TAOGLAS®

Datasheet

Maximus

Part No:
FXUB66.54.0150C

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®4L HSC Compatible
Cable: 150mm of Ø1.37
CE Certified
RoHS & REACH Compliant

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Certified

Taiwan
ISO 9001:2015
Certified

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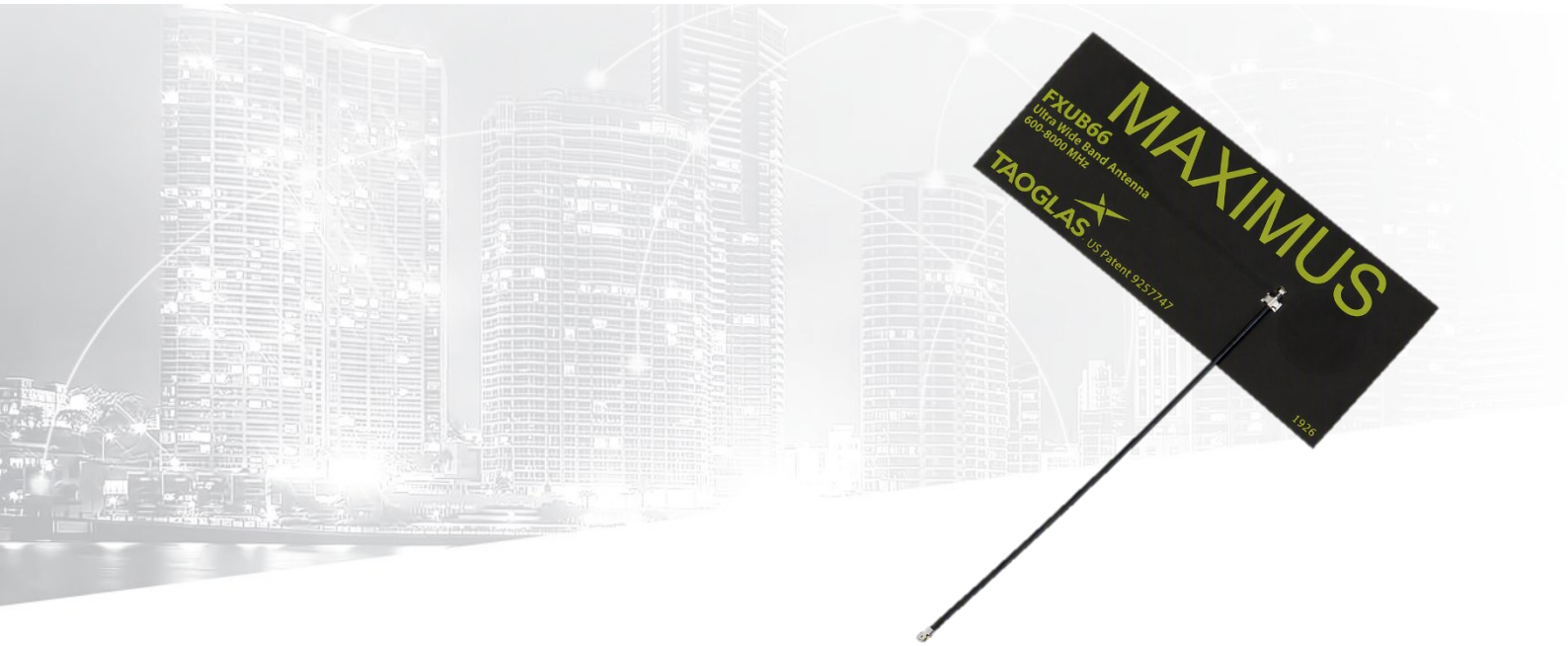
1. Introduction



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® 4L connector, ensuring compatibility with the latest compact 5G modules. Cable lengths and connector types can be customized to suit specific design requirements.

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2. Specification

Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
5GNR/4G Band71	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				
5GNR/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				
5GNR/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® 4L HSC Compatible (Fully customizable)
Cable	150mm of Ø1.37 (Fully customizable)

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

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5G/4G Bands			
Band Number	5GNR / 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	✗

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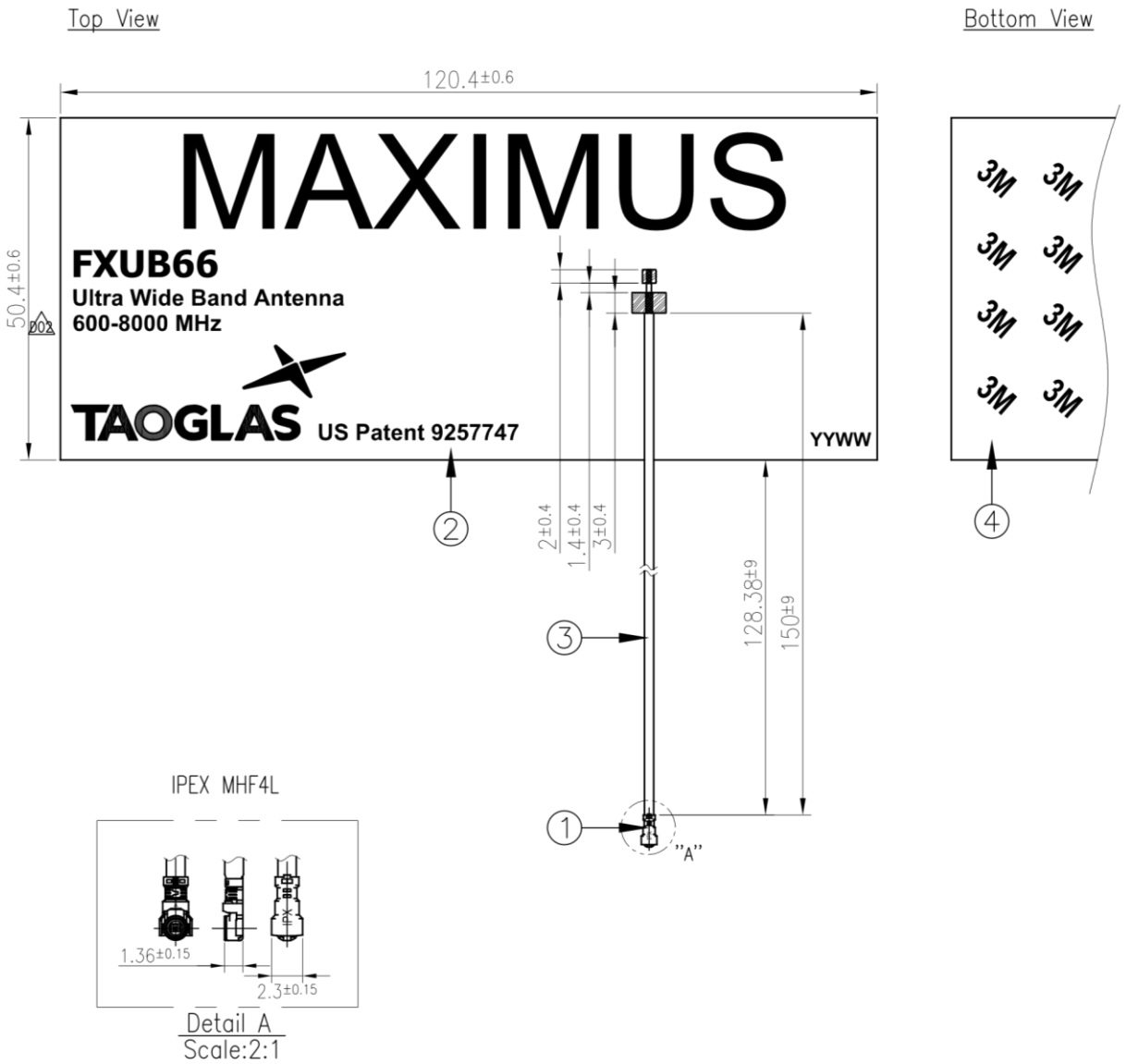
3. Mechanical Drawing



	Name	Material	Finish	QTY
1	IPEX MHF4L	Copper Alloy	Au/Ni Plated	1
2	FXUB66 FPCB	Polymer 0.24t	Black	1
3	1.37 Coaxial Cable	FEP	Black	1
4	Double-Sided Adhesive	3M 467	Brown Liner	1

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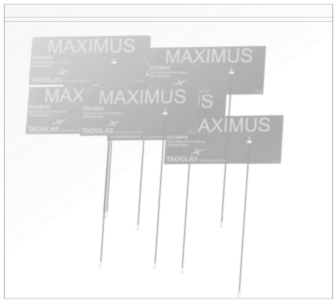
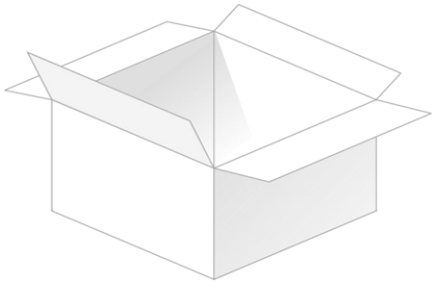
4. Packaging

100pcs FXUB66.54.0150C per PE Bag
Weight – 380g



1000pcs FXUB66.54.0150C per carton
Dimensions - 370*320*180mm
Weight – 4.1Kg



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

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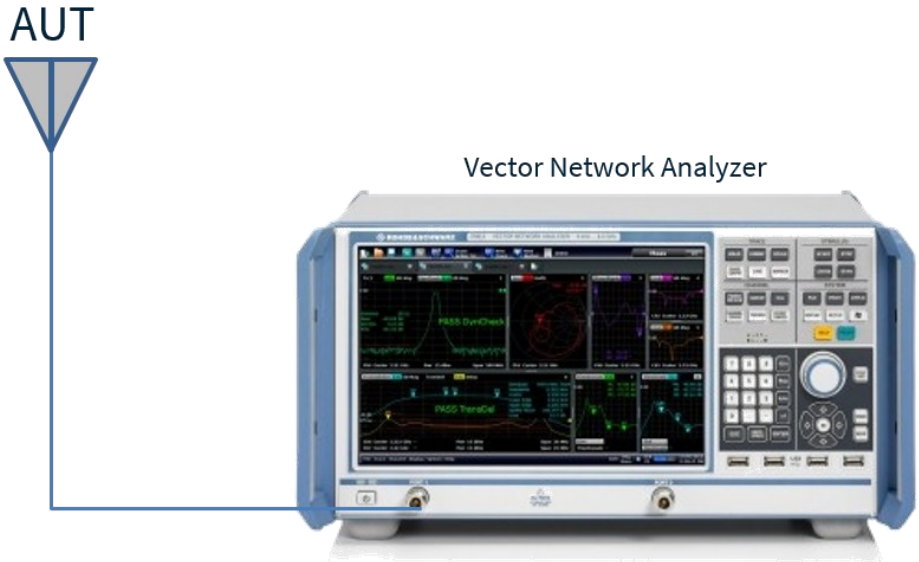
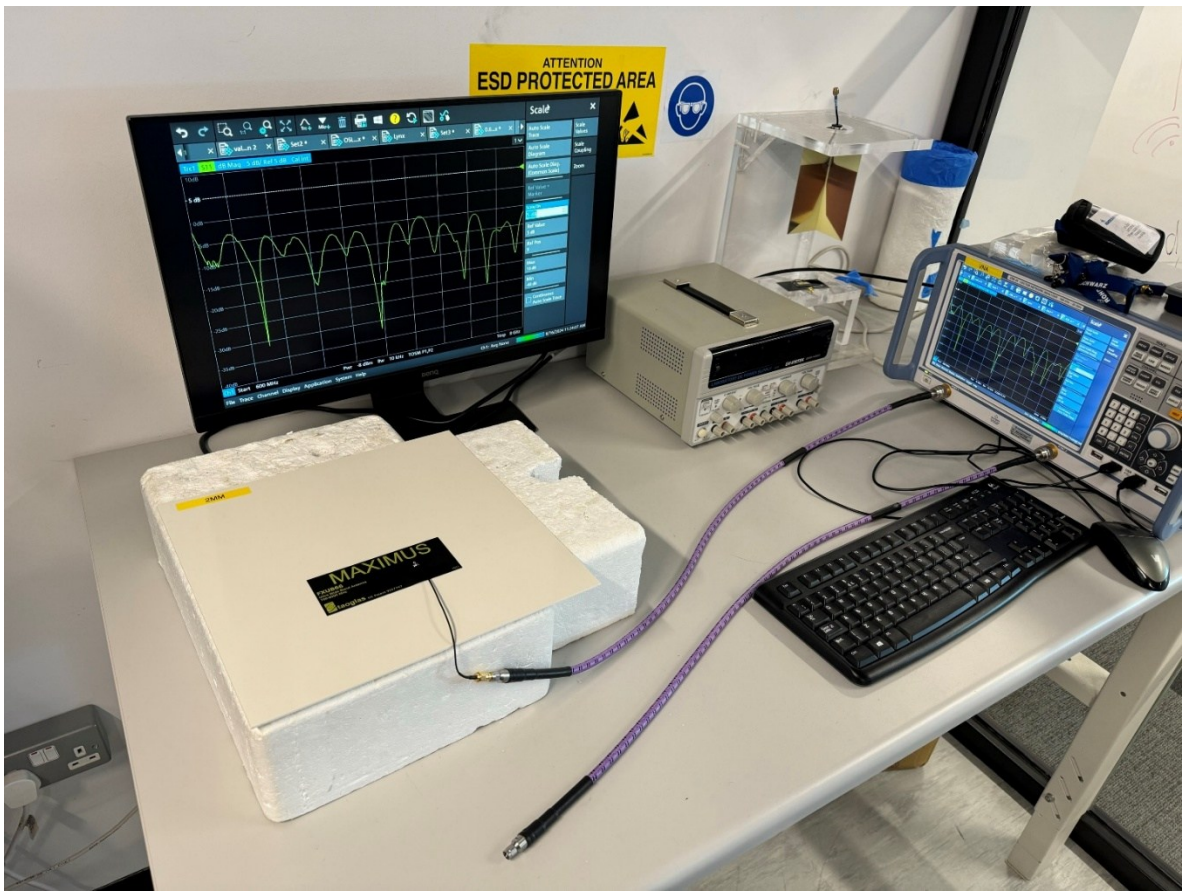
5. Antenna Characteristics

5.1 Test Setup





VNA Test Setup on ABS

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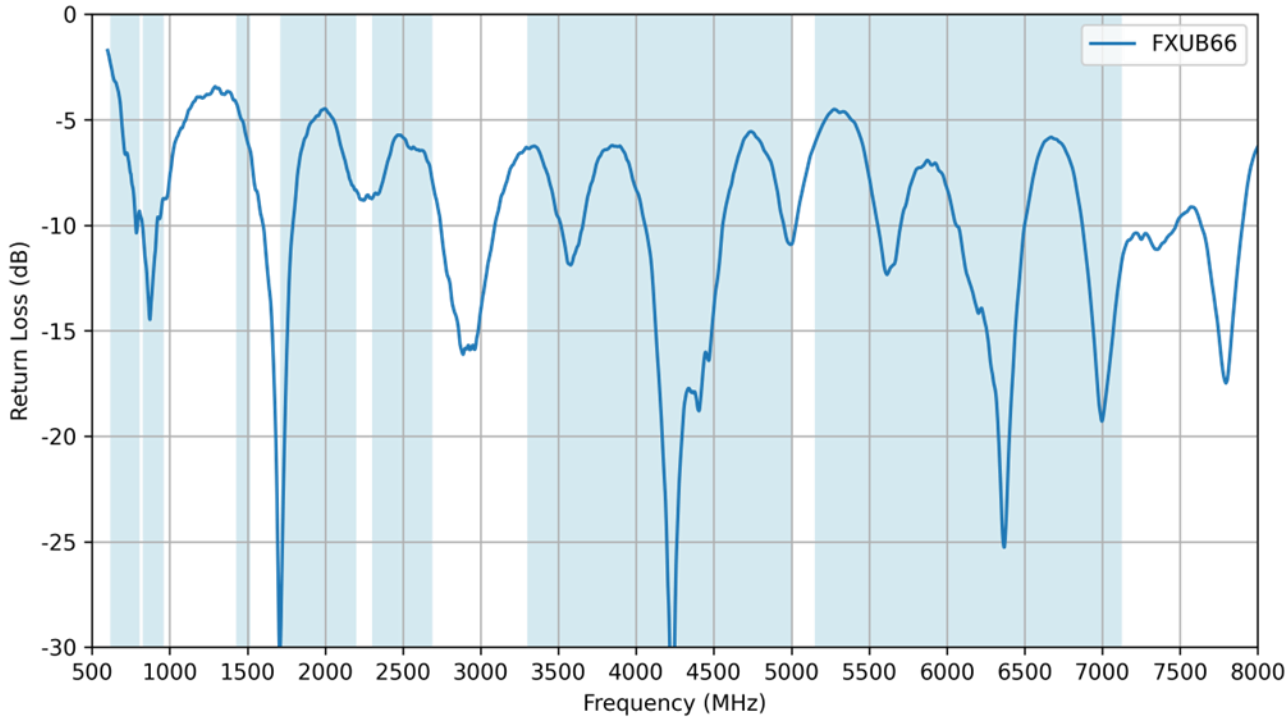
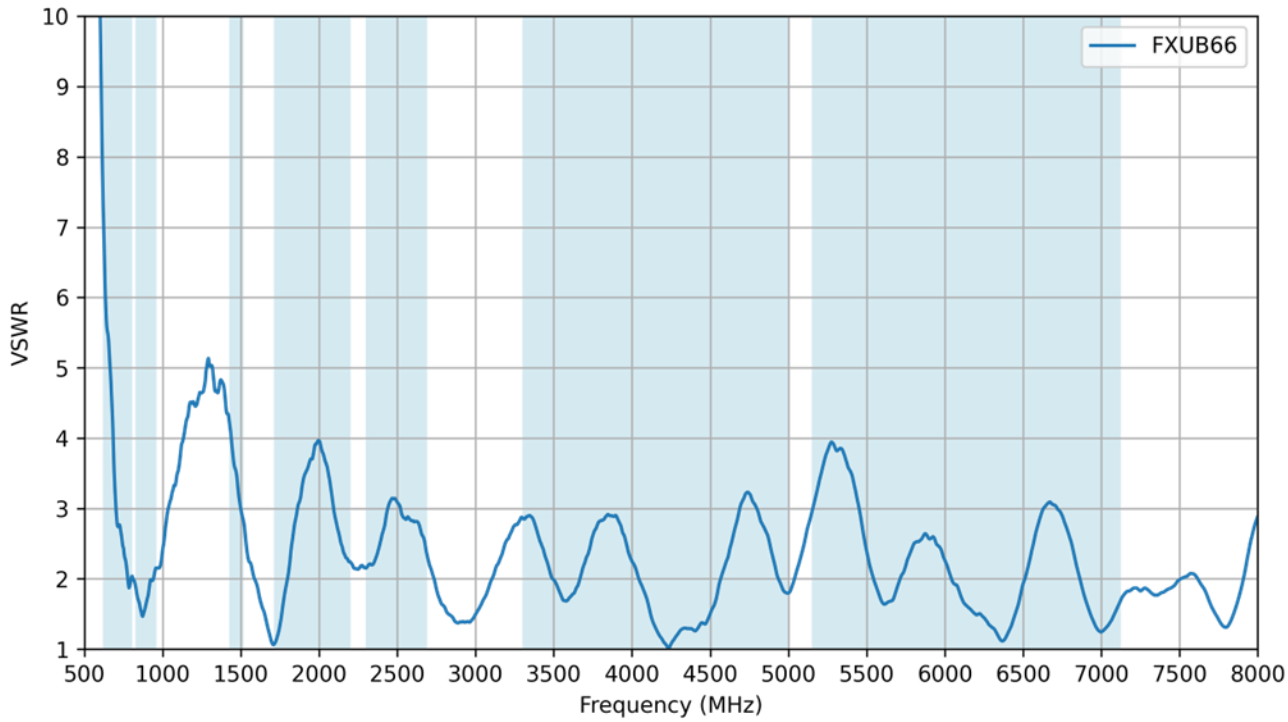
5.2 Return Loss



5.3 VSWR



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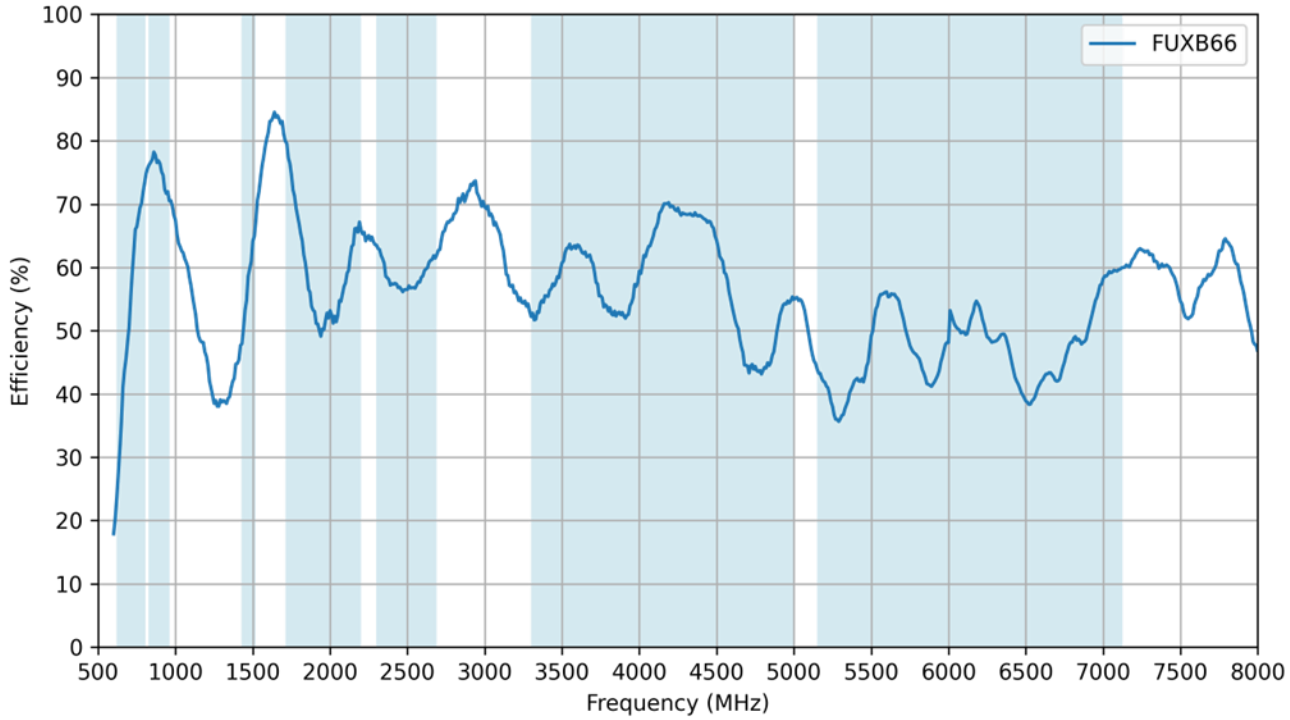
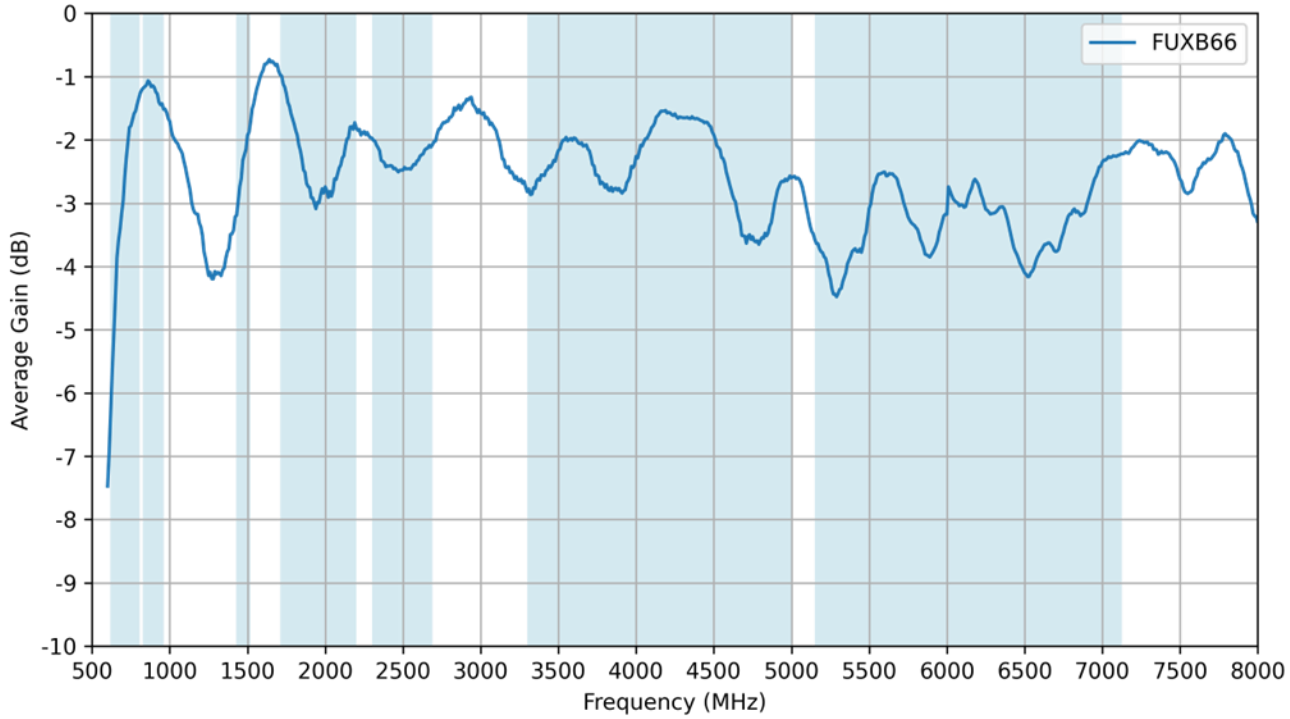
5.4 Efficiency



5.5 Average Gain



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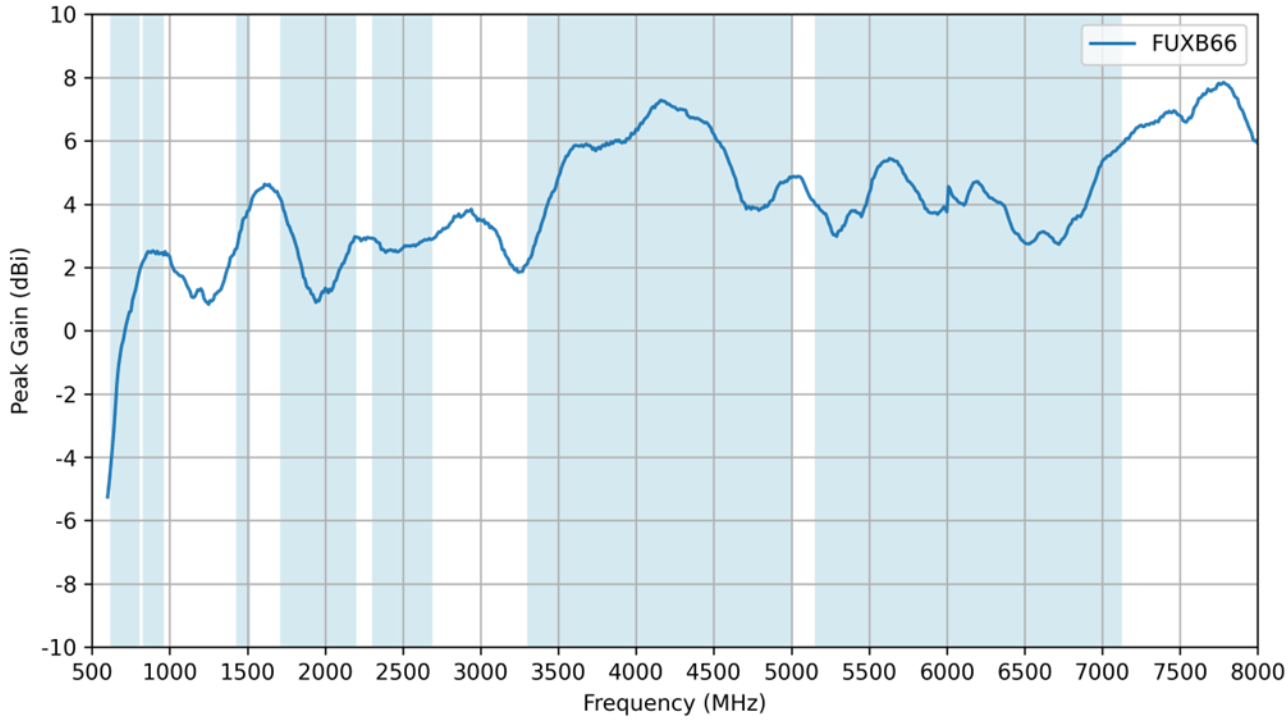
5.6 Peak Gain



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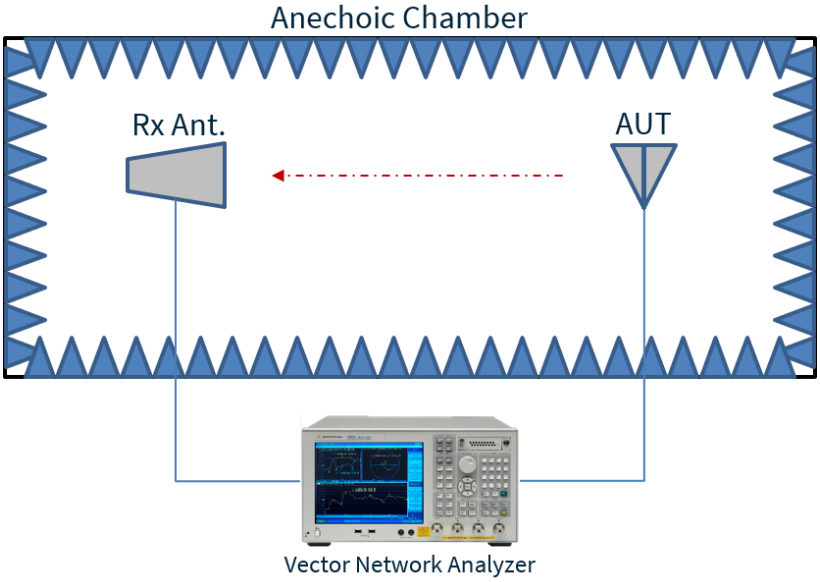
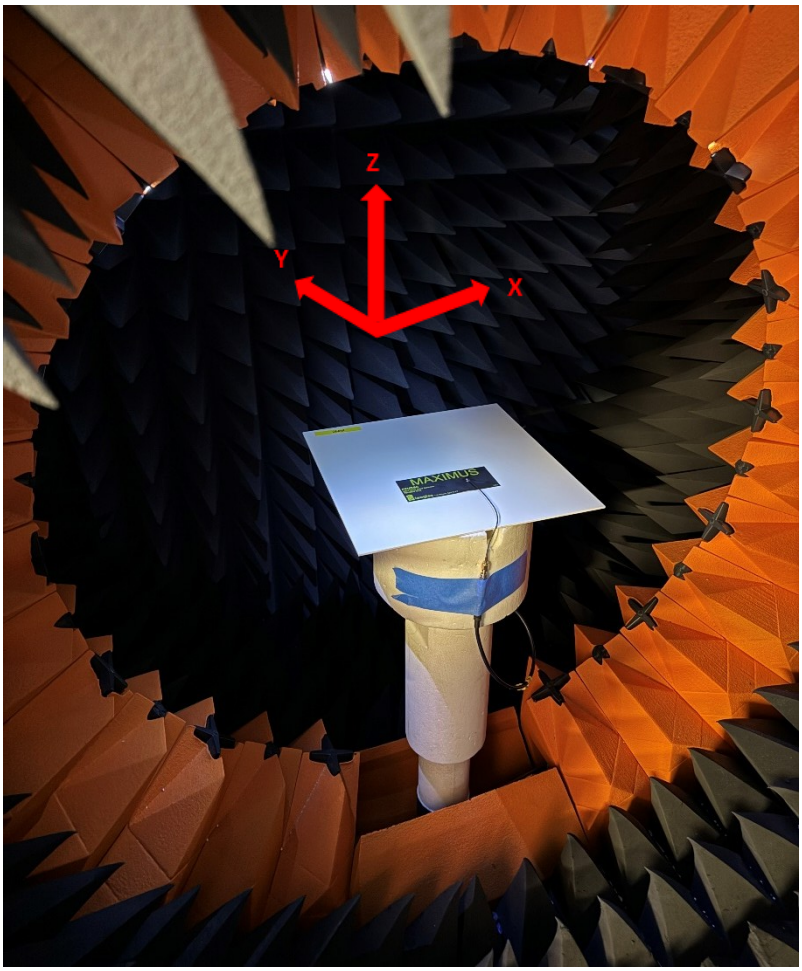
6. Radiation Patterns

6.1 Test Setup





Chamber Test Setup on ABS

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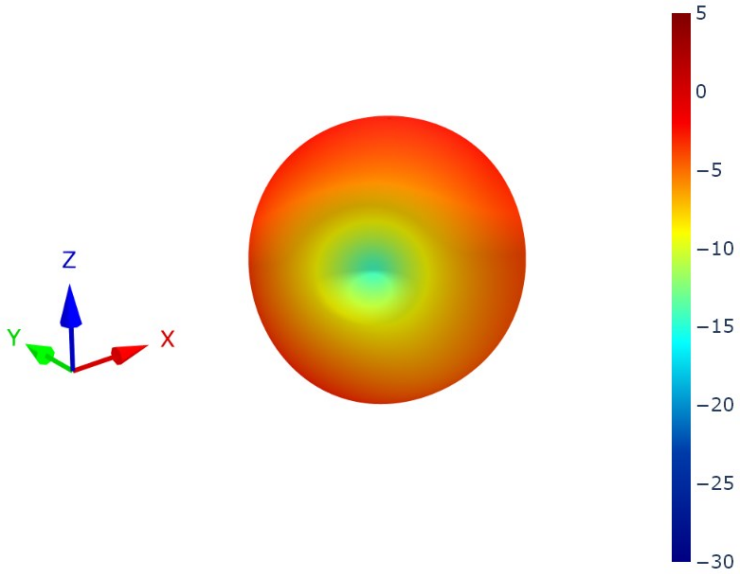
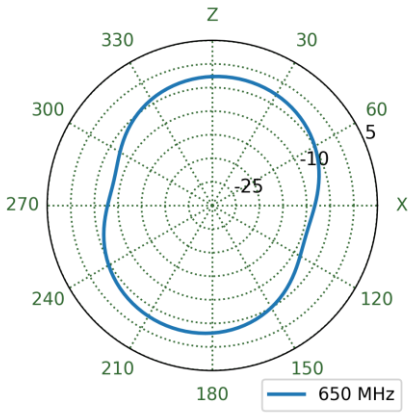
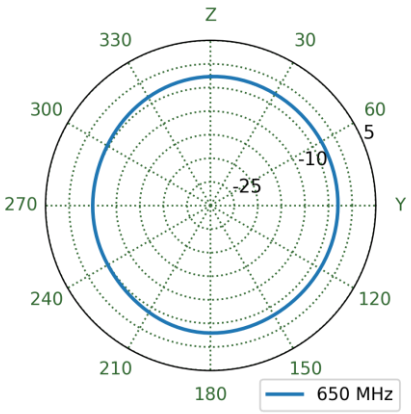
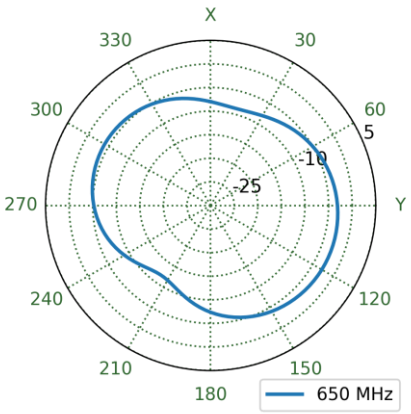
6.2 Patterns at 650 MHz



XZ Plane	YZ Plane	XY Plane







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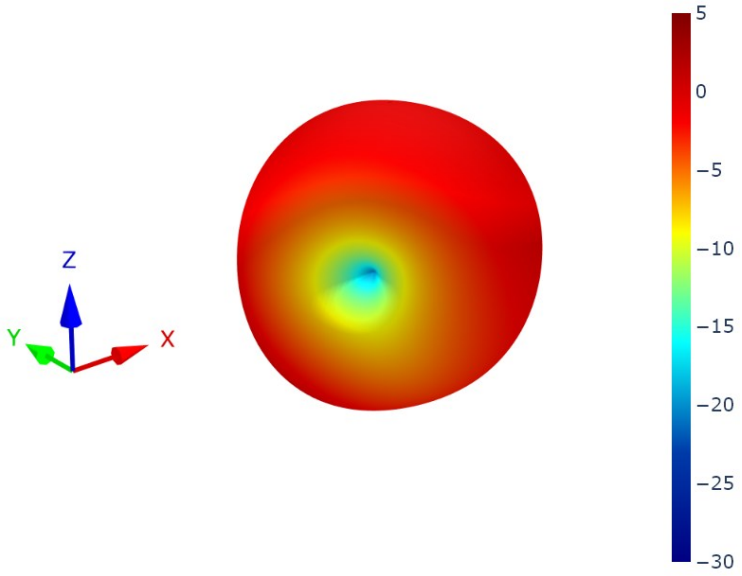
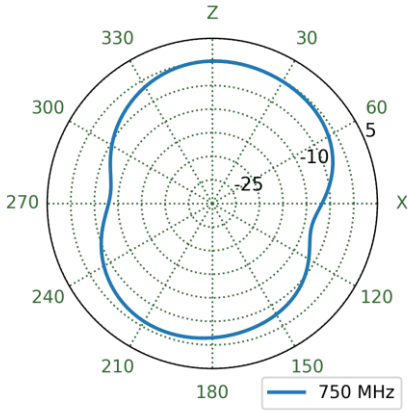
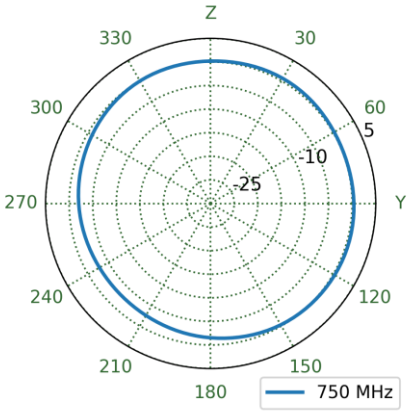
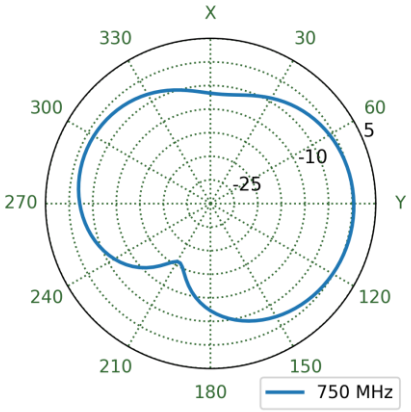
6.3 Patterns at 750 MHz



XZ Plane	YZ Plane	XY Plane







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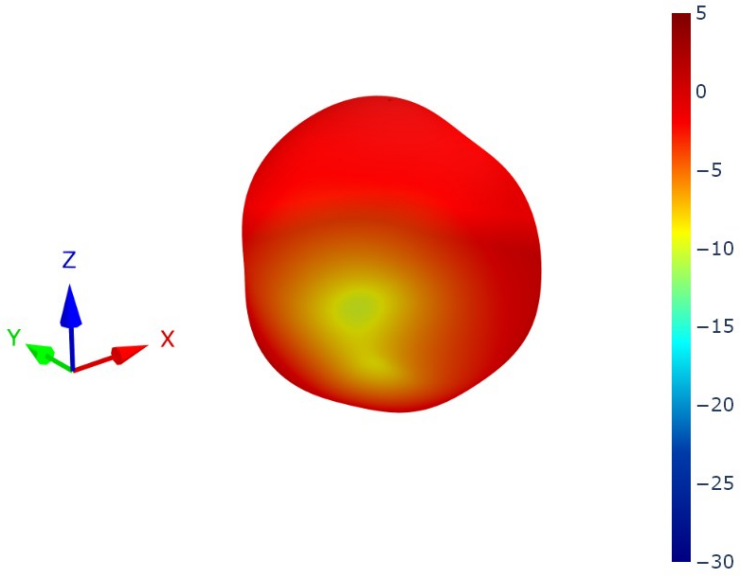
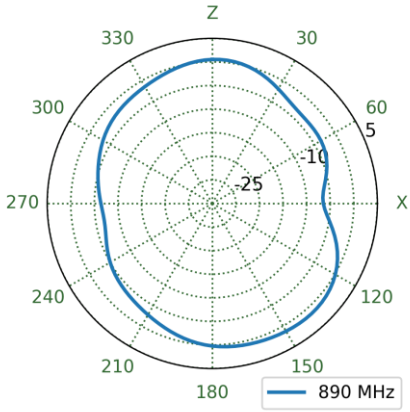
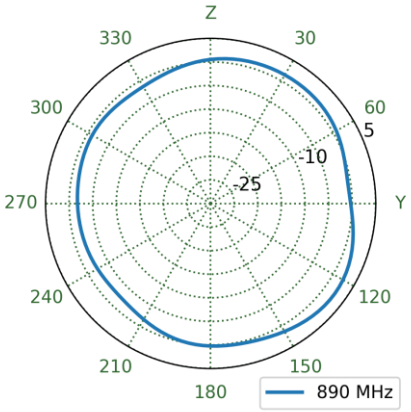
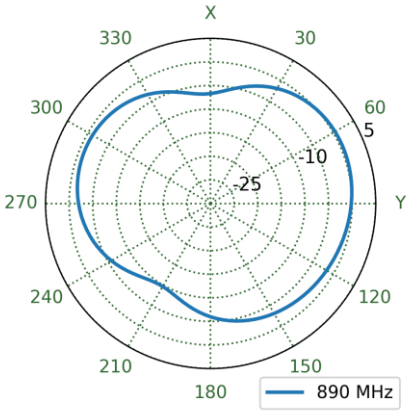
6.4 Patterns at 890 MHz



XZ Plane	YZ Plane	XY Plane







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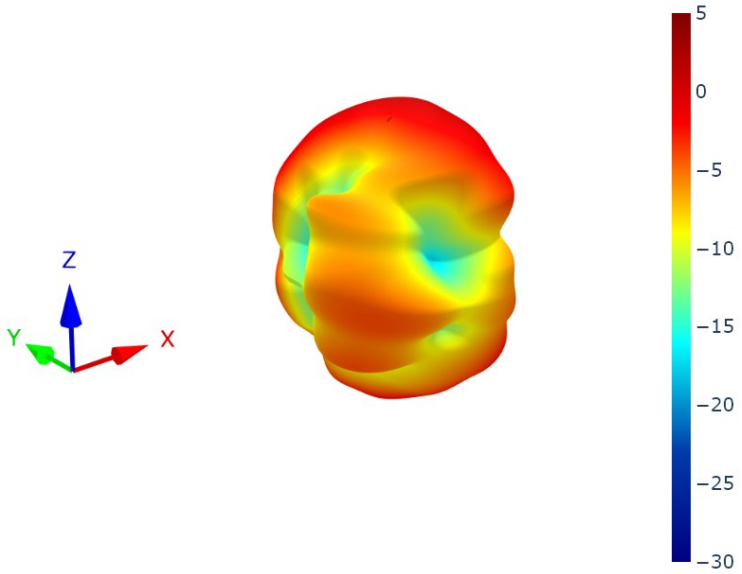
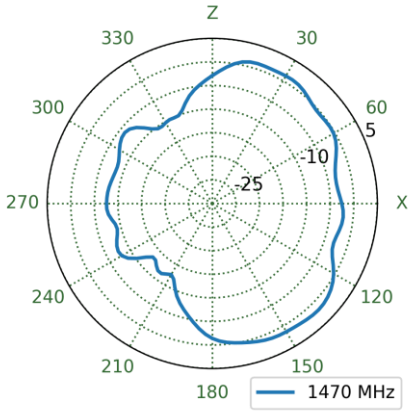
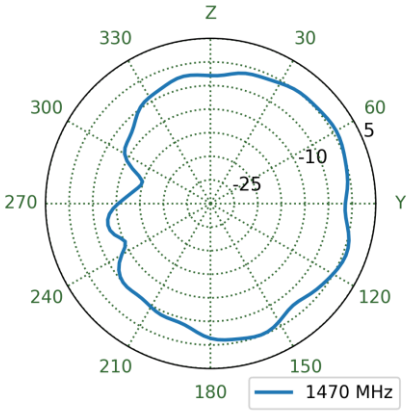
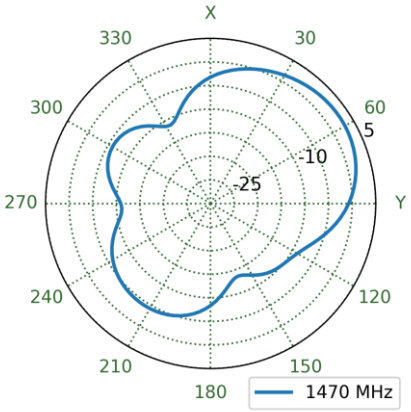
6.5 Patterns at 1475 MHz



XZ Plane	YZ Plane	XY Plane







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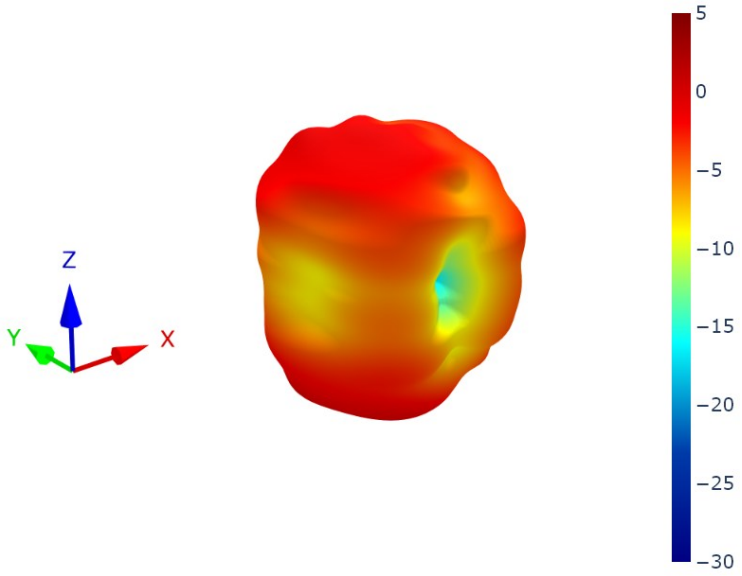
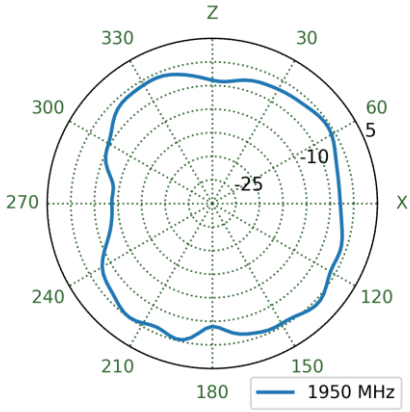
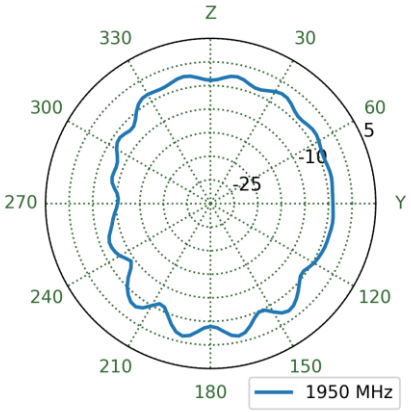
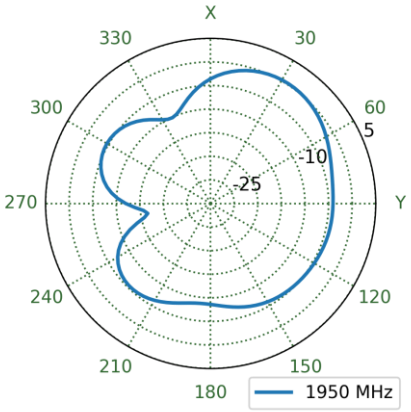
6.6 Patterns at 1955 MHz



XZ Plane	YZ Plane	XY Plane







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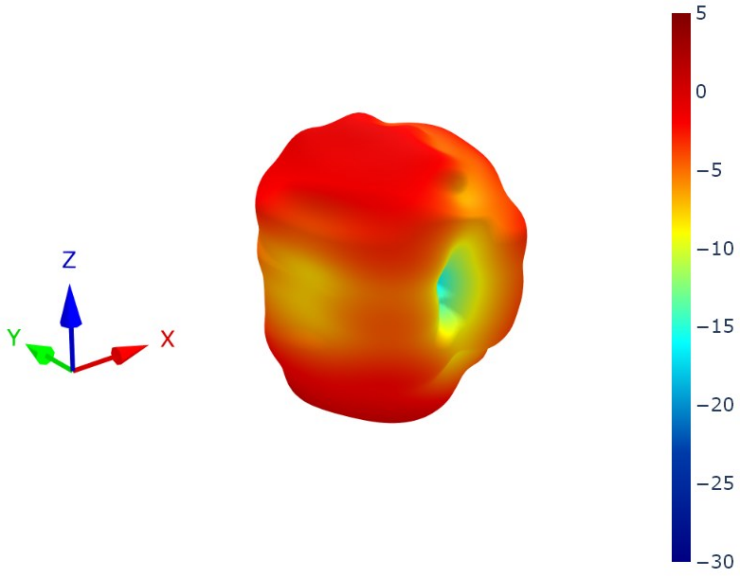
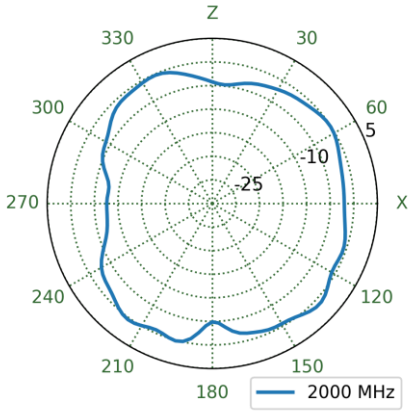
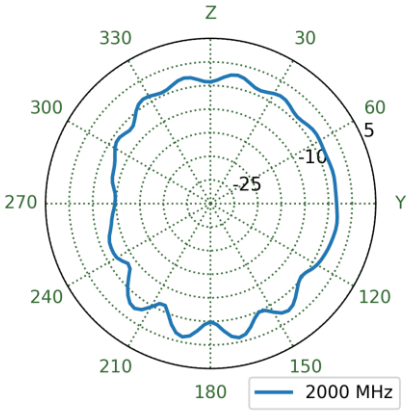
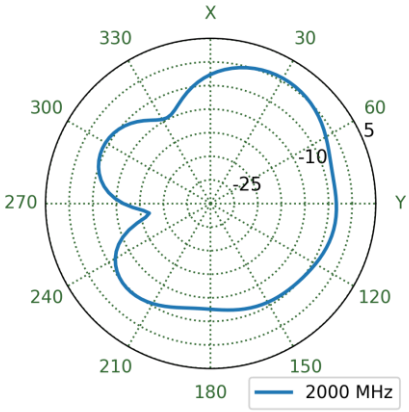
6.7 Patterns at 2000 MHz



XZ Plane	YZ Plane	XY Plane







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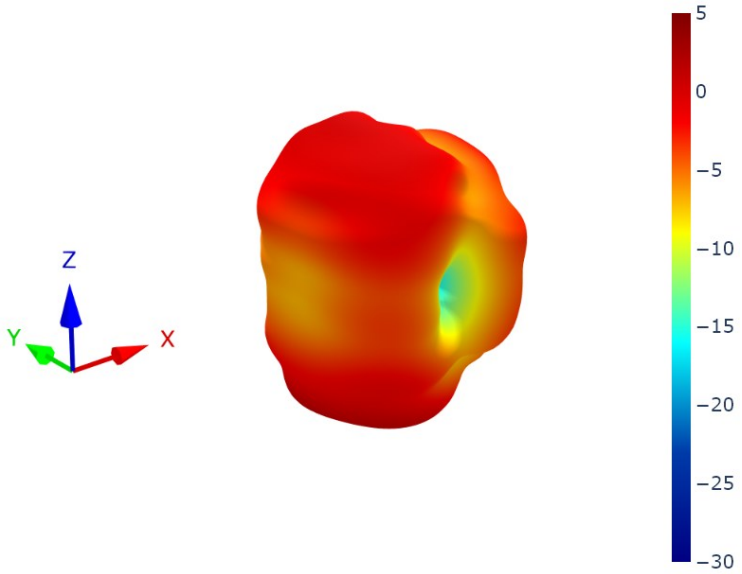
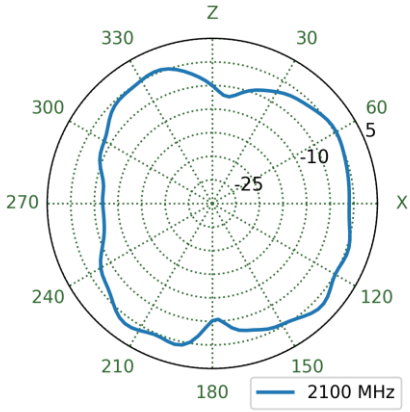
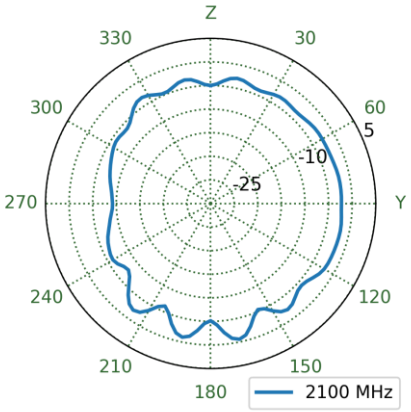
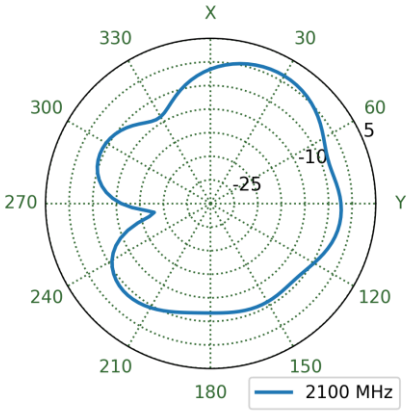
6.8 Patterns at 2100 MHz



XZ Plane	YZ Plane	XY Plane







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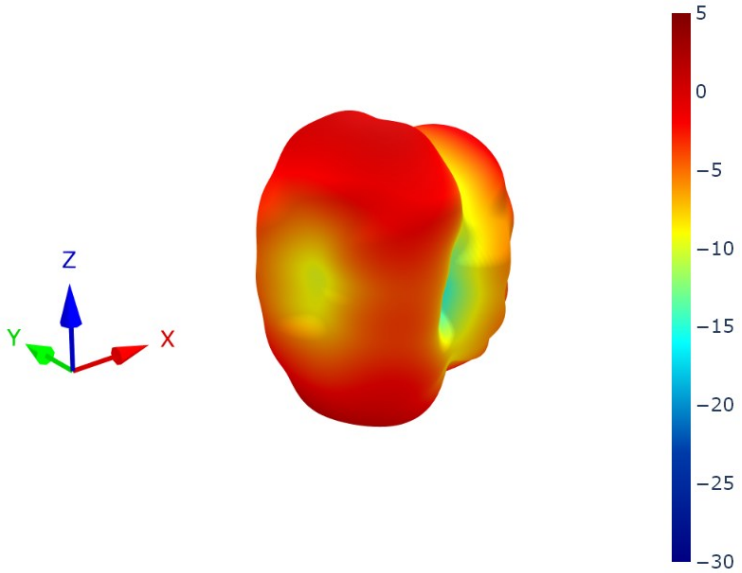
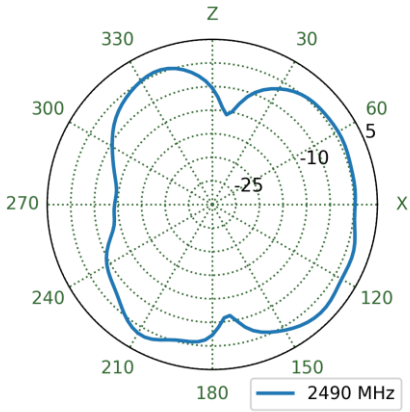
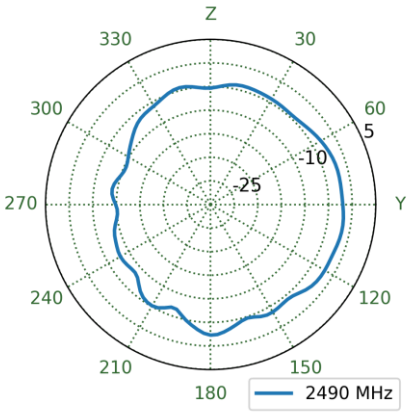
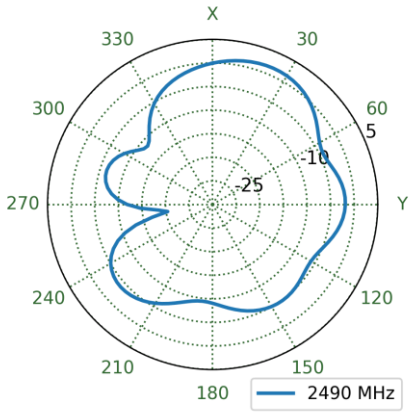
6.9 Patterns at 2495 MHz



XZ Plane	YZ Plane	XY Plane







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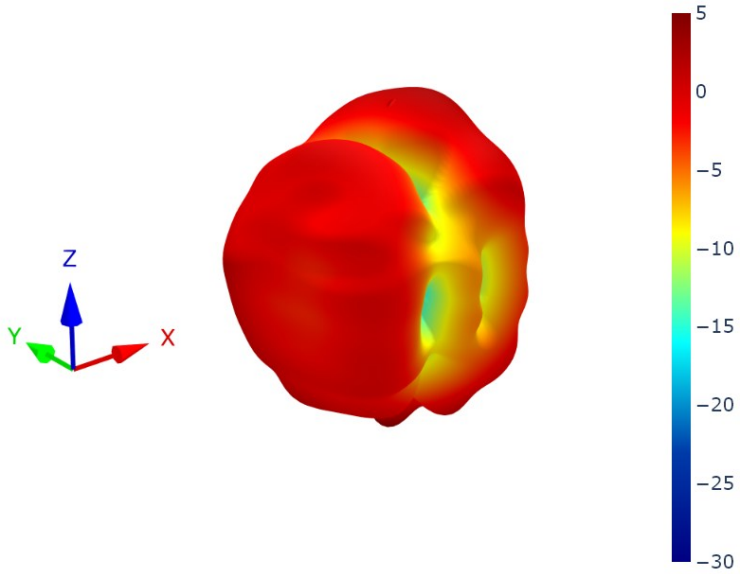
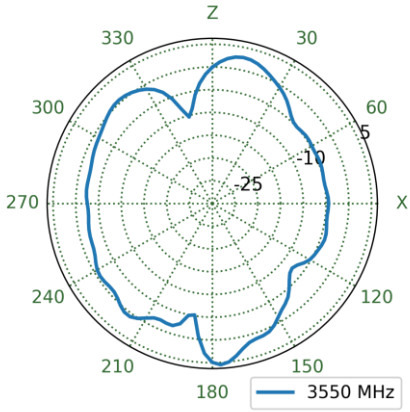
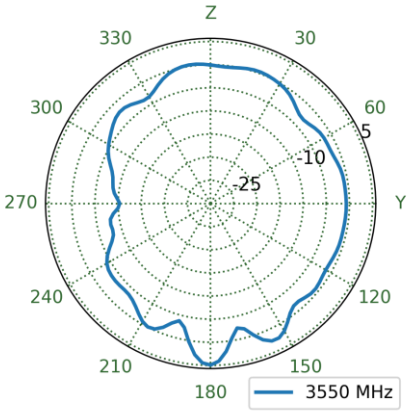
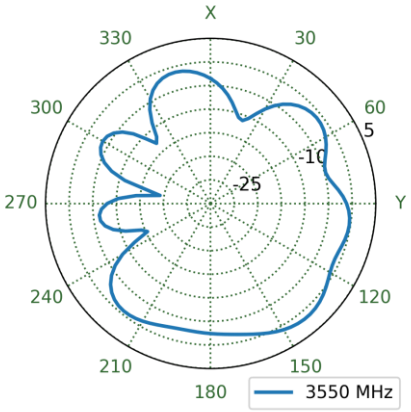
6.10 Patterns at 3550 MHz



XZ Plane	YZ Plane	XY Plane







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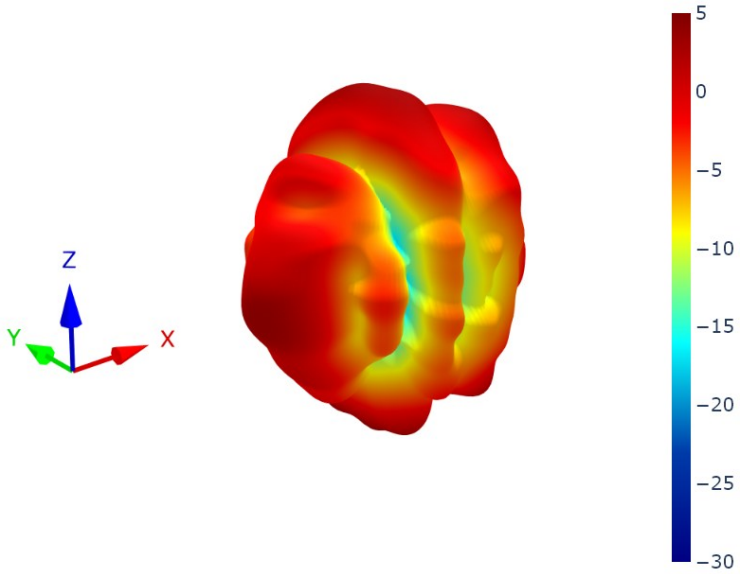
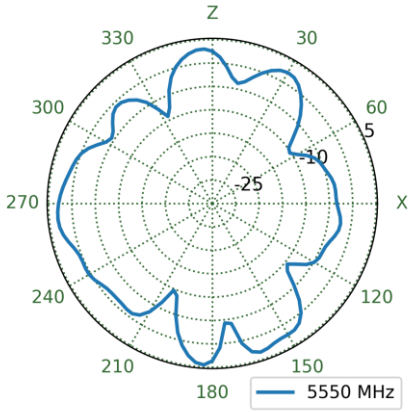
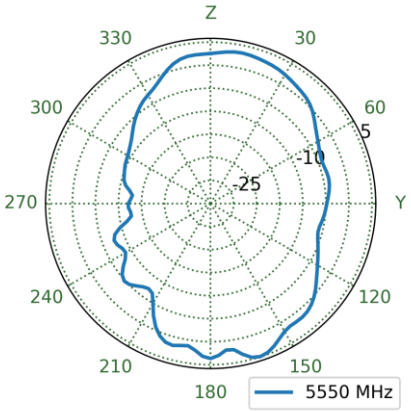
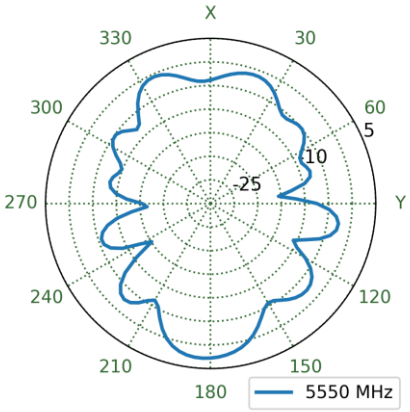
6.11 Patterns at 5550 MHz



XZ Plane	YZ Plane	XY Plane







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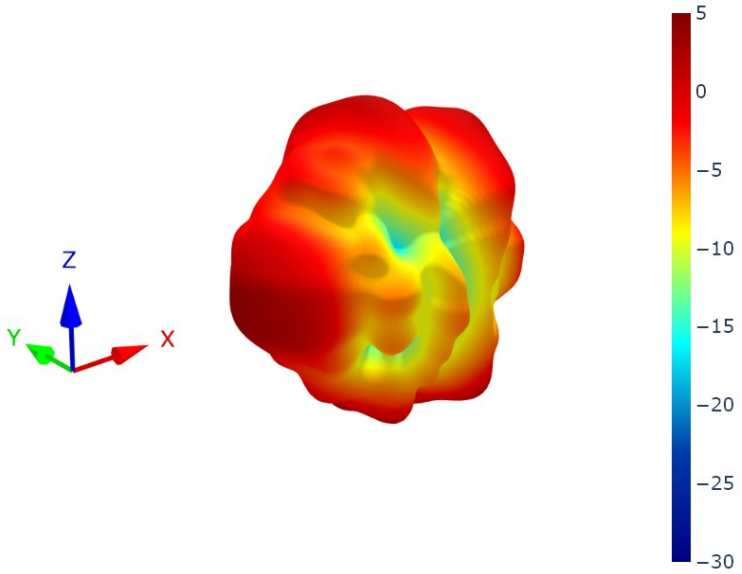
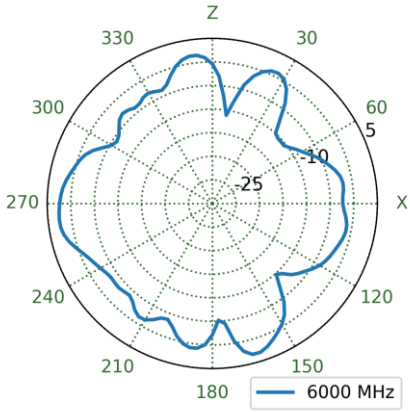
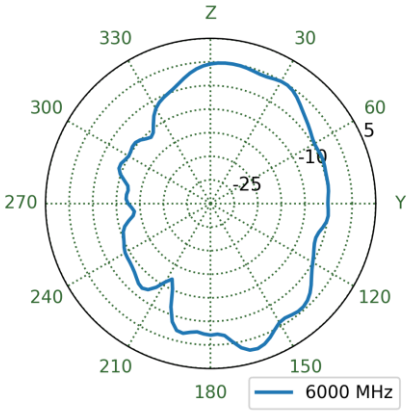
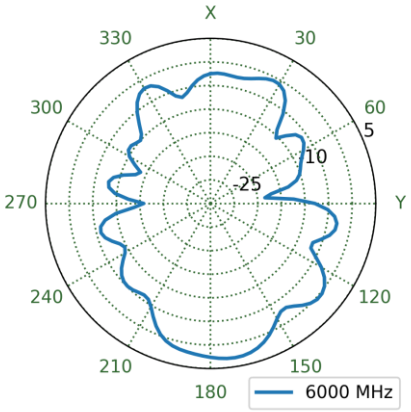
6.12 Patterns at 6000 MHz



XZ Plane	YZ Plane	XY Plane







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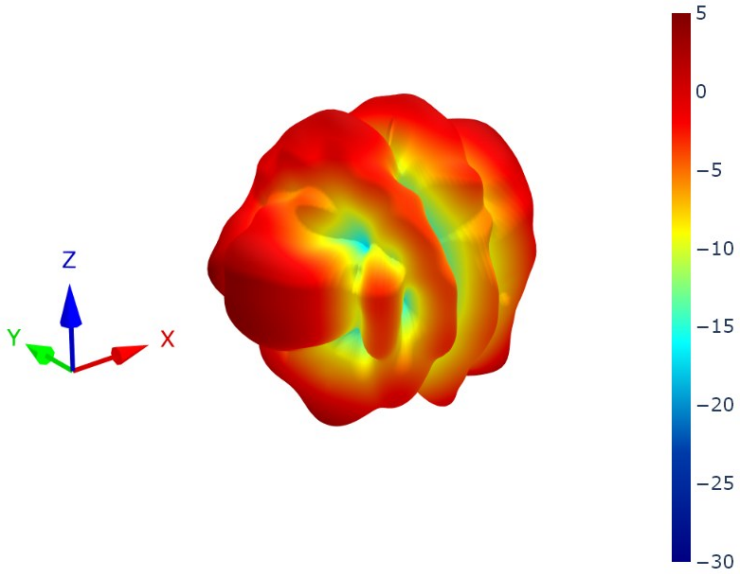
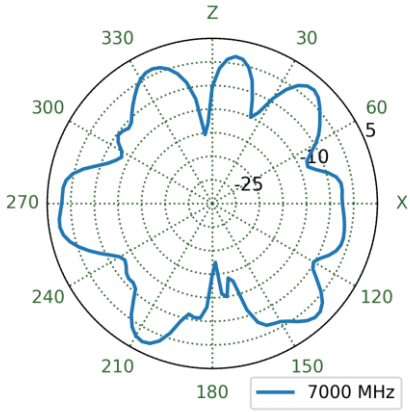
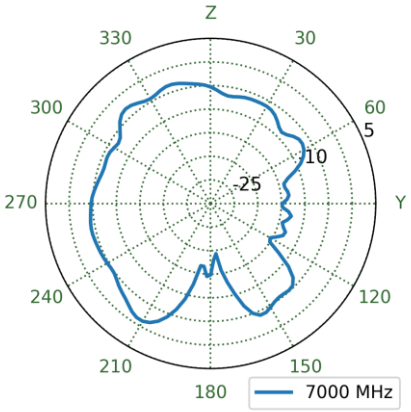
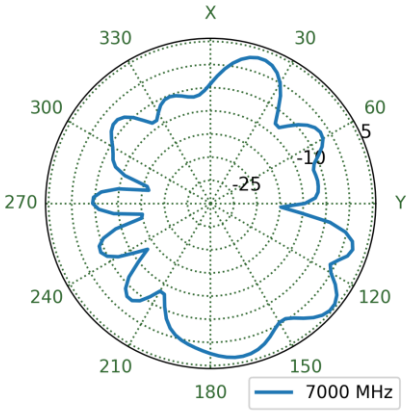
6.13 Patterns at 7000 MHz



XZ Plane	YZ Plane	XY Plane







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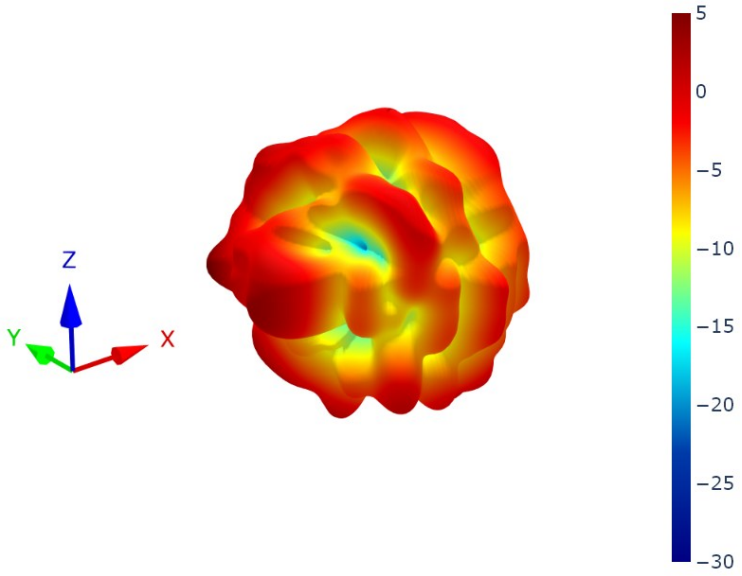
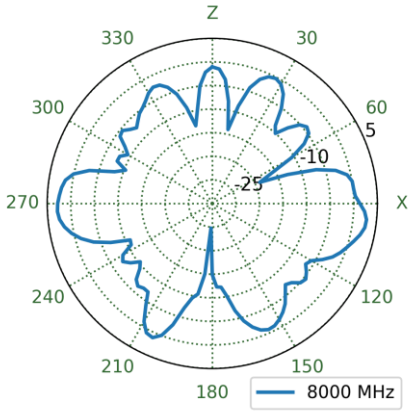
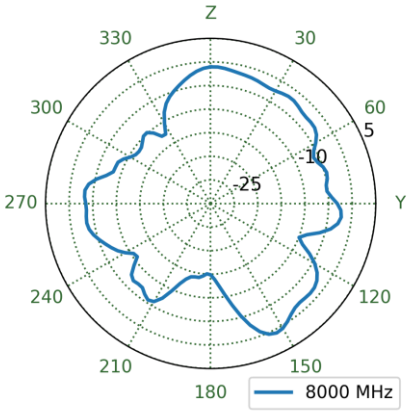
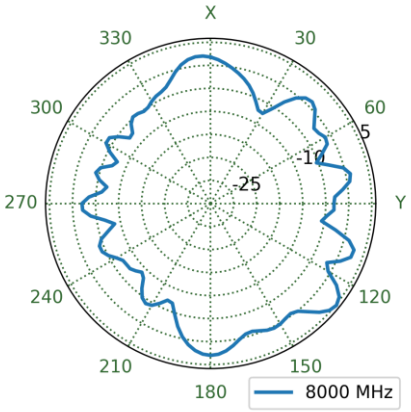
6.14 Patterns at 8000 MHz



XZ Plane	YZ Plane	XY Plane







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Changelog for the datasheet

SPE-21-8-014- FXUB66.54.0150C

Revision: D (Current Version)	
Date:	2026-08-05
Notes:	Updated product image.
Author:	Gary West

Previous Revisions

Revision: C	
Date:	2026-06-02
Notes:	Added NTN Bands.
Author:	Gary West

Revision: B	
Date:	2024-08-09
Notes:	Full datasheet update to include 6-8GHz.
Author:	Gary West

Revision: A (Original First Release)	
Date:	2021-03-18
Notes:	Initial Release
Author:	Jack Conroy

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