



TAOGLAS®



Datasheet

Maximus

Part No:
FXUB66.07.0150C

Description

Flexible Wide Band 5G/4G Antenna 600MHz - 8000MHz

Features:

- Ground Plane Independent
- 600MHz - 8000MHz Wideband
- 5G/4G fully operational
- Efficiencies up to 75% on all cellular bands (600-8000MHz)
- 120.4 x 50.4 x 0.2 mm size
- Connector: I-PEX MHF® I U.FL Compatible
- Cable: 150mm of Ø1.37
- CE Certified
- RoHS & REACH Compliant

US Patent #9257747

SPE-12-8-040-L

www.taoglas.com

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Ireland & USA
ISO 9001:2015
Certified



Taiwan
ISO 9001:2015
Certified



1. Introduction



The Taoglas **FXUB66 Maximus** is a flexible wideband antenna designed to support frequencies from 600–8000 MHz, covering 5G/4G/3G/2G cellular, NB-IoT, Cat-M, Wi-Fi, ISM, GNSS, and NTN bands in a single solution. Its ultra-wideband design enables global compatibility, making it ideal for devices requiring multi-network connectivity and future-proof performance.

Typical applications include:

- IoT gateways and industrial devices
- Smart meters and telematics systems
- Routers, modems and CPE equipment
- Asset tracking and fleet management
- Retrofit wireless-enabled devices

The FXUB66 features a thin, flexible polymer construction and is designed for direct mounting onto plastic or glass enclosures using a simple peel-and-stick 3M adhesive. Its ground-plane independent design simplifies integration and allows consistent performance across a wide range of device form factors.

A unique hybrid antenna structure enables efficient operation across both low and high frequency bands within a single compact form, reducing the need for multiple antennas. This makes the FXUB66 a cost-effective choice for long product lifecycles, where changing radio modules or adding new band support is required.

The antenna is supplied with an I-PEX MHF®I connector, ensuring compatibility with the latest compact 5G modules. Cable lengths and connector types can be customized to suit specific design requirements.

2. Specification

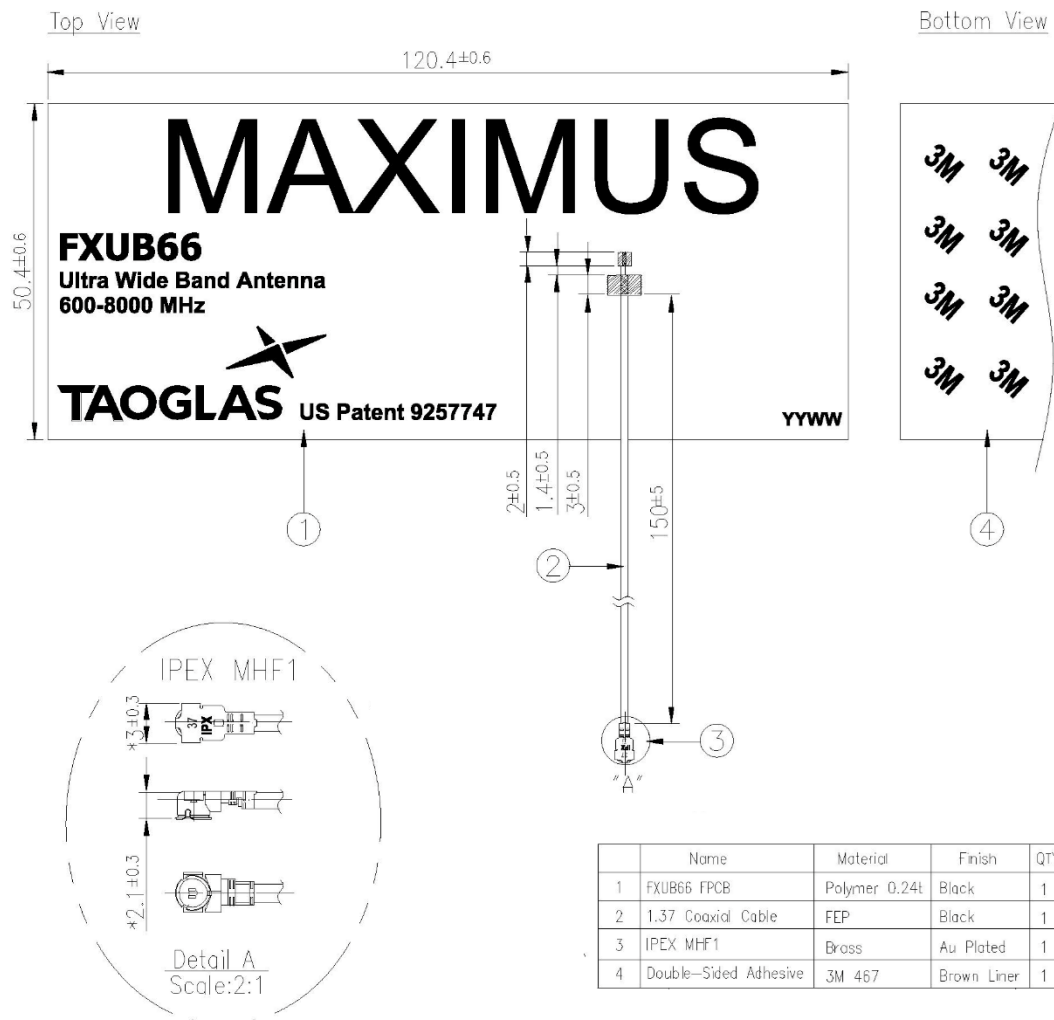
Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
5G NR/4G Band 71	617-698	38.5	-4.14	-0.31	50 Ω	Linear	Omni directional	2W
4G/3G Band 12,13,14,17,28,29	698-806	65.6	-1.83	1.96				
4G/3G/NB-IoT/Cat M Band 5,8,18,19,20,26,27	824-960	75.2	-1.24	2.53				
5G NR/4G Band 21,32,74,75,76	1427-1518	58.2	-2.35	3.97				
4G/3G Band 1,2,3,4,9,23,25,35,39,66	1710-2200	60.2	-2.21	4.19				
NTN (n256)	1980-2200	58.1	-2.36	2.97				
Bands 23/252 20	2000-2200	58.6	-2.32	2.97				
4G/3G Band 7,30,38,40,41	2300-2690	58.8	-2.31	2.92				
5G NR/4G Band 22,42,48,77,78,79	3300-5000	58.0	-2.36	7.29				
LTE5200/Wi-Fi5800	5150-5925	45.6	-3.41	5.45				
Wi-Fi - 6GHz	5925-7125	48.6	-3.13	5.91				

Mechanical	
Dimensions	120.4 x 50.4 x 0.2 mm
Material	Flexible Polymer
Connector	I-PEX MHF® I U.FL Compatible
Cable	150mm of $\varnothing$ 1.37 (Fully customizable)

Environmental	
Temperature Range	-40°C to 85°C
Relative Humidity	Non-condensing 65°C 95% RH
RoHS & REACH Compliant	Yes

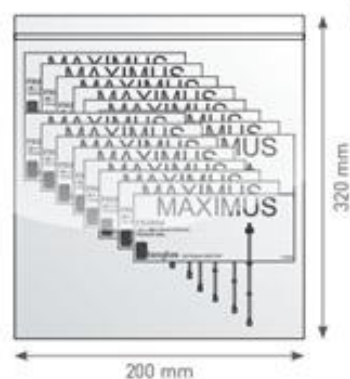
5G/4G Bands			
Band Number	5G NR / FR1 / LTE / LTE-Advanced / WCDMA / HSPA / HSPA+ / TD-SCDMA		
	Uplink	Downlink	Covered
B1	1920 to 1980	2110 to 2170	✓
B2	1850 to 1910	1930 to 1990	✓
B3	1710 to 1785	1805 to 1880	✓
B4	1710 to 1755	2110 to 2155	✓
B5	824 to 849	869 to 894	✓
B7	2500 to 2570	2620 to 2690	✓
B8	880 to 915	925 to 960	✓
B9*	1749.9 to 1784.9	1844.9 to 1879.9	✓
B11	1427.9 to 1447.9	1475.9 to 1495.9	✓
B12	699 to 716	729 to 746	✓
B13	777 to 787	746 to 756	✓
B14	788 to 798	758 to 768	✓
B17	704 to 716	734 to 746	✓
B18	815 to 830	860 to 875	✓
B19	830 to 845	875 to 890	✓
B20	832 to 862	791 to 821	✓
B21	1447.9 to 1462.9	1495.9 to 1510.9	✓
B22*	3410 to 3490	3510 to 3590	✓
B23*	2000 to 2020	2180 to 2200	✓
B24	1626.5 to 1660.5	1525 to 1559	✓
B25	1850 to 1915	1930 to 1995	✓
B26	814 to 849	859 to 894	✓
B27*	807 to 824	852 to 869	✓
B28	703 to 748	758 to 803	✓
B29		717 to 728	✓
B30	2305 to 2315	2350 to 2360	✓
B31	452.5 to 457.5	462.5 to 467.5	✗
B32		1452 to 1496	✓
B34		2010 to 2025	✓
B35		1850 to 1910	✓
B36		1930 to 1990	✓
B37		1910 to 1930	✓
B38		2570 to 2620	✓
B39		1880 to 1920	✓
B40		2300 to 2400	✓
B41		2496 to 2690	✓
B42		3400 to 3600	✓
B43		3600 to 3800	✓
B45		1447 to 1467	✓
B46		5150 to 5925	✓
B47		5855 to 5925	✓
B48		3550 to 3700	✓
B49		3550 to 3700	✓
B50		1432 to 1517	✓
B51		1427 to 1432	✓
B52		3300 to 3400	✓
B53		2483.5 to 2495	✓
B65	1920 to 2010	2110 to 2200	✓
B66	1710 to 1780	2110 to 2200	✓
B68	698 to 728	753 to 783	✓
B69		2570 to 2620	✓
B70	1695 to 1710	1995 to 2020	✓
B71	663 to 698	617 to 652	✓
B72	451 to 456	461 to 466	✗
B73	450 to 455	460 to 465	✗
B74	1427 to 1470	1475 to 1518	✓
B75		1432 to 1517	✓
B76		1427 to 1432	✓
B77		3300 to 4200	✓
B78		3300 to 3800	✓
B79		4400 to 5000	✓
B85	698 to 716	728 to 746	✓
B87	410 to 415	420 to 425	✗
B88	412 to 417	422 427	✗

3. Mechanical Drawing

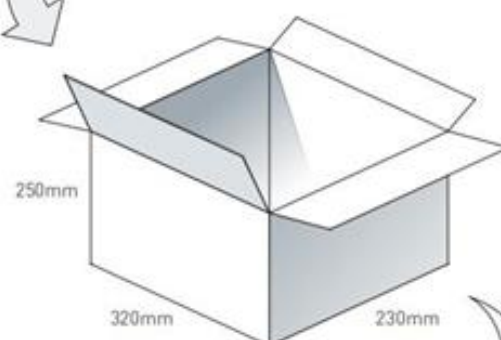


4. Packaging

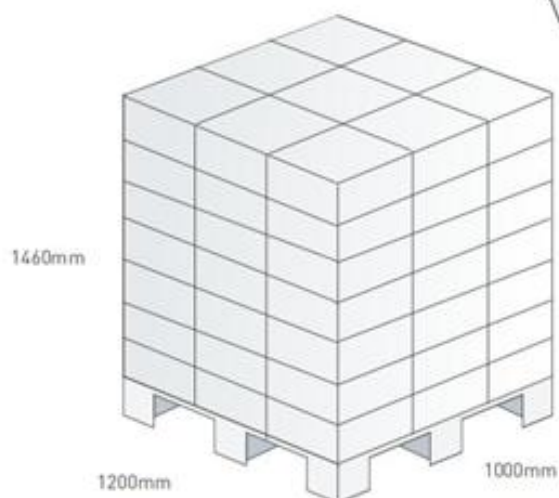
100pcs FXUB66.07.0150C per PE Bag
Bag Dimensions - 320 x 200mm
Weight - 380g



1,000 pcs FXUB66.07.0150C per carton
Carton - 370 x 3200 x 180mm
Weight - 4.01Kg



Pallet Dimensions 1200 x 1000 x 1460mm
63 Cartons per Pallet
9 Cartons per layer
7 Layers



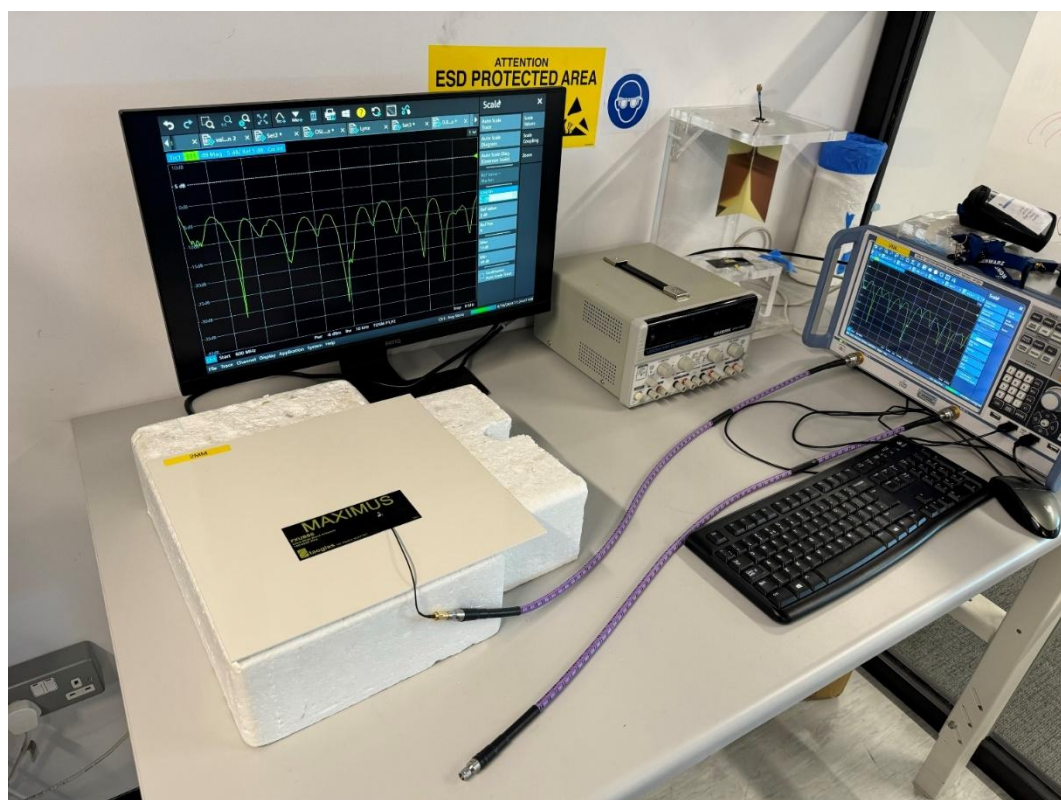
5. Antenna Characteristics

5.1 Test Setup

AUT

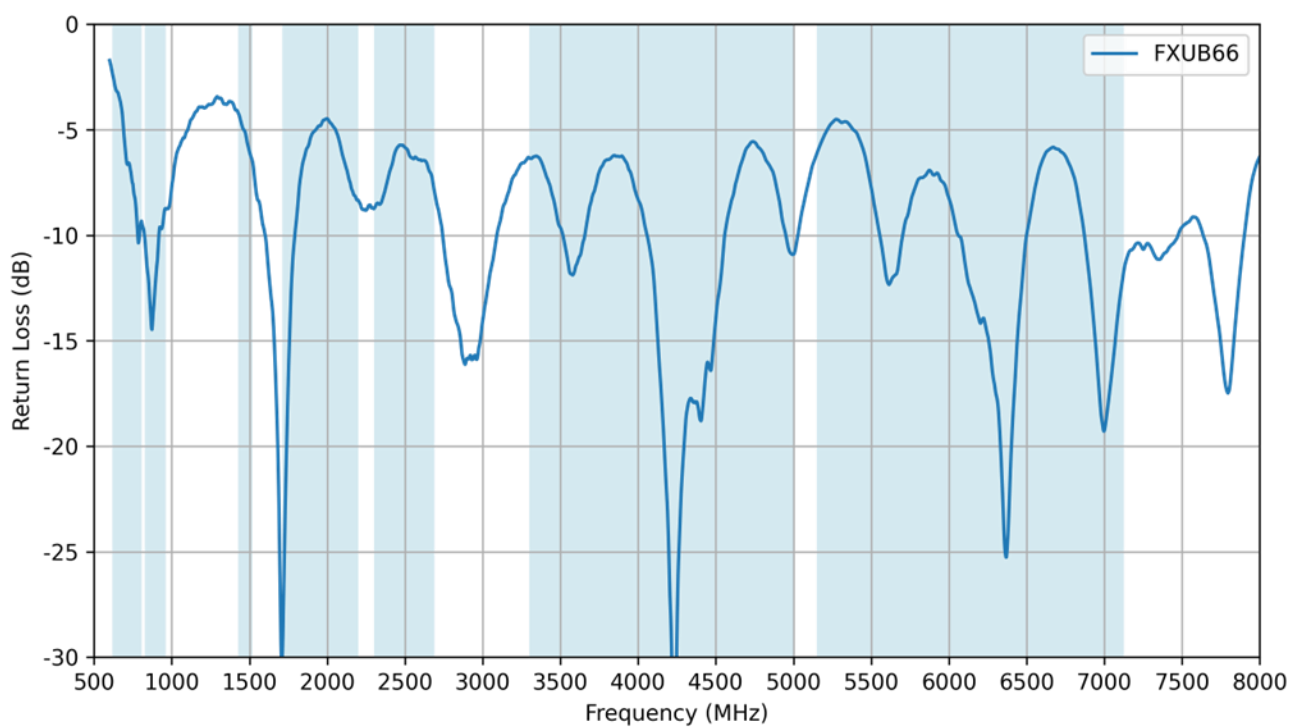


Vector Network Analyzer

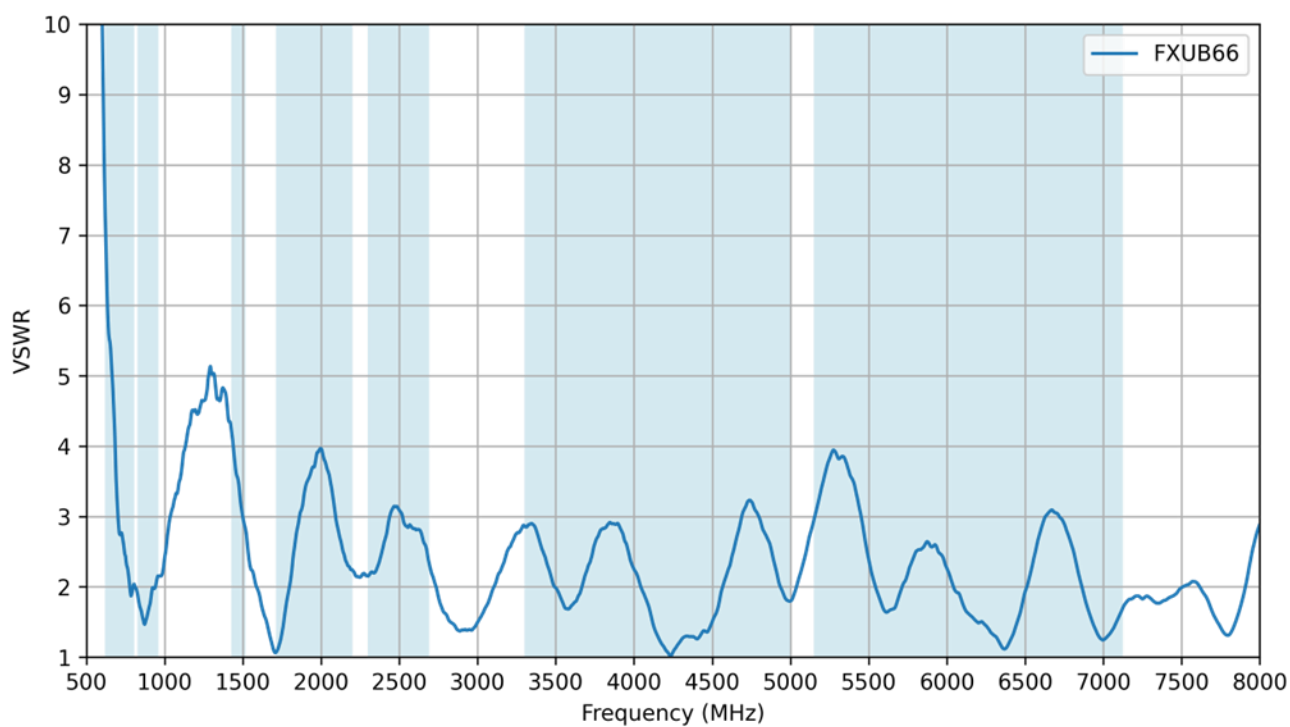


VNA Test Setup on ABS

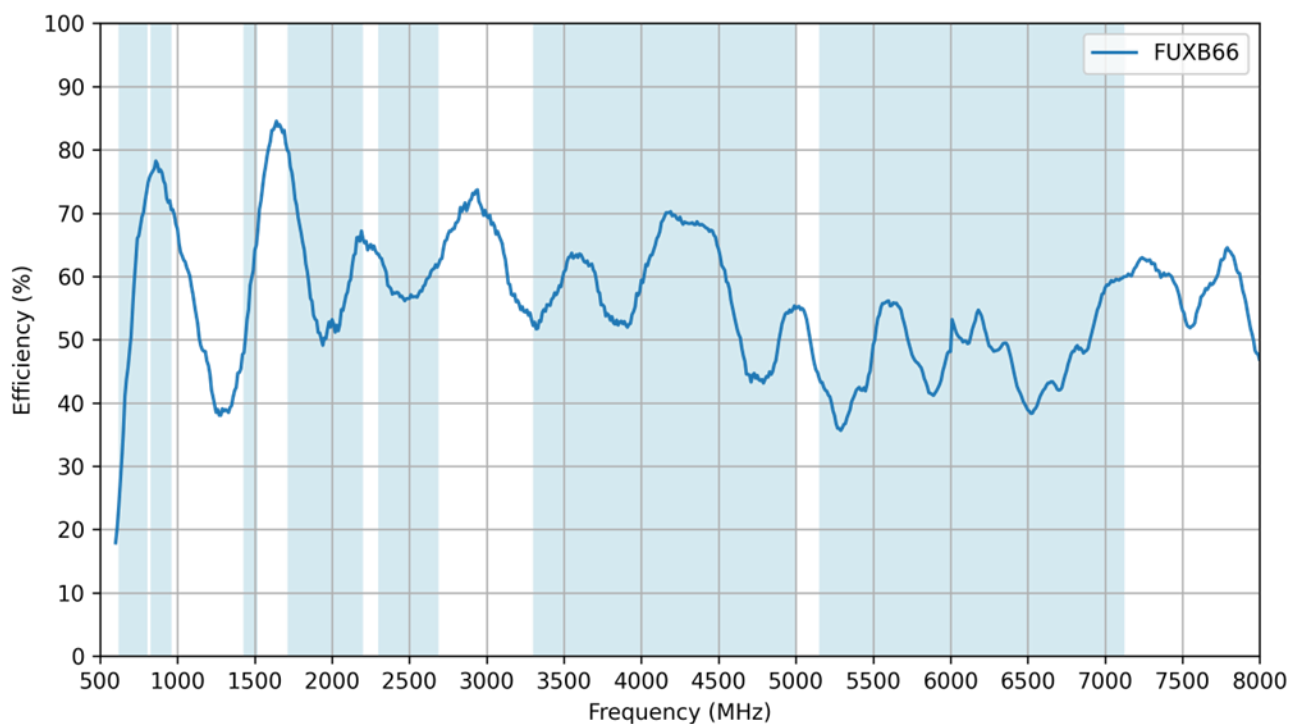
5.2 Return Loss



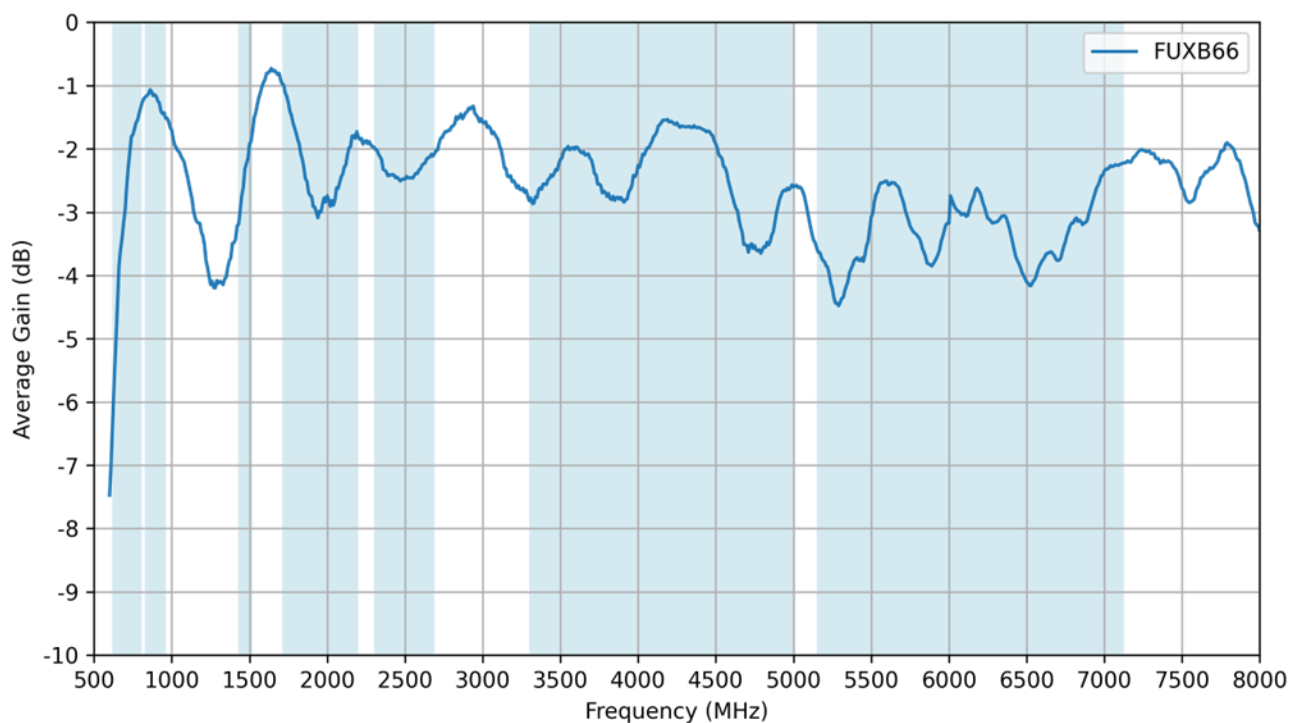
5.3 VSWR



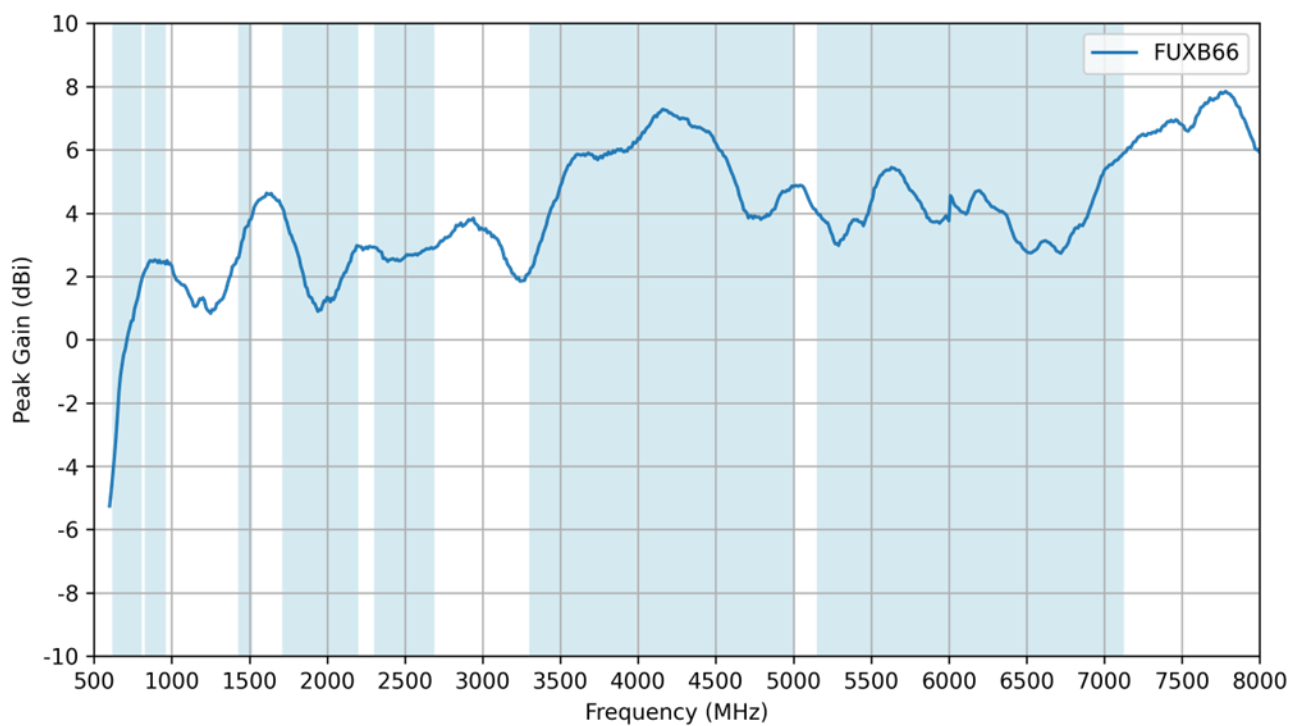
5.4 Efficiency



5.5 Average Gain

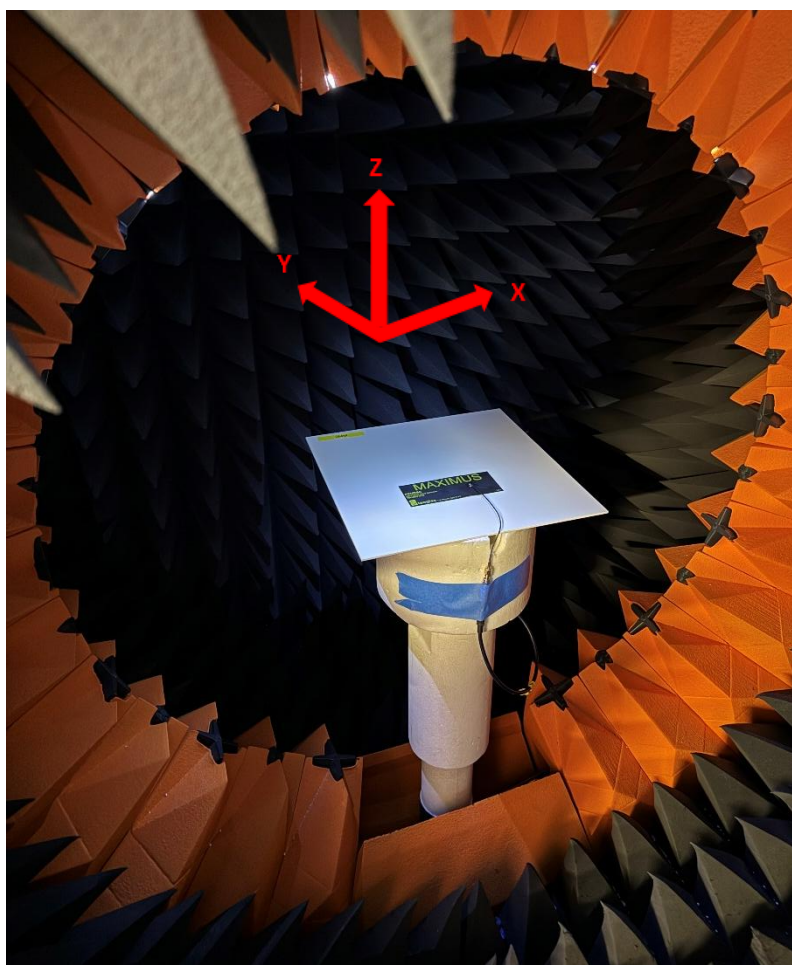
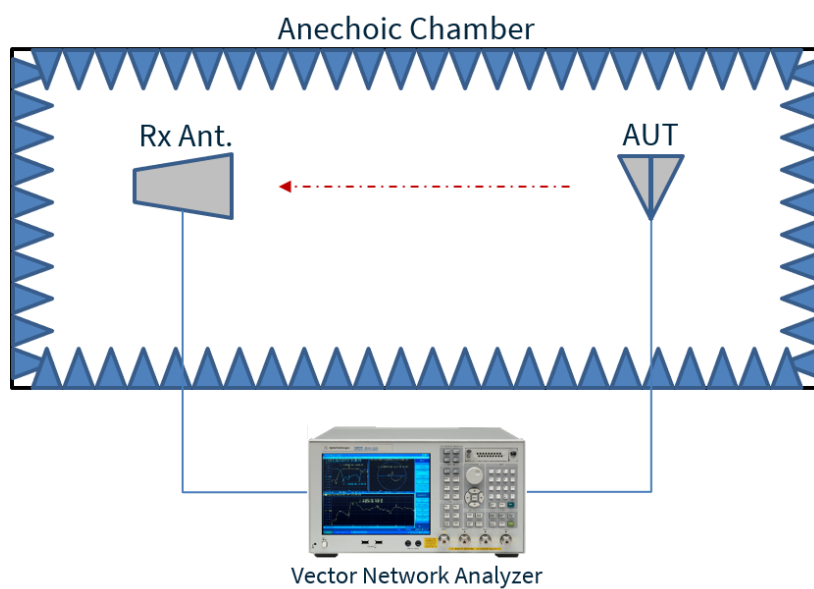


5.6 Peak Gain



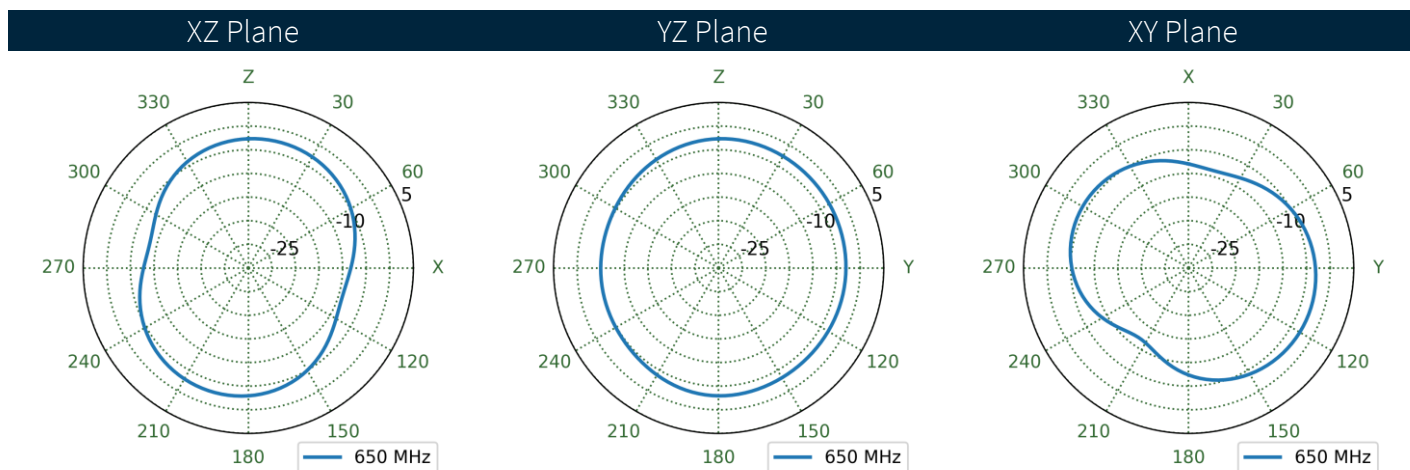
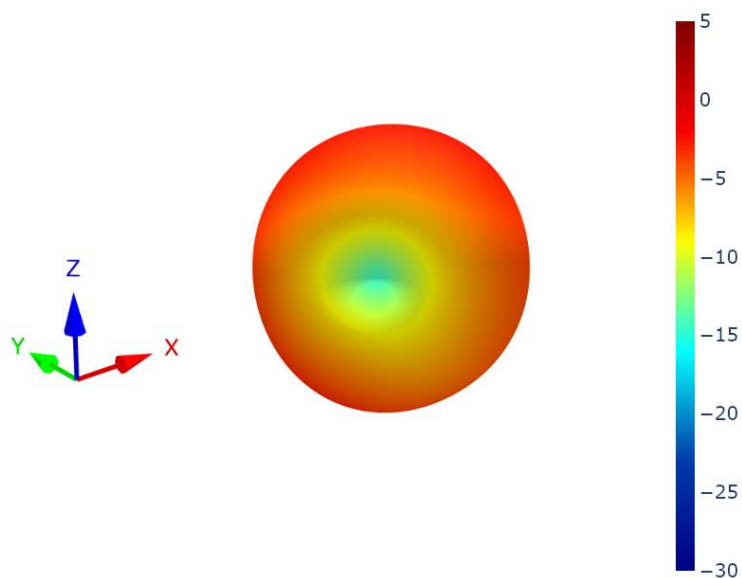
6. Radiation Patterns

6.1 Test Setup

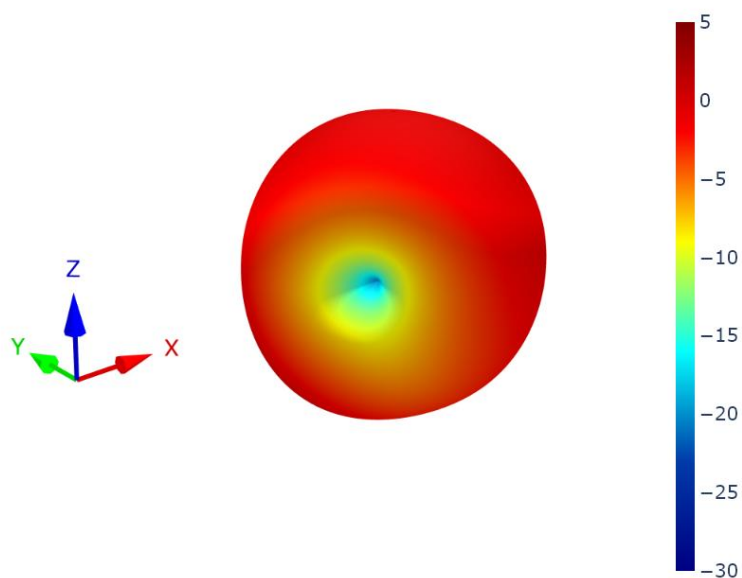


Chamber Test Setup on ABS

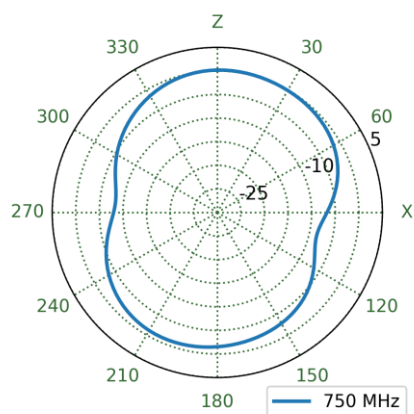
6.2 Patterns at 650 MHz



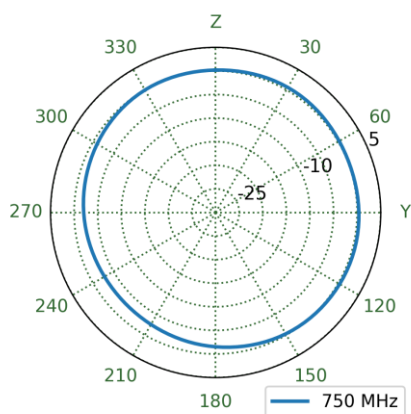
6.3 Patterns at 750 MHz



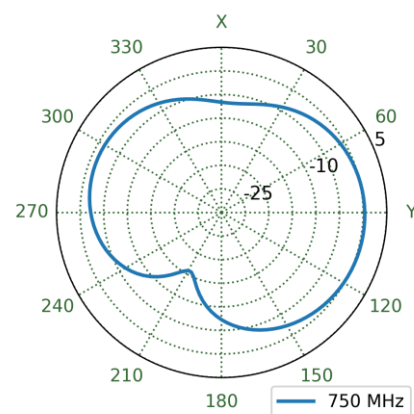
XZ Plane



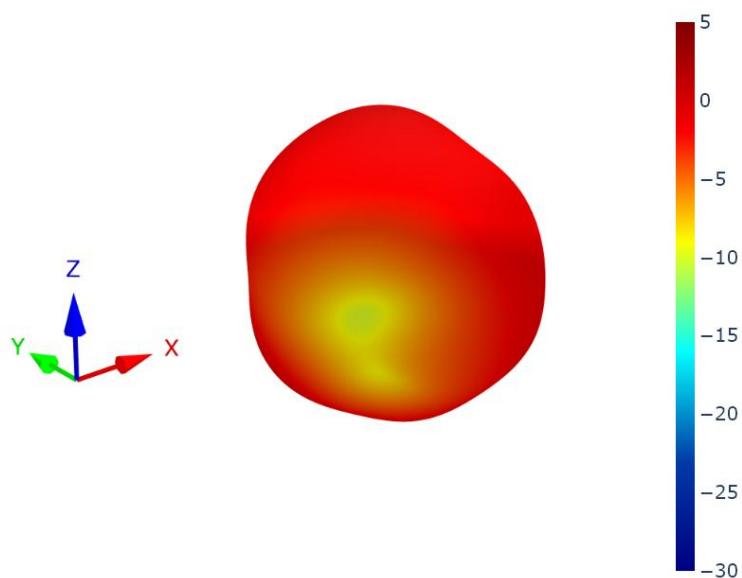
YZ Plane



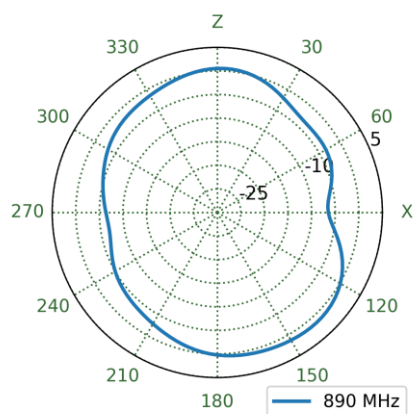
XY Plane



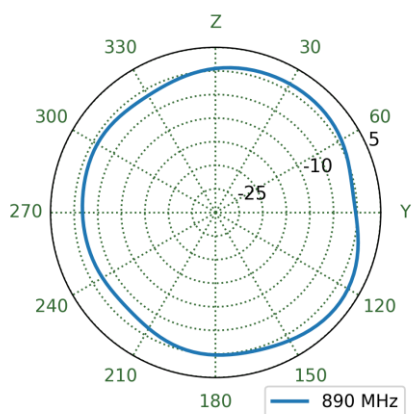
6.4 Patterns at 890 MHz



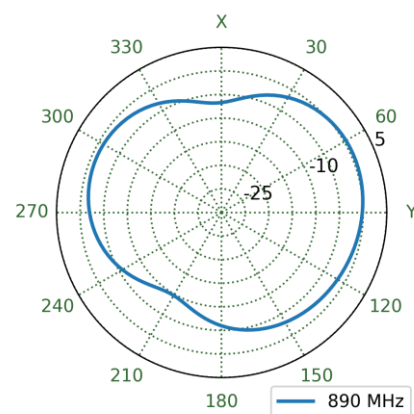
XZ Plane



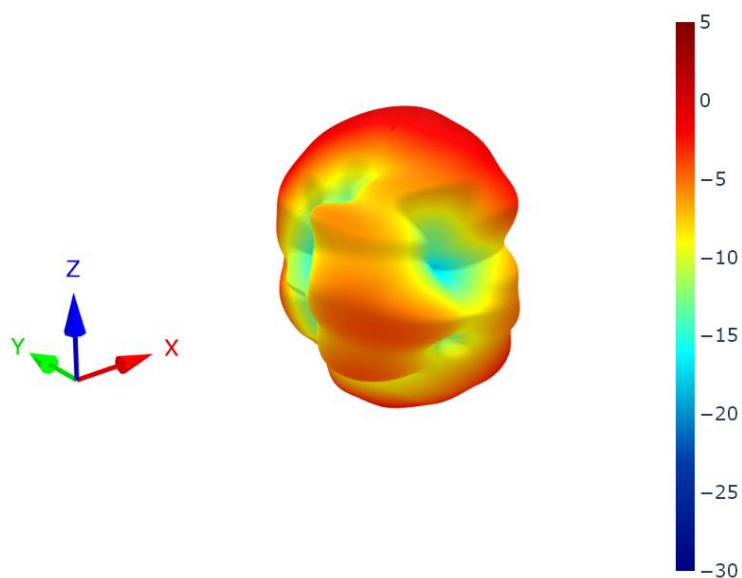
YZ Plane



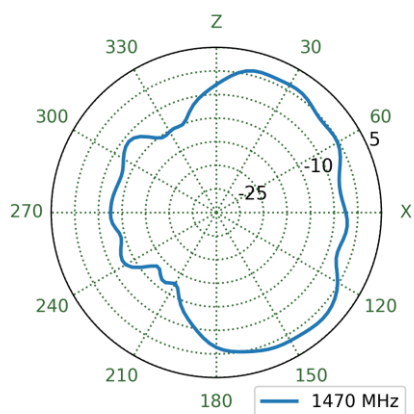
XY Plane



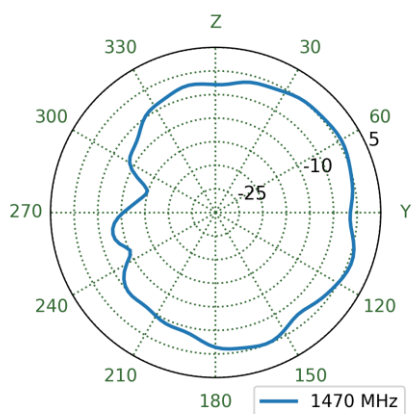
6.5 Patterns at 1470 MHz



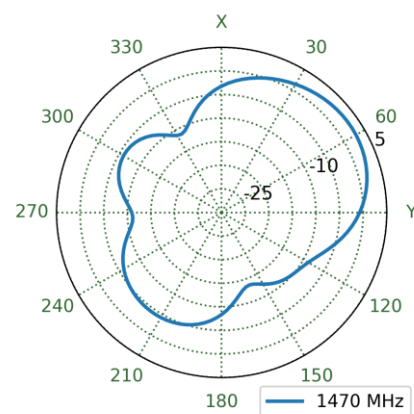
XZ Plane



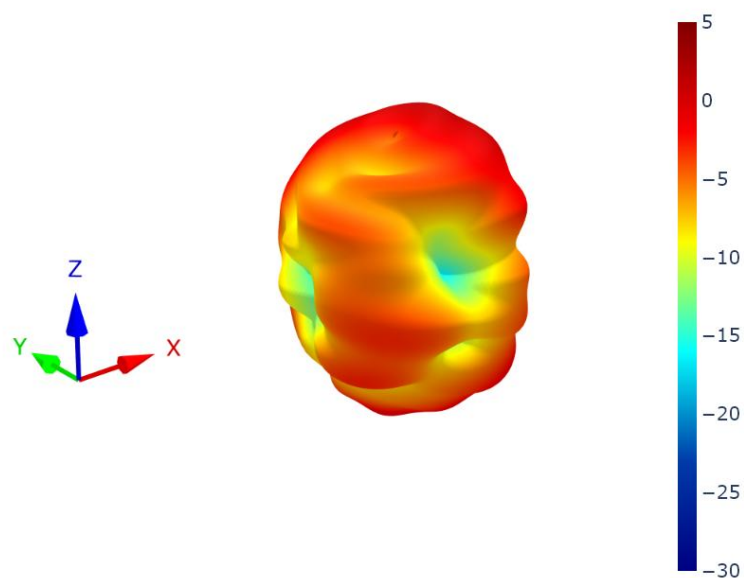
YZ Plane



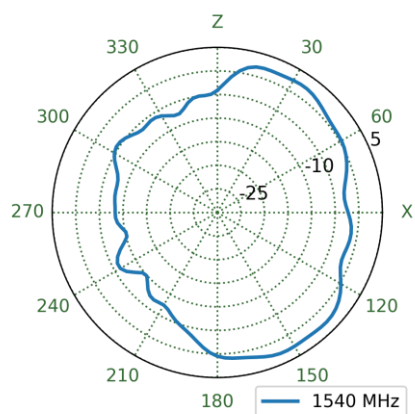
XY Plane



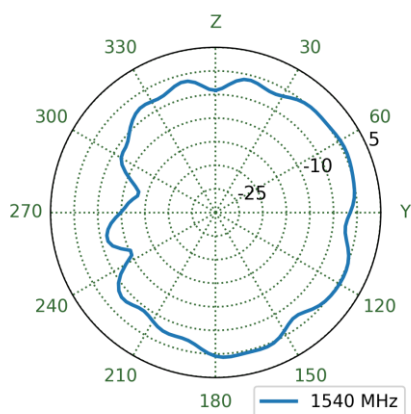
6.6 Patterns at 1540 MHz



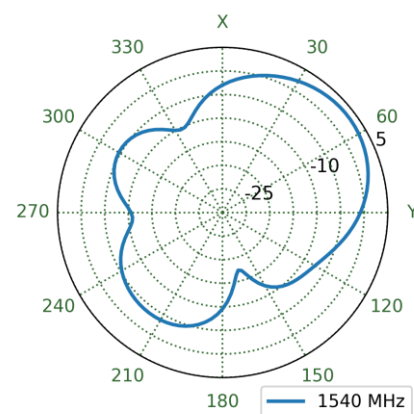
XZ Plane



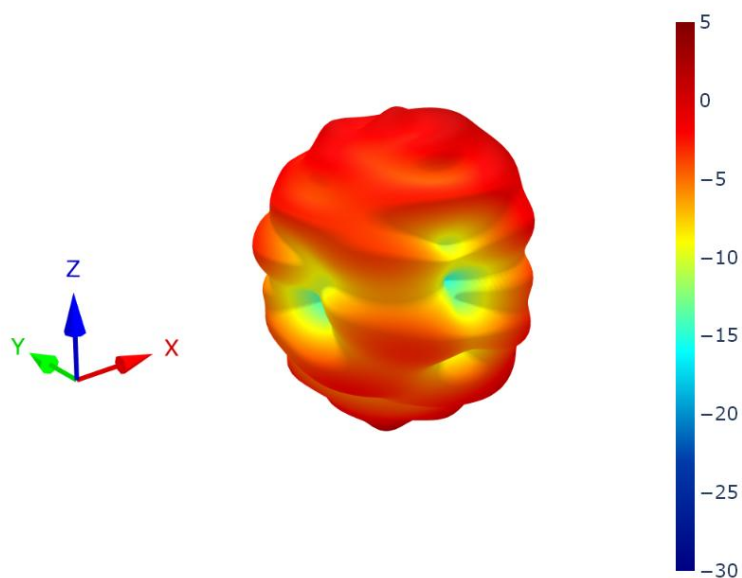
YZ Plane



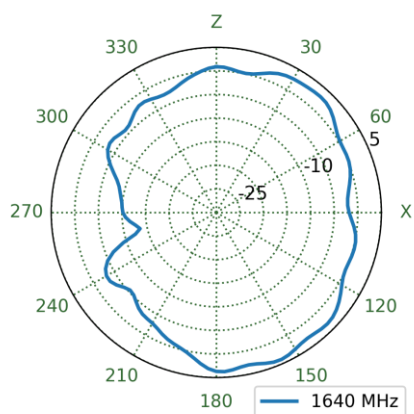
XY Plane



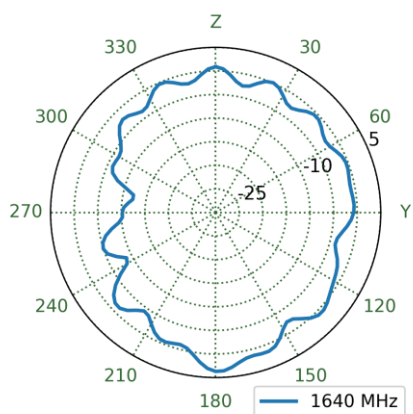
6.7 Patterns at 1640 MHz



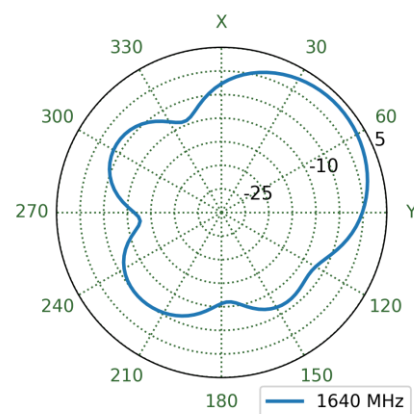
XZ Plane



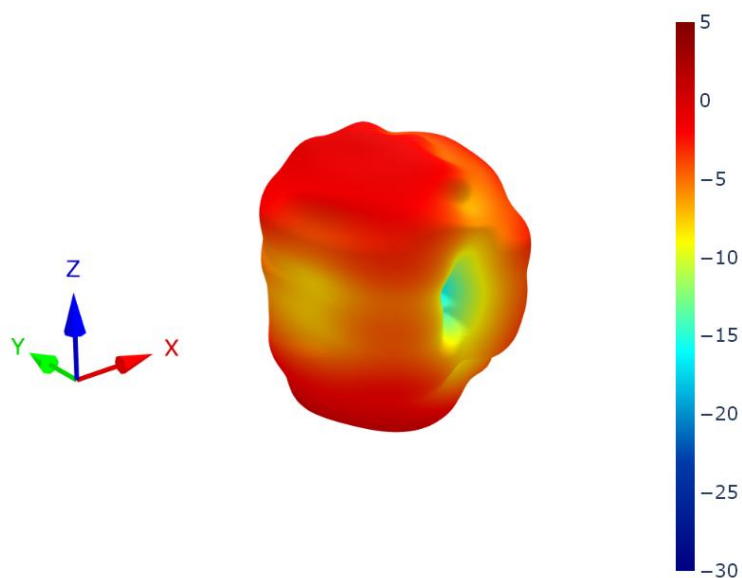
YZ Plane



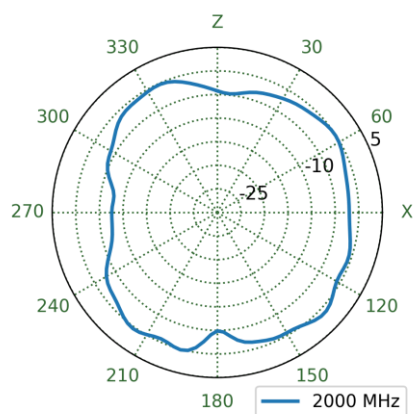
XY Plane



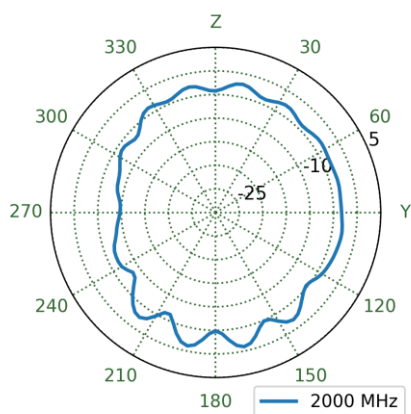
6.8 Patterns at 2000 MHz



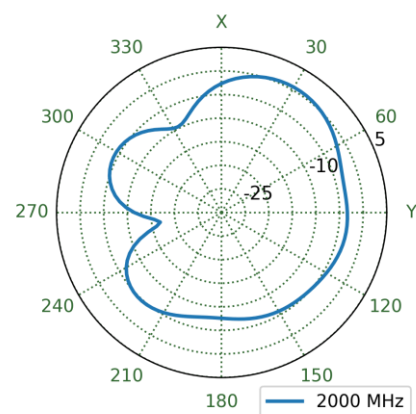
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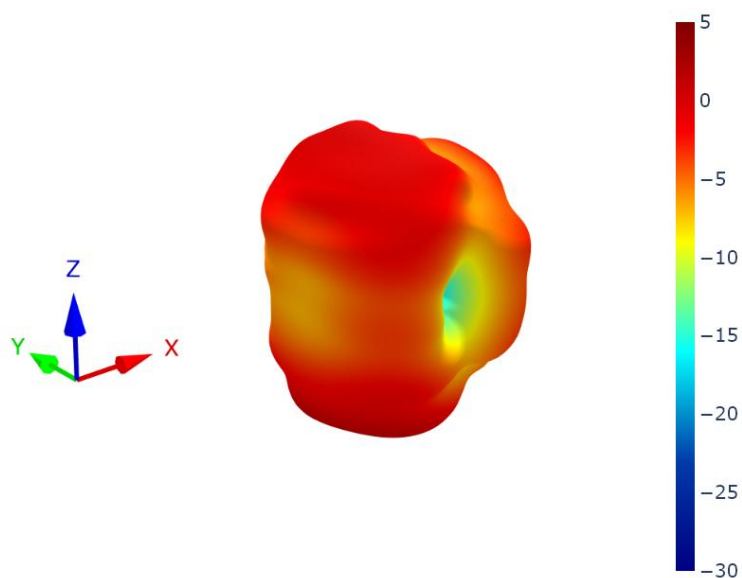
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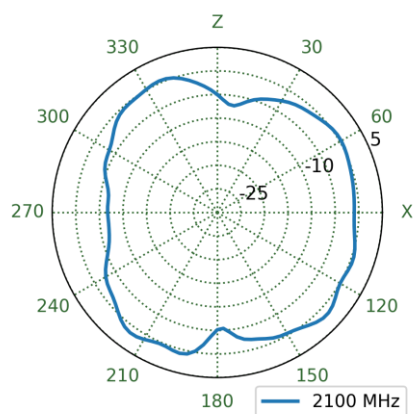
XY Plane



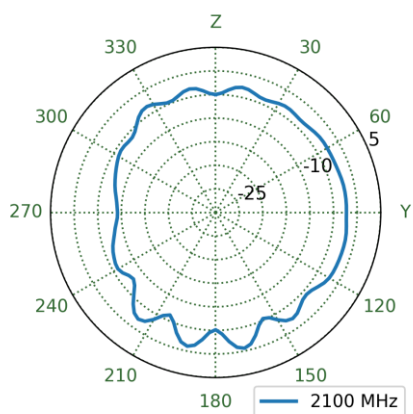
6.9 Patterns at 2100 MHz



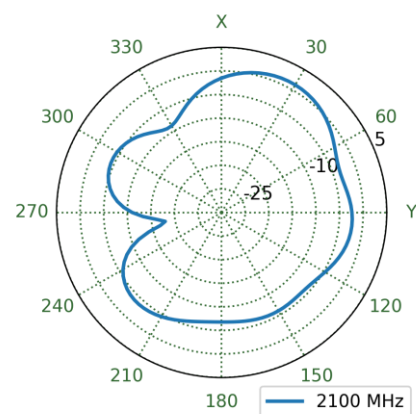
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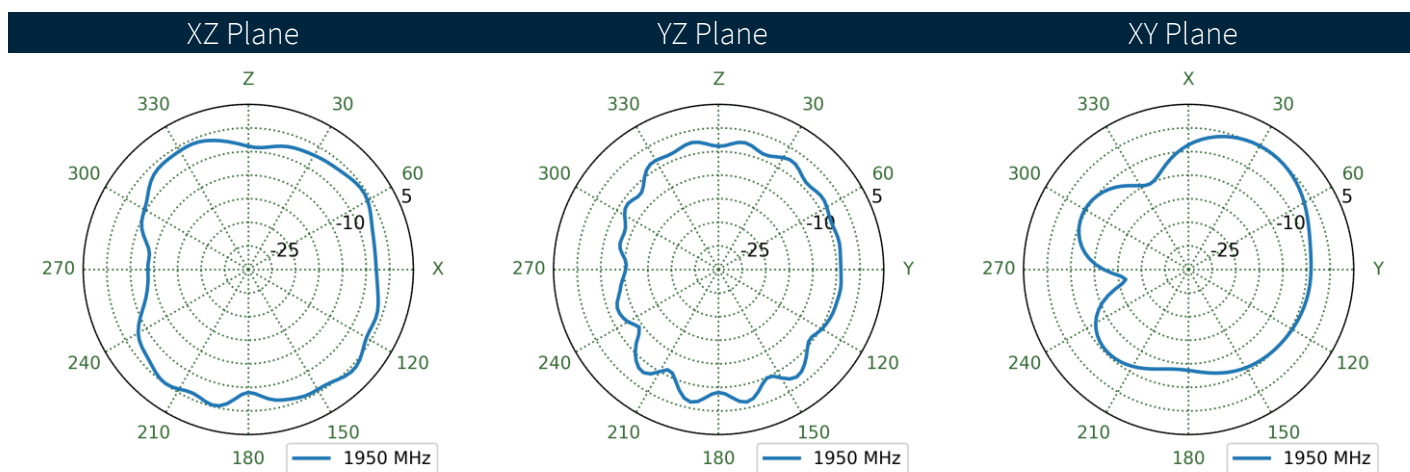
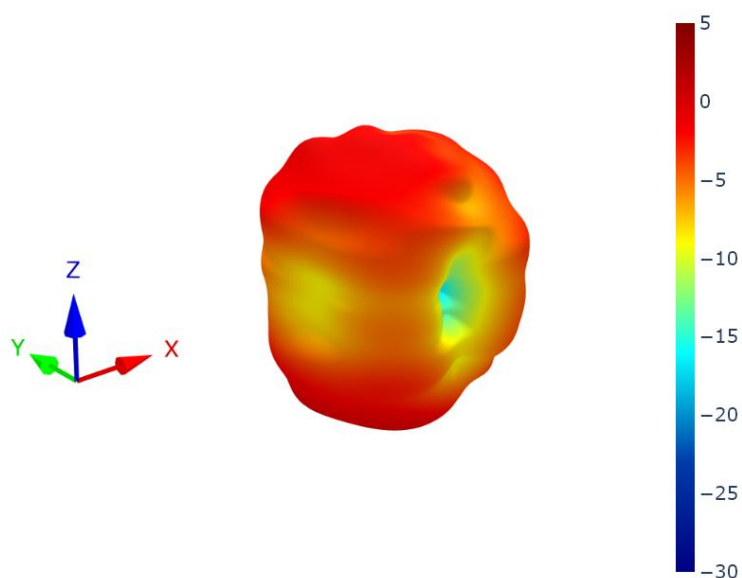
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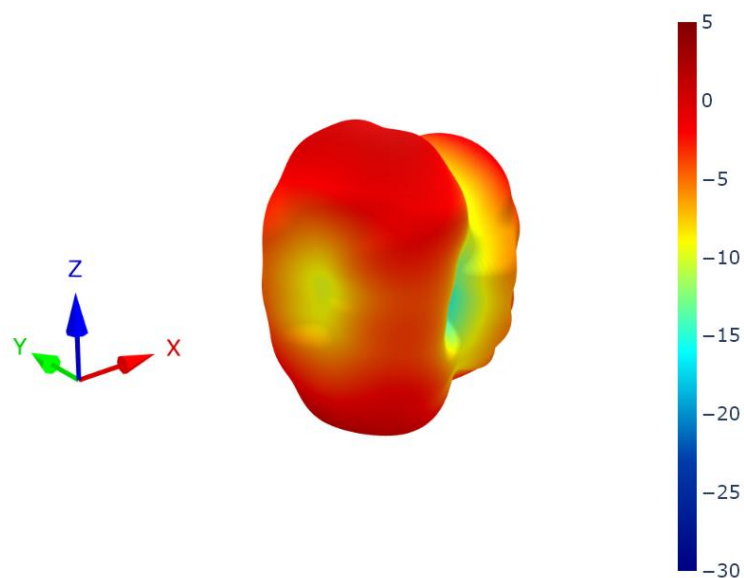
XY Plane



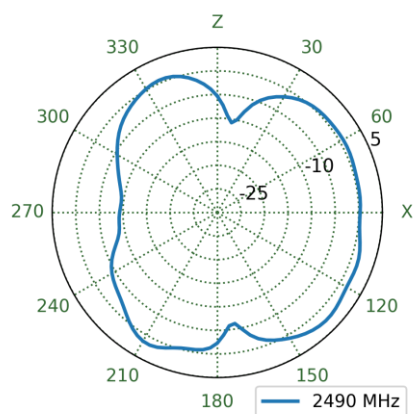
6.10 Patterns at 1950 MHz



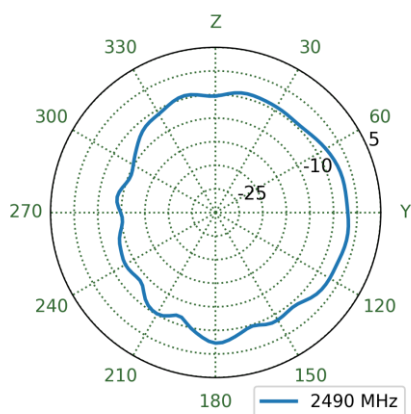
6.11 Patterns at 2490 MHz



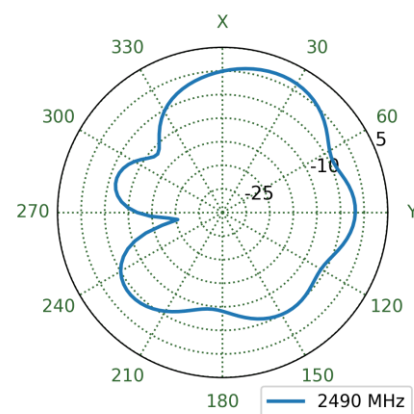
XZ Plane



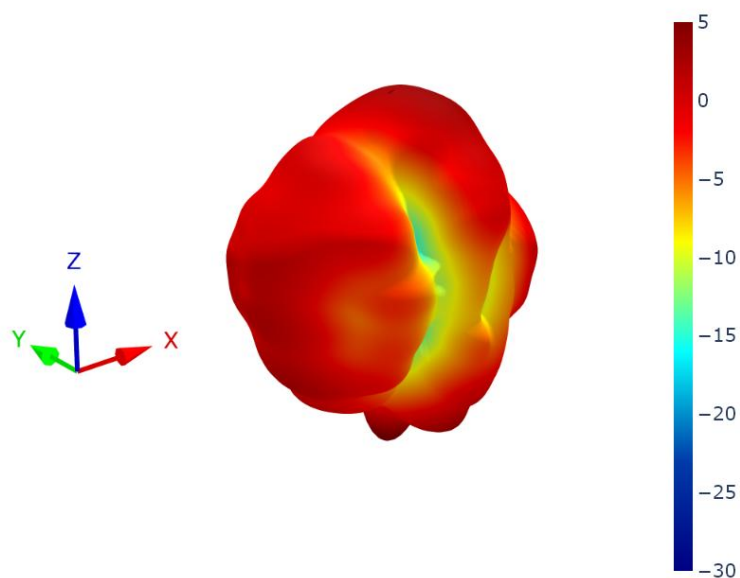
YZ Plane



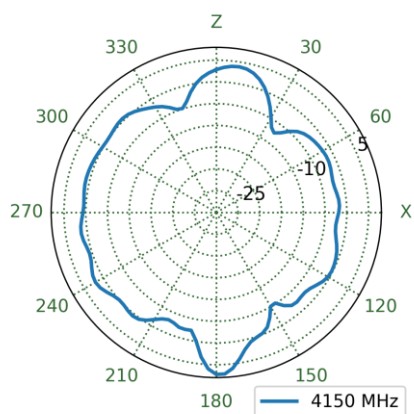
XY Plane



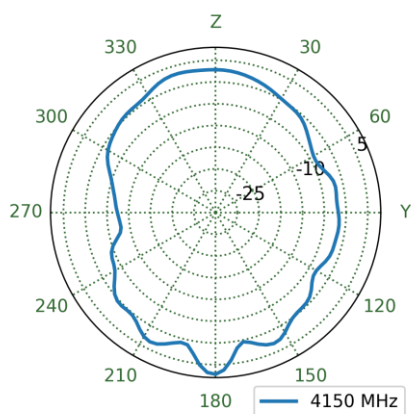
6.12 Patterns at 4150 MHz



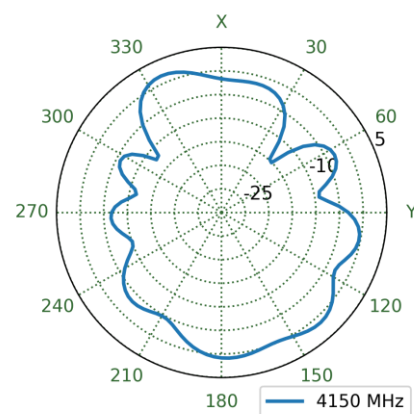
XZ Plane



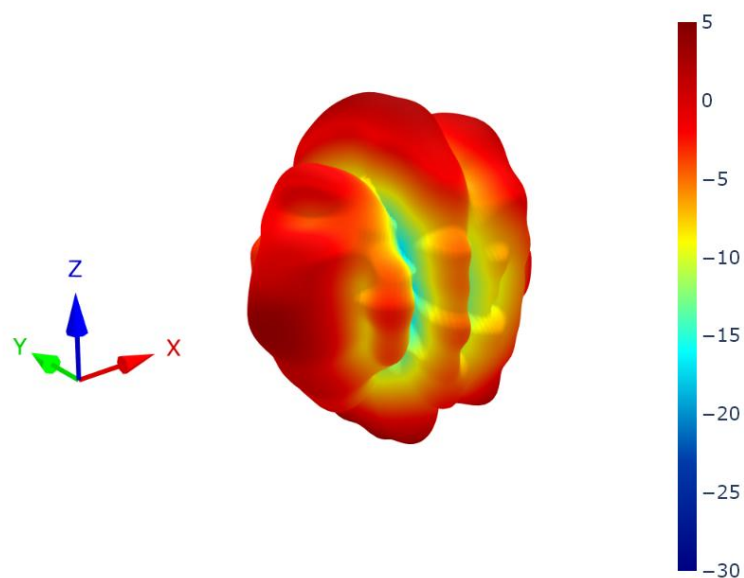
YZ Plane



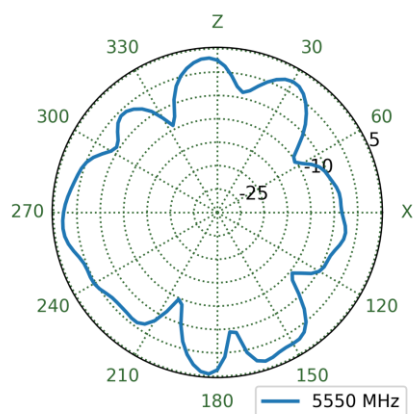
XY Plane



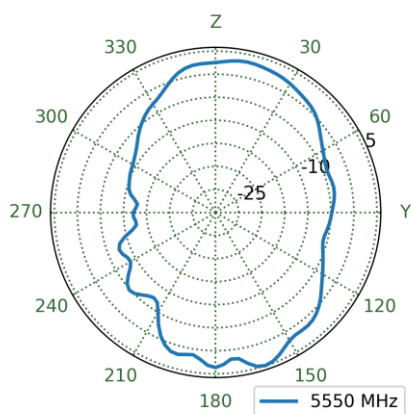
6.13 Patterns at 5550 MHz



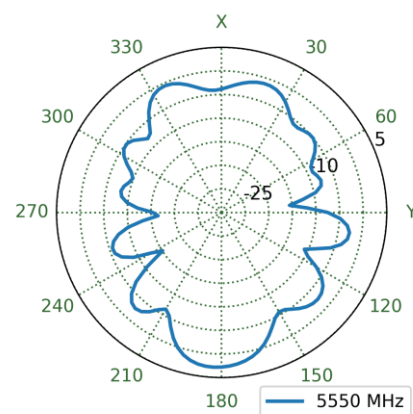
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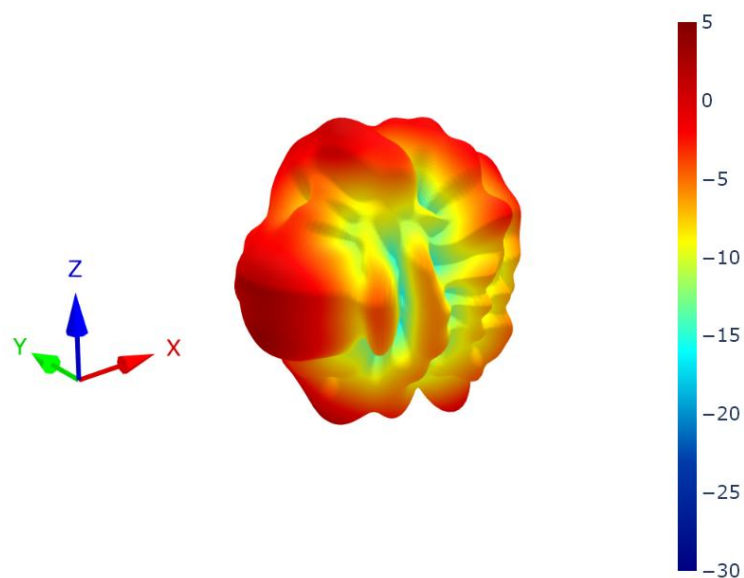
YZ Plane



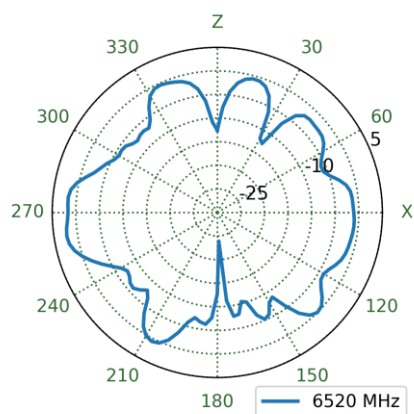
XY Plane



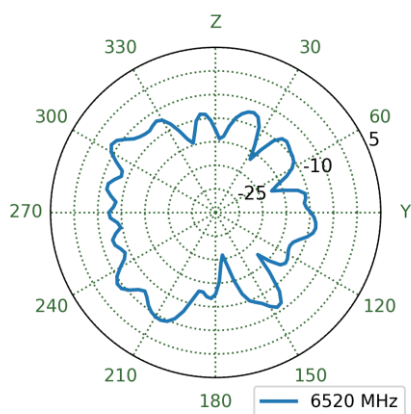
6.14 Patterns at 6525 MHz



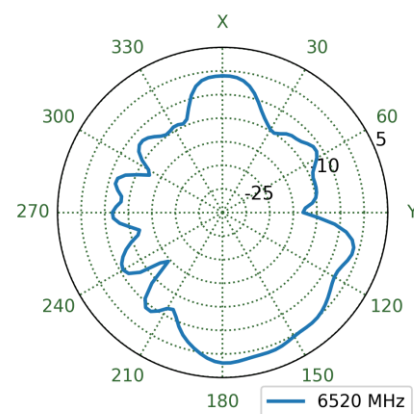
XZ Plane



YZ Plane



XY Plane



Changelog for the datasheet

SPE-12-8-040 – FXUB66.07.0150C

Revision: L (Current Version)

Date:	2026-06-02
Changes:	Added NTN Bands.
Changes Made by:	Gary West

Previous Revisions

Revision: K

Date:	2024-08-19
Changes:	Updated datasheet to include up to 8GHz.
Changes Made by:	Gary West

Revision: F

Date:	2014-02-12
Changes:	Drawing and photo amended
Changes Made by:	Aine Doyle

Revision: J

Date:	2020-10-20
Changes:	Updated Data
Changes Made by:	Jack Conroy

Revision: E

Date:	2012-10-02
Changes:	Packaging Details Updated
Changes Made by:	Aine Doyle

Revision: I

Date:	2019-03-26
Changes:	New data added
Changes Made by:	Jack Conroy

Revision: D

Date:	2012-09-27
Changes:	Packaging Details Updated
Changes Made by:	Aine Doyle

Revision: H

Date:	2019-03-26
Changes:	Data and Template Amended
Changes Made by:	Jack Conroy

Revision: C

Date:	2012-09-20
Changes:	Packaging Details Updated
Changes Made by:	Aine Doyle

Revision: G

Date:	2016-06-10
Changes:	Patent No. Added
Changes Made by:	Aine Doyle

Revision: B

Date:	2012-09-10
Changes:	Packaging Details Updated
Changes Made by:	Aine Doyle

Previous Revisions

Revision: A (Original First Release)			
Date:	2012-04-24		
Notes:			
Author:	Aine Doyle		

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