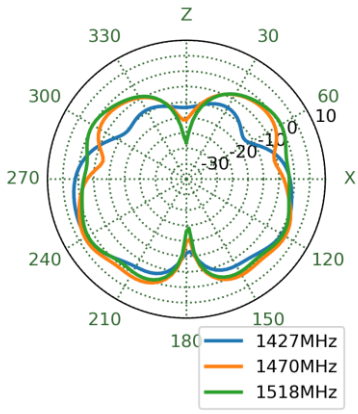
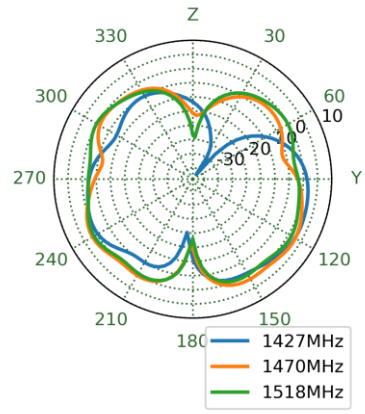
890MHz



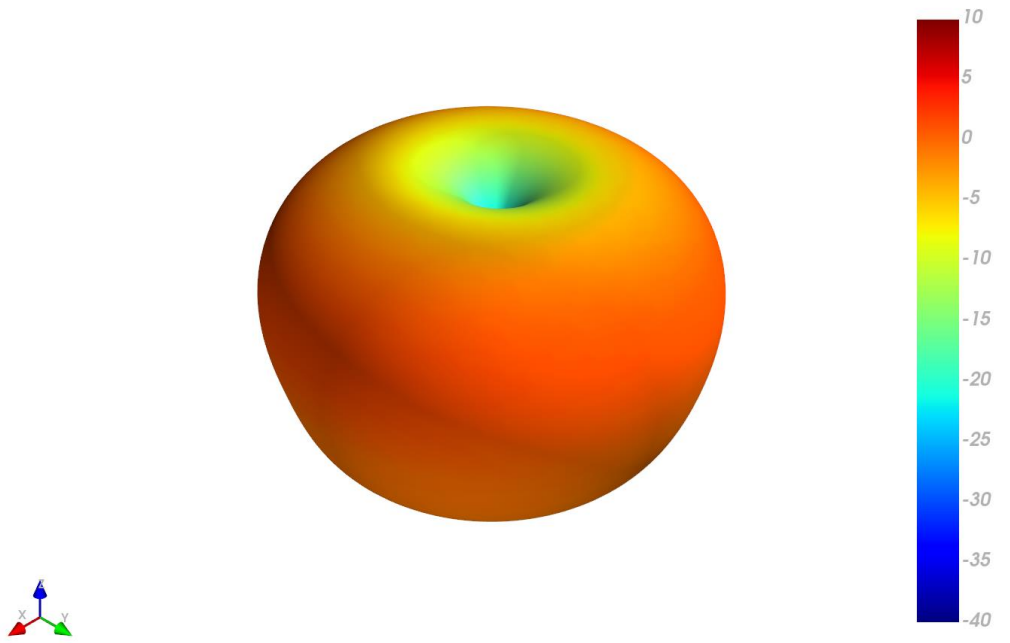
XY Plane	XZ Plane	YZ Plane
		

1470MHz

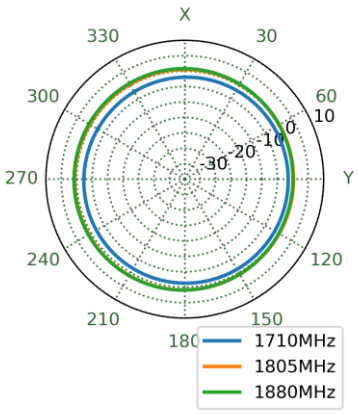


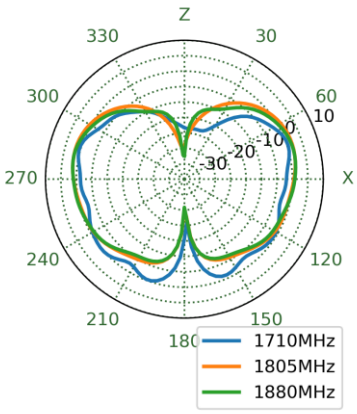
XY Plane	XZ Plane	YZ Plane
		

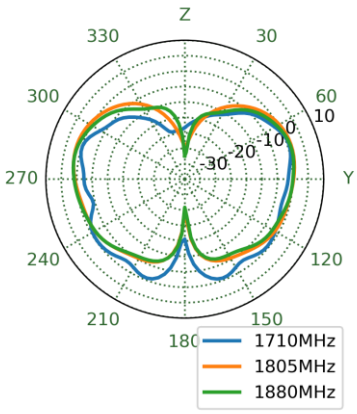
1805MHz



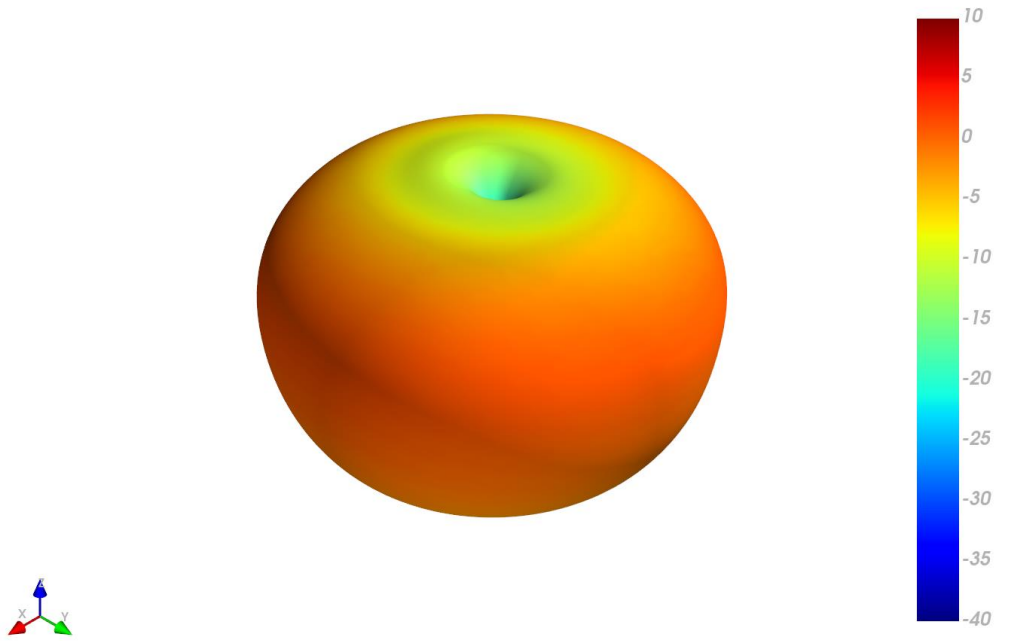
XY Plane	XZ Plane	YZ Plane



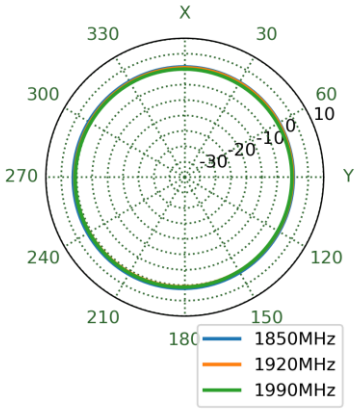


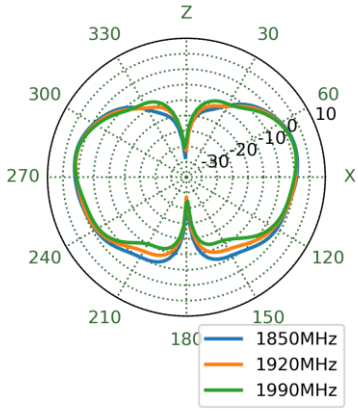


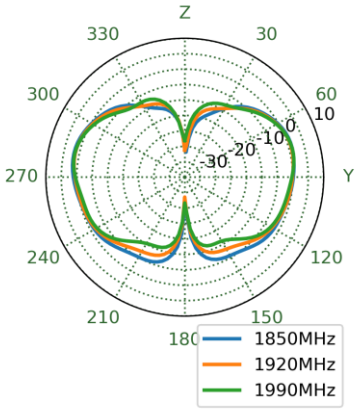
1920MHz



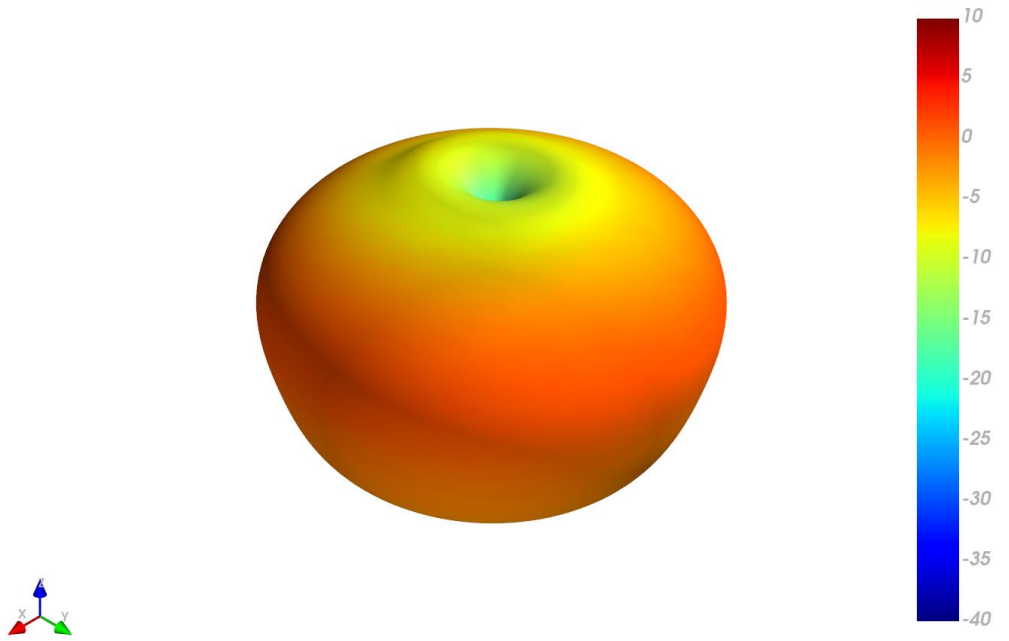
XY Plane	XZ Plane	YZ Plane



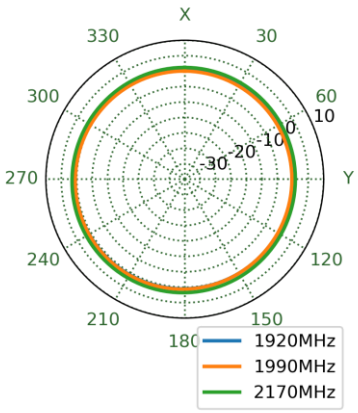


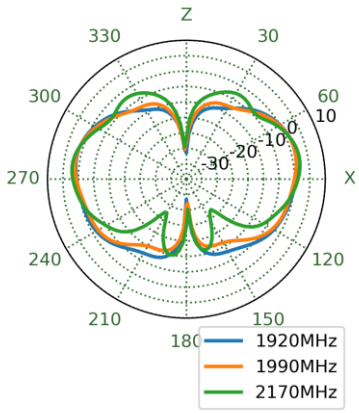


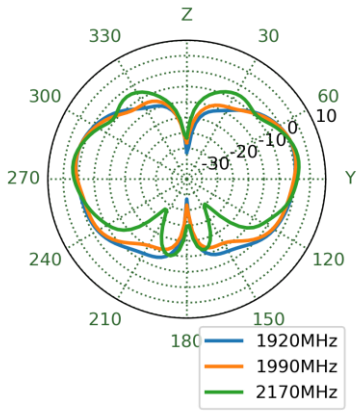
1990MHz



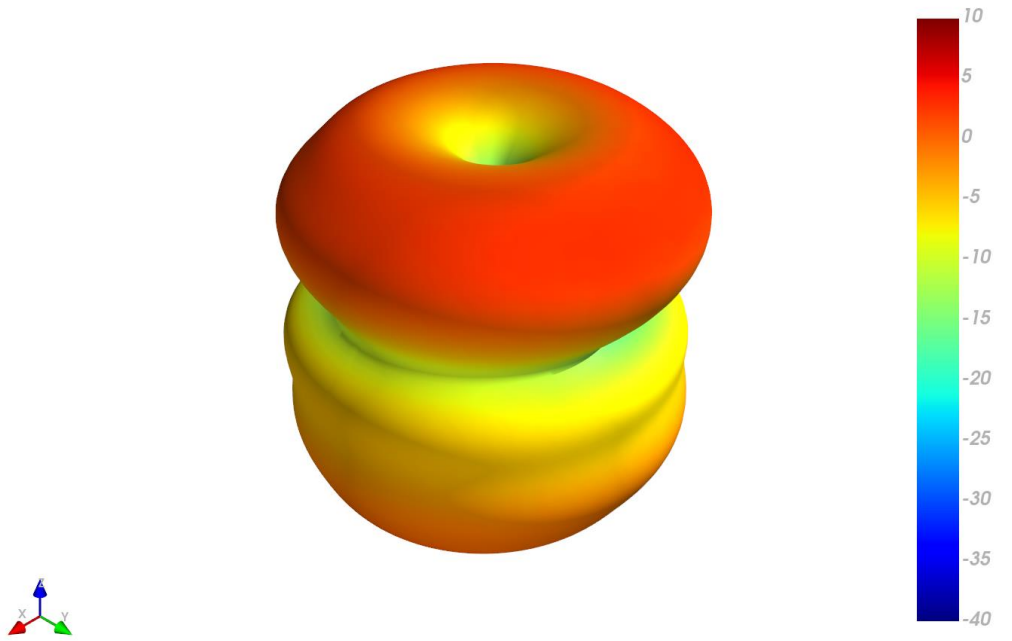
XY Plane	XZ Plane	YZ Plane

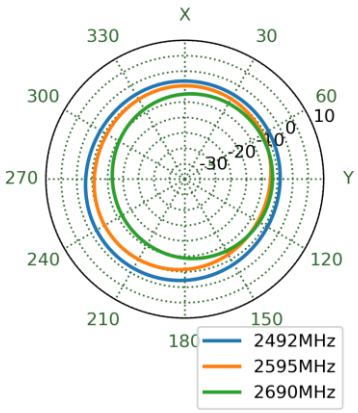
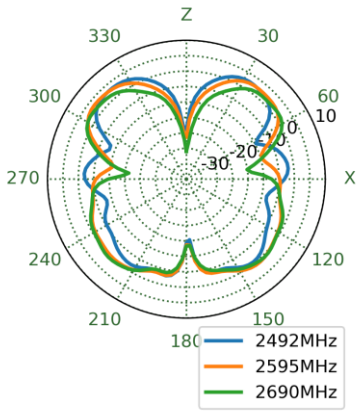
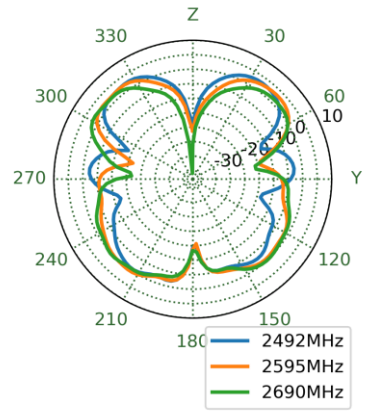




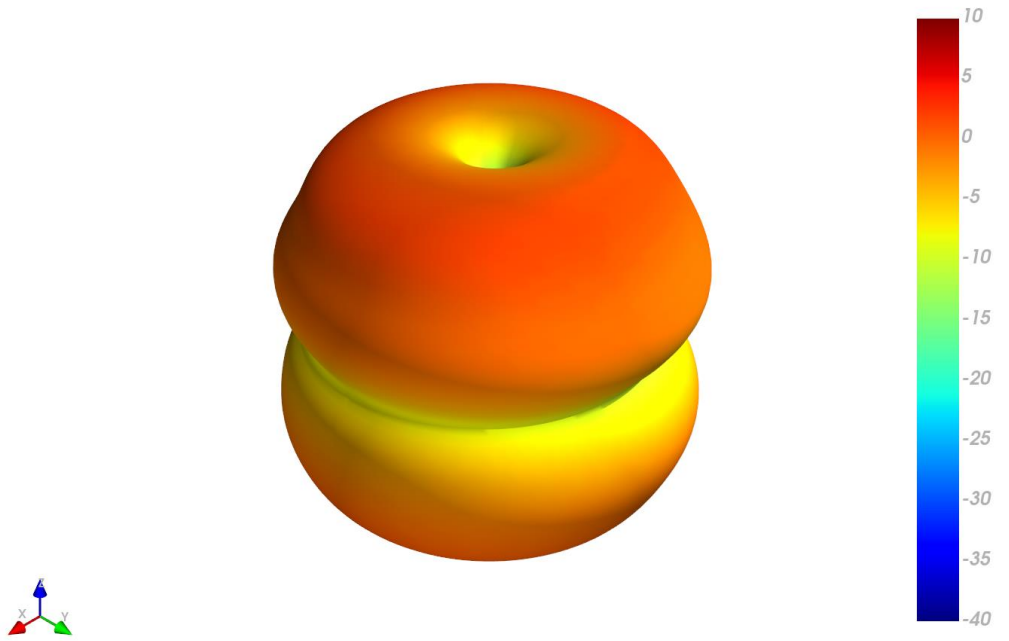


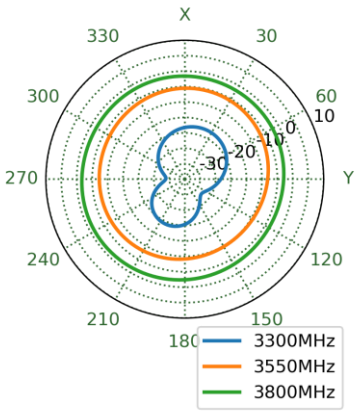
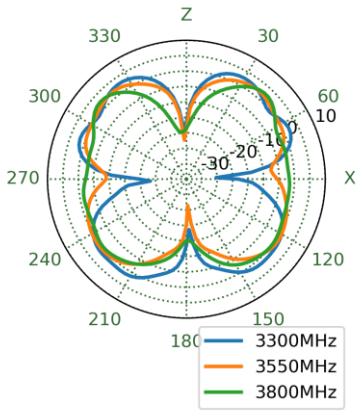
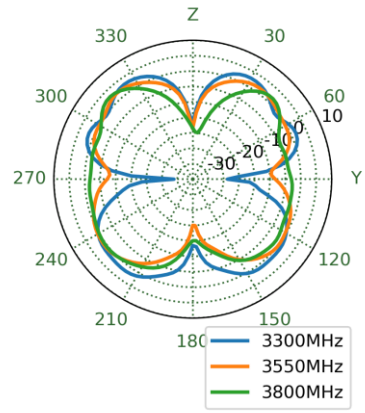
2595MHz



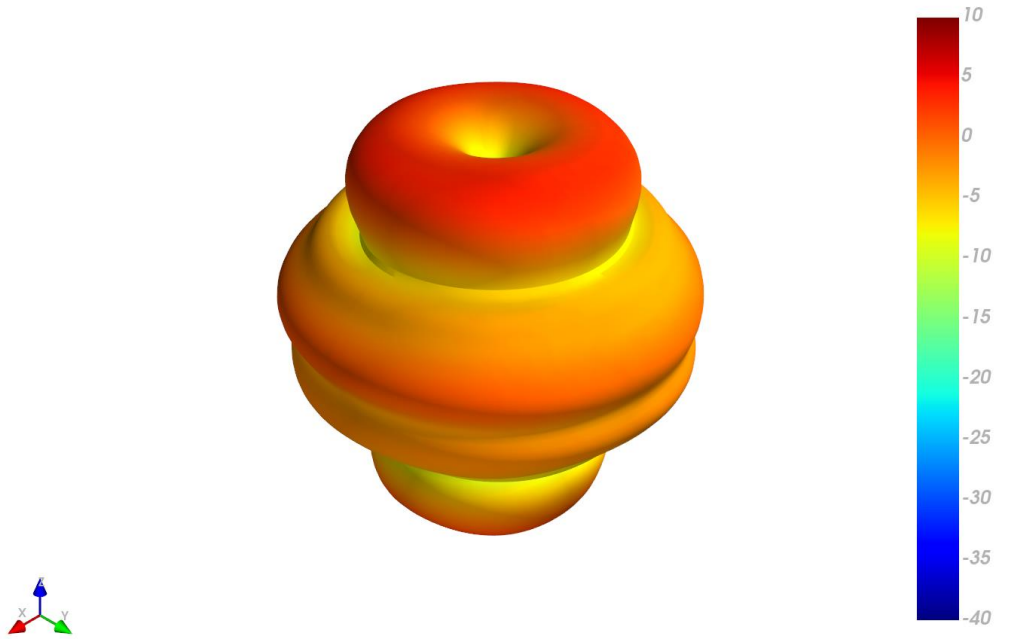
XY Plane	XZ Plane	YZ Plane
		

3550MHz

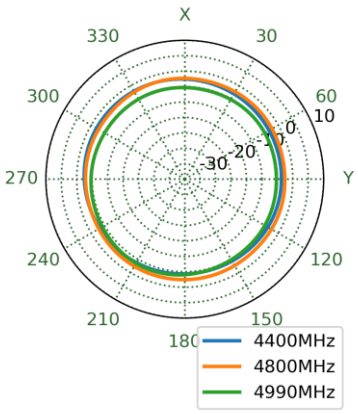


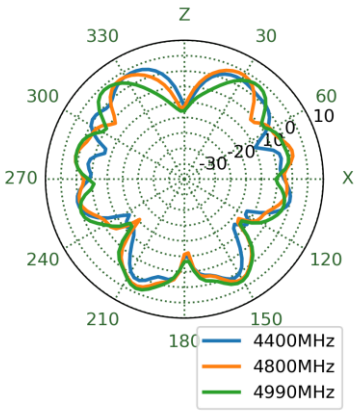
XY Plane	XZ Plane	YZ Plane
		

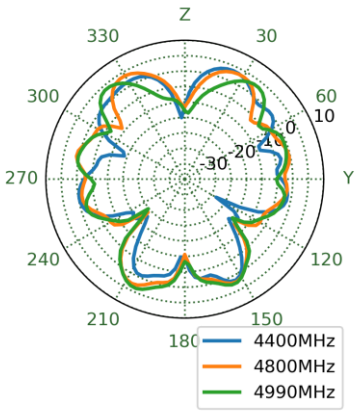
4800MHz



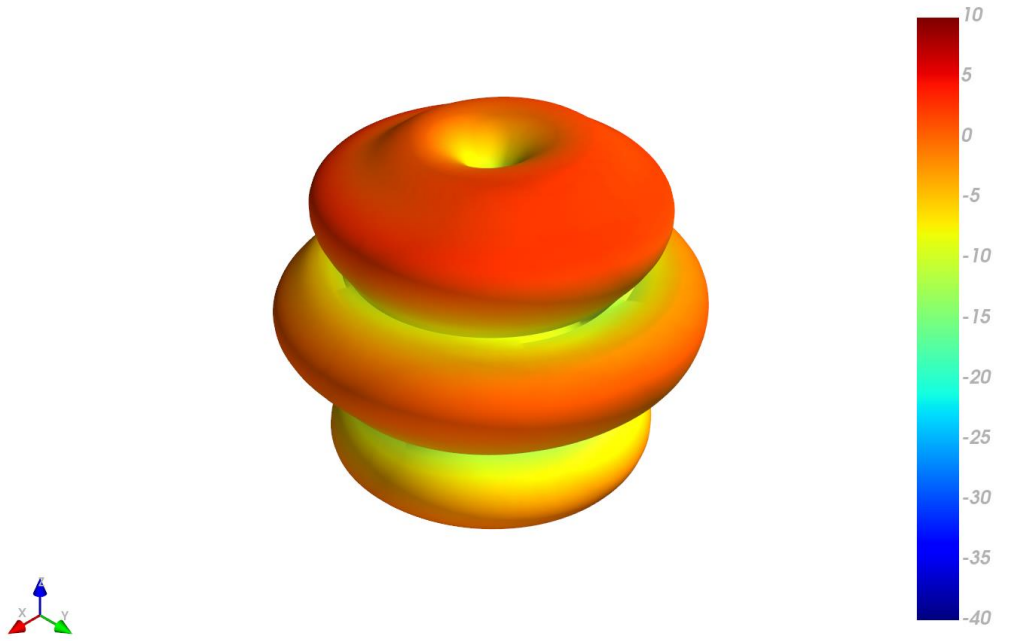
XY Plane	XZ Plane	YZ Plane



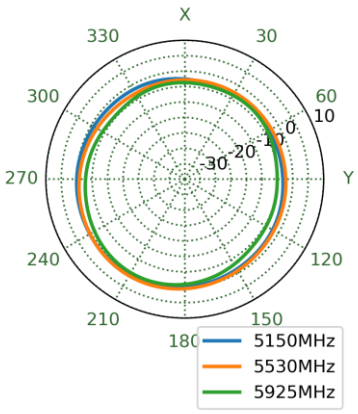


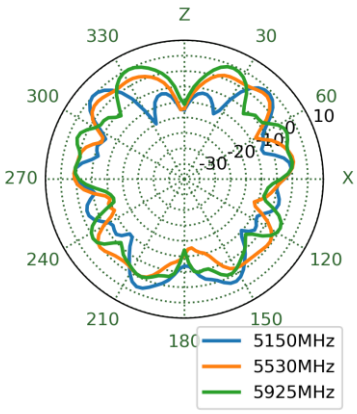


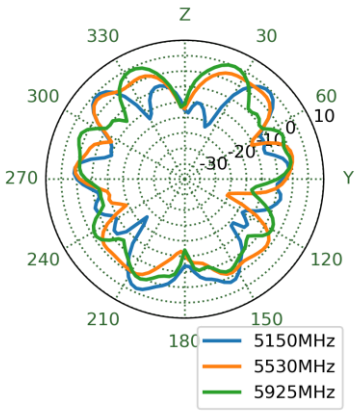
5530MHz



XY Plane	XZ Plane	YZ Plane



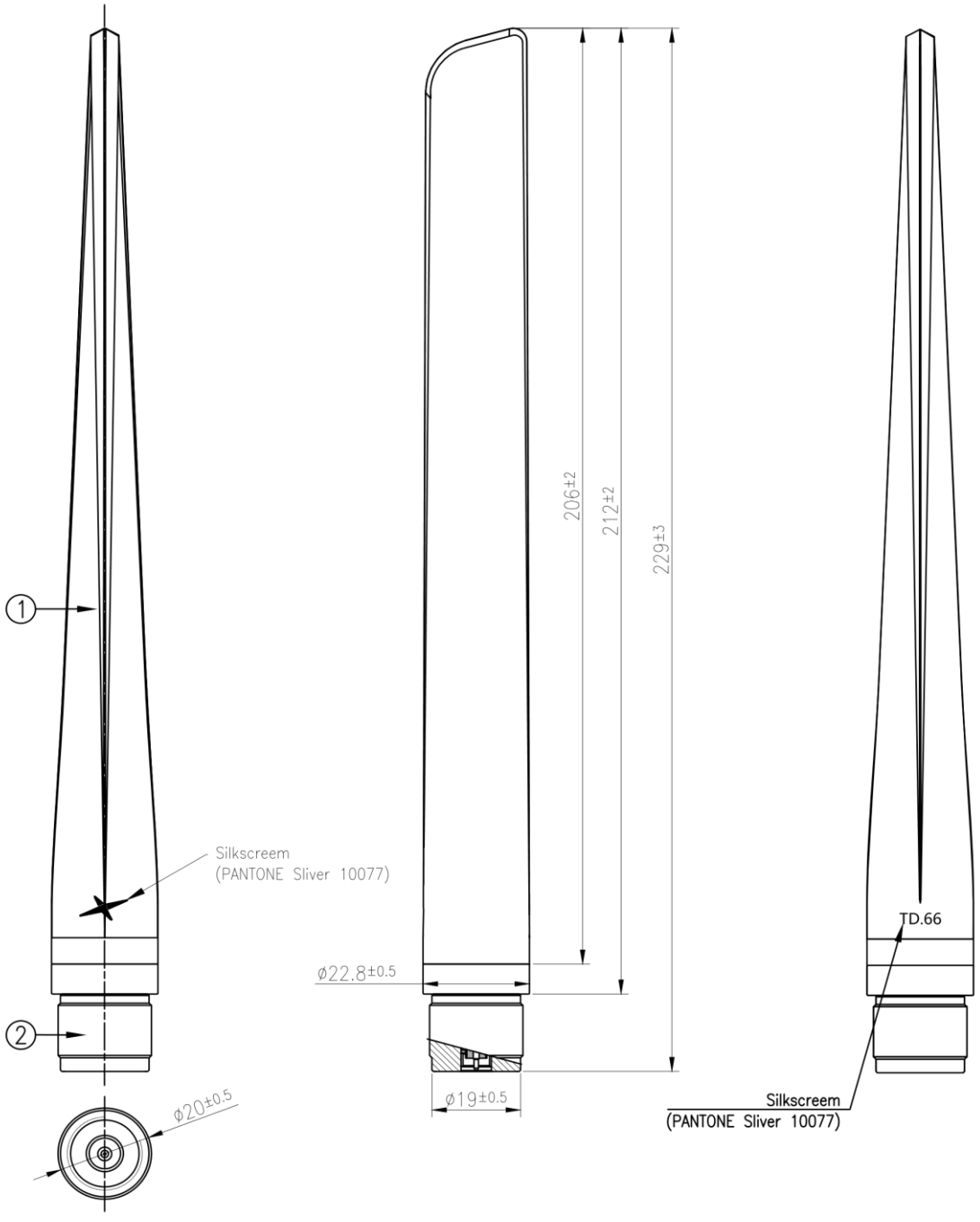




5. Mechanical Drawing (Units: mm)

ISO NO.: EDW-23-8-0680
STATE: Release
NOTES: 1. All material must be RoHS compliant.

REV.	DESCRIPTION	ENG.	APPROVED	DATE
D01	Initial Design	Karry	Aaron	2023/05/24



	Name	Material	Finish	QTY
1	Housing	PC/ABS AC2300	Black	1
2	N Type (M) Connector	Brass	Ni Plated	1

APPROVED BY:	Aaron
CHECK BY:	Aaron
DRAWN BY:	Karry
DATE:	2023/05/24
UNLESS OTHERWISE SPECFIED TOLERANCES ON:	XX:±0.5 X:±0.3 .X±0.2 .XX±0.1 .XXX±0.05
THIRD ANGLE PROJECTION	

TAOGLAS. TW Design Centre

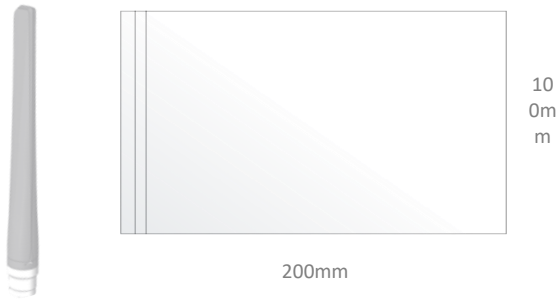
TITLE : Blade Wideband 600-6000MHz 5G/4G Connector Mount Antenna - N-Type Male

PART NO. : TD.66.AH31

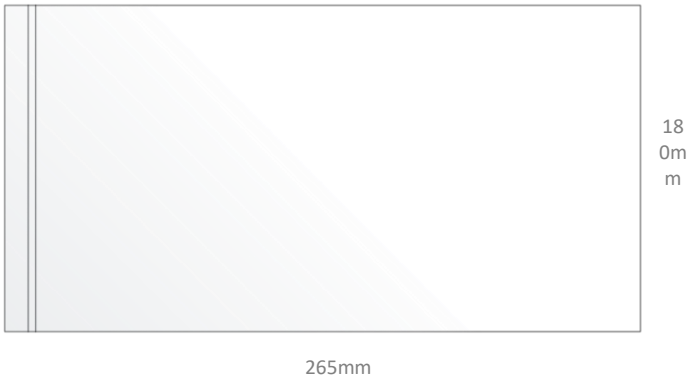
UNIT: mm | SCALE: 1:1.25 | PAGES: 1/1 | REV. D01

8. Packaging

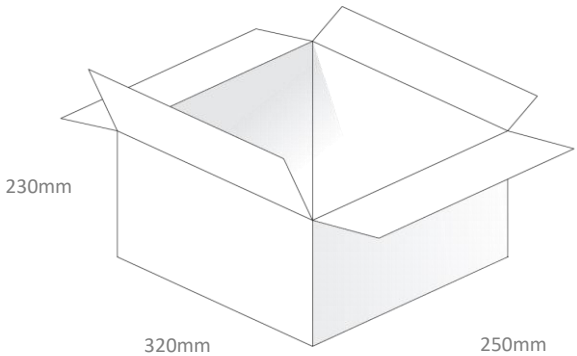
1pc TD.66.AH31 per PE Bag
Bag Dimension: 200*100mm
Weight: 70g



20pcs TD.66.AH31 per Large PE Bag
Bag Dimensions: 180*265mm
Weight: 1.4Kg



200pcs TD.66.AH31 per Carton
Dimensions: 320*250*230mm
Weight: 14Kg



Changelog for the datasheet

SPE-23-8-234 – TD.66.AH31

Revision: A (Original First Release)	
Date:	2021-07-07
Notes:	
Author:	Jack Conroy

Previous Revisions

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