TAOGLAS

Datasheet

Hinged Cellular Antenna

Part No:
TG.09.0113

Description

Features:

Covering Worldwide 4G-5G Bands between 700-6000MHz
Rotatable Hinge Design for Optimal reception
SMA Male Connector as Standard
CE Certified
RoHS & Reach Compliant

1. Introduction

The Taoglas TG.09 Terminal Mount Cellular Hinged Rotatable SMA Antenna is a high efficiency monopole antenna. Compared to other much larger antennas on the market, it has superior wide-band high efficiency characteristics over worldwide 4G frequency bands. The TG.09 can also be compatible with some 5G Sub 6GHz cellular bands between 3500-3800MHz.

The unique rotatable hinge design enables the user to rotate the antenna to the best angle to optimize cellular signal reception. As the upper antenna element can move in any direction, it also reduces damage from impact force from any angle to the antenna, compared to traditional hinged right angle or fixed fight angle designs or straight antennas.

The small form factor of this antenna, coupled with excellent RF performance and an aesthetic high-end design, make it the ideal cellular antenna for routers, vehicle tracking devices, telematics devices, remote monitoring systems, and POS devices.

The TG.09, as do all monopole antennas, works best when connected directly to the ground-plane of the device main-board. Taoglas offers support services to characterize antenna efficiency on your individual device ground-plane.

The TG.09 antenna also supports LTE 700MHz band applications when it is directly connected to ground-planes with dimensions greater than 60mm.

Please contact your regional Taoglas customer support team if you wish to conduct PTCRB or network approvals with this antenna attached to your device. Taoglas can check that the RF integration is correct and we can also conduct pre-tests to ensure optimized passive and active performance and a smooth and quick certification approval process.

The TG.09 is also available with a white enclosure- TG.09.0113W.

2. Specification

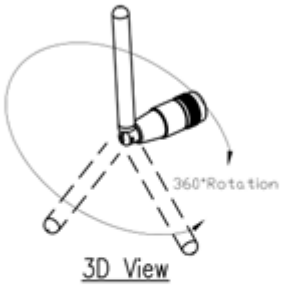
Electrical									
Band	Frequency (MHz)	Measurement	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
5GNR/4G Band71	617-698	15x9cm Ground Plane (Bent)	37.9	-4.21	1.32	50 Ω	Linear	Omni directional	10W
		15x9cm Ground Plane (Straight)	55.0	-2.60	2.30				
		30x30cm Ground Plane Center (Bent)	3.8	-14.18	-9.15				
		30x30cm Ground Plane Center (Straight)	11.9	-9.25	-4.58				
		30x30cm Ground Plane Edge (Bent)	15.8	-8.02	-1.08				
		30x30cm Ground Plane Edge (Straight)	26.6	-5.76	0.08				
		Free Space (Bent)	18.2	-7.40	-0.52				
		Free Space (Straight)	21.5	-6.68	0.78				
4G/3G Band 12,13,14,17,28,29	698-806	15x9cm Ground Plane (Bent)	68.1	-1.67	2.85				
		15x9cm Ground Plane (Straight)	76.4	-1.17	2.85				
		30x30cm Ground Plane Center (Bent)	13.9	-8.57	-1.89				
		30x30cm Ground Plane Center (Straight)	43.0	-3.67	1.50				
		30x30cm Ground Plane Edge (Bent)	47.3	-3.25	2.88				
		30x30cm Ground Plane Edge (Straight)	64.7	-1.89	2.69				
		Free Space (Bent)	41.1	-3.86	1.71				
		Free Space (Straight)	46.2	-3.36	2.48				
4G/3G/NB-IoT/Cat M Band 5,8,18,19,20,26,27	824-960	15x9cm Ground Plane (Bent)	72.4	-1.40	2.73				
		15x9cm Ground Plane (Straight)	63.7	-1.96	2.20				
		30x30cm Ground Plane Center (Bent)	40.1	-3.97	2.06				
		30x30cm Ground Plane Center (Straight)	74.0	-1.31	3.37				
		30x30cm Ground Plane Edge (Bent)	82.6	-0.83	3.16				
		30x30cm Ground Plane Edge (Straight)	80.5	-0.94	2.58				
		Free Space (Bent)	52.0	-2.84	2.77				
		Free Space (Straight)	50.6	-2.95	3.06				
5GNR/4G Band 21,32,74,75,76	1427-1518	15x9cm Ground Plane (Bent)	38.4	-4.15	1.52				
		15x9cm Ground Plane (Straight)	42.0	-3.76	1.54				
		30x30cm Ground Plane Center (Bent)	16.4	-7.86	-2.21				
		30x30cm Ground Plane Center (Straight)	7.2	-11.40	-3.71				
		30x30cm Ground Plane Edge (Bent)	17.0	-7.71	-0.48				
		30x30cm Ground Plane Edge (Straight)	15.8	-8.01	-1.07				
		Free Space (Bent)	20.2	-6.94	-1.24				
		Free Space (Straight)	18.6	-7.31	-2.18				
4G/3G Band 1,2,3,4,9,23,25,35,39, 66	1710-2200	15x9cm Ground Plane (Bent)	73.0	-1.37	4.21				
		15x9cm Ground Plane (Straight)	72.3	-1.41	4.06				
		30x30cm Ground Plane Center (Bent)	74.1	-1.30	4.14				
		30x30cm Ground Plane Center (Straight)	75.1	-1.24	4.14				
		30x30cm Ground Plane Edge (Bent)	74.9	-1.25	3.87				
		30x30cm Ground Plane Edge (Straight)	80.1	-0.96	3.95				
		Free Space (Bent)	54.3	-2.65	3.92				
		Free Space (Straight)	56.2	-2.50	4.27				
4G/3G Band 7,30,38,40,41	2300-2690	15x9cm Ground Plane (Bent)	54.1	-2.67	3.25				
		15x9cm Ground Plane (Straight)	52.2	-2.83	2.99				
		30x30cm Ground Plane Center (Bent)	54.3	-2.65	4.14				
		30x30cm Ground Plane Center (Straight)	49.0	-3.10	3.49				
		30x30cm Ground Plane Edge (Bent)	57.1	-2.43	3.91				
		30x30cm Ground Plane Edge (Straight)	53.1	-2.75	3.25				
		Free Space (Bent)	46.0	-3.37	2.53				
		Free Space (Straight)	45.0	-3.46	2.37				
5GNR/4G Band 22,42,48,77,78,79	3300-5000	15x9cm Ground Plane (Bent)	53.1	-2.75	4.91				
		15x9cm Ground Plane (Straight)	49.4	-3.06	4.18				
		30x30cm Ground Plane Center (Bent)	67.6	-1.70	4.99				
		30x30cm Ground Plane Center (Straight)	63.4	-1.98	4.79				

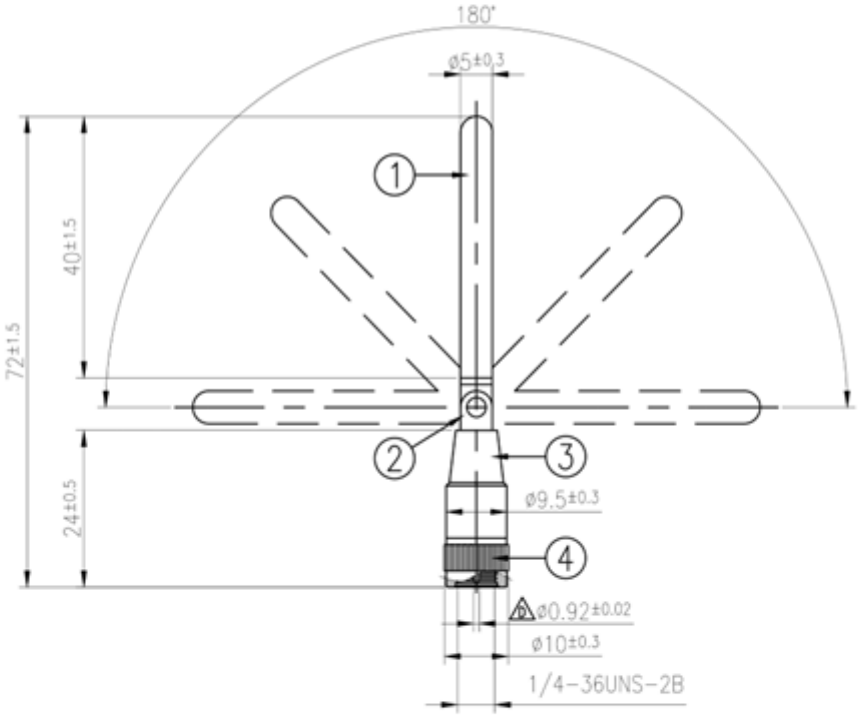
		30x30cm Ground Plane Edge (Bent)	75.6	-1.22	6.04				
		30x30cm Ground Plane Edge (Straight)	67.5	-1.71	4.89				
		Free Space (Bent)	61.4	-2.12	4.10				
		Free Space (Straight)	58.0	-2.37	4.19				
LTE5200/Wi-Fi5800	5150-5925	15x9cm Ground Plane (Bent)	37.9	-4.22	2.80				
		15x9cm Ground Plane (Straight)	28.2	-5.50	1.09				
		30x30cm Ground Plane Center (Bent)	46.1	-3.36	3.71				
		30x30cm Ground Plane Center (Straight)	48.0	-3.19	3.82				
		30x30cm Ground Plane Edge (Bent)	54.3	-2.66	4.29				
		30x30cm Ground Plane Edge (Straight)	49.0	-3.10	3.32				
		Free Space (Bent)	46.0	-3.38	3.13				
		Free Space (Straight)	34.4	-4.64	2.32				

Mechanical	
Dimensions	Ø10 x 72mm
Casing	POM
Connector	SMA Male Hinged
Weight	8g

Environmental	
Operation Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Non-condensing 65°C 95% RH

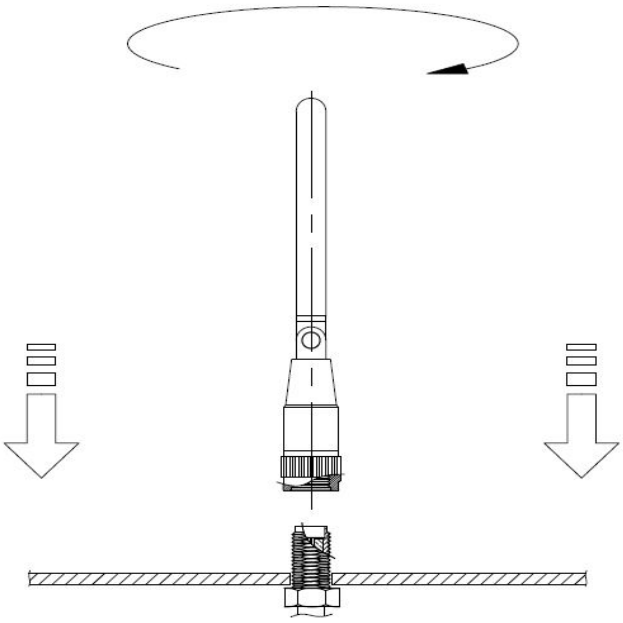
3. Mechanical Drawing





	Name	P/N	Material	Finish	QTY
1	Housing	000611G000002A	POM	Black	1
2	Hinge	210211G040002A	Brass	Ni Plated	1
3	Cap	000613C010002A	POM	Black	1
4	SMA(M)ST	210213C010002A	Brass	Ni Plated	1

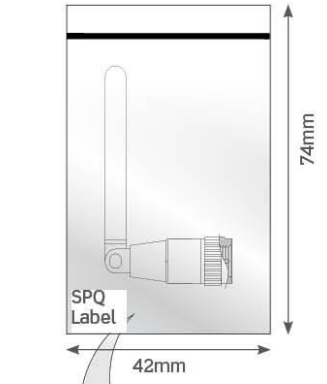
4. Installation Recommendation



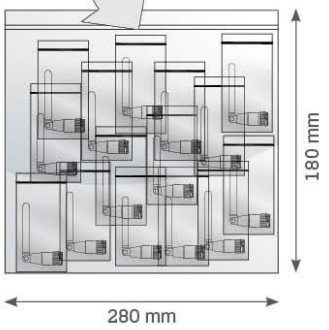
Hand tighten only, Do not use antenna as a lever.

5. Packaging

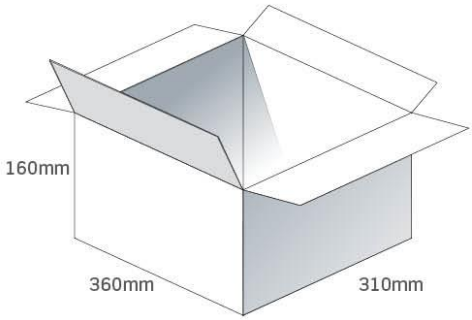
1 pcs TG.09.0113 per PE bag
PE Bag Dimensions - 74 x 42mm
Weight - 8.6g



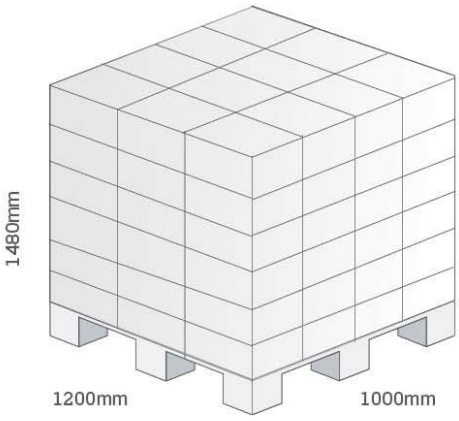
100 pcs TG.09.0113 per large PE bags
Large PE bags Dimensions - 280 x 180mm
Weight - 0.88kg



1500 pcs TG.09.0113 per carton
Carton Dimensions - 360 x 310 x 160mm
Weight - 13.5kg

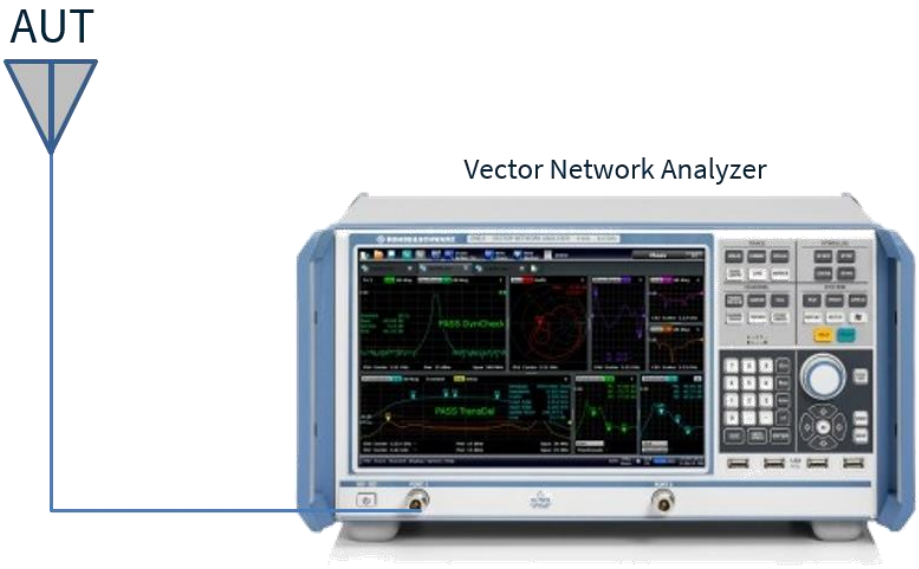


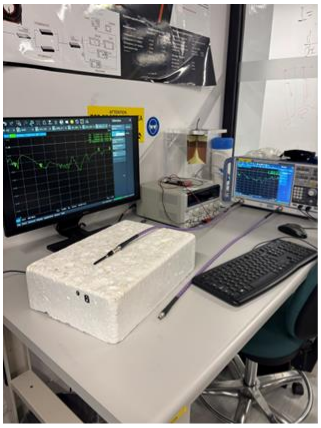
Pallet Dimensions 1200*1000*1480mm
72 Cartons per Pallet
9 Cartons per layer
8 Layers



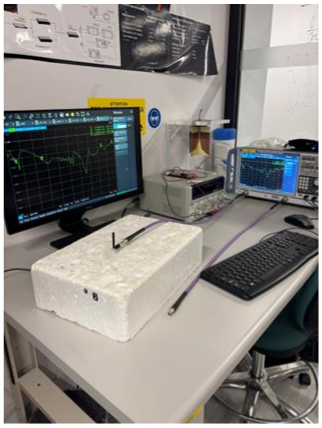
6. Antenna Characteristics

6.1 Test Setup

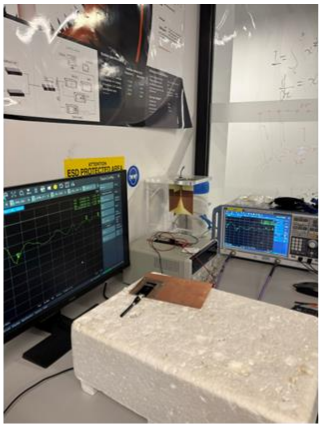




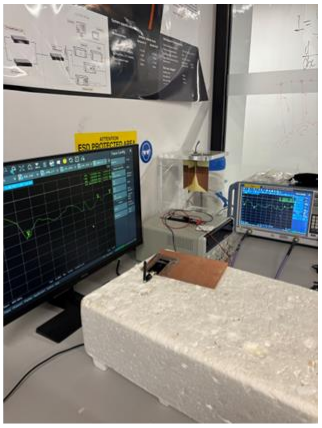
Free Space- Straight



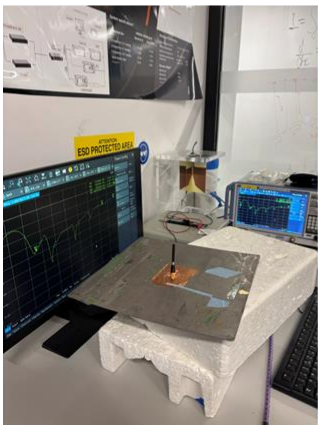
Free Space- Bent



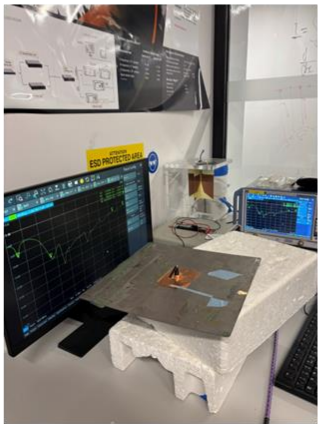
15x9cm Ground Plane
Straight



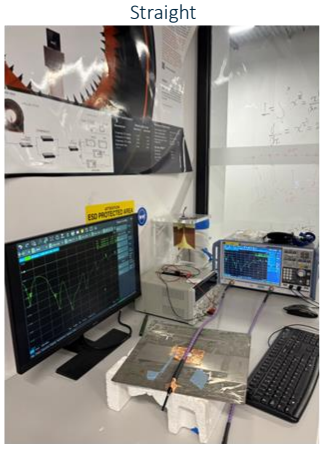
15x9cm Ground Plane
Bent



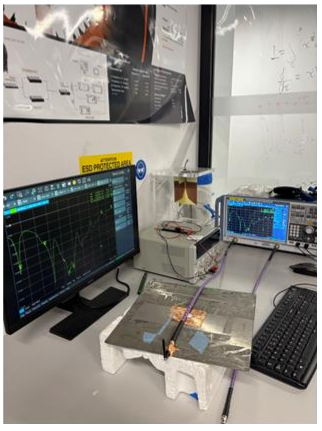
30x30cm Ground Plane
(Centre) Straight



30x30cm Ground Plane
(Centre) Bent

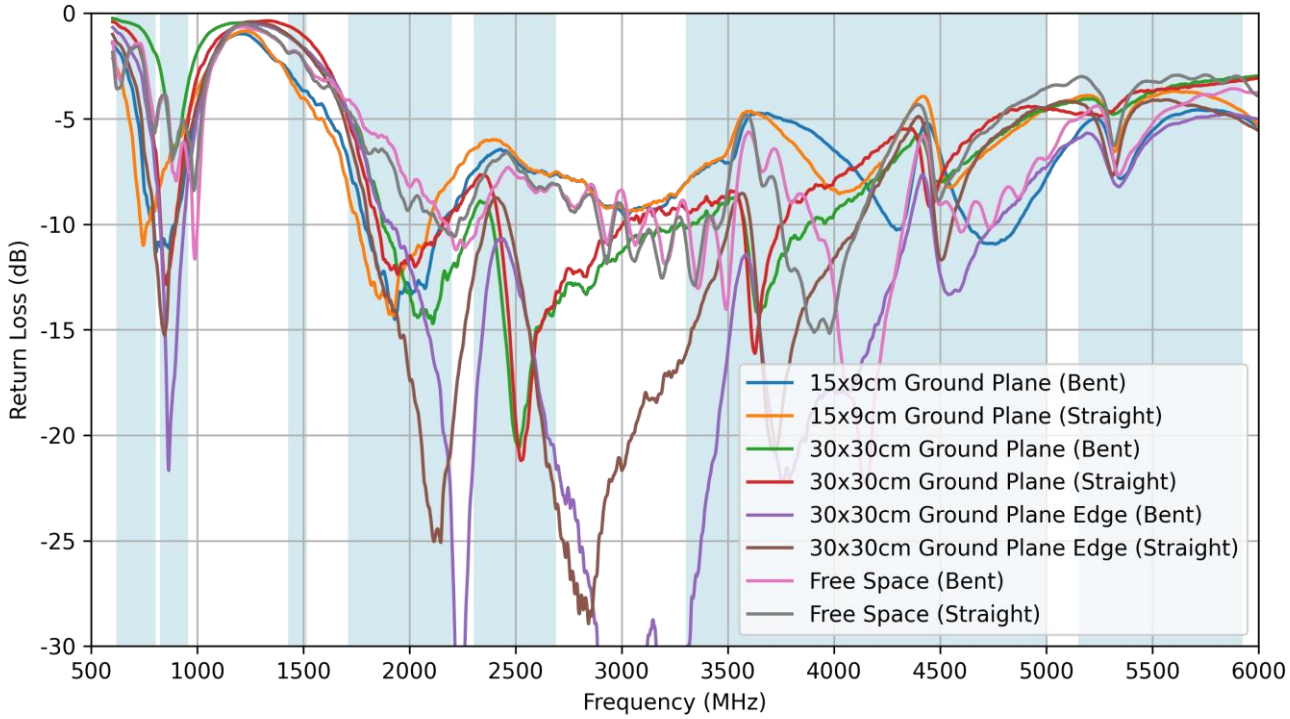


30x30cm Ground Plane
(Edge) Straight

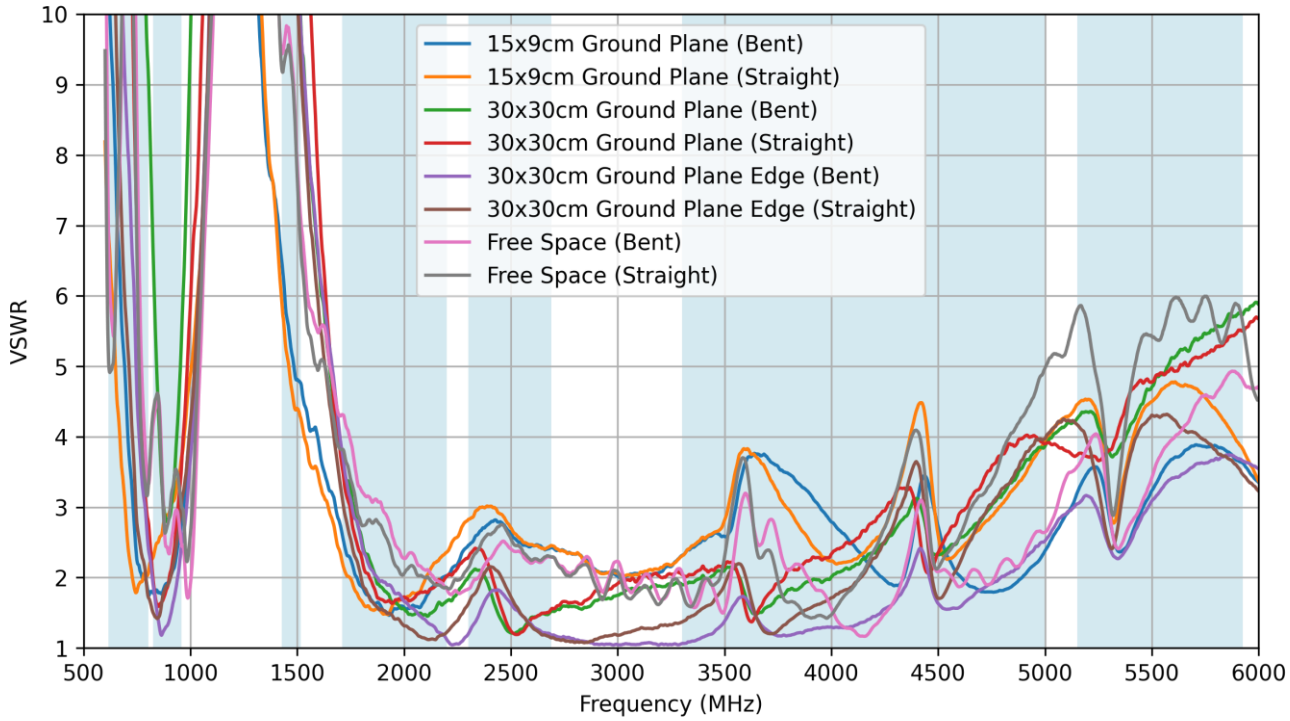


30x30cm Ground Plane
(Edge) Bent

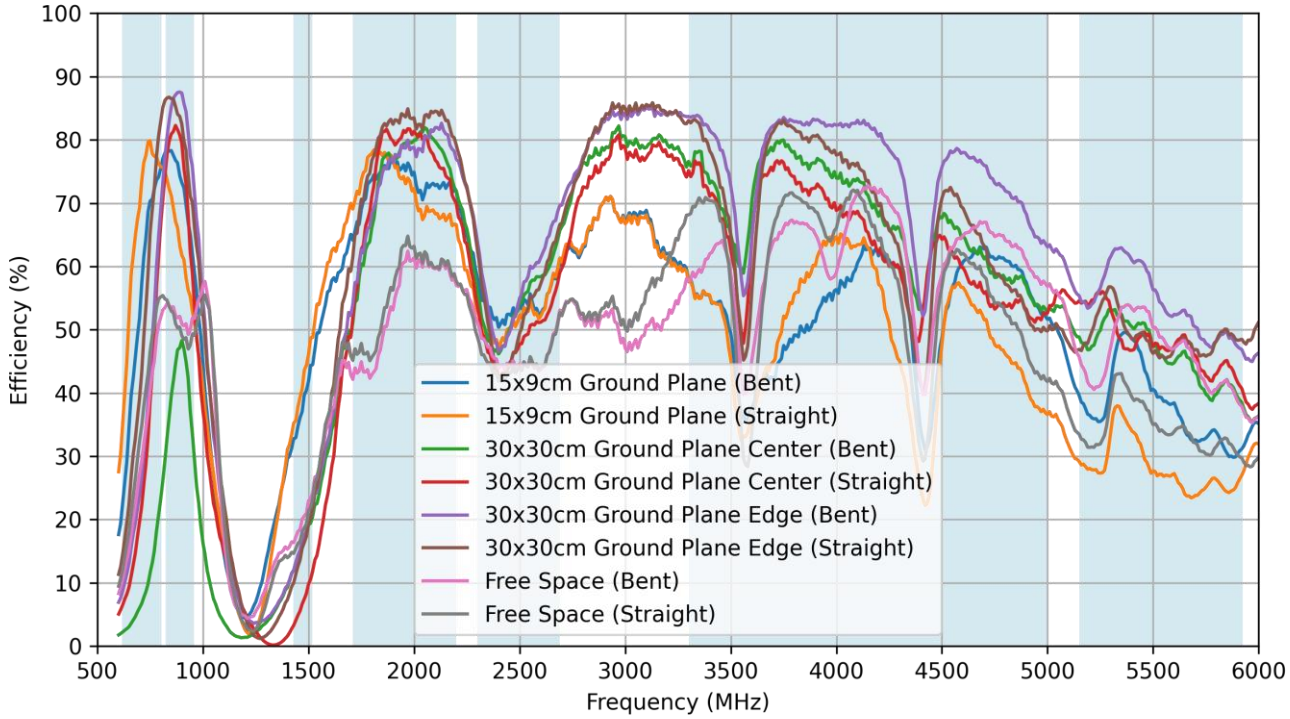
6.2 Return Loss



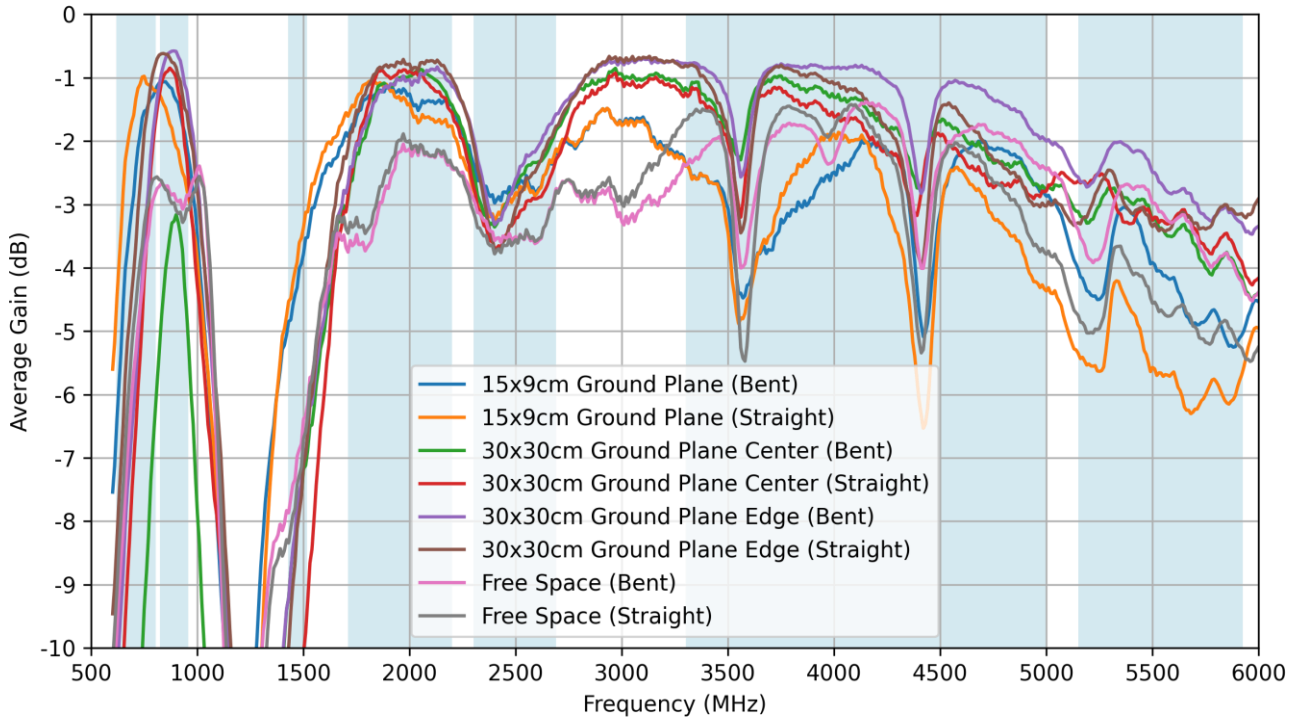
6.3 VSWR



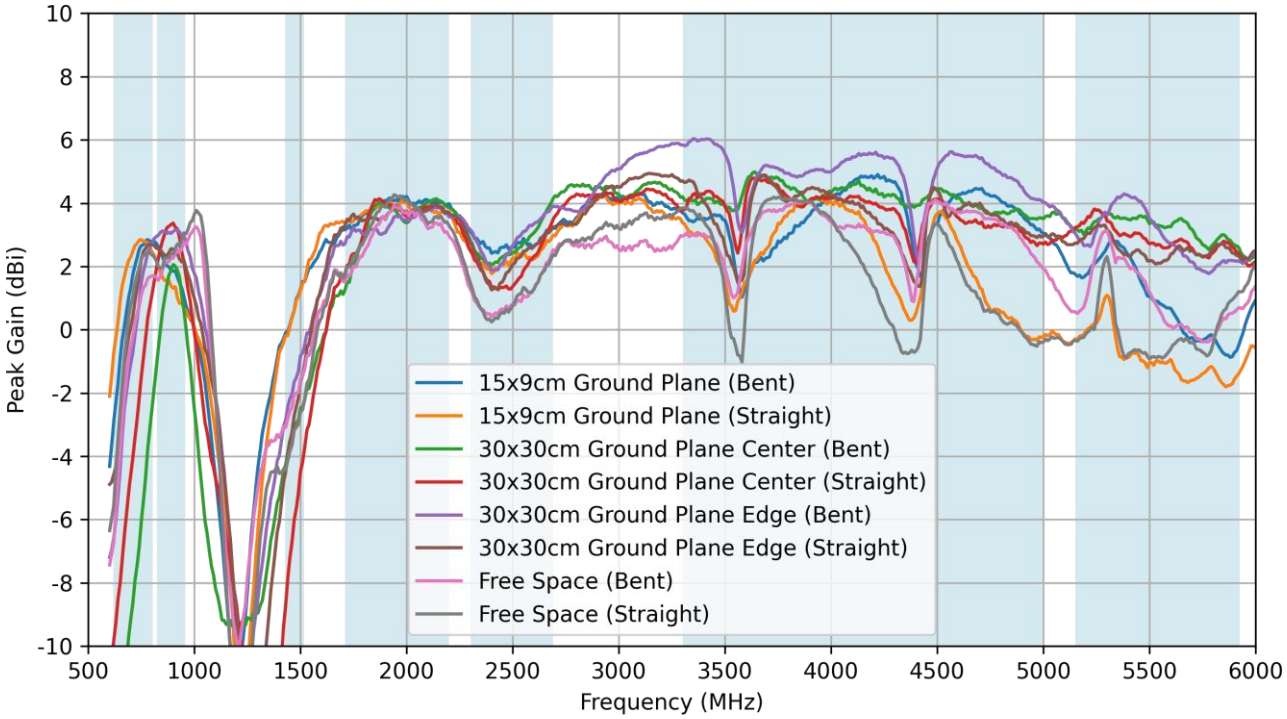
6.4 Efficiency



6.5 Average Gain

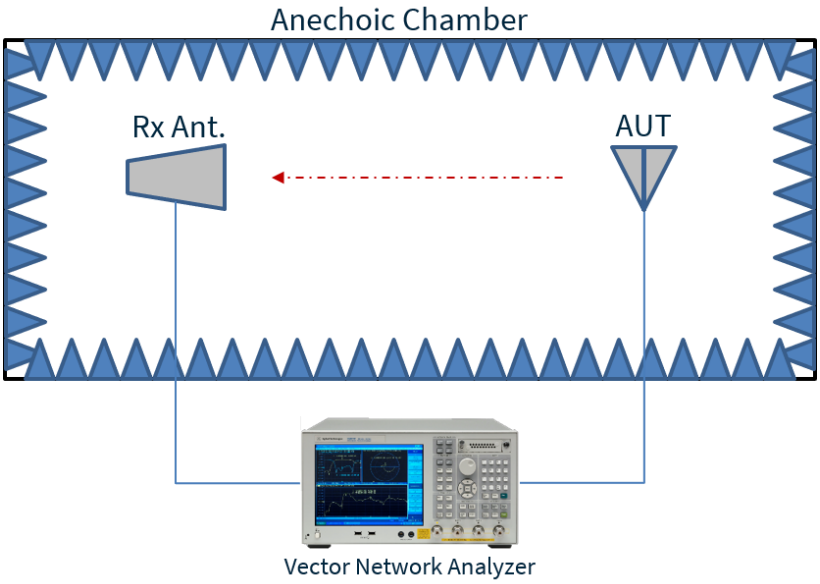


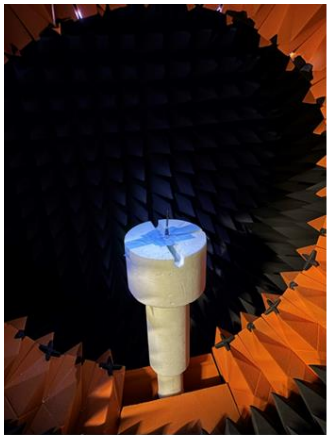
6.6 Peak Gain



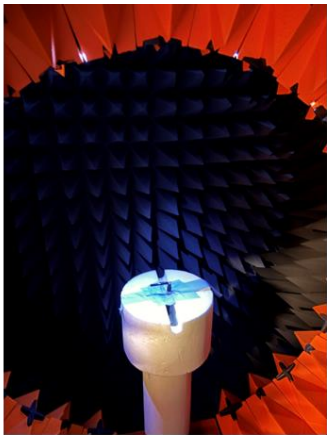
7. Radiation Patterns

7.1 Test Setup

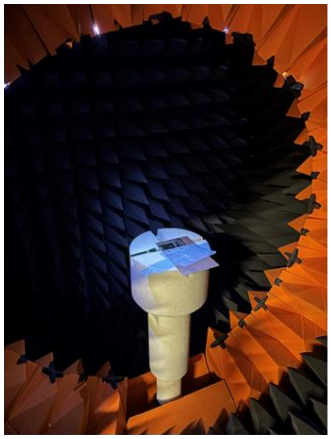




Free Space- Straight

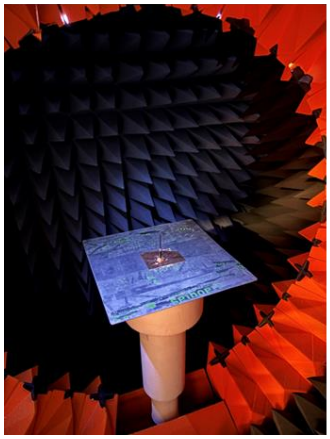


Free Space- Bent

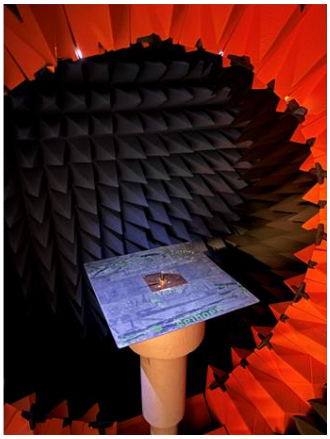


15x9cm Ground Plane
Straight

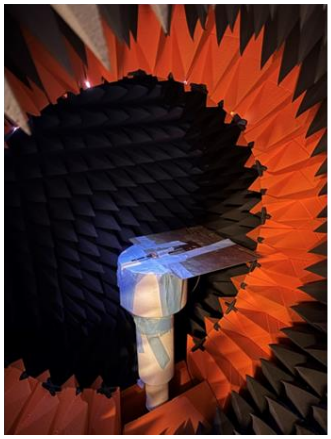
15x9cm Ground Plane
Bent



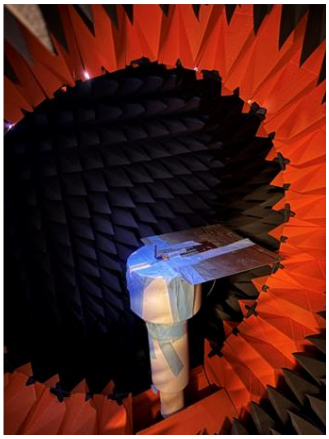
30x30cm Ground Plane
(Centre) Straight



30x30cm Ground Plane
(Centre) Bent

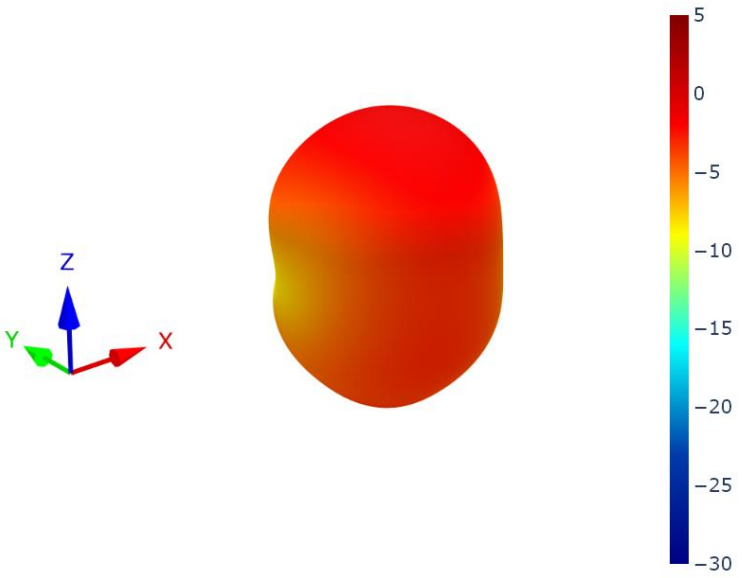


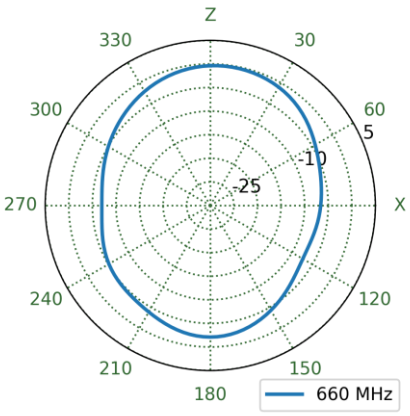
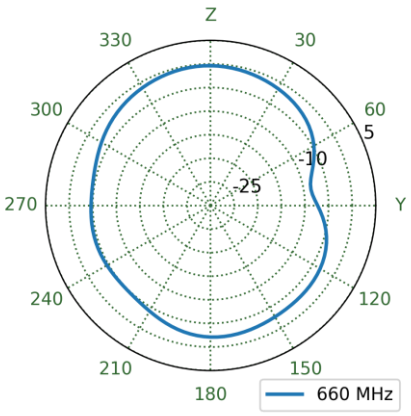
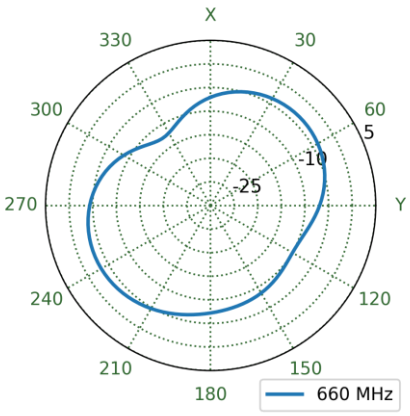
30x30cm Ground Plane
(Edge) Straight



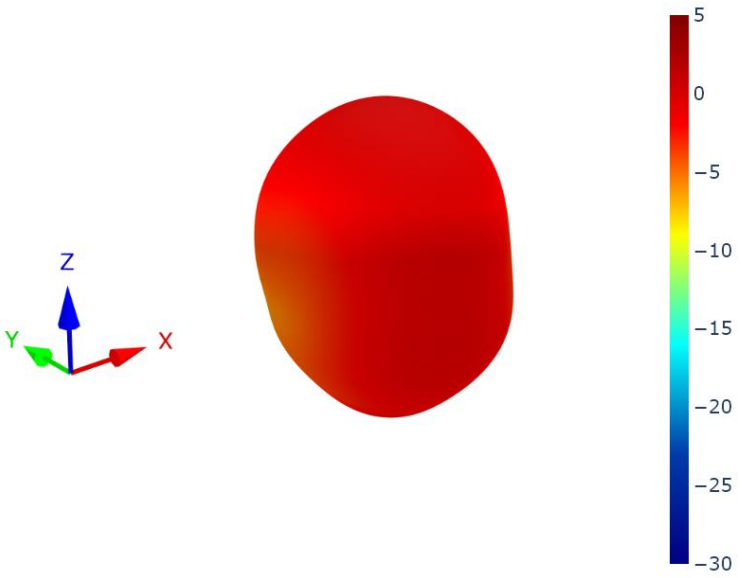
30x30cm Ground Plane
(Edge) Bent

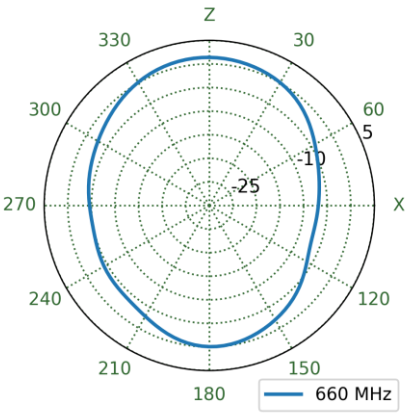
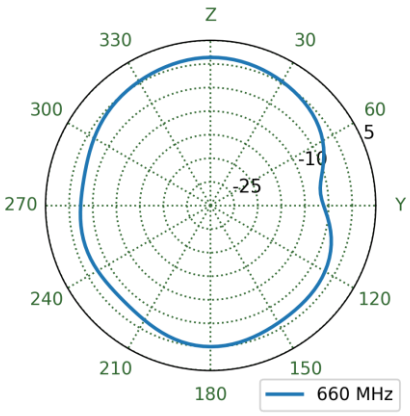
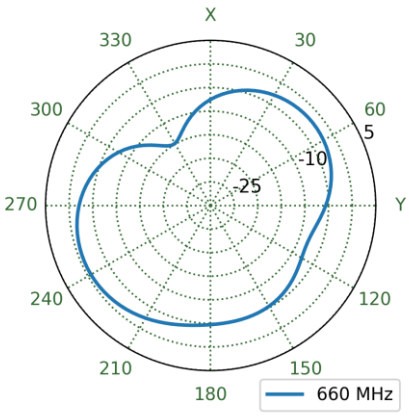
7.2 15x9cm Ground Plane (Bent) Patterns at 660 MHz



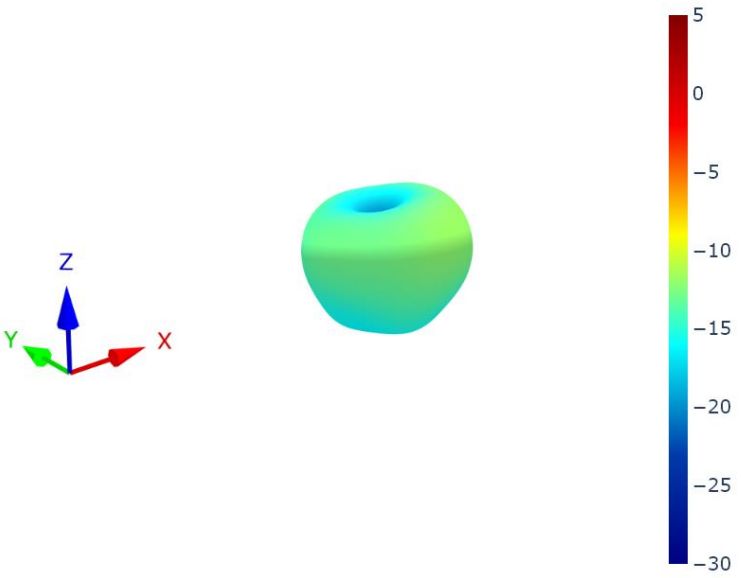
XZ Plane	YZ Plane	XY Plane
		

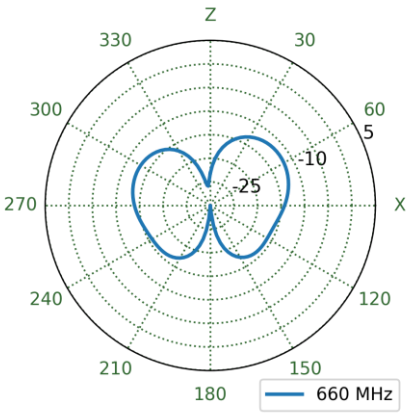
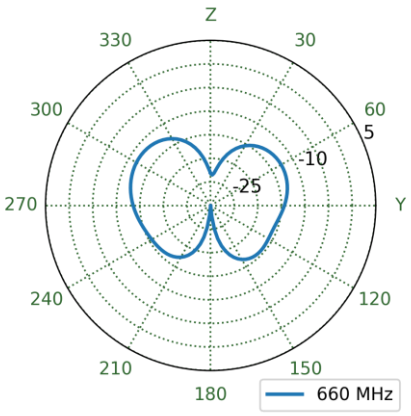
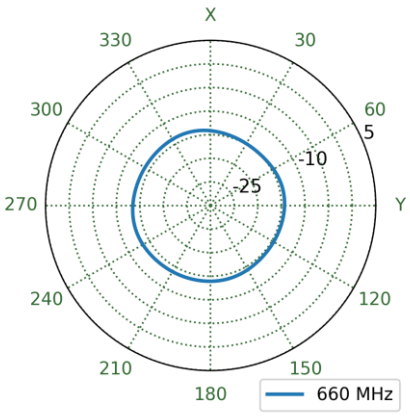
7.3 15x9cm Ground Plane (Straight) Patterns at 660 MHz



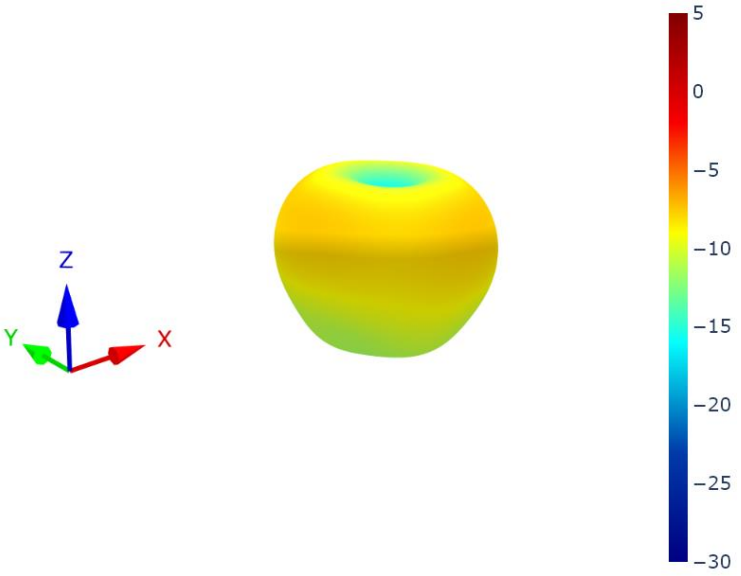
XZ Plane	YZ Plane	XY Plane
		

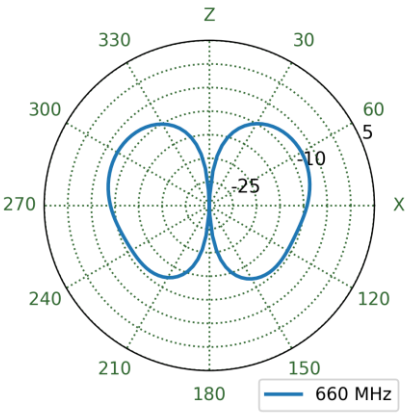
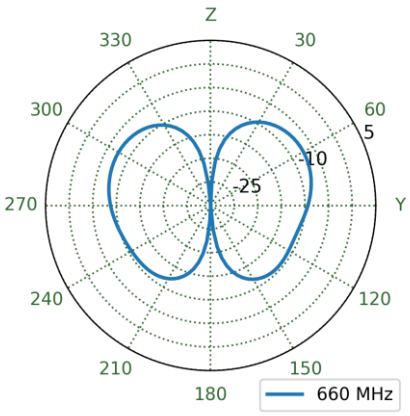
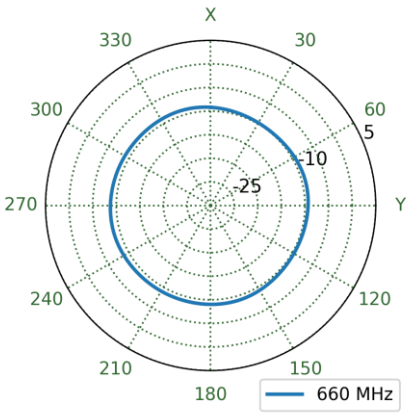
7.4 30x30cm Ground Plane Center (Bent) Patterns at 660 MHz



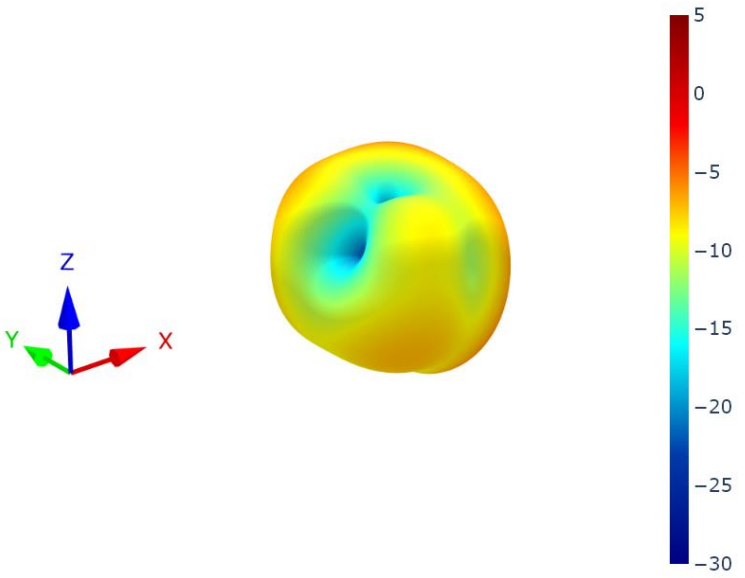
XZ Plane	YZ Plane	XY Plane
		

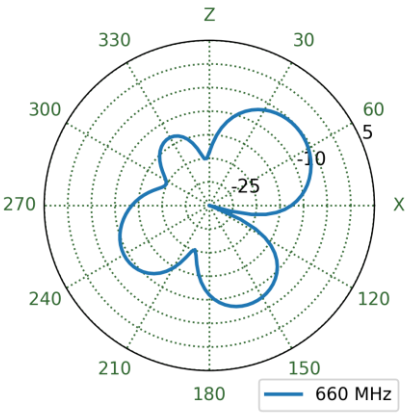
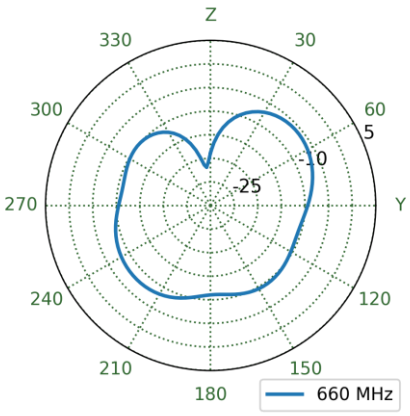
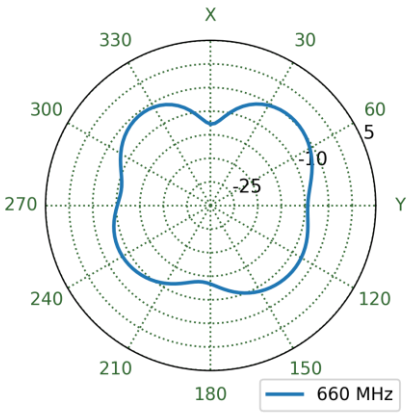
7.5 30x30cm Ground Plane Center (Straight) Patterns at 660 MHz



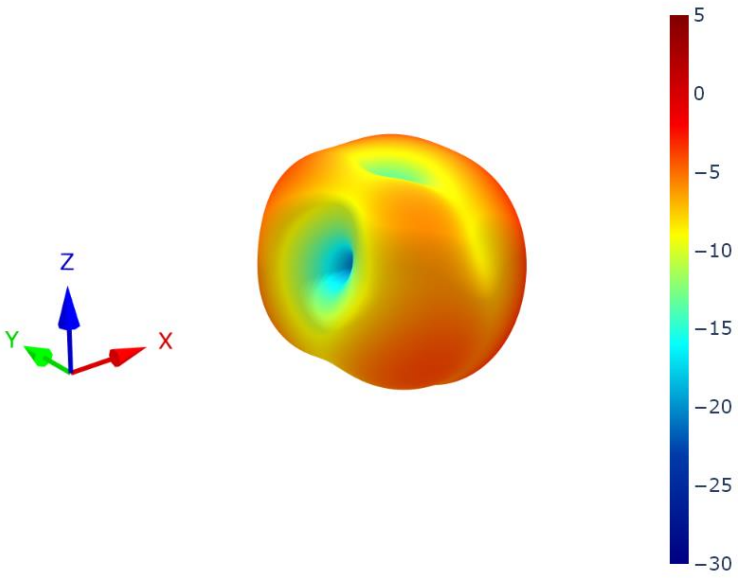
XZ Plane	YZ Plane	XY Plane
		

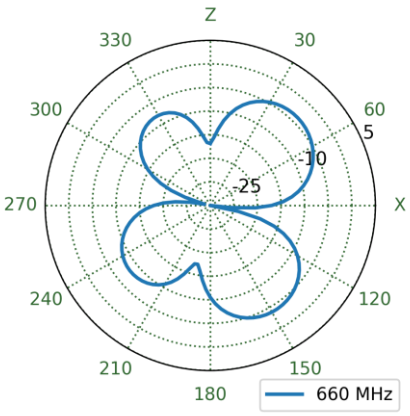
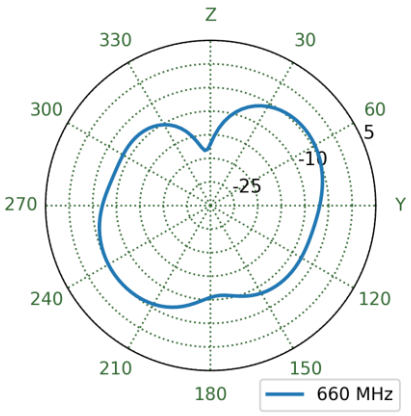
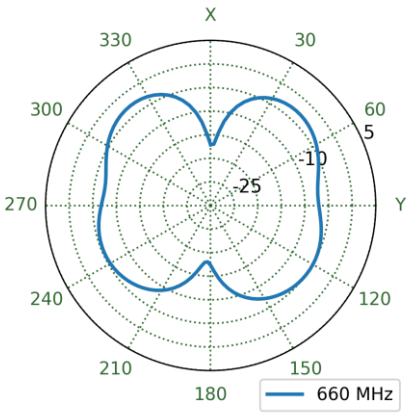
7.6 30x30cm Ground Plane Edge (Bent) Patterns at 660 MHz



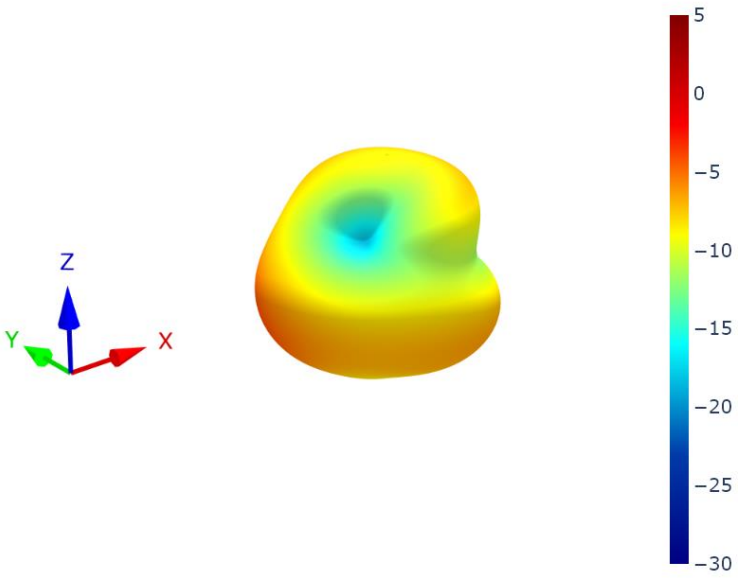
XZ Plane	YZ Plane	XY Plane
		

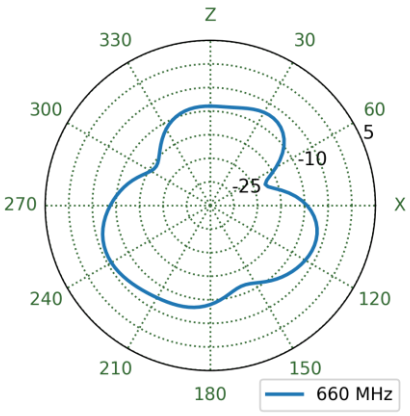
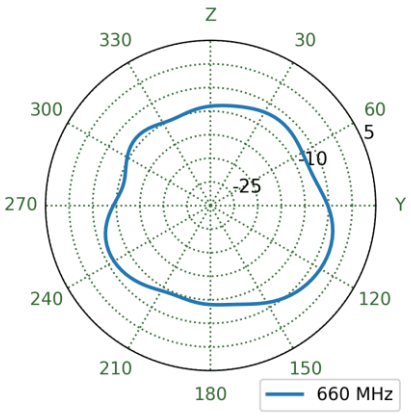
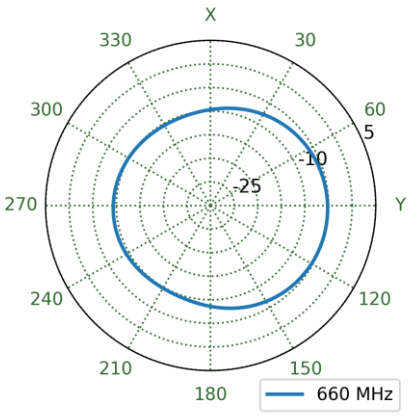
7.7 30x30cm Ground Plane Edge (Straight) Patterns at 660 MHz



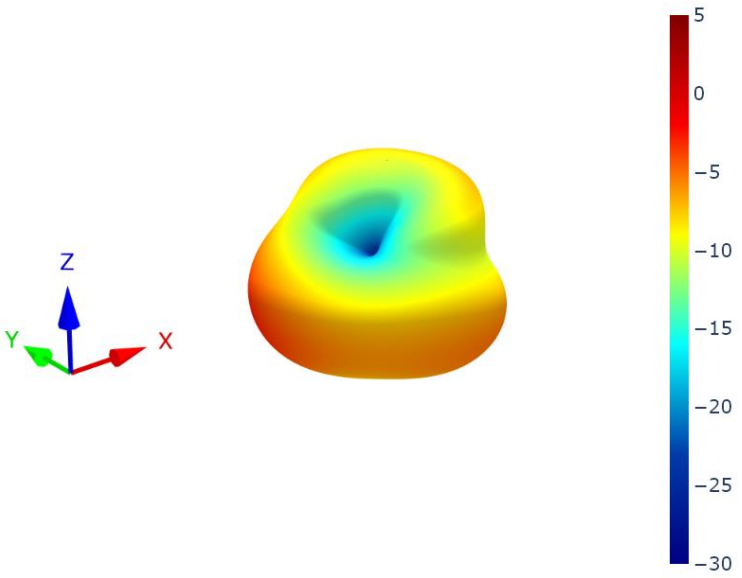
XZ Plane	YZ Plane	XY Plane
		

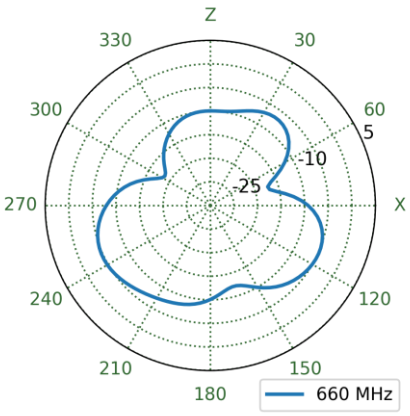
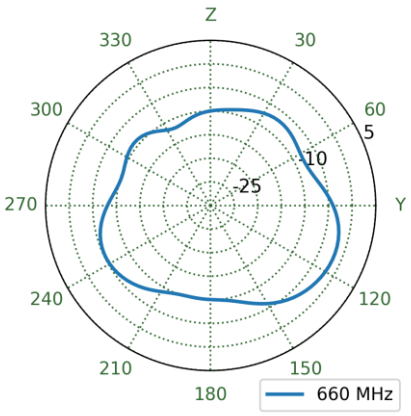
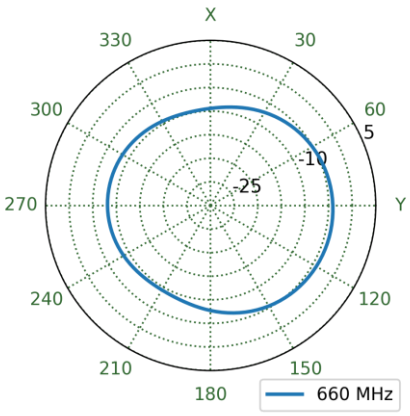
7.8 Free Space (Bent) Patterns at 660 MHz



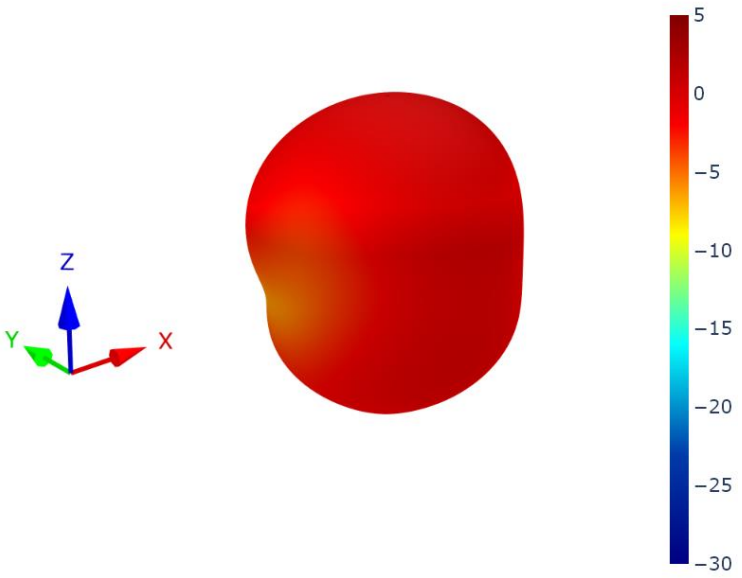
XZ Plane	YZ Plane	XY Plane
		

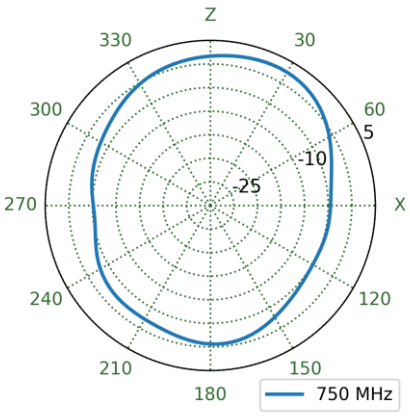
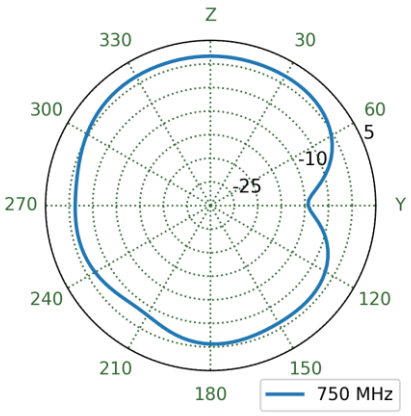
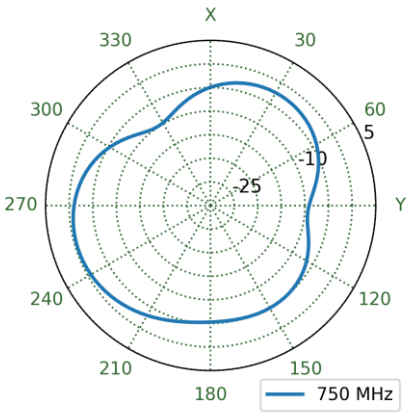
7.9 Free Space (Straight) Patterns at 660 MHz



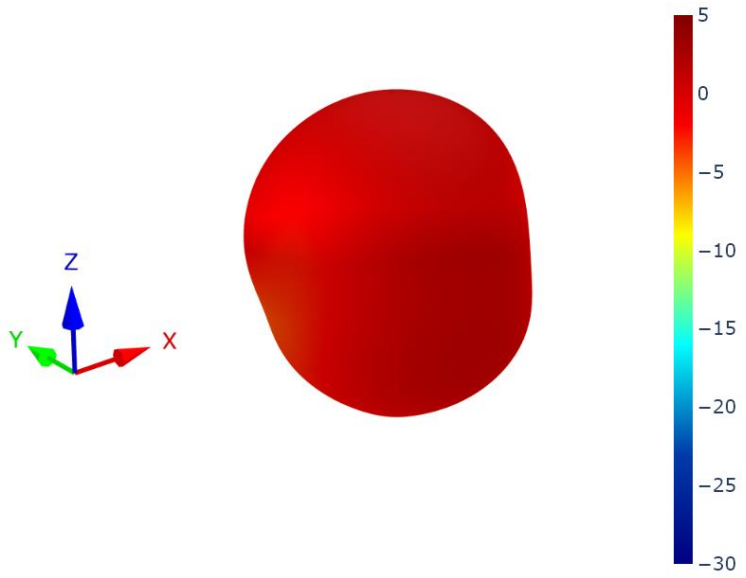
XZ Plane	YZ Plane	XY Plane
		

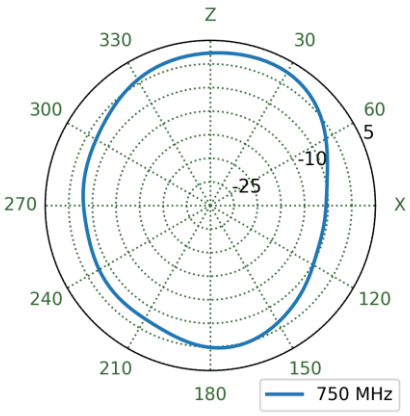
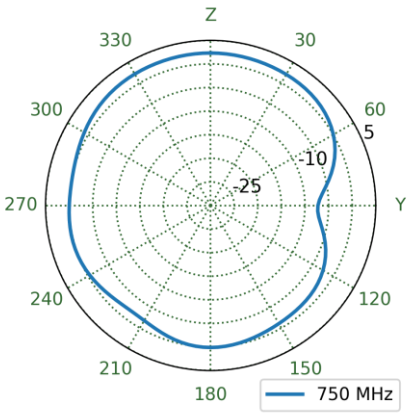
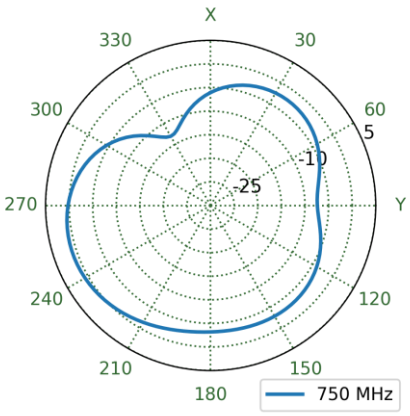
7.10 15x9cm Ground Plane (Bent) Patterns at 750 MHz



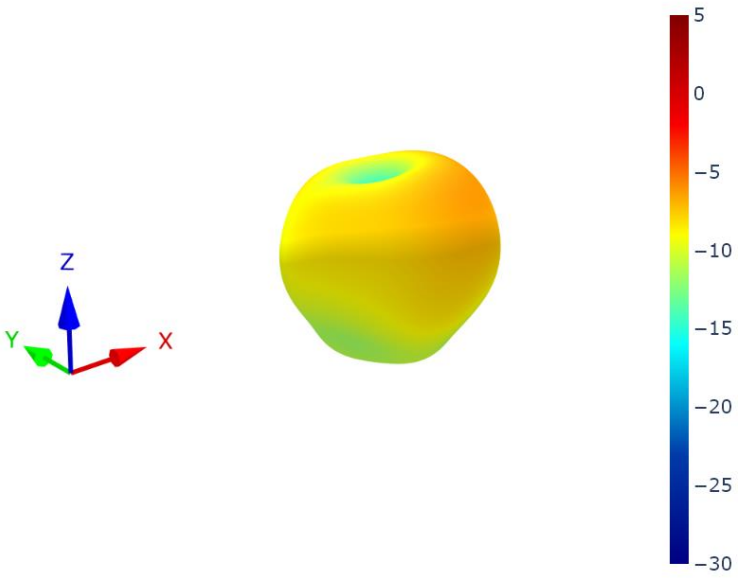
XZ Plane	YZ Plane	XY Plane
		

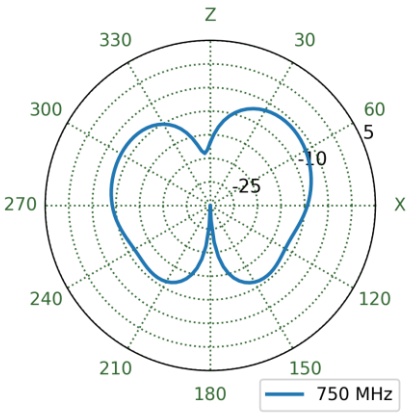
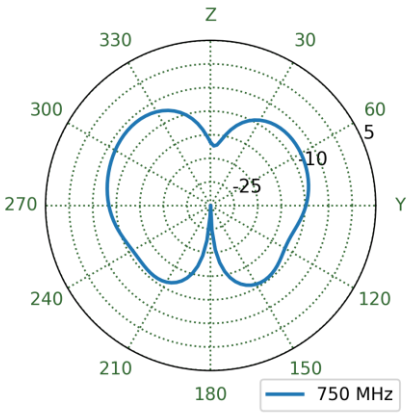
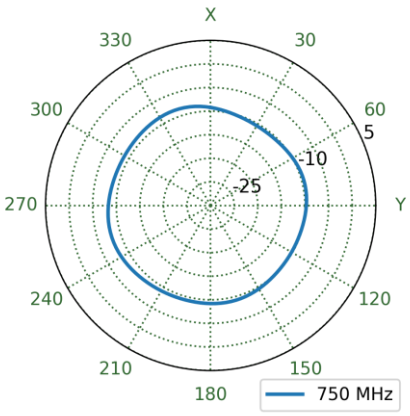
7.11 15x9cm Ground Plane (Straight) Patterns at 750 MHz



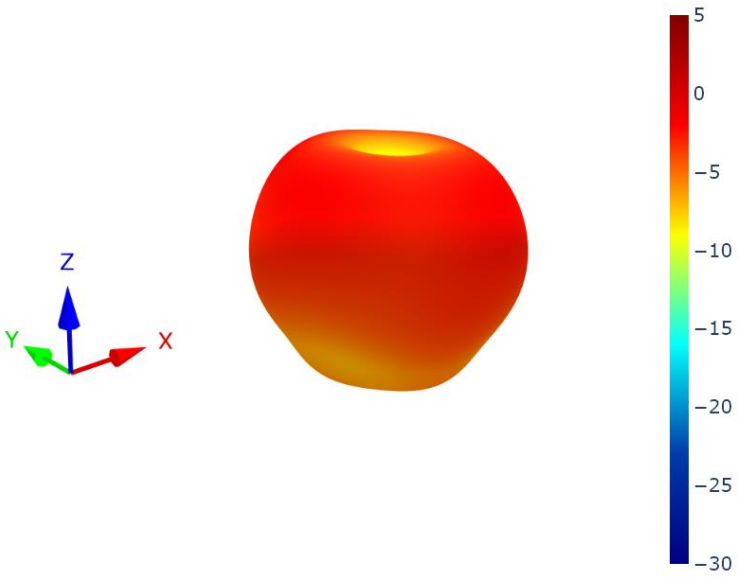
XZ Plane	YZ Plane	XY Plane
		

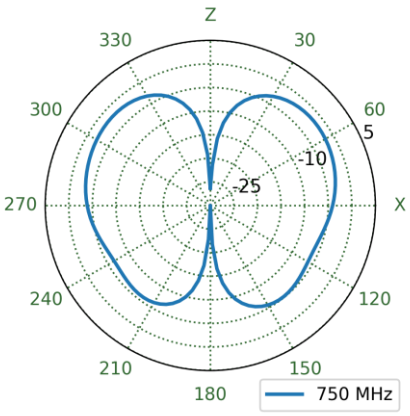
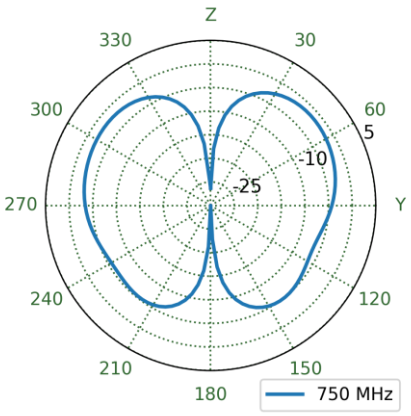
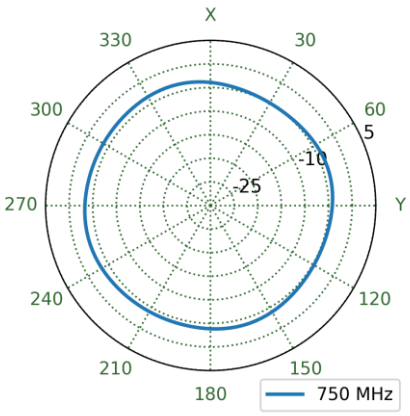
7.12 30x30cm Ground Plane Center (Bent) Patterns at 750 MHz



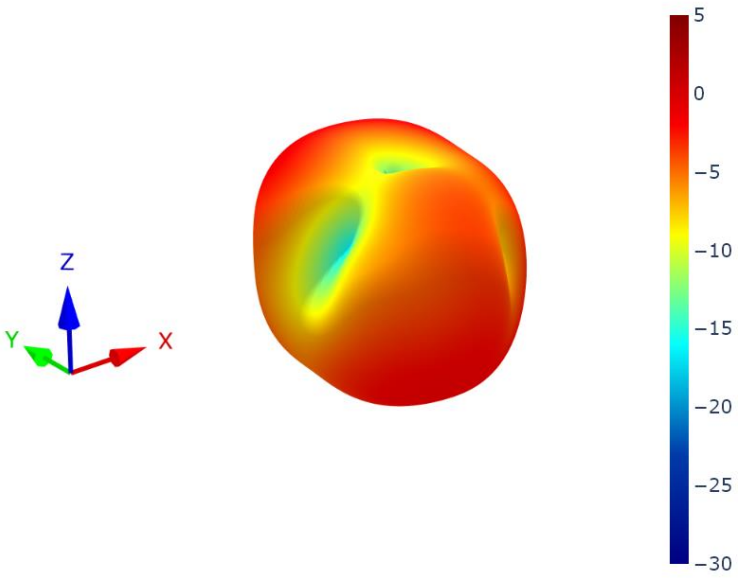
XZ Plane	YZ Plane	XY Plane
		

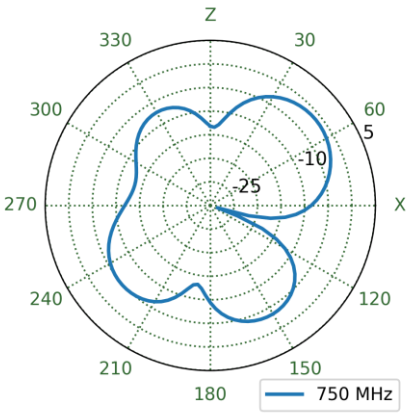
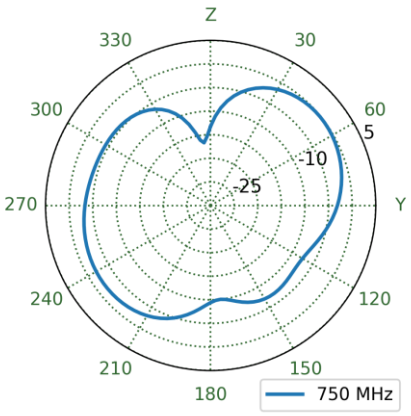
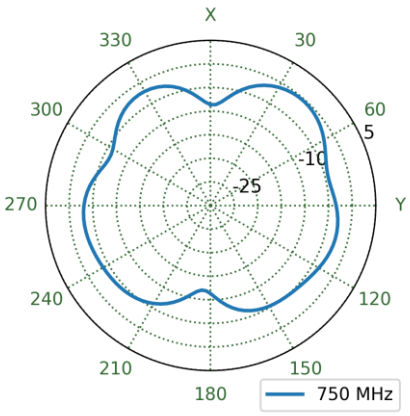
7.13 30x30cm Ground Plane Center (Straight) Patterns at 750 MHz



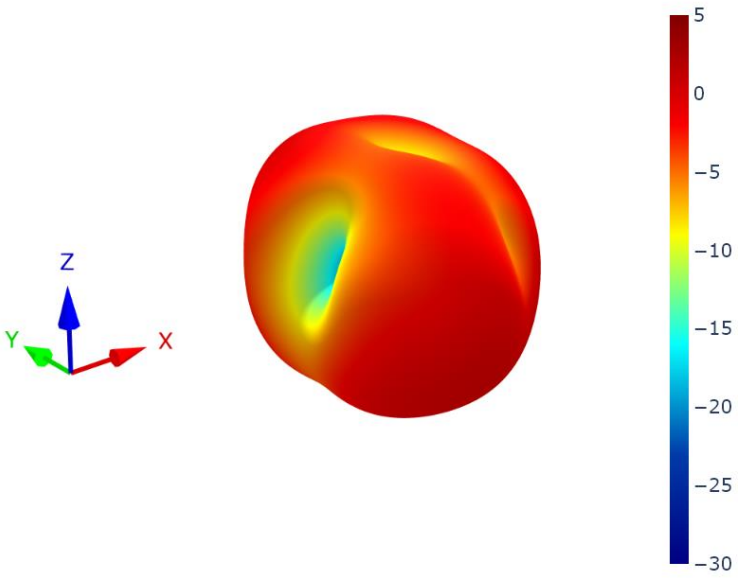
XZ Plane	YZ Plane	XY Plane
		

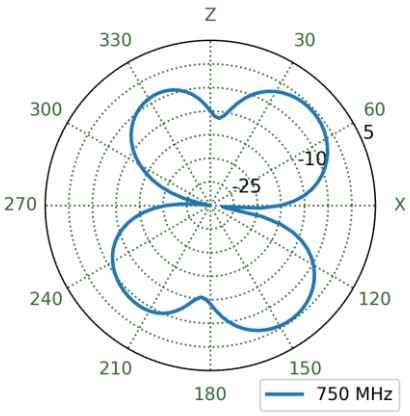
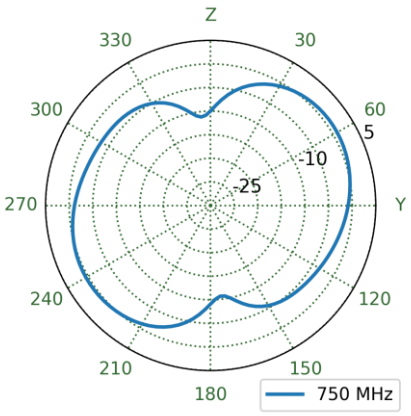
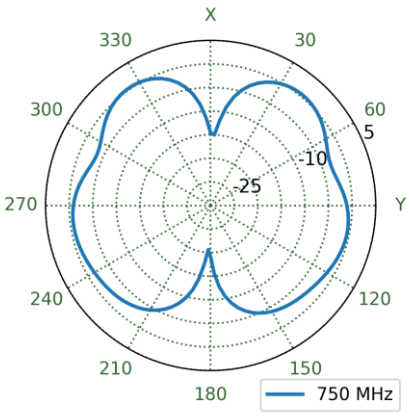
7.14 30x30cm Ground Plane Edge (Bent) Patterns at 750 MHz



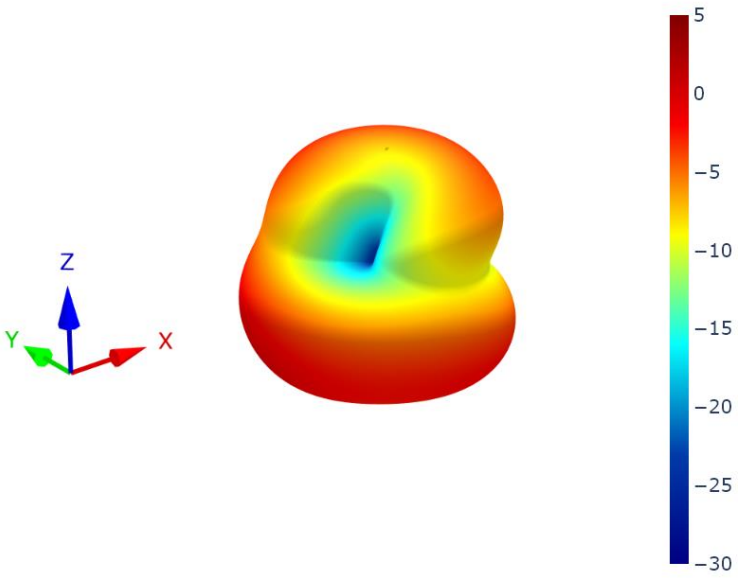
XZ Plane	YZ Plane	XY Plane
		

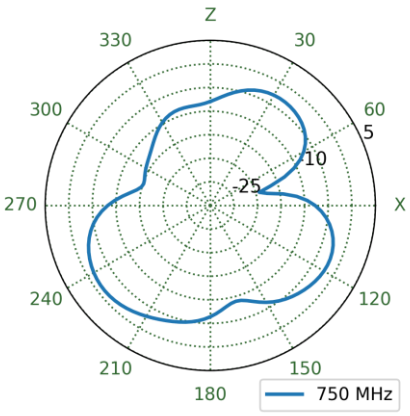
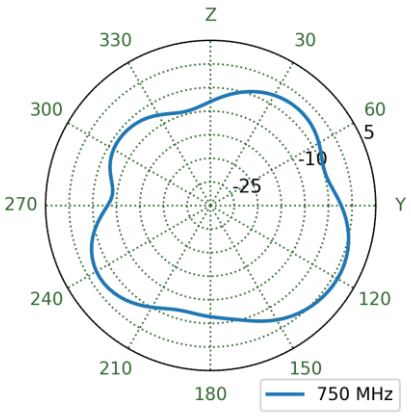
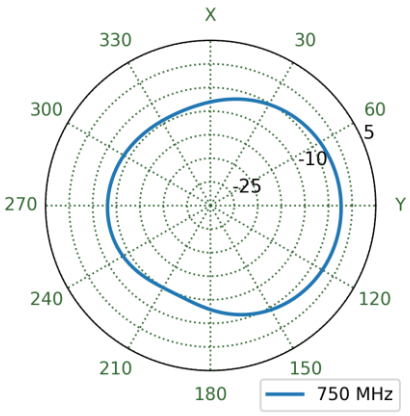
7.15 30x30cm Ground Plane Edge (Straight) Patterns at 750 MHz



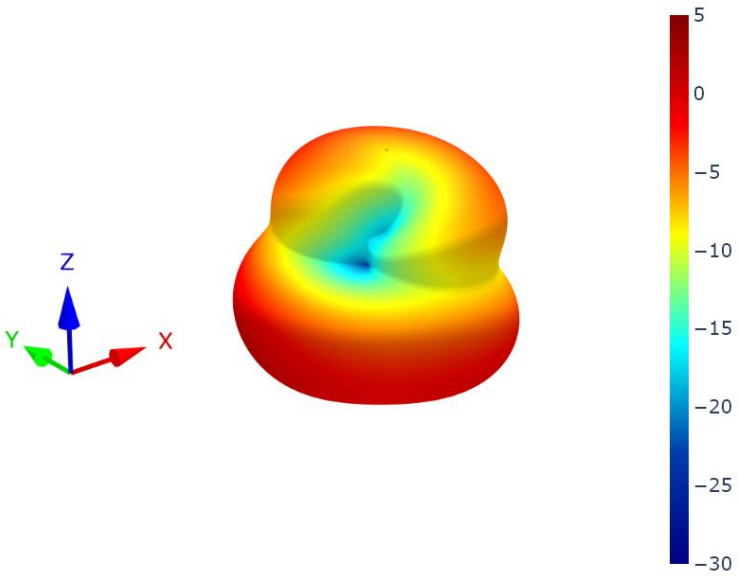
XZ Plane	YZ Plane	XY Plane
		

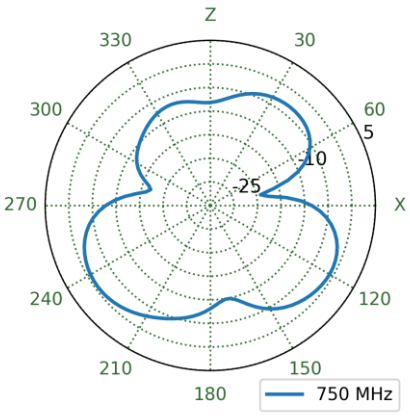
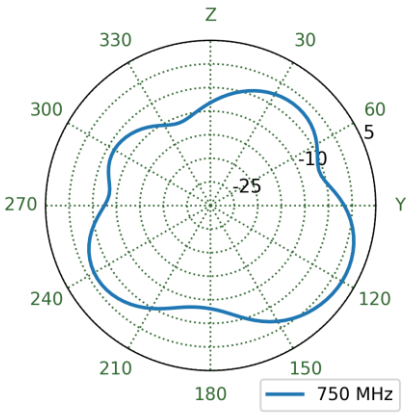
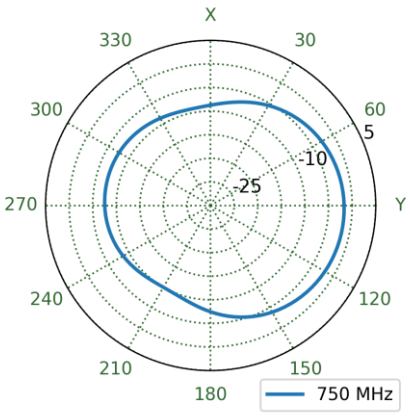
7.16 Free Space (Bent) Patterns at 750 MHz



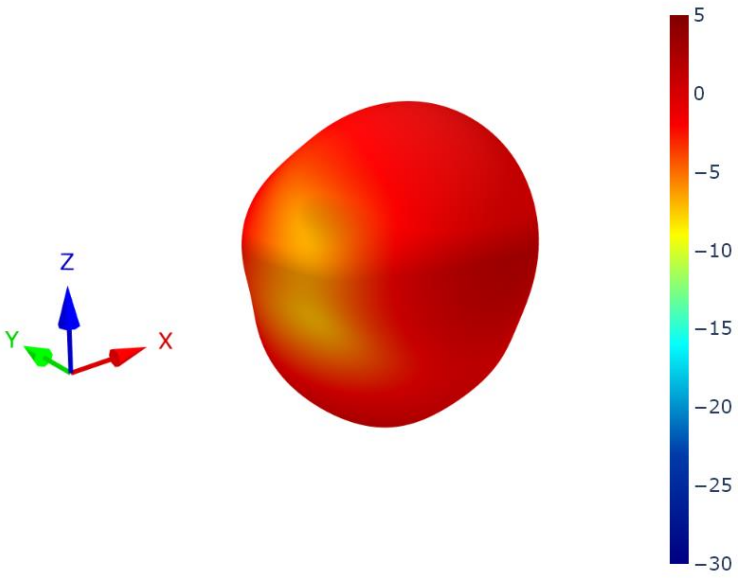
XZ Plane	YZ Plane	XY Plane
		

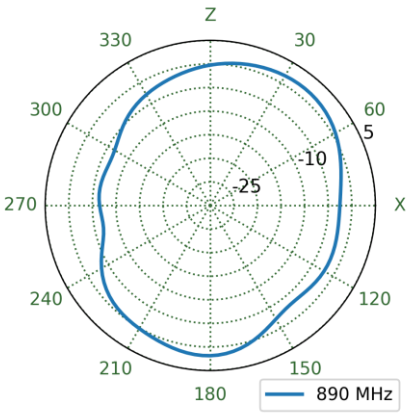
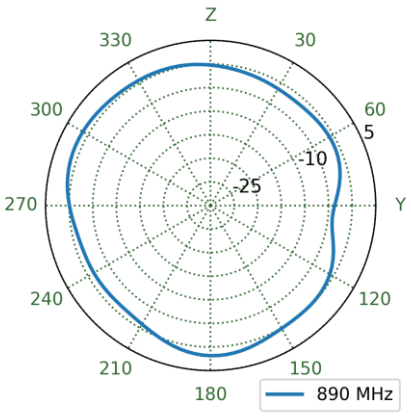
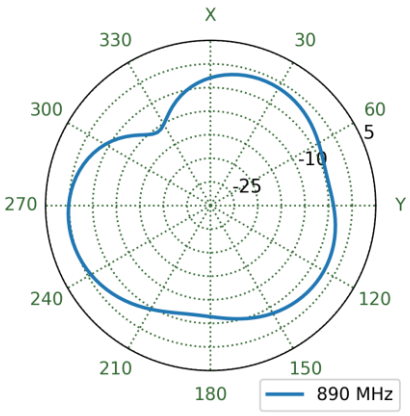
7.17 Free Space (Straight) Patterns at 750 MHz



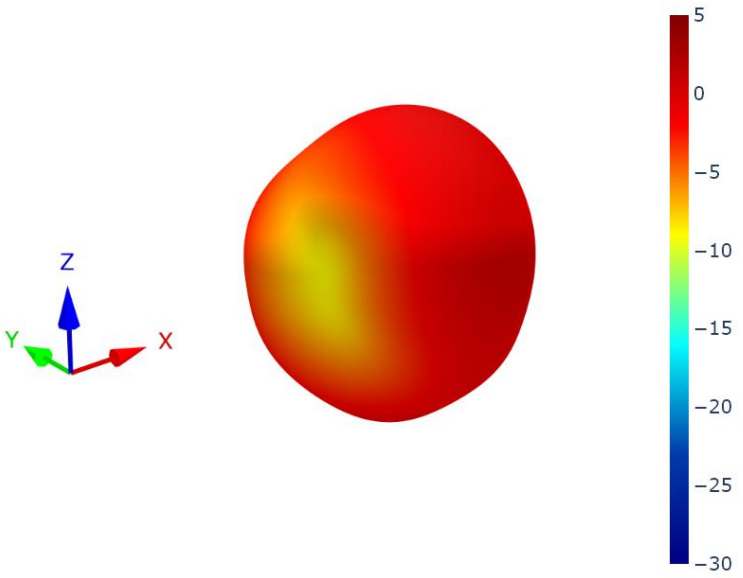
XZ Plane	YZ Plane	XY Plane
		

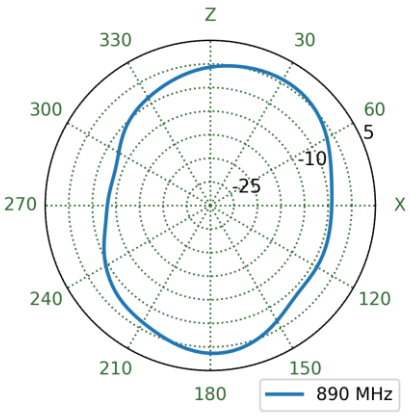
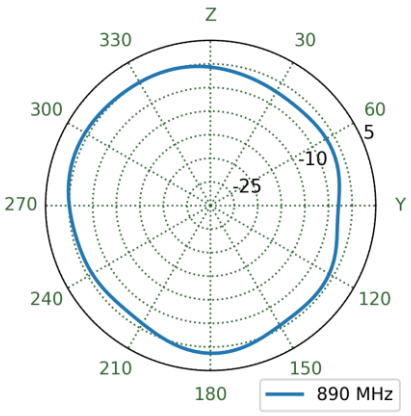
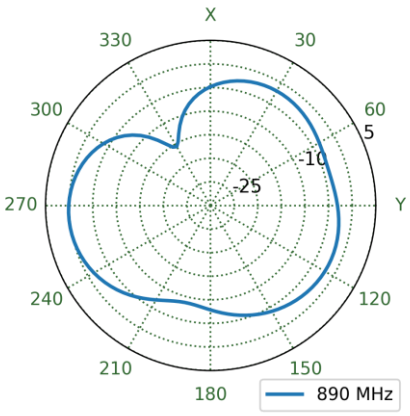
7.18 15x9cm Ground Plane (Bent) Patterns at 890 MHz



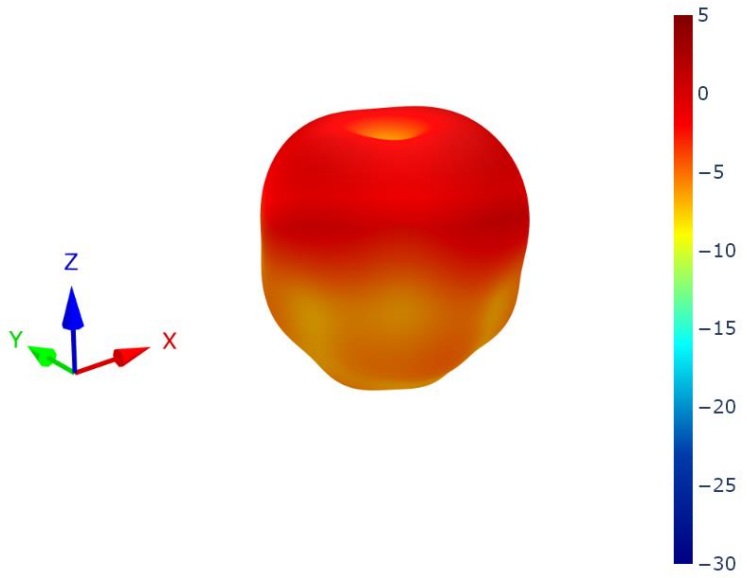
XZ Plane	YZ Plane	XY Plane
		

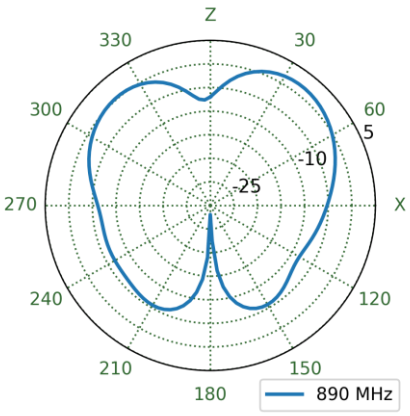
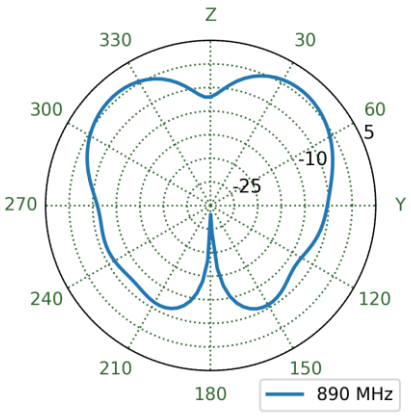
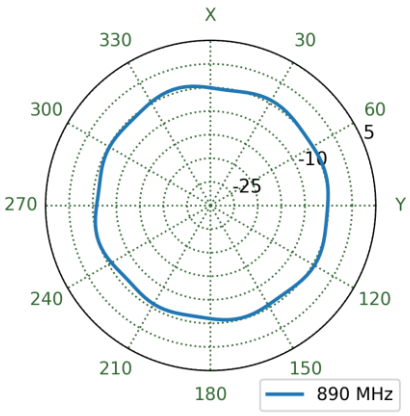
7.19 15x9cm Ground Plane (Straight) Patterns at 890 MHz



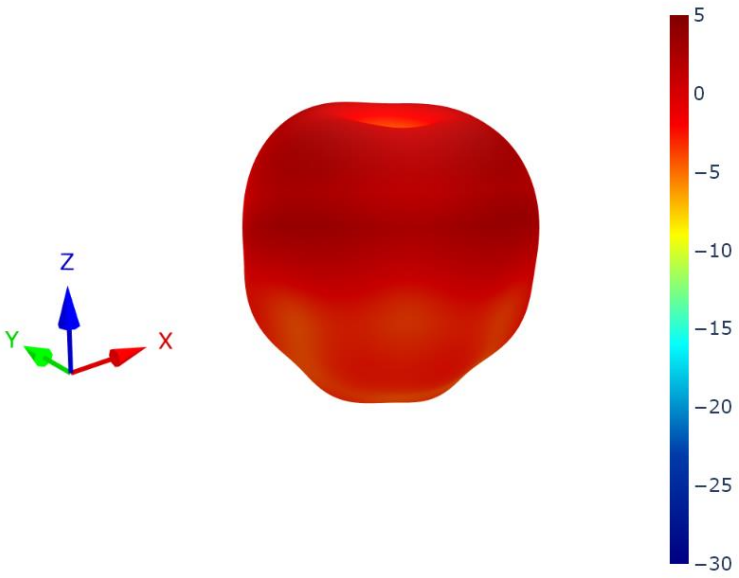
XZ Plane	YZ Plane	XY Plane
		

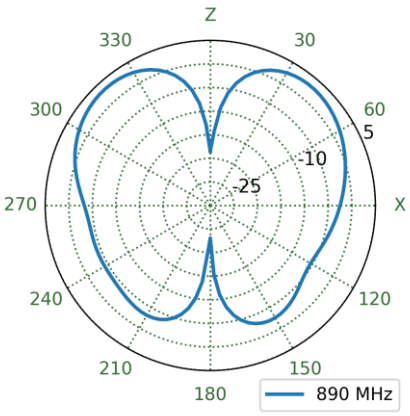
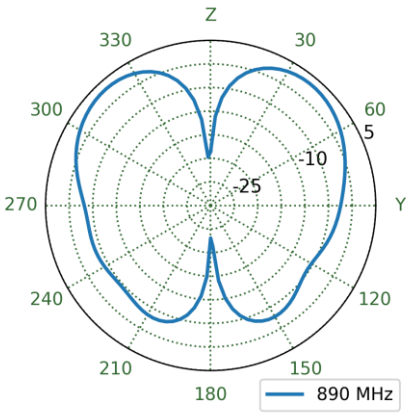
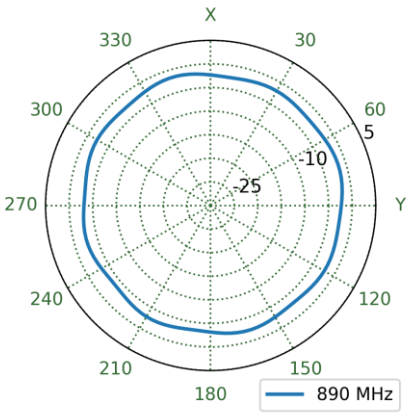
7.20 30x30cm Ground Plane Center (Bent) Patterns at 890 MHz



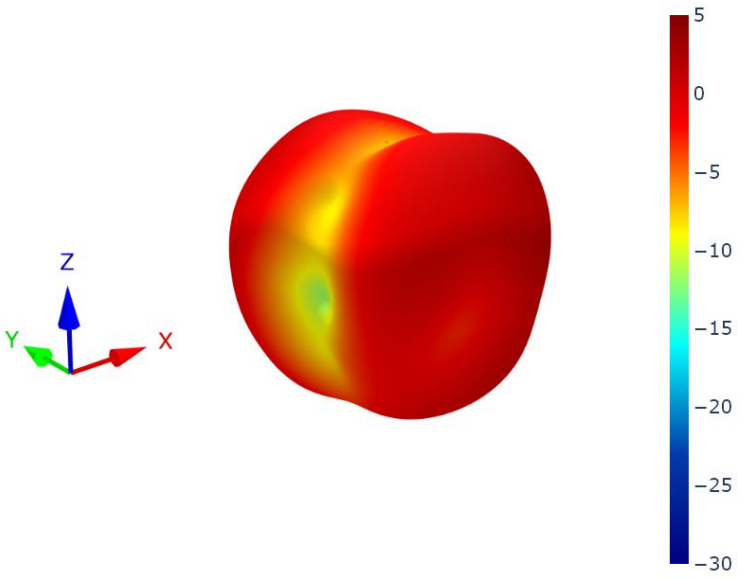
XZ Plane	YZ Plane	XY Plane
		

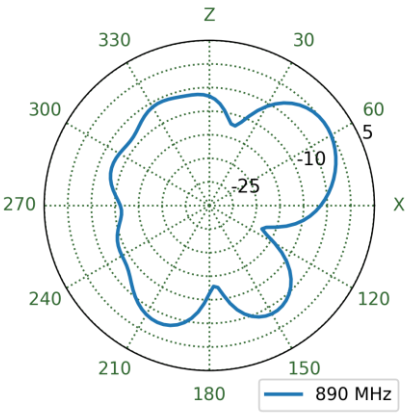
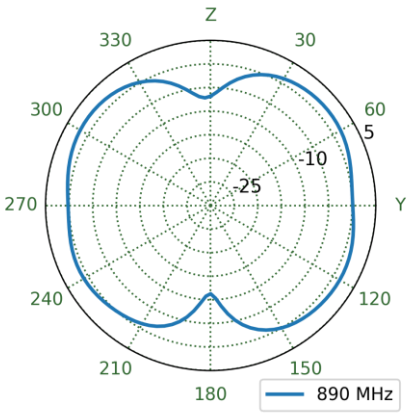
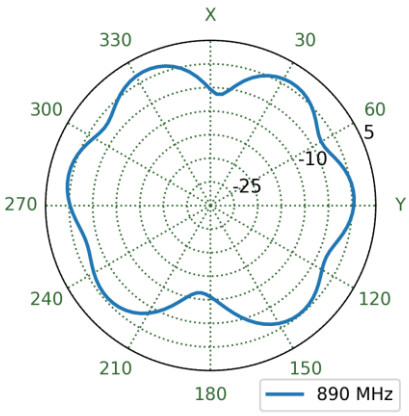
7.21 30x30cm Ground Plane Center (Straight) Patterns at 890 MHz



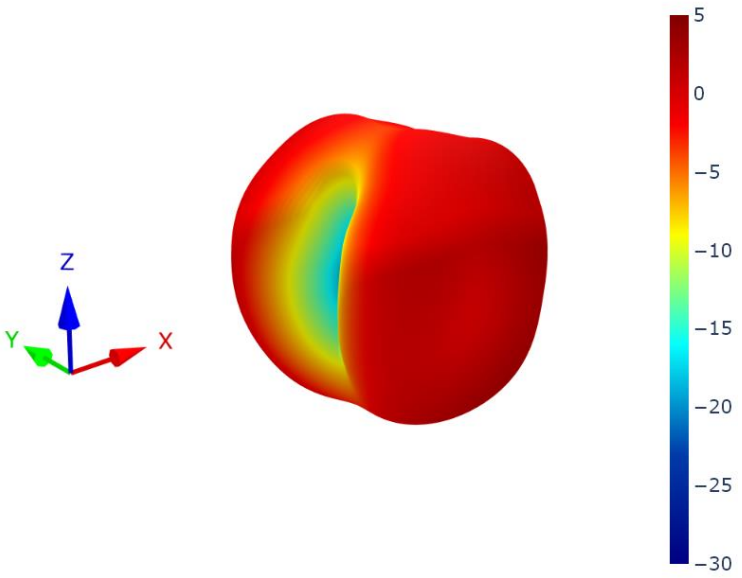
XZ Plane	YZ Plane	XY Plane
		

7.22 30x30cm Ground Plane Edge (Bent) Patterns at 890 MHz

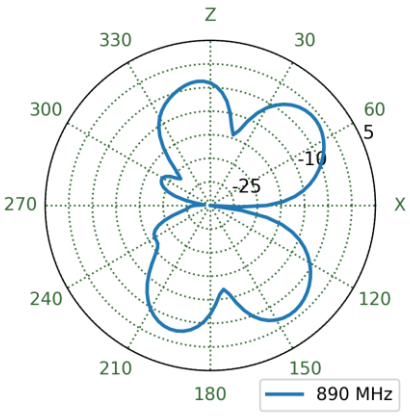


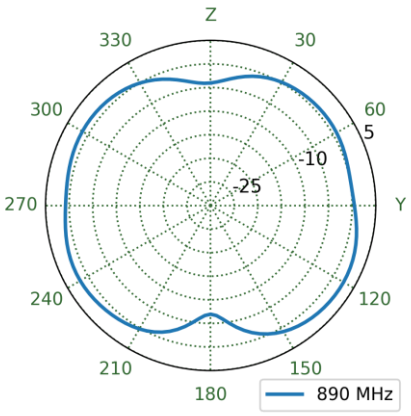
XZ Plane	YZ Plane	XY Plane
		

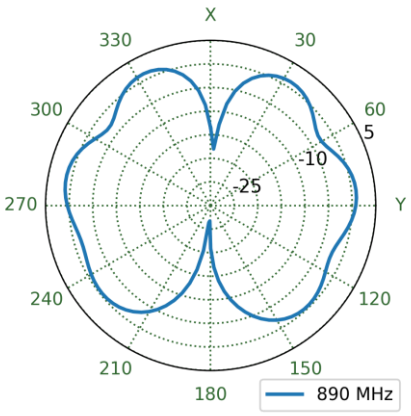
7.23 30x30cm Ground Plane Edge (Straight) Patterns at 890 MHz



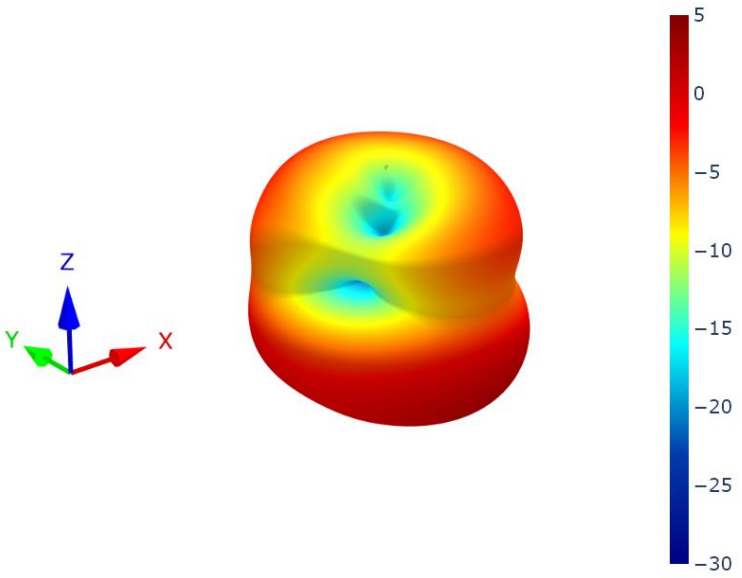
XZ Plane	YZ Plane	XY Plane

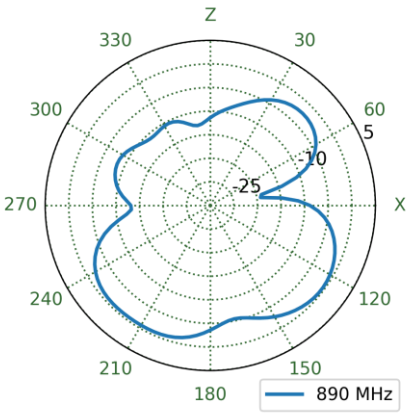
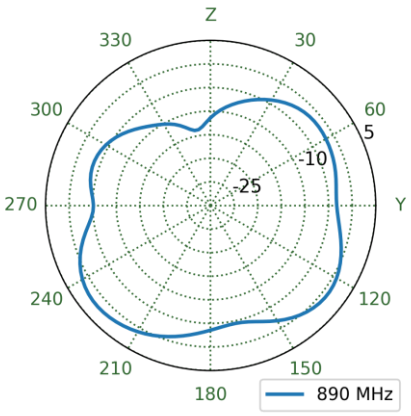
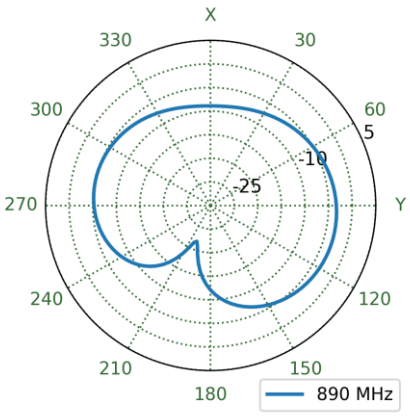




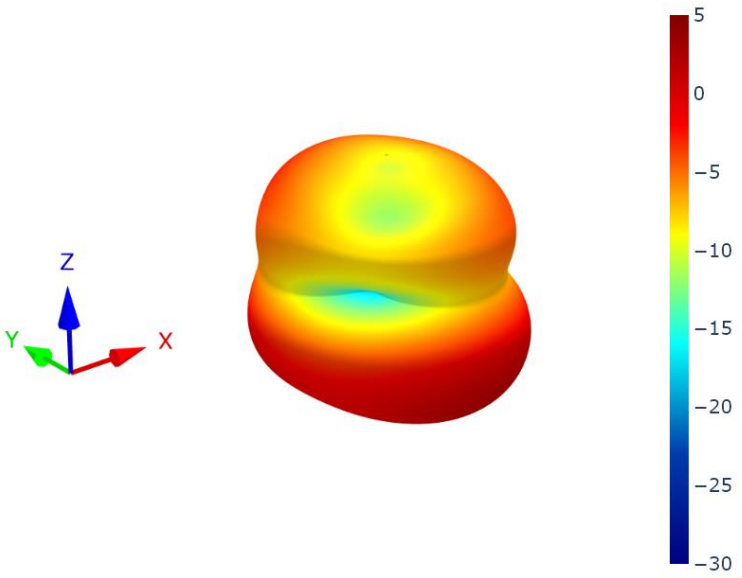


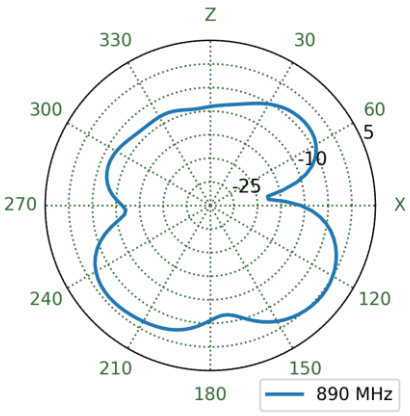
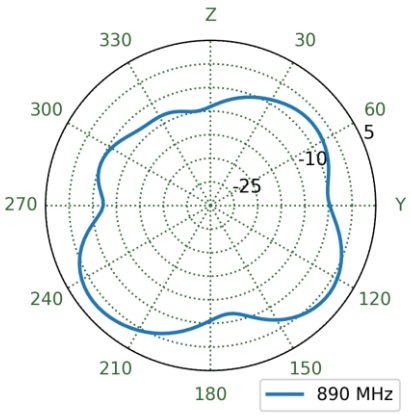
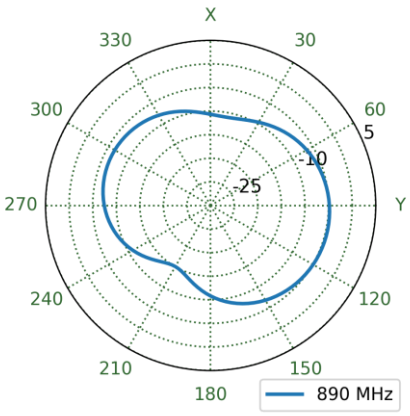
7.24 Free Space (Bent) Patterns at 890 MHz



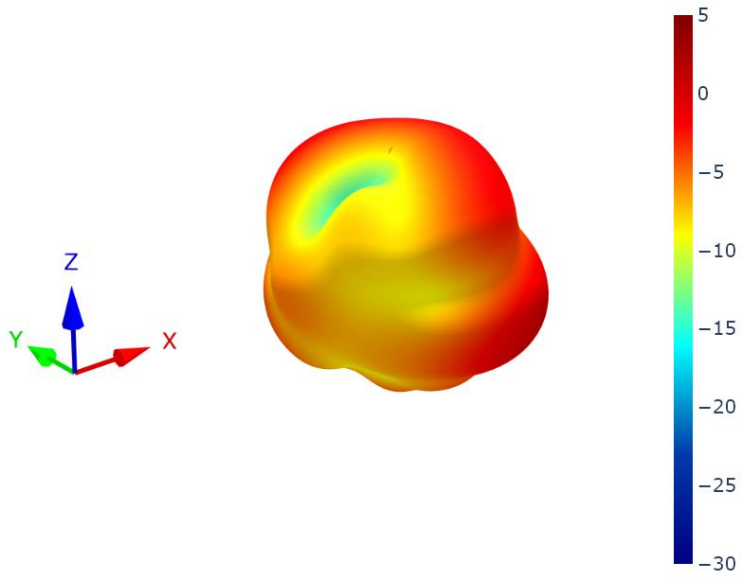
XZ Plane	YZ Plane	XY Plane
		

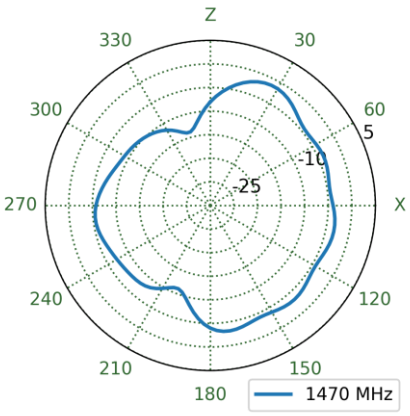
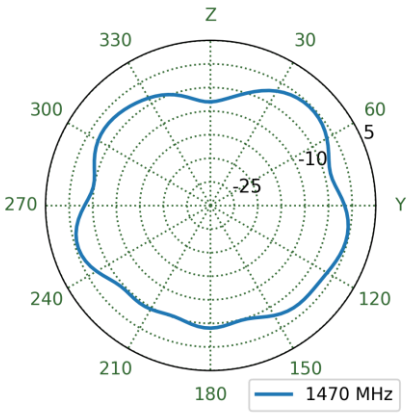
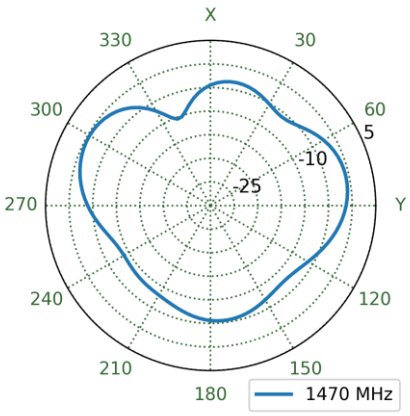
7.25 Free Space (Straight) Patterns at 890 MHz



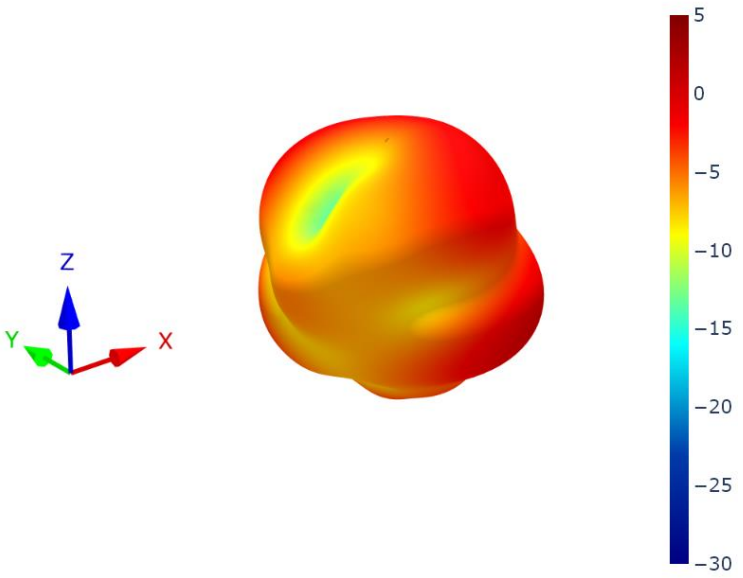
XZ Plane	YZ Plane	XY Plane
		

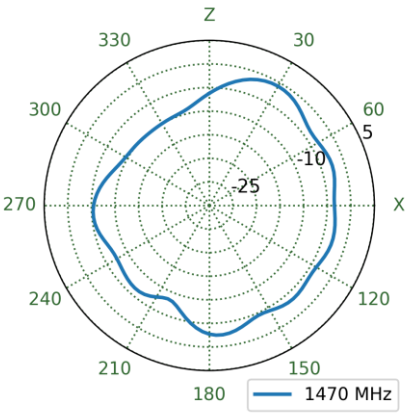
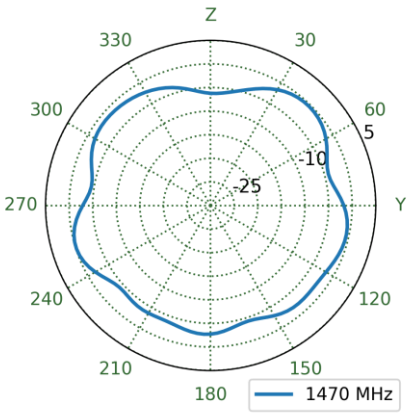
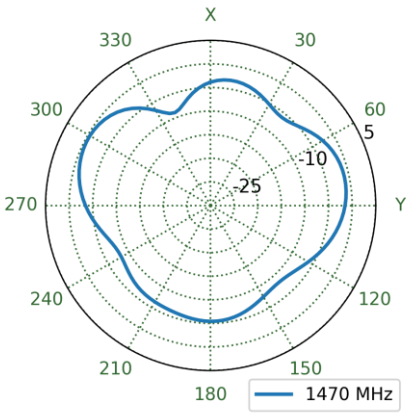
7.26 15x9cm Ground Plane (Bent) Patterns at 1470 MHz



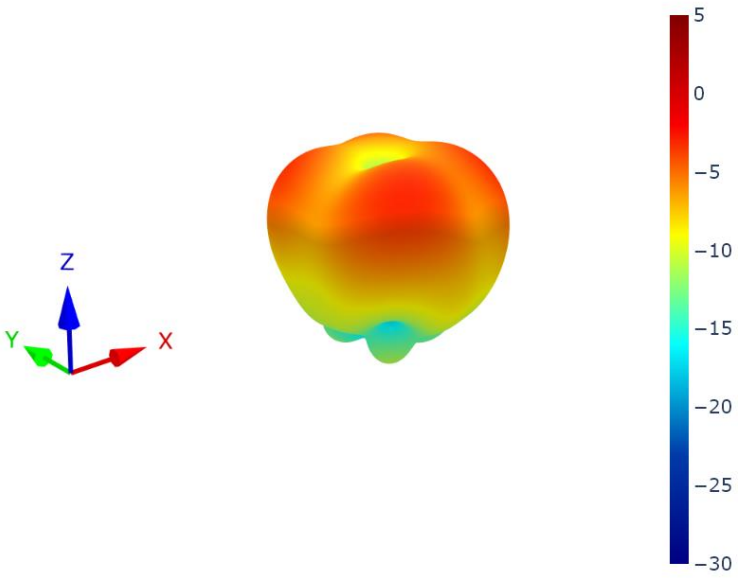
XZ Plane	YZ Plane	XY Plane
		

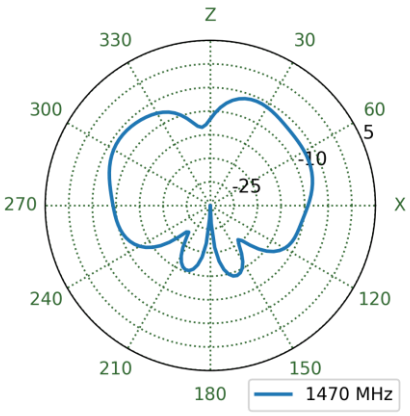
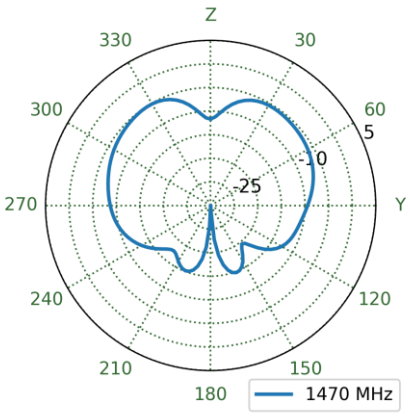
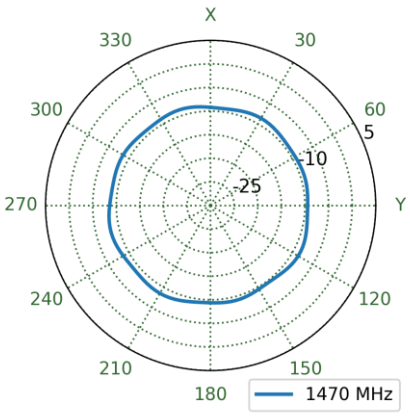
7.27 15x9cm Ground Plane (Straight) Patterns at 1470 MHz



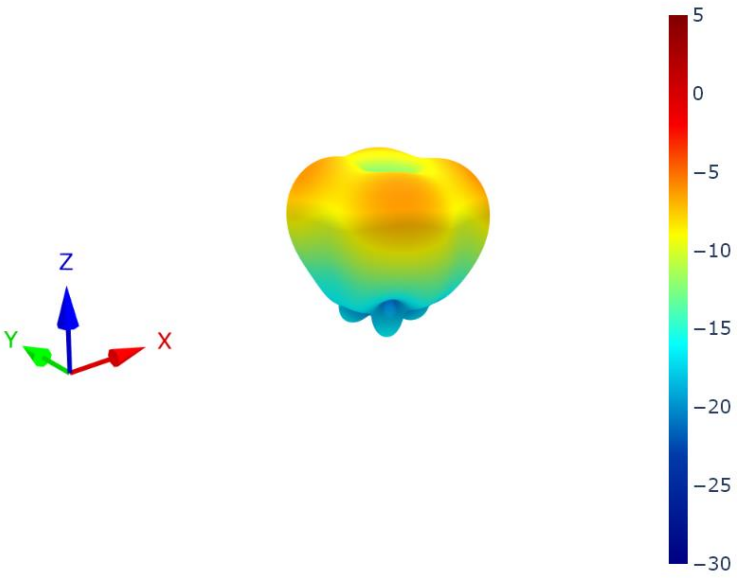
XZ Plane	YZ Plane	XY Plane
		

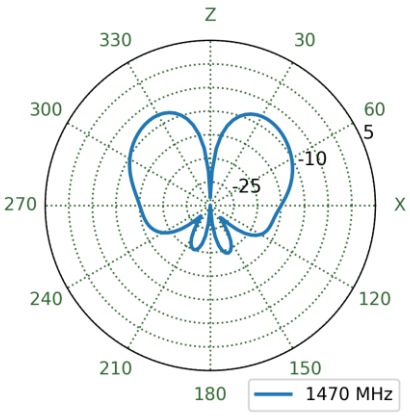
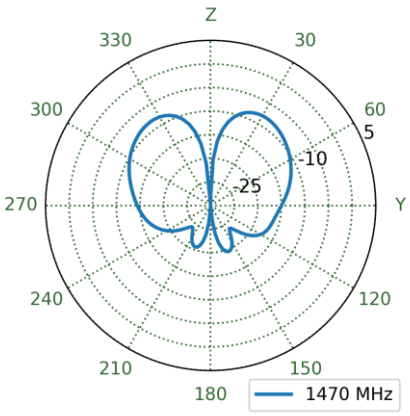
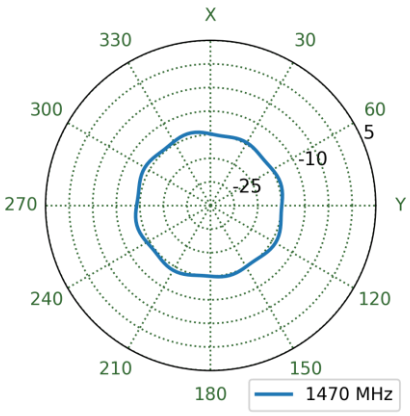
7.28 30x30cm Ground Plane Center (Bent) Patterns at 1470 MHz



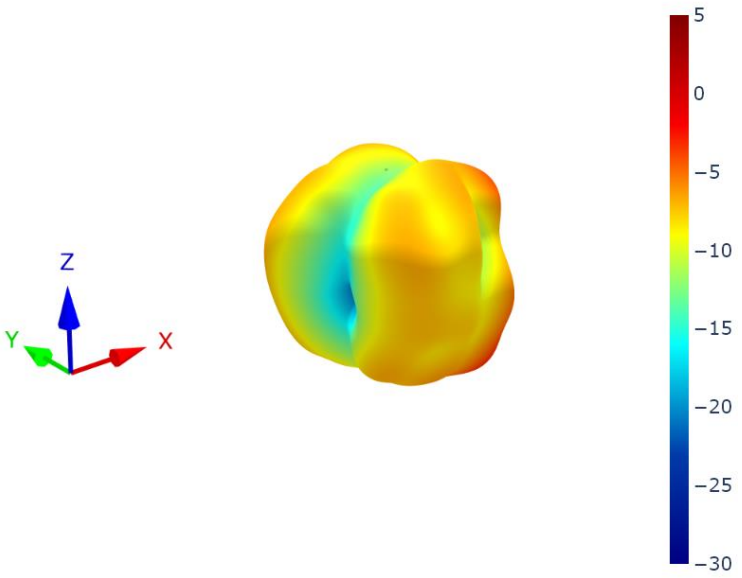
XZ Plane	YZ Plane	XY Plane
		

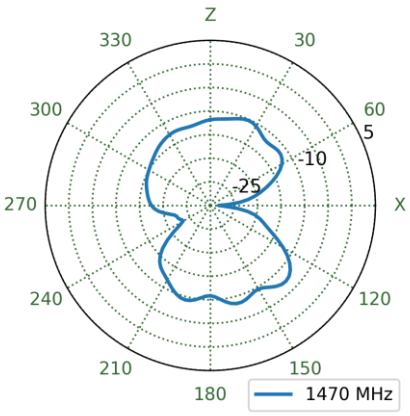
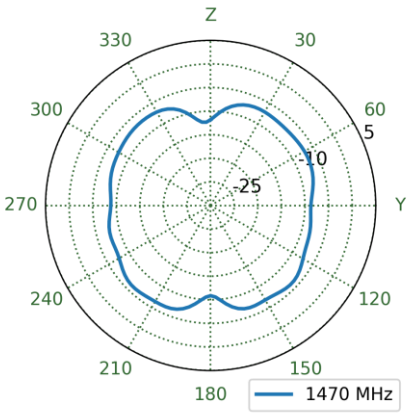
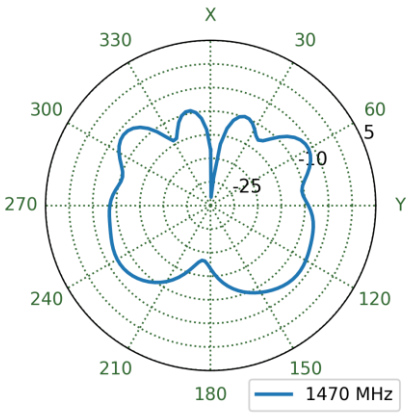
7.29 30x30cm Ground Plane Center (Straight) Patterns at 1470 MHz



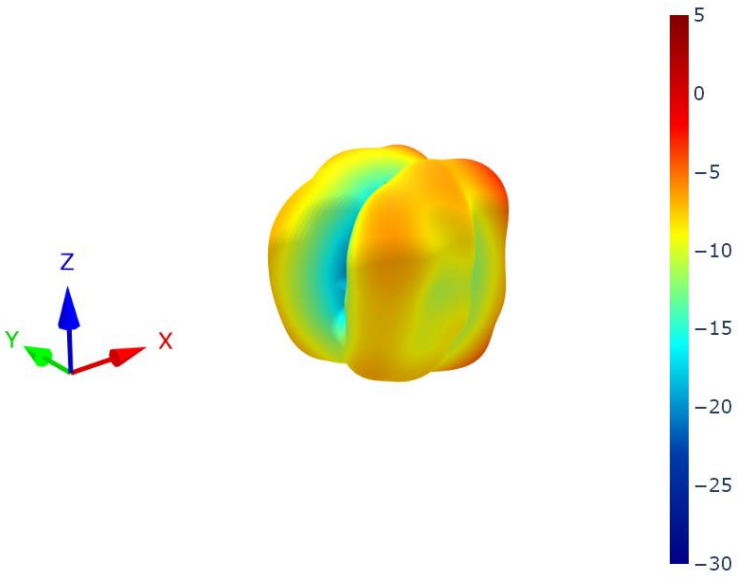
XZ Plane	YZ Plane	XY Plane
		

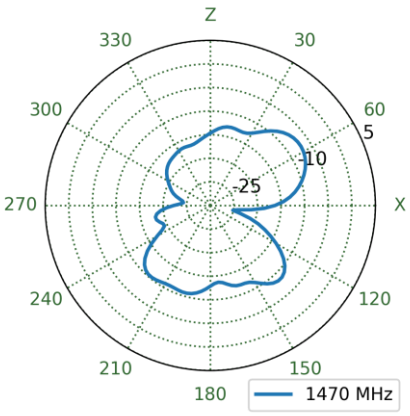
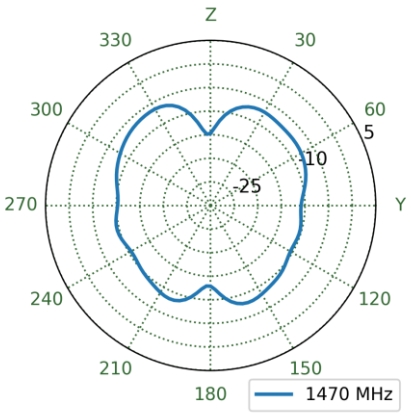
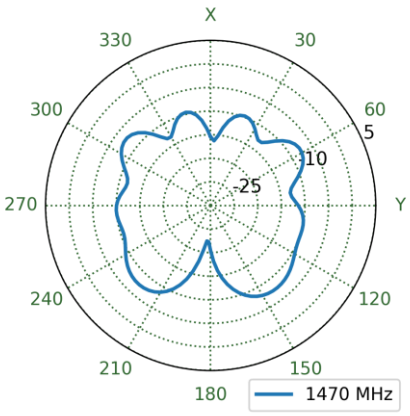
7.30 30x30cm Ground Plane Edge (Bent) Patterns at 1470 MHz



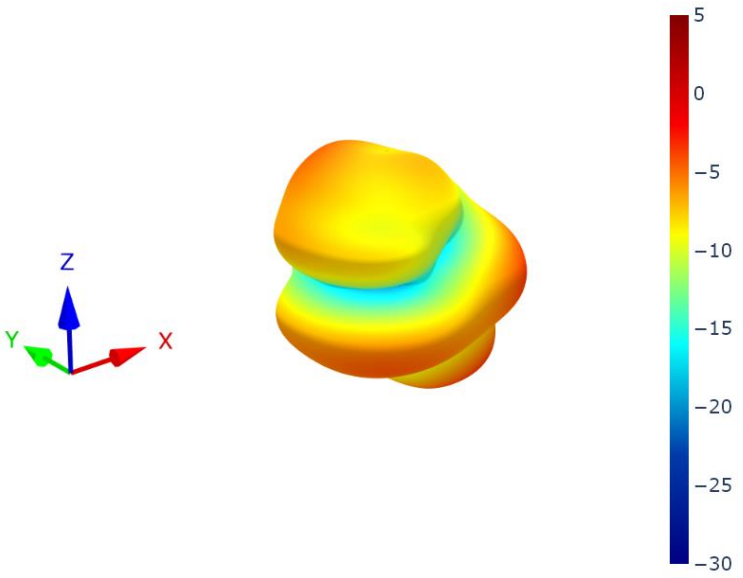
XZ Plane	YZ Plane	XY Plane
		

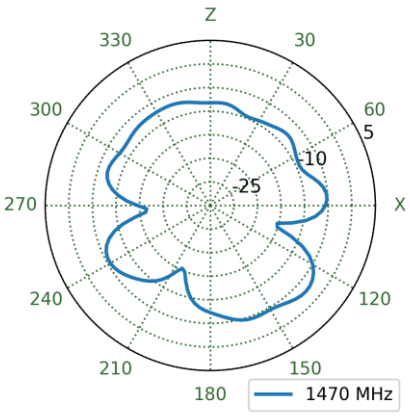
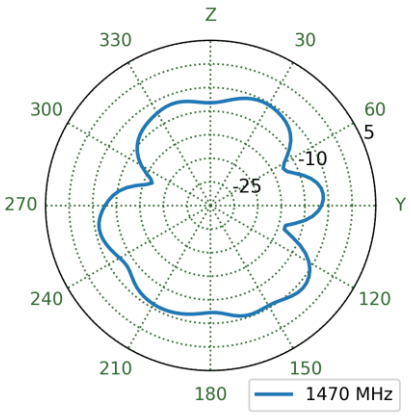
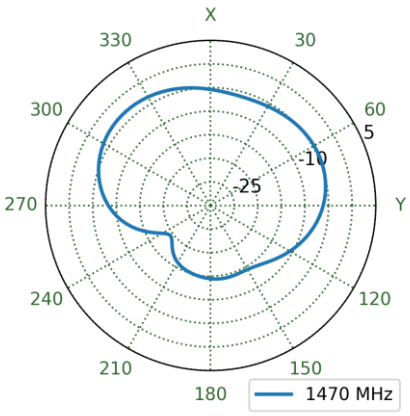
7.31 30x30cm Ground Plane Edge (Straight) Patterns at 1470 MHz



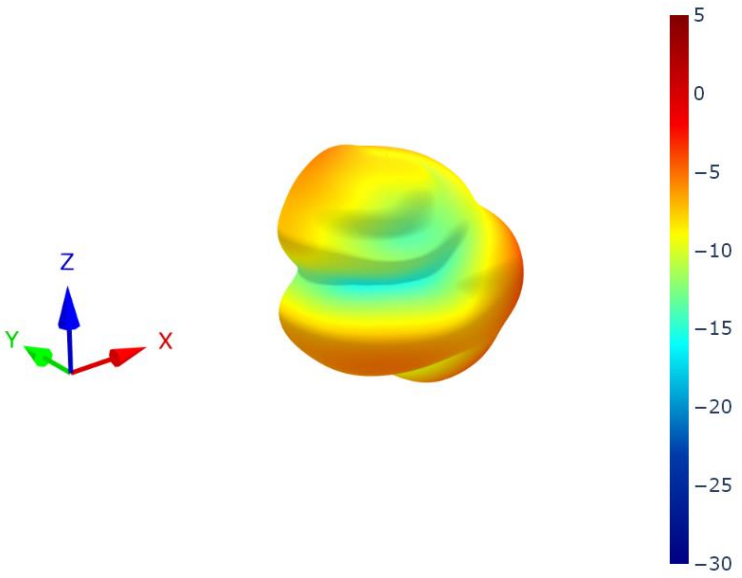
XZ Plane	YZ Plane	XY Plane
		

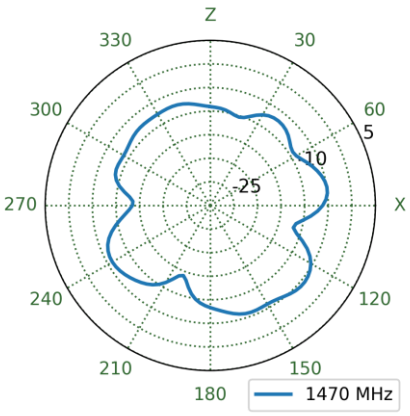
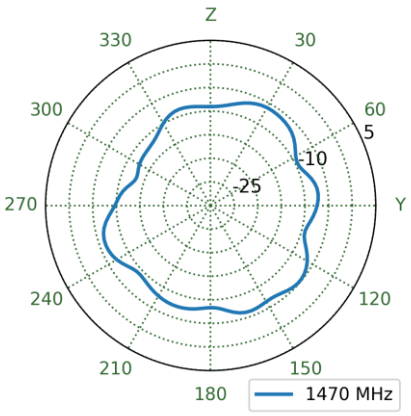
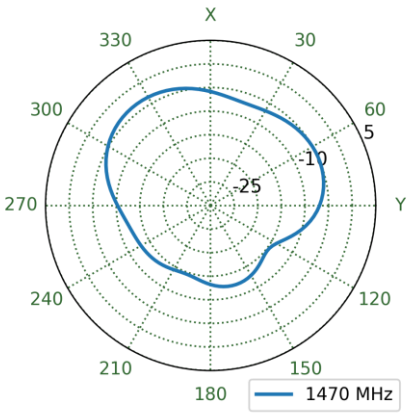
7.32 Free Space (Bent) Patterns at 1470 MHz



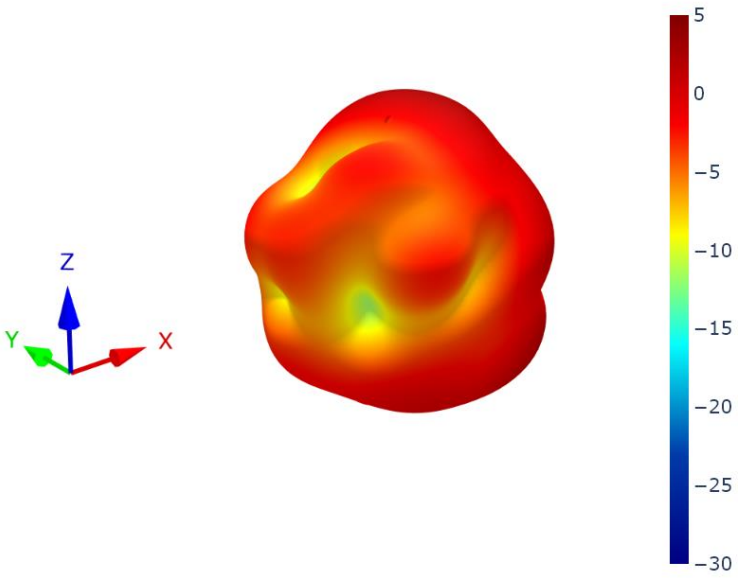
XZ Plane	YZ Plane	XY Plane
		

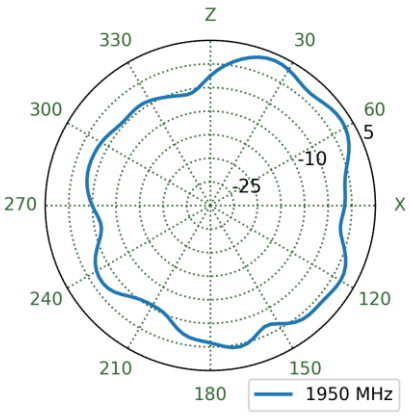
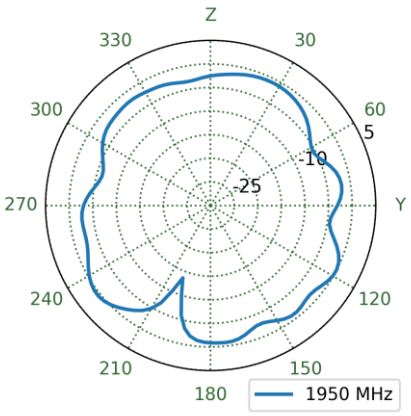
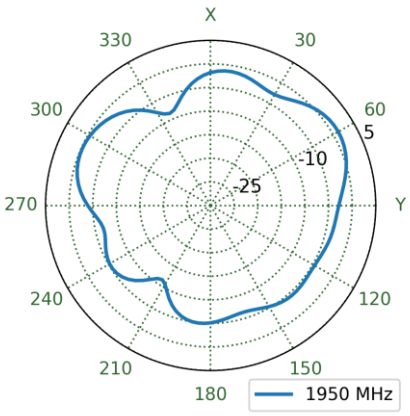
7.33 Free Space (Straight) Patterns at 1470 MHz



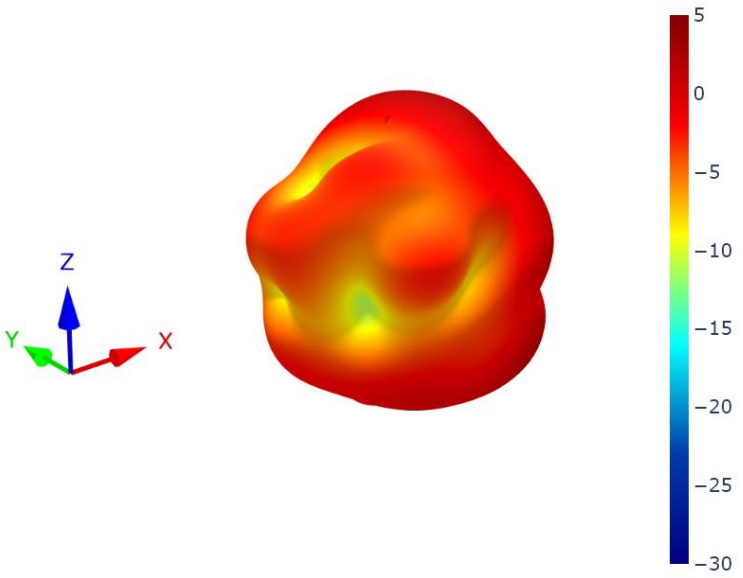
XZ Plane	YZ Plane	XY Plane
		

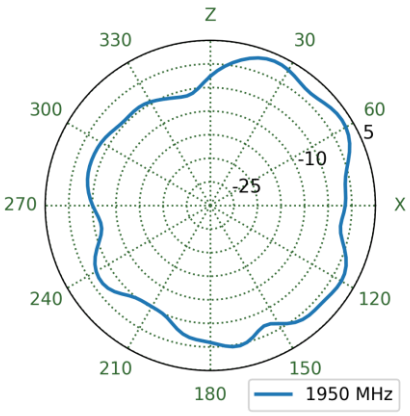
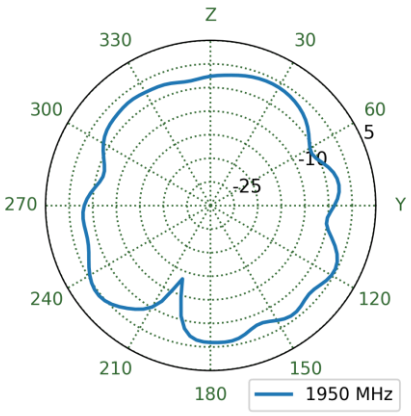
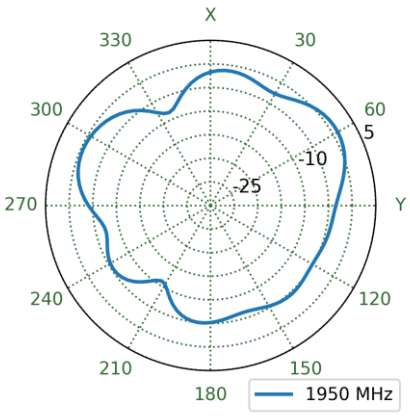
7.34 15x9cm Ground Plane (Bent) Patterns at 1950 MHz



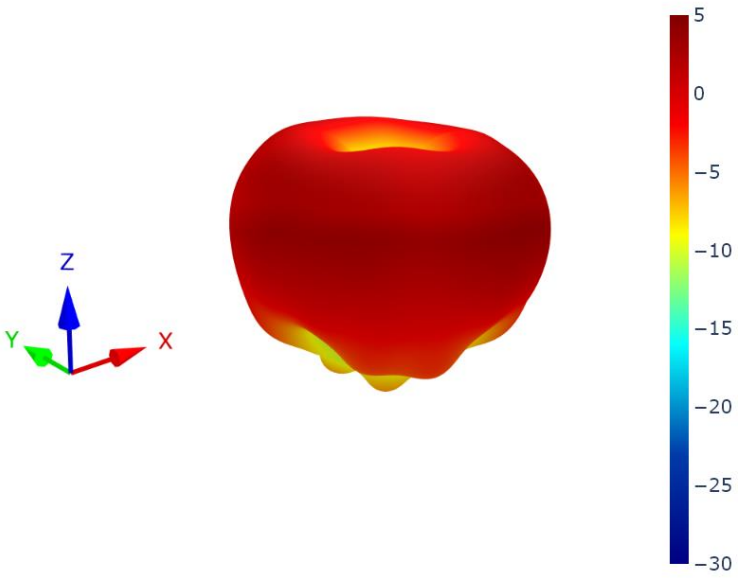
XZ Plane	YZ Plane	XY Plane
		

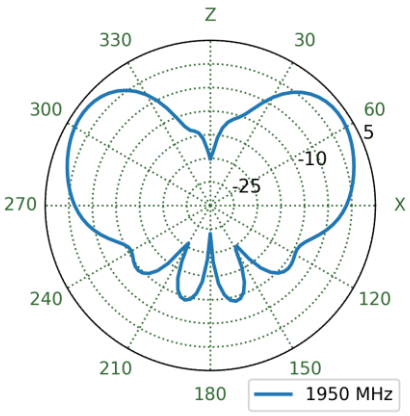
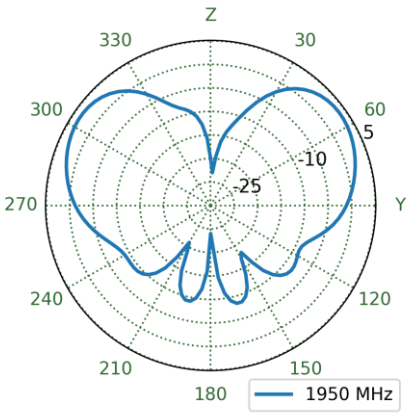
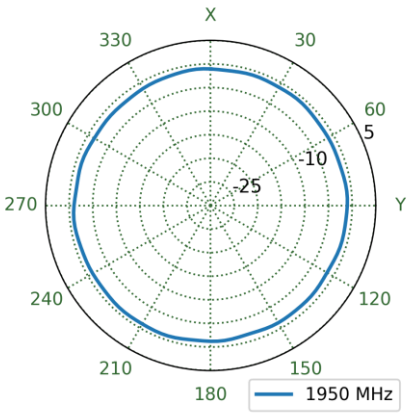
7.35 15x9cm Ground Plane (Straight) Patterns at 1950 MHz



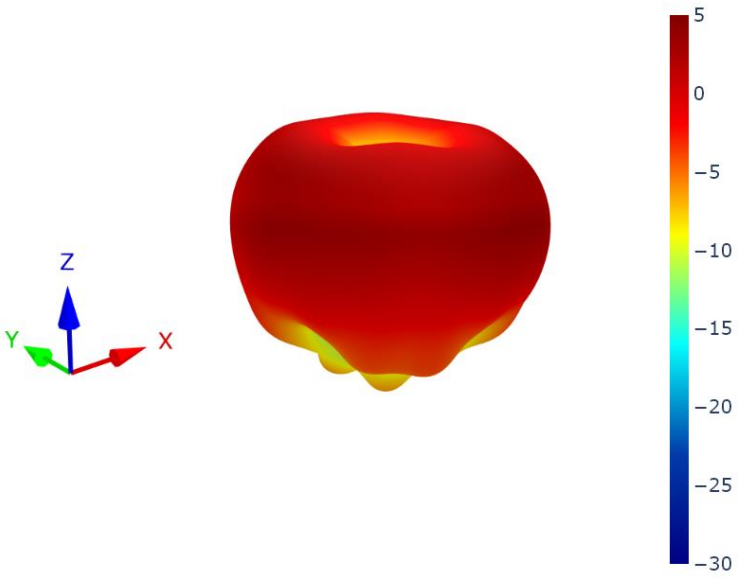
XZ Plane	YZ Plane	XY Plane
		

7.36 30x30cm Ground Plane Center (Bent) Patterns at 1950 MHz

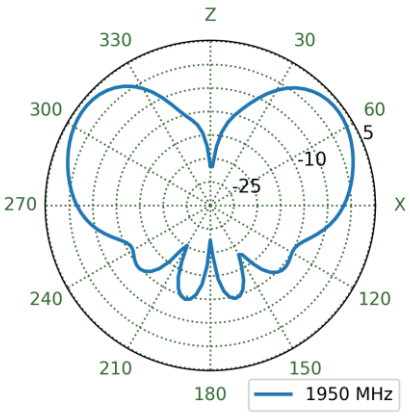


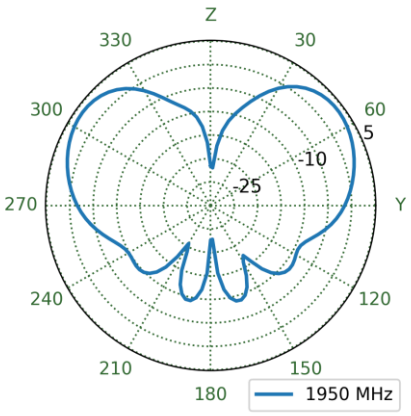
XZ Plane	YZ Plane	XY Plane
		

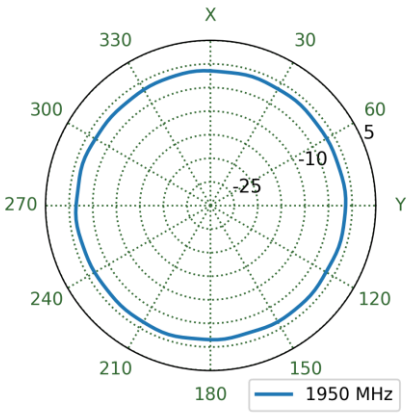
7.37 30x30cm Ground Plane Center (Straight) Patterns at 1950 MHz



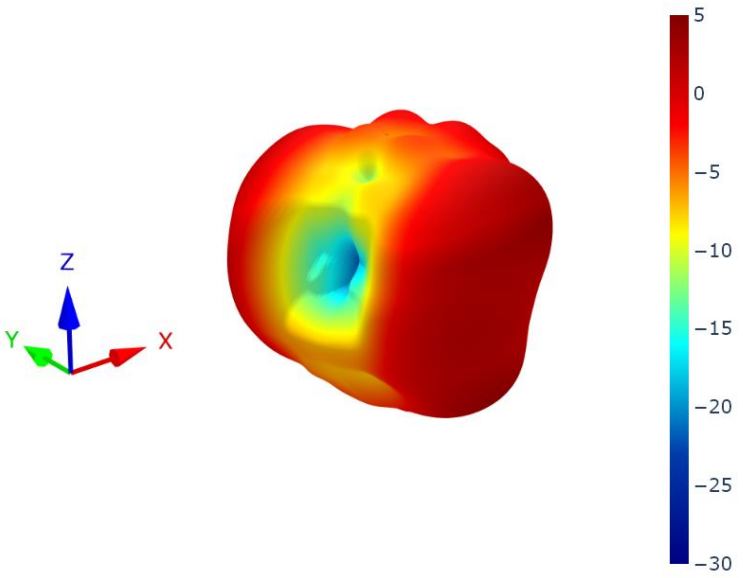
XZ Plane	YZ Plane	XY Plane

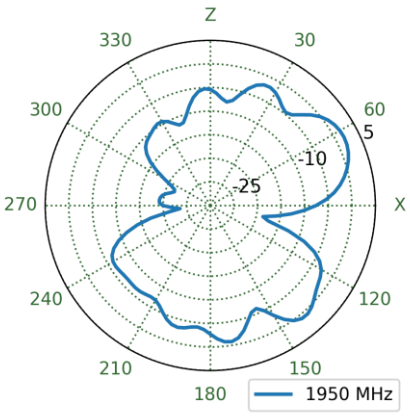
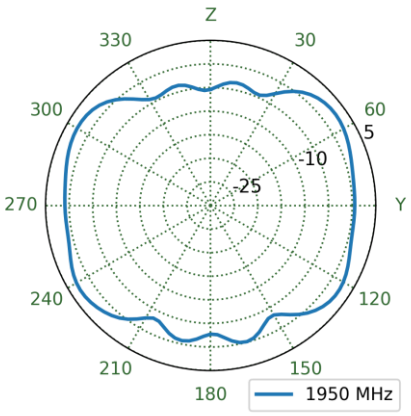
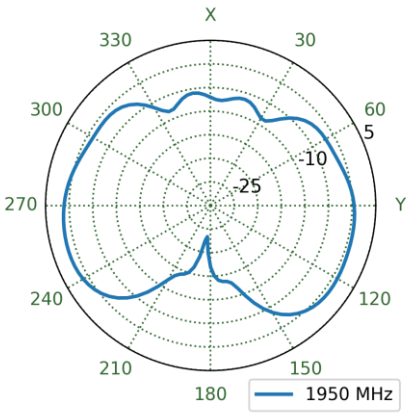




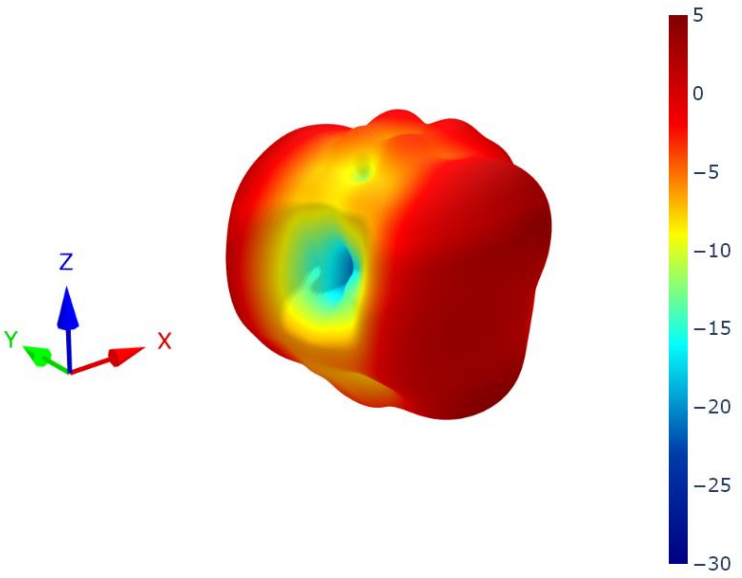


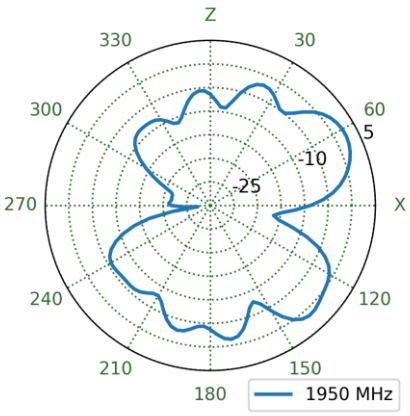
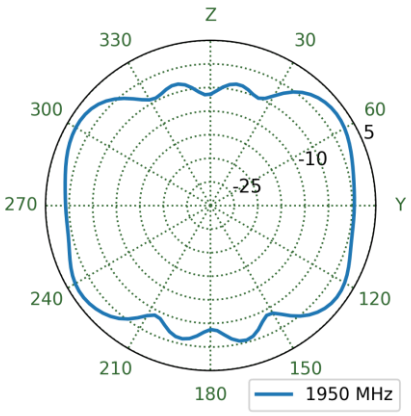
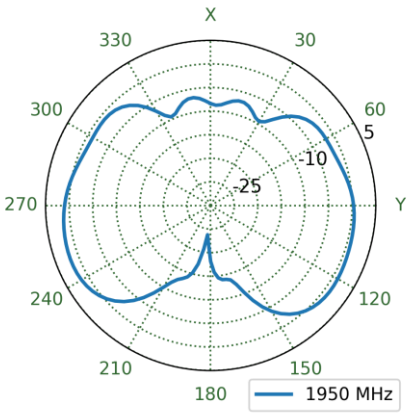
7.38 30x30cm Ground Plane Edge (Bent) Patterns at 1950 MHz



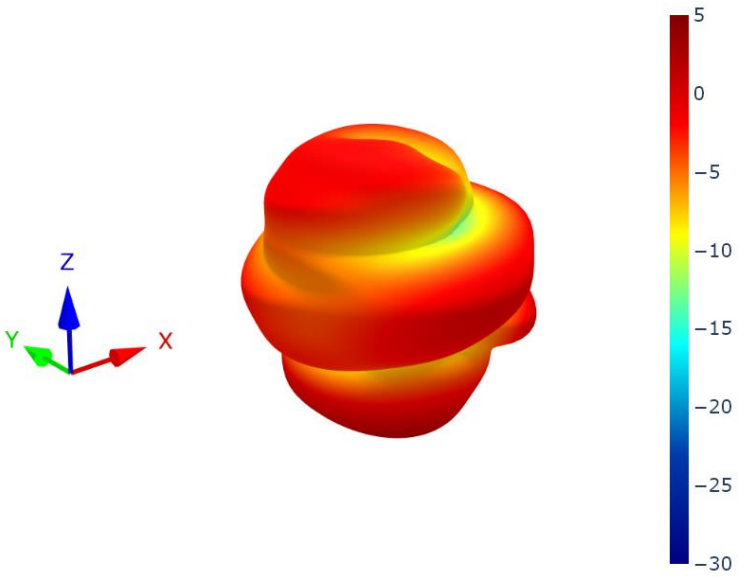
XZ Plane	YZ Plane	XY Plane
		

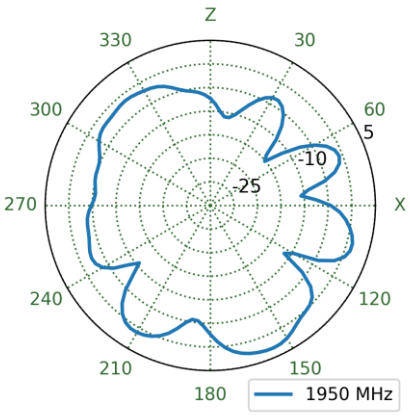
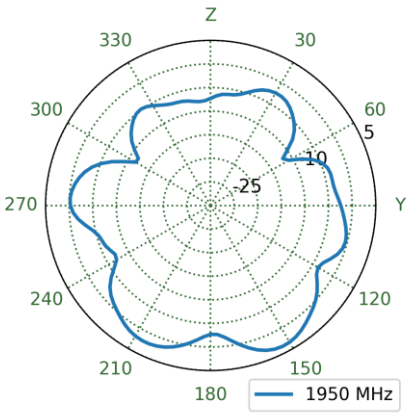
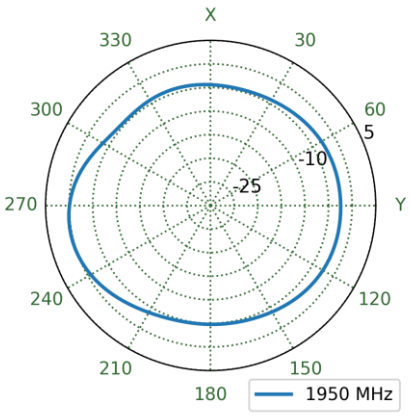
7.39 30x30cm Ground Plane Edge (Straight) Patterns at 1950 MHz



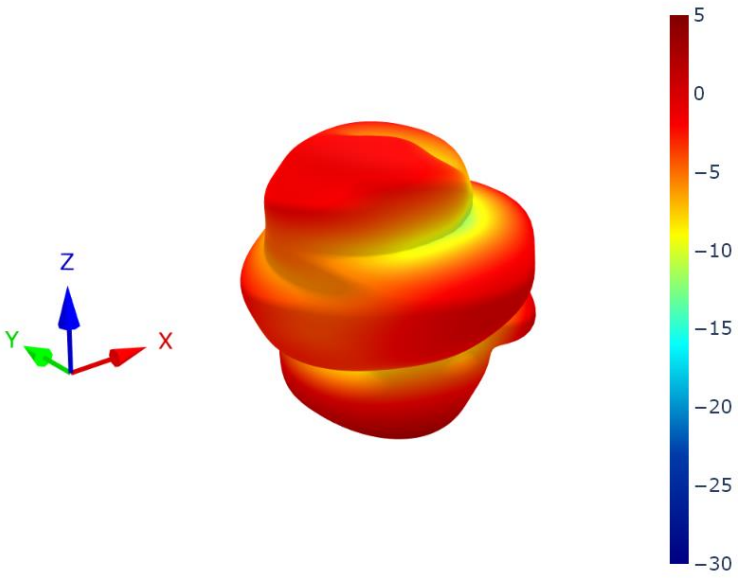
XZ Plane	YZ Plane	XY Plane
		

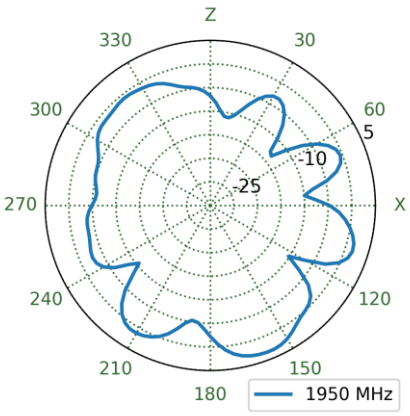
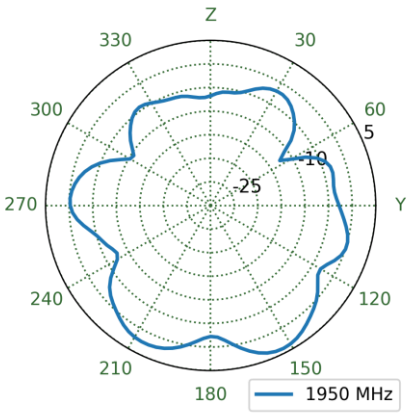
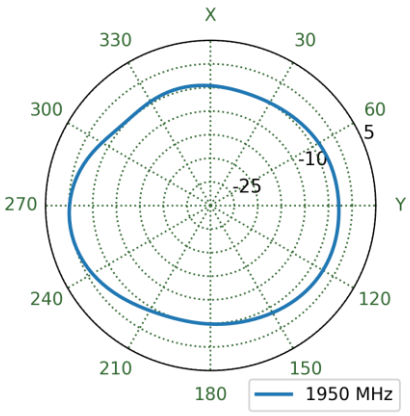
7.40 Free Space (Bent) Patterns at 1950 MHz



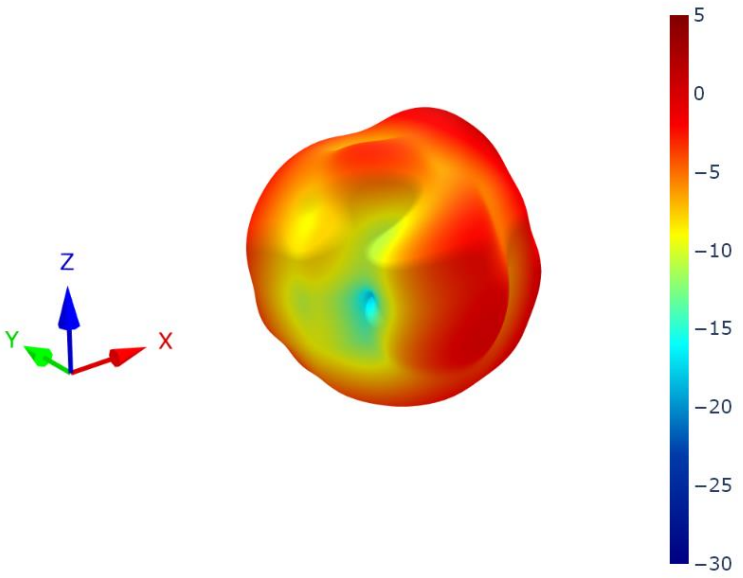
XZ Plane	YZ Plane	XY Plane
		

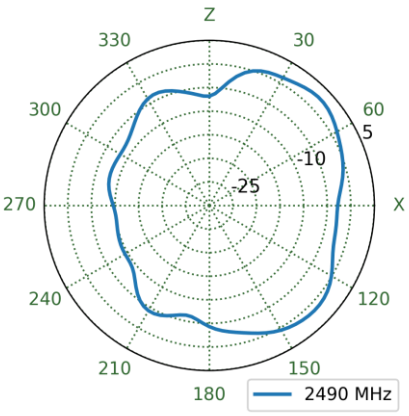
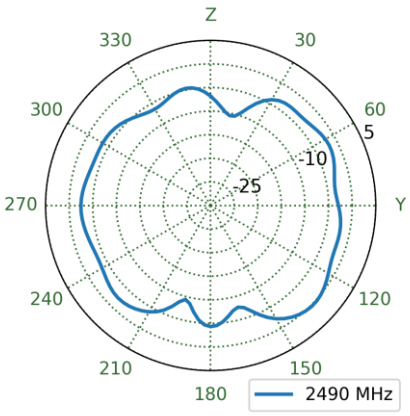
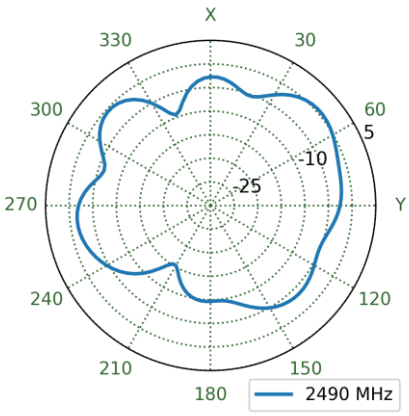
7.41 Free Space (Straight) Patterns at 1950 MHz



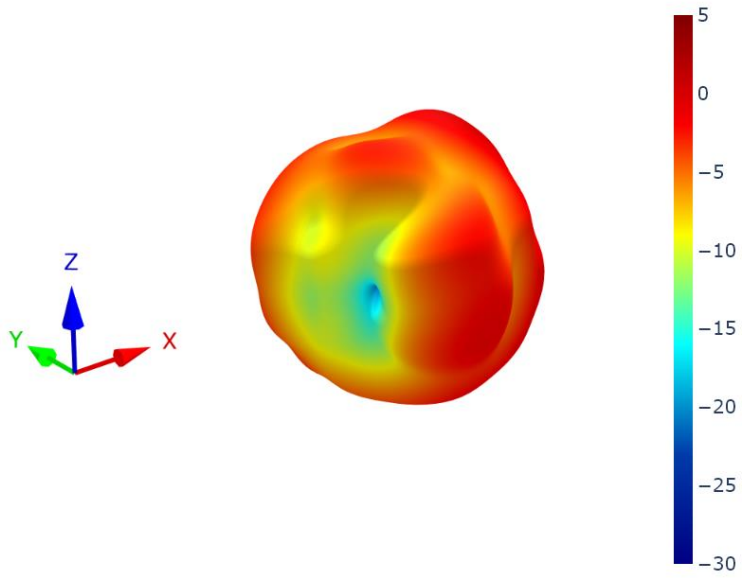
XZ Plane	YZ Plane	XY Plane
		

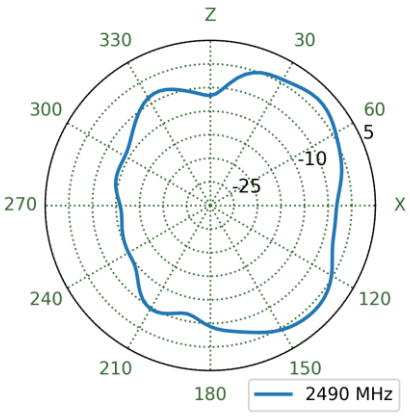
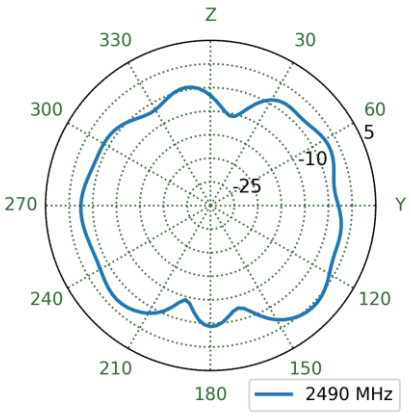
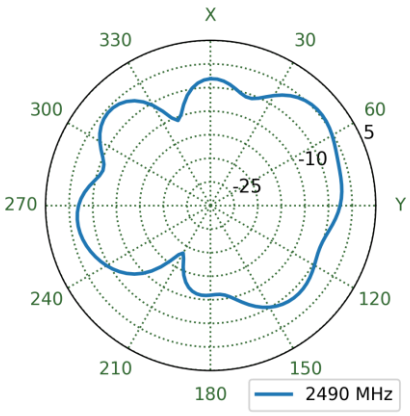
7.42 15x9cm Ground Plane (Bent) Patterns at 2490 MHz



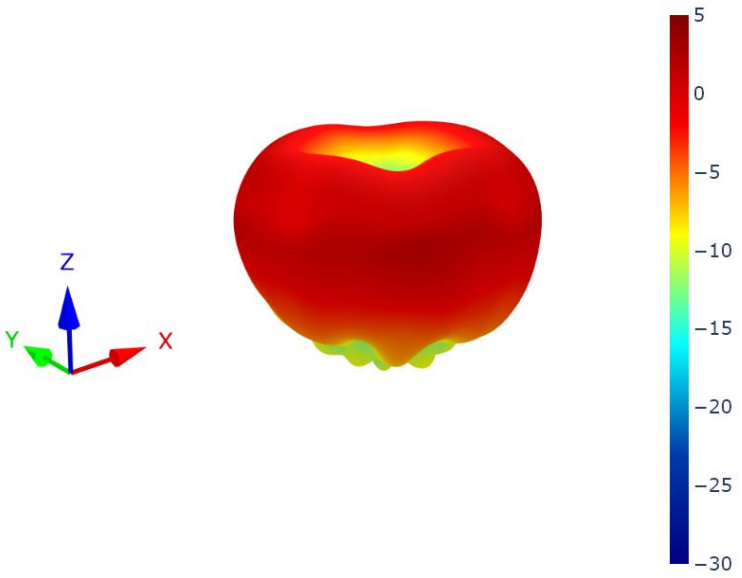
XZ Plane	YZ Plane	XY Plane
		

7.43 15x9cm Ground Plane (Straight) Patterns at 2490 MHz

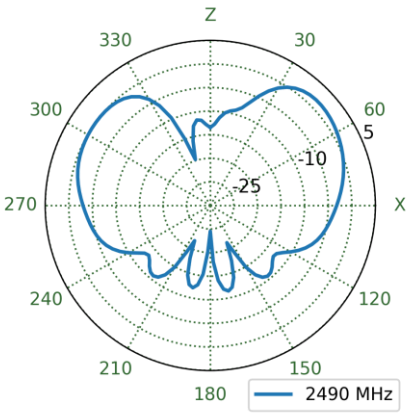


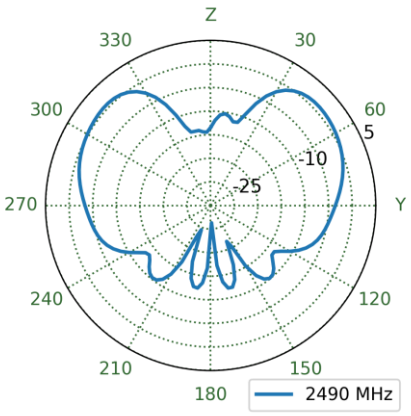
XZ Plane	YZ Plane	XY Plane
		

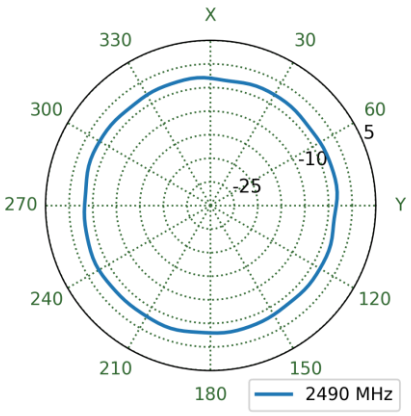
7.44 30x30cm Ground Plane Center (Bent) Patterns at 2490 MHz



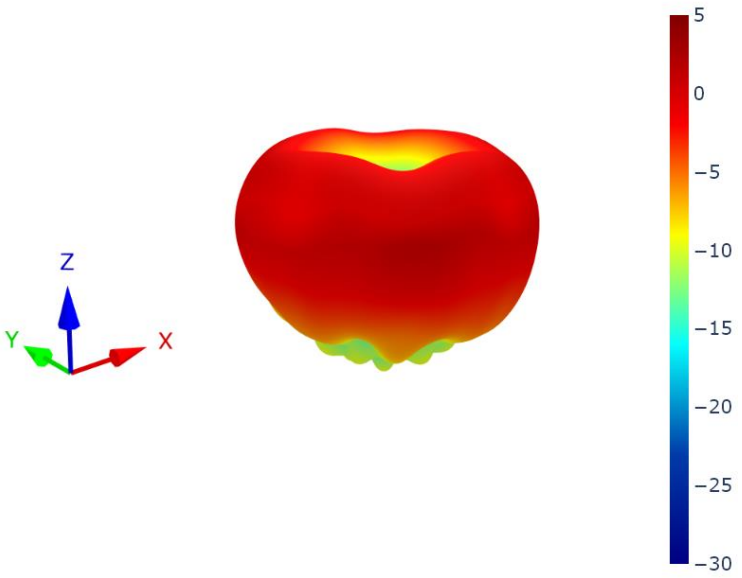
XZ Plane	YZ Plane	XY Plane



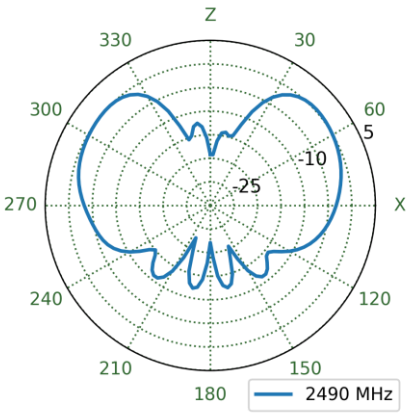


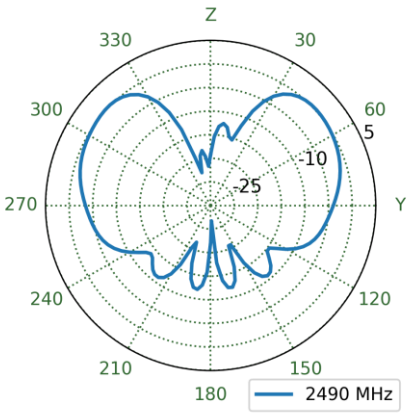


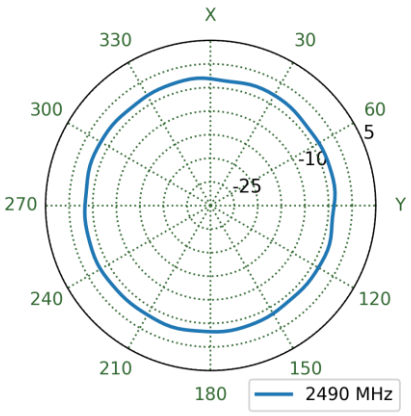
7.45 30x30cm Ground Plane Center (Straight) Patterns at 2490 MHz



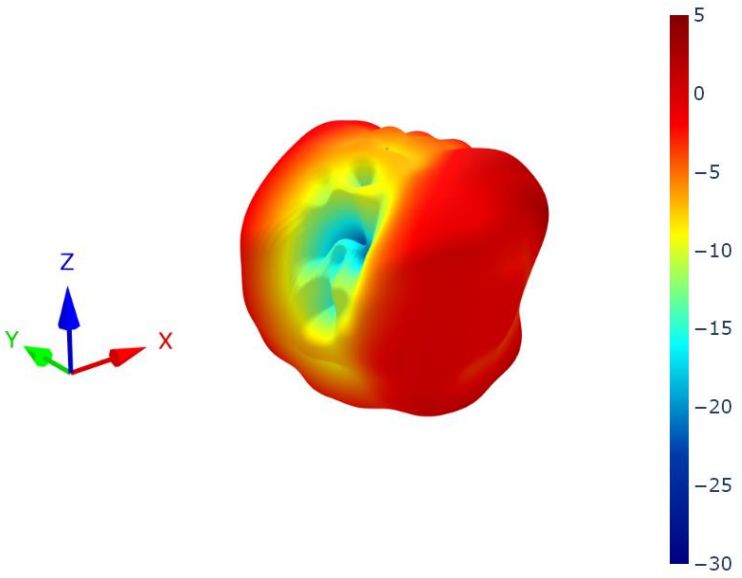
XZ Plane	YZ Plane	XY Plane

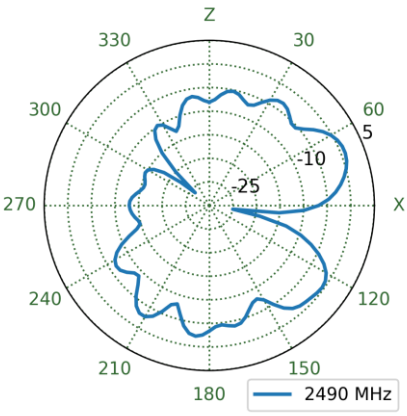
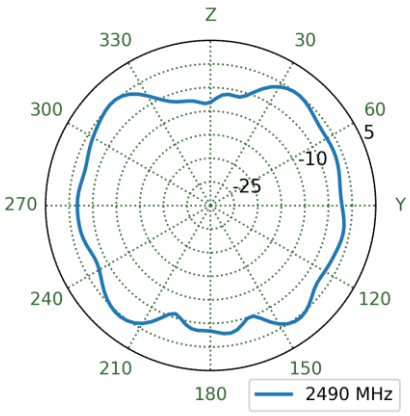
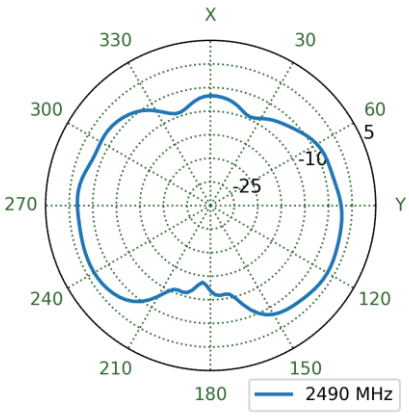




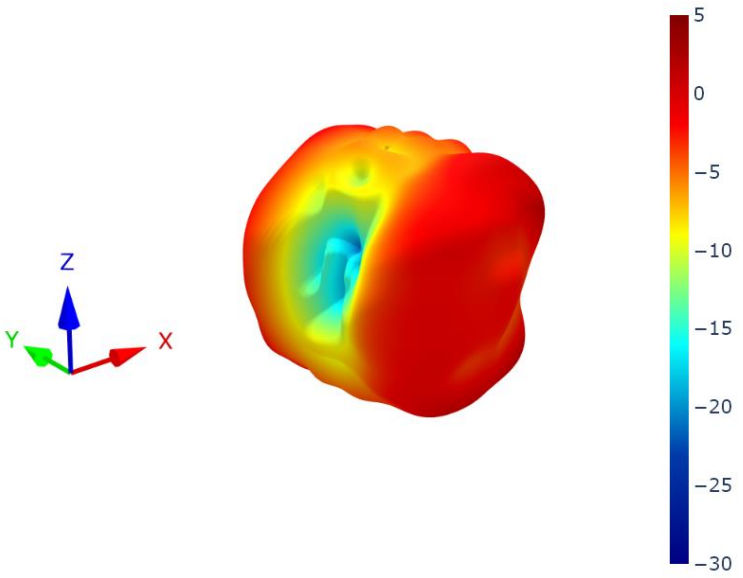


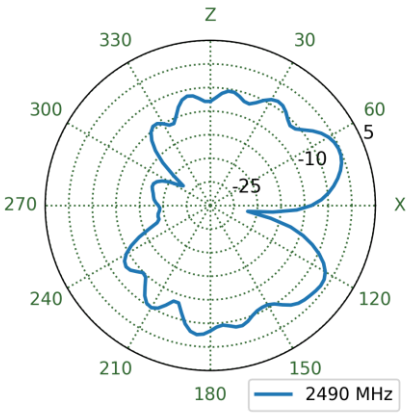
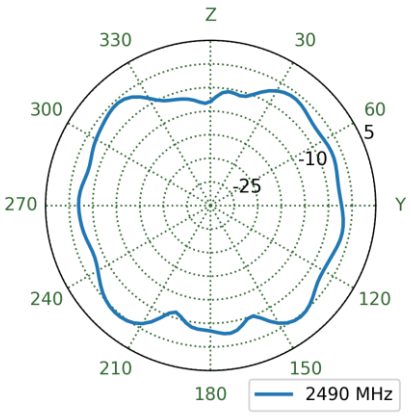
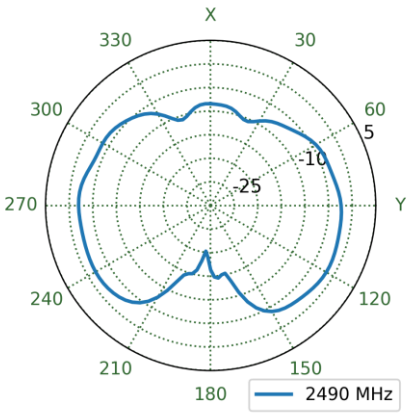
7.46 30x30cm Ground Plane Edge (Bent) Patterns at 2490 MHz



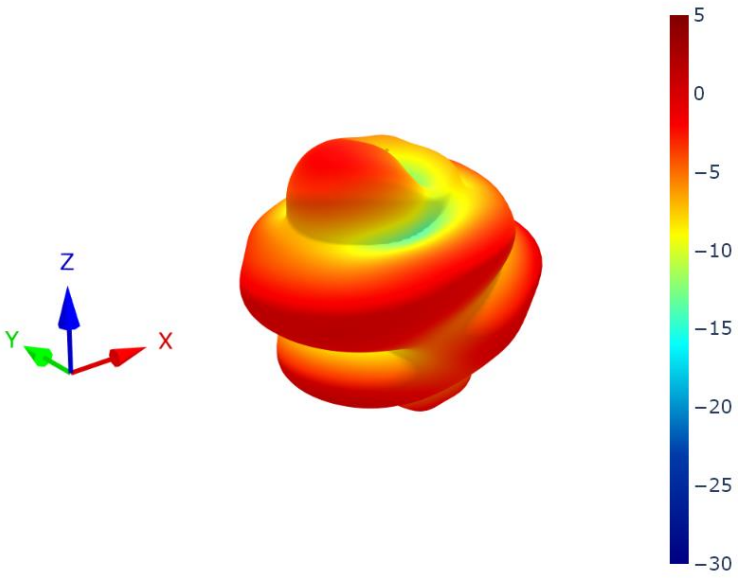
XZ Plane	YZ Plane	XY Plane
		

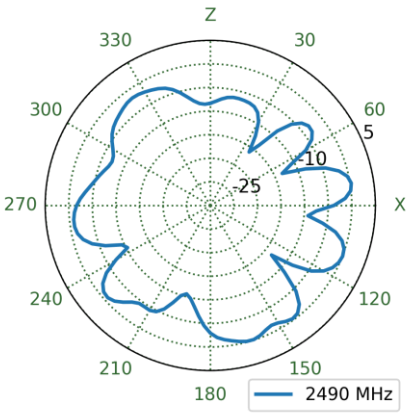
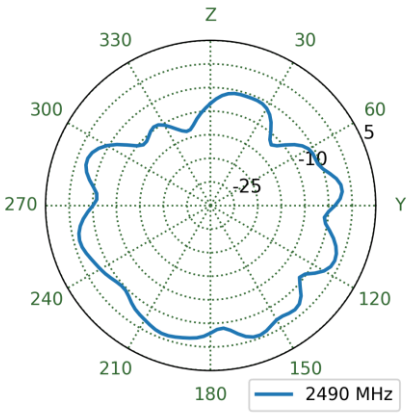
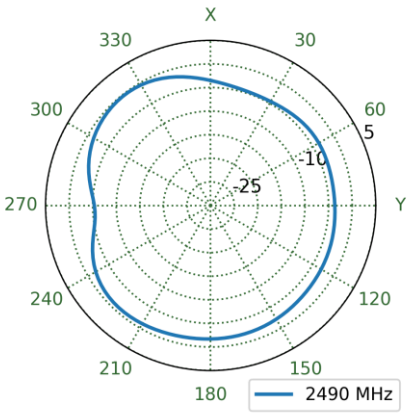
7.47 30x30cm Ground Plane Edge (Straight) Patterns at 2490 MHz



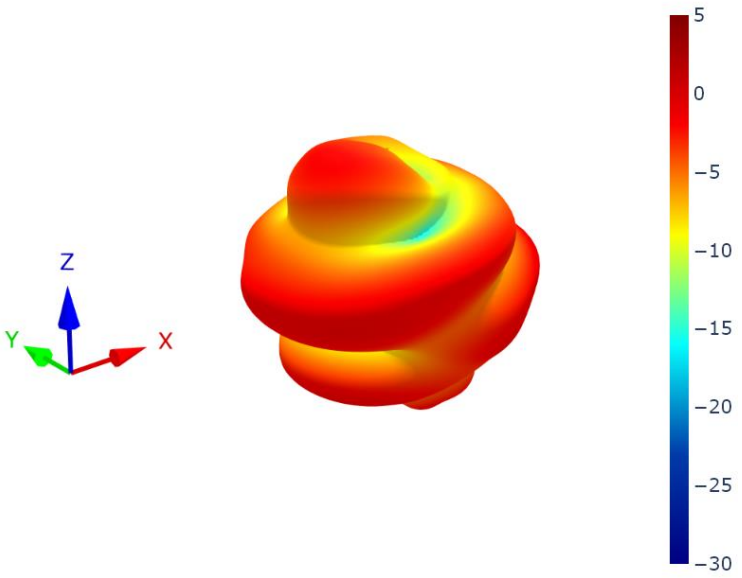
XZ Plane	YZ Plane	XY Plane
		

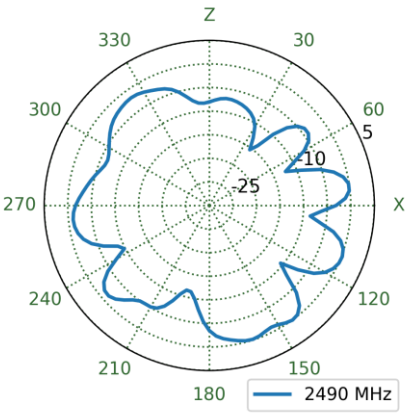
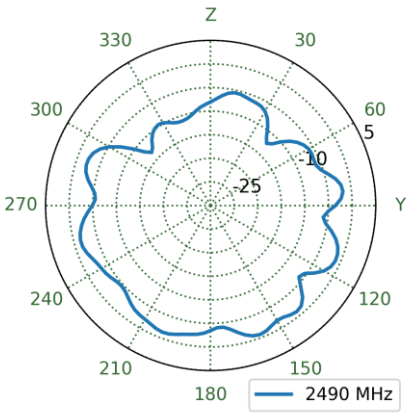
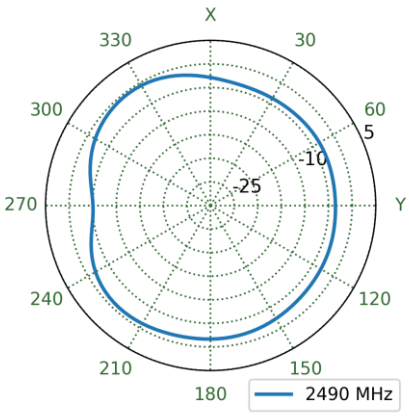
7.48 Free Space (Bent) Patterns at 2490 MHz



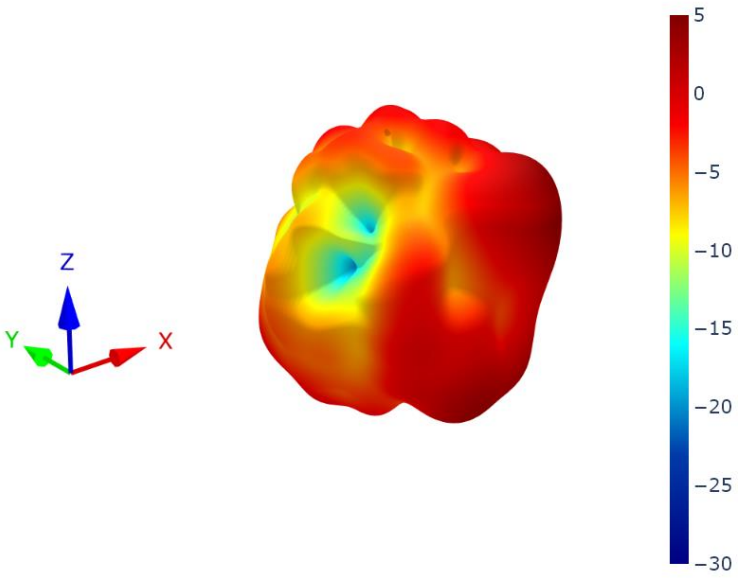
XZ Plane	YZ Plane	XY Plane
		

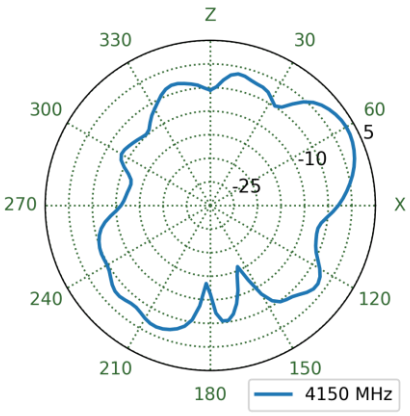
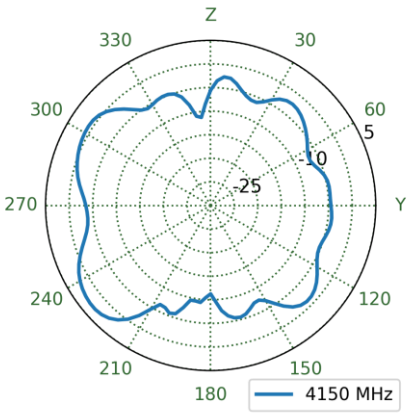
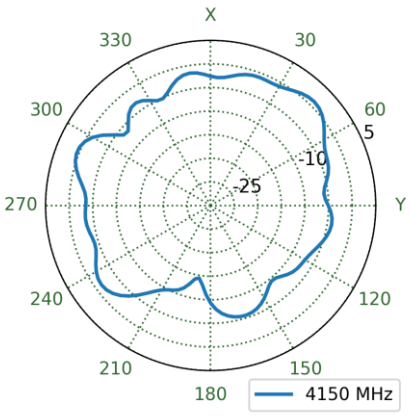
7.49 Free Space (Straight) Patterns at 2490 MHz



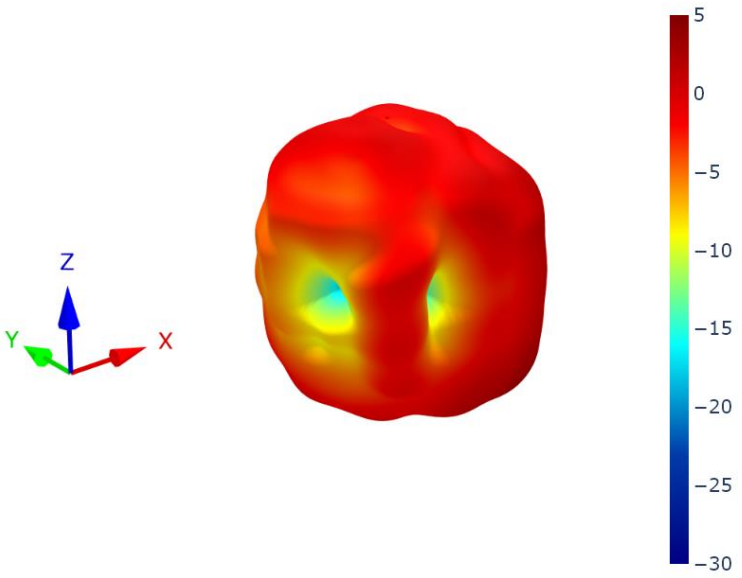
XZ Plane	YZ Plane	XY Plane
		

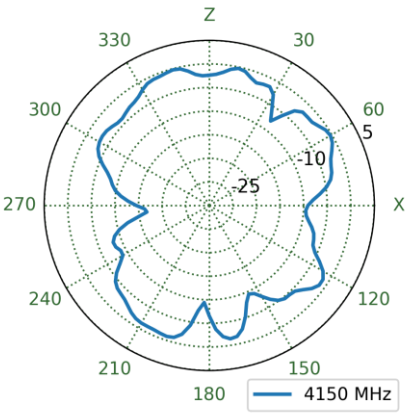
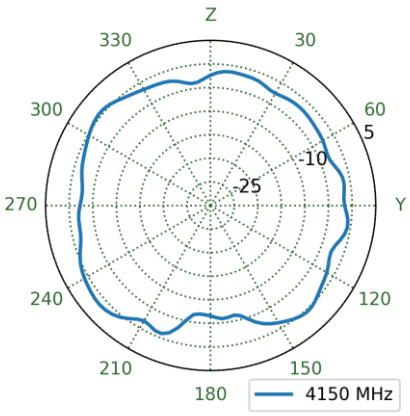
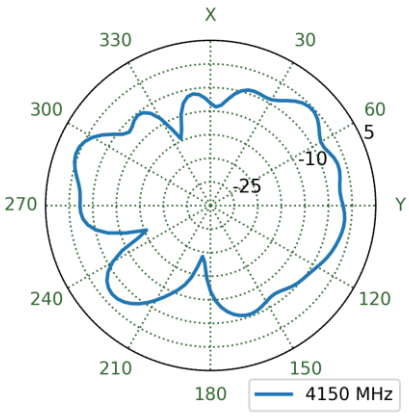
7.50 15x9cm Ground Plane (Bent) Patterns at 4150 MHz



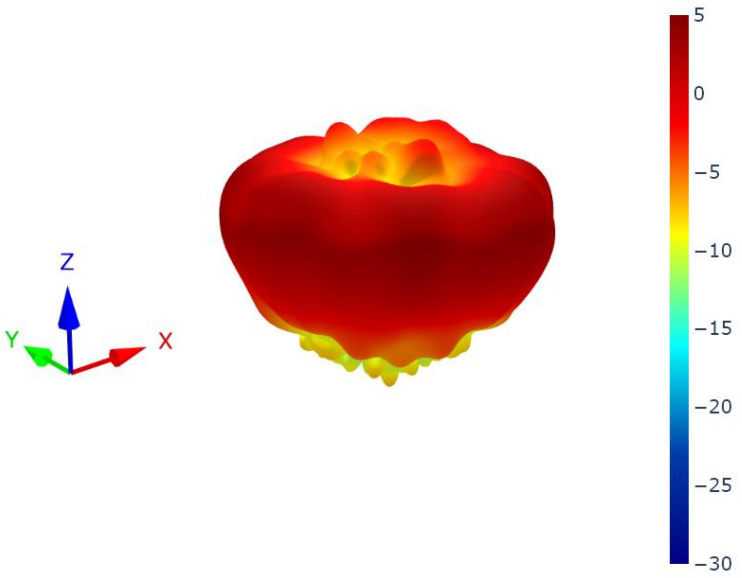
XZ Plane	YZ Plane	XY Plane
		

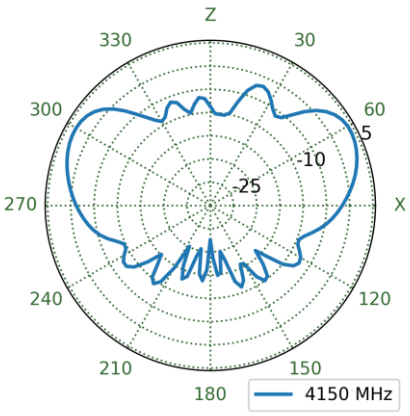
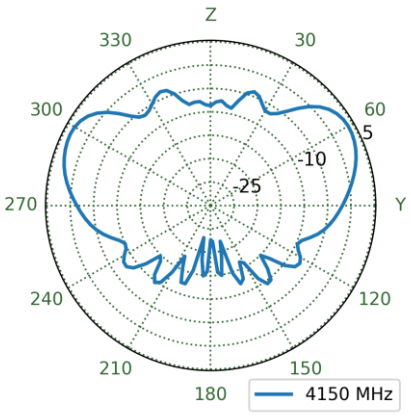
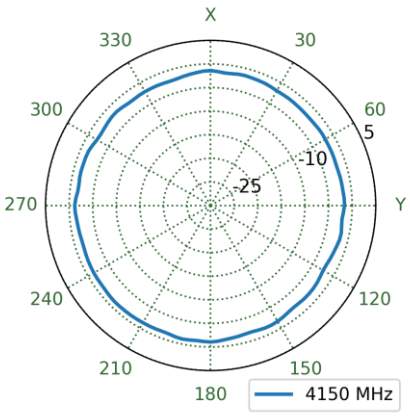
7.51 15x9cm Ground Plane (Straight) Patterns at 4150 MHz



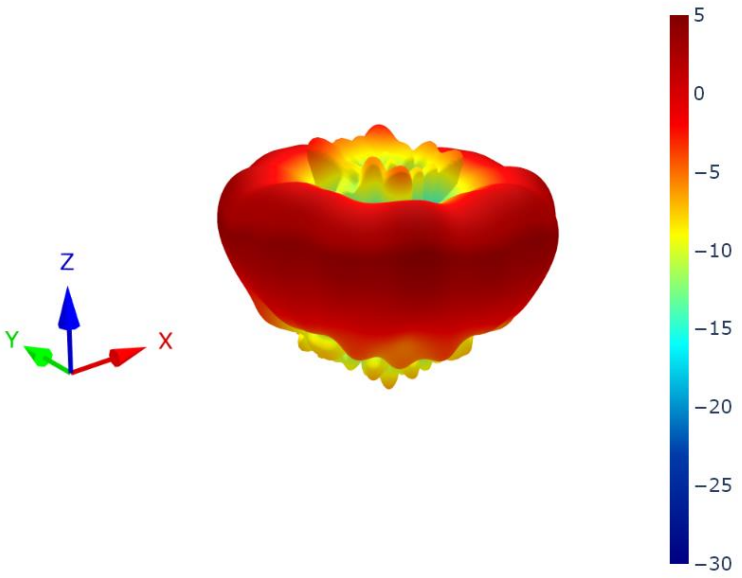
XZ Plane	YZ Plane	XY Plane
		

7.52 30x30cm Ground Plane Center (Bent) Patterns at 4150 MHz

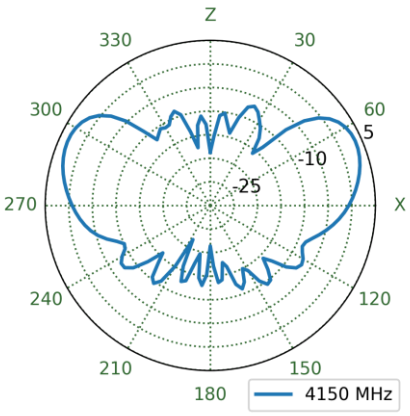


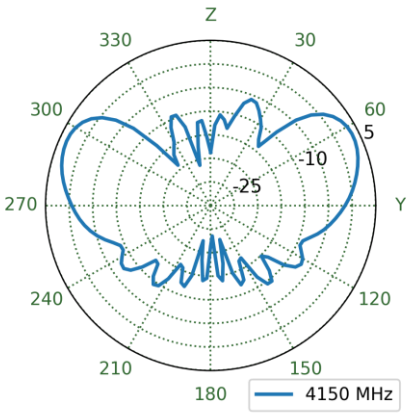
XZ Plane	YZ Plane	XY Plane
		

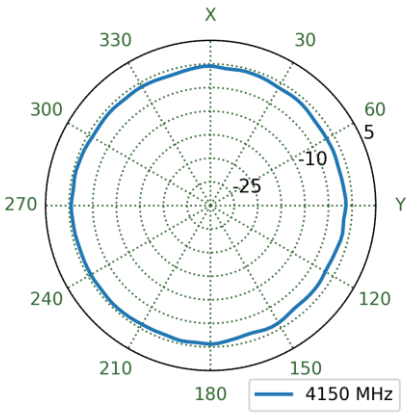
7.53 30x30cm Ground Plane Center (Straight) Patterns at 4150 MHz



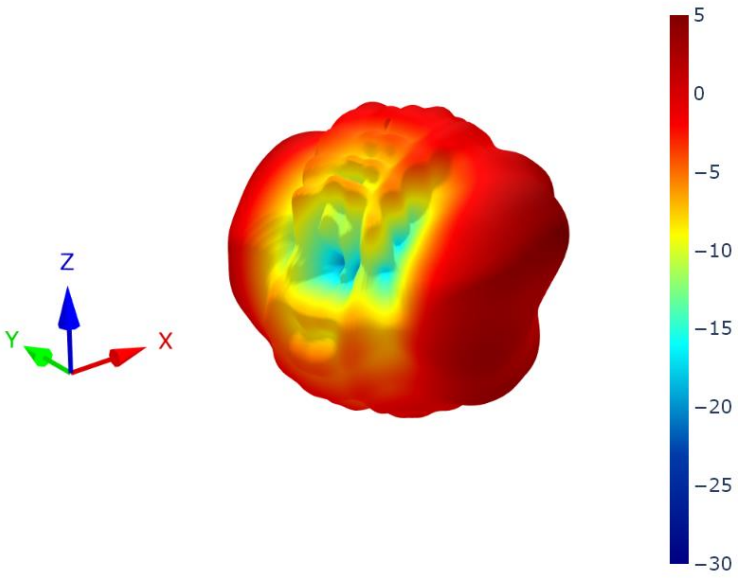
XZ Plane	YZ Plane	XY Plane

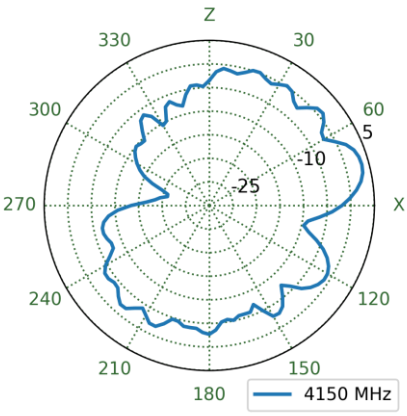
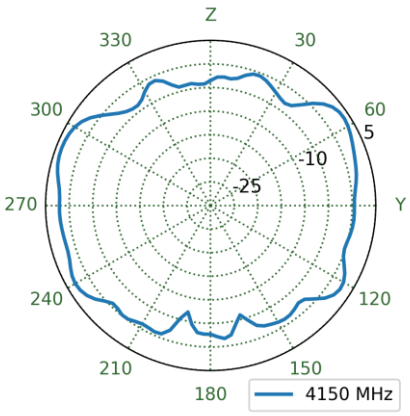
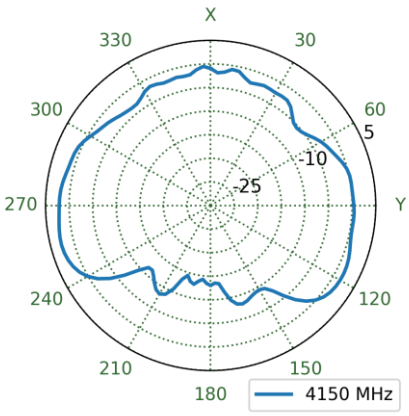




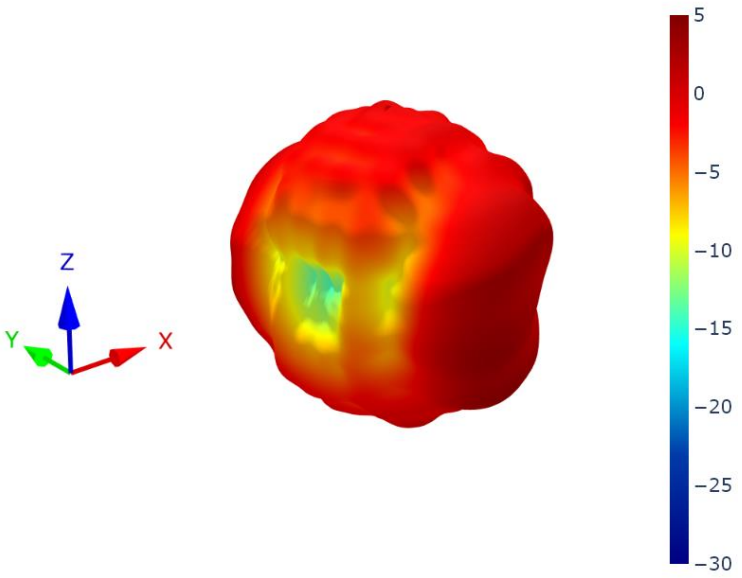


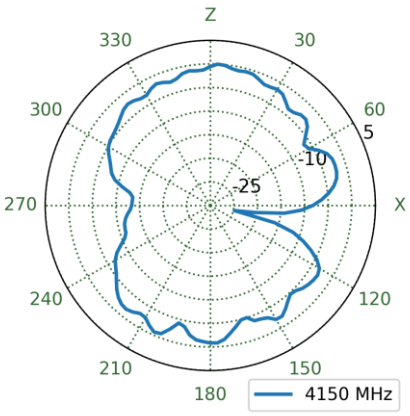
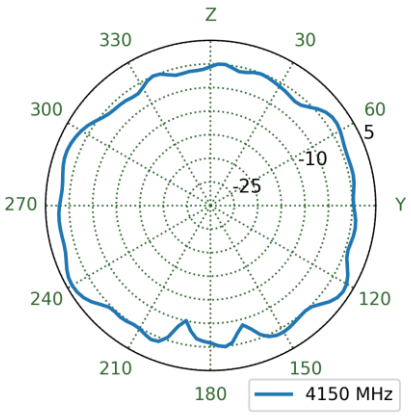
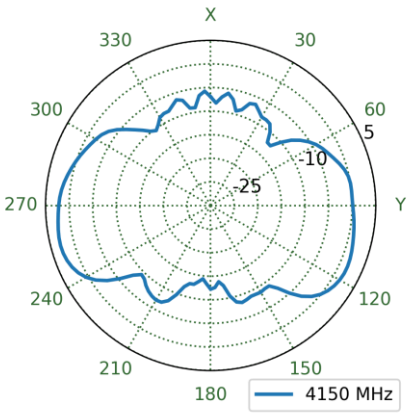
7.54 30x30cm Ground Plane Edge (Bent) Patterns at 4150 MHz



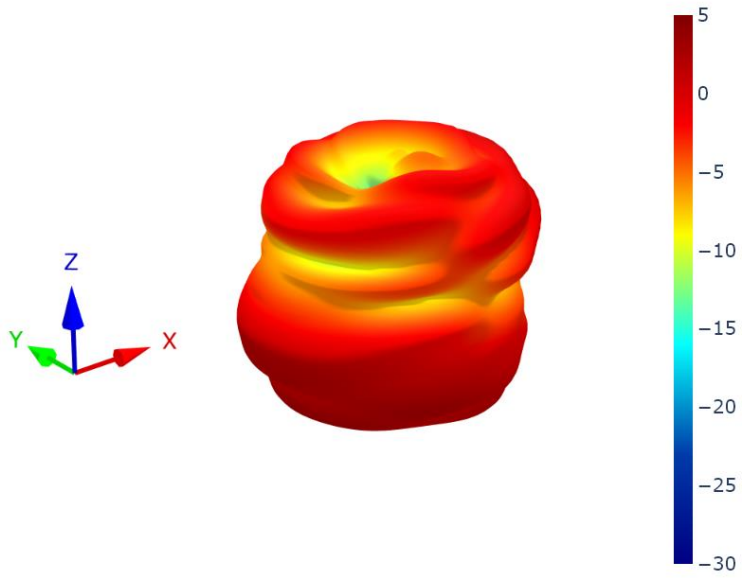
XZ Plane	YZ Plane	XY Plane
		

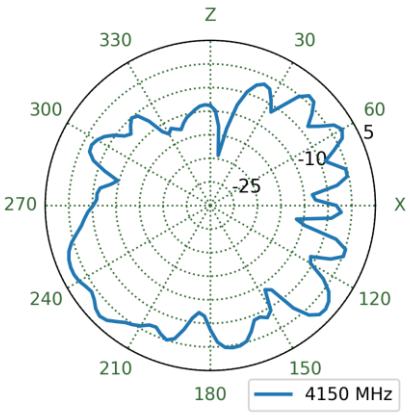
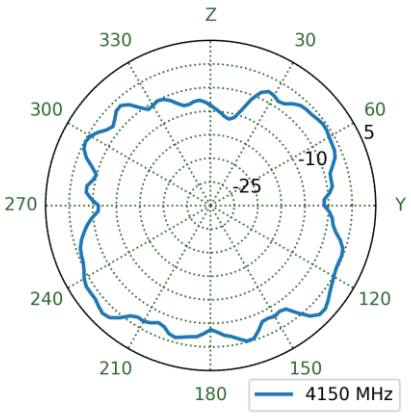
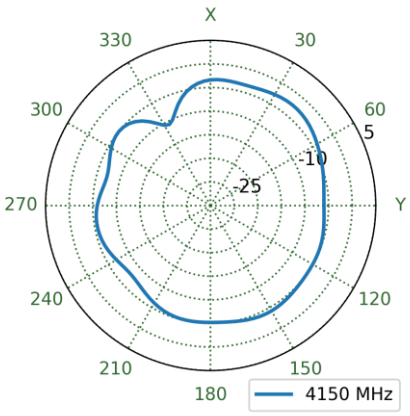
7.55 30x30cm Ground Plane Edge (Straight) Patterns at 4150 MHz



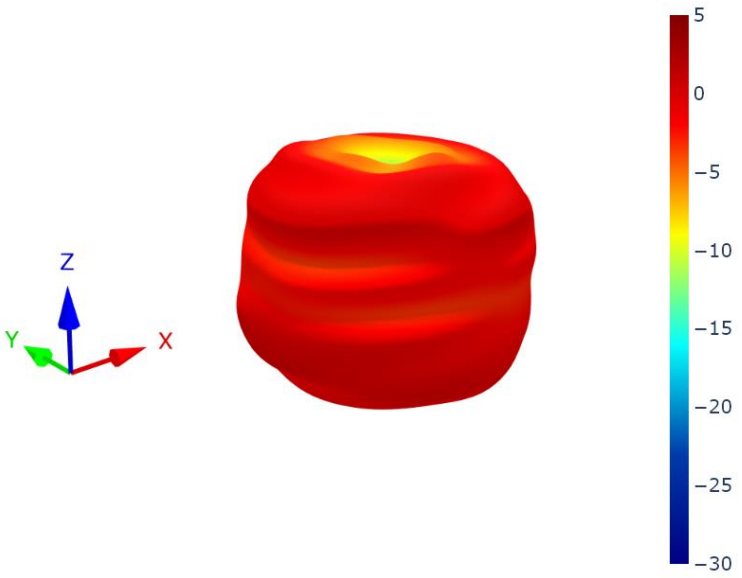
XZ Plane	YZ Plane	XY Plane
		

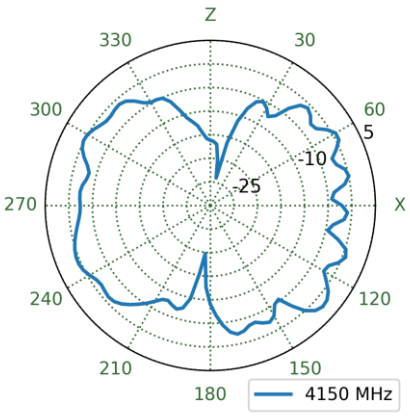
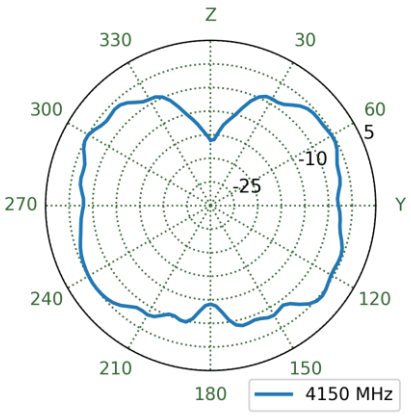
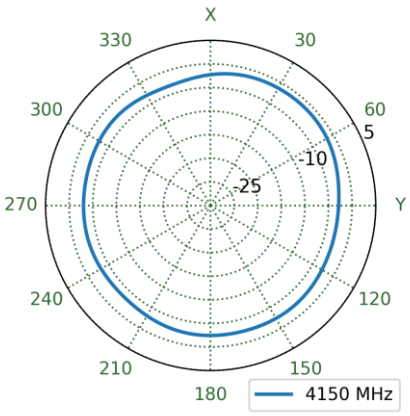
7.56 Free Space (Bent) Patterns at 4150 MHz



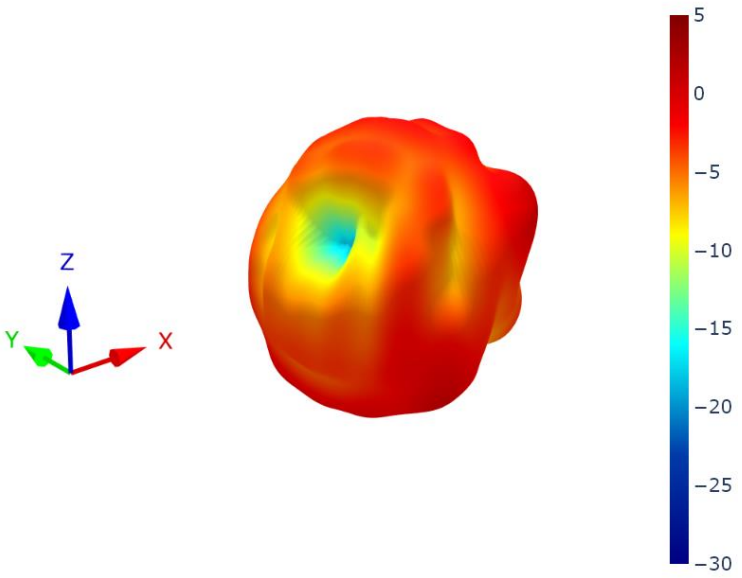
XZ Plane	YZ Plane	XY Plane
		

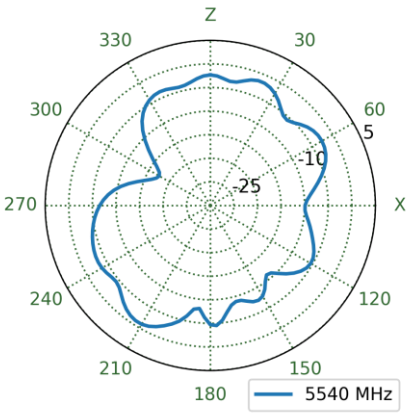
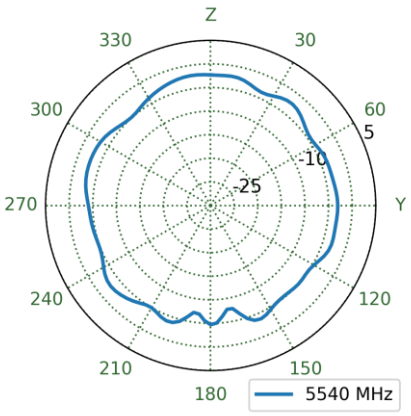
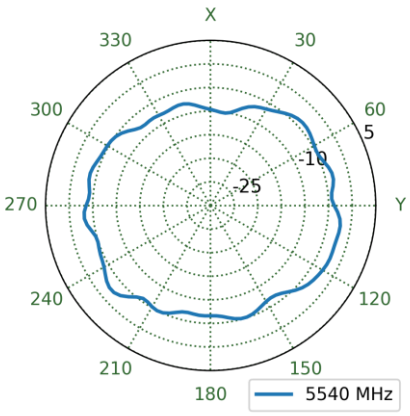
7.57 Free Space (Straight) Patterns at 4150 MHz



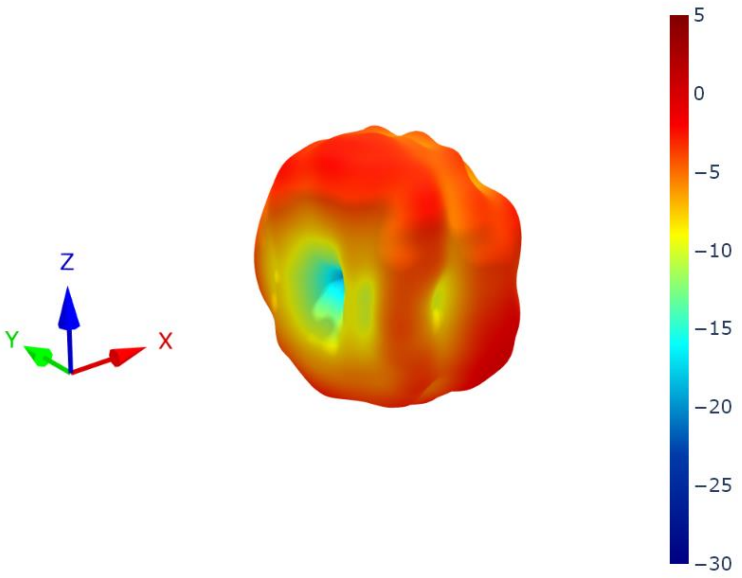
XZ Plane	YZ Plane	XY Plane
		

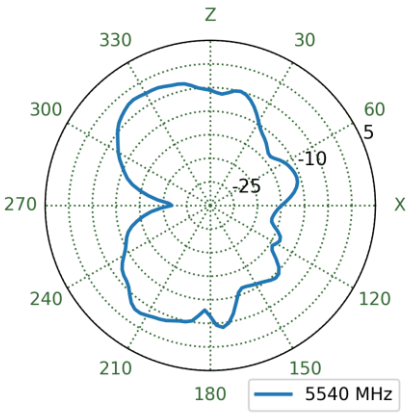
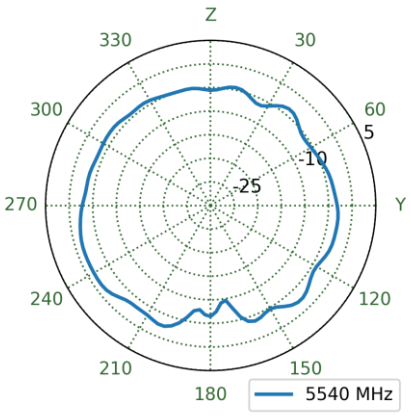
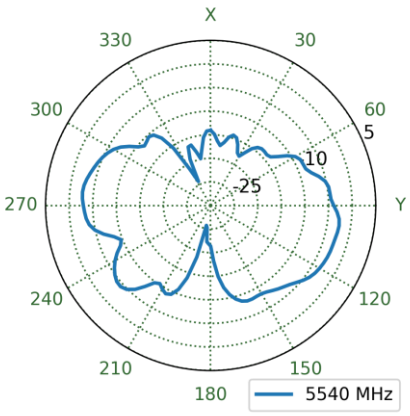
7.58 15x9cm Ground Plane (Bent) Patterns at 5540 MHz



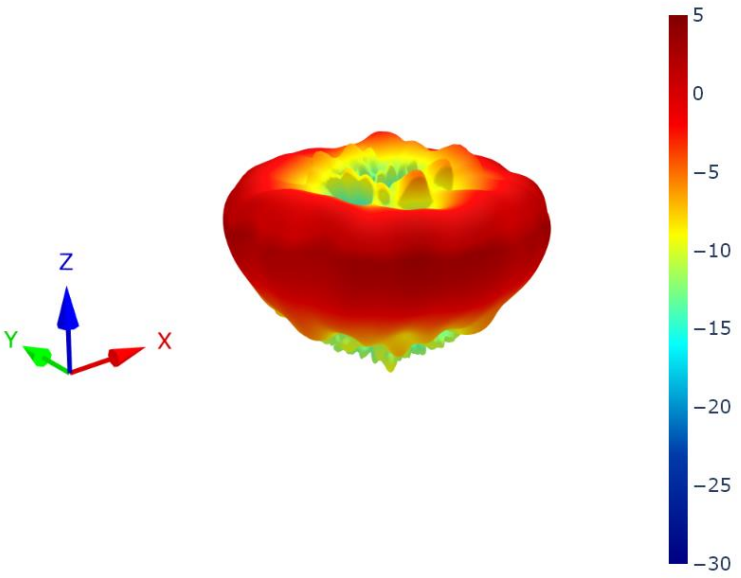
XZ Plane	YZ Plane	XY Plane
		

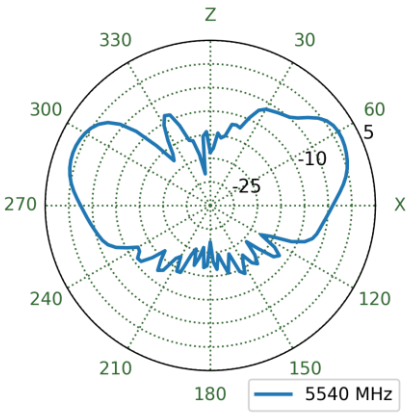
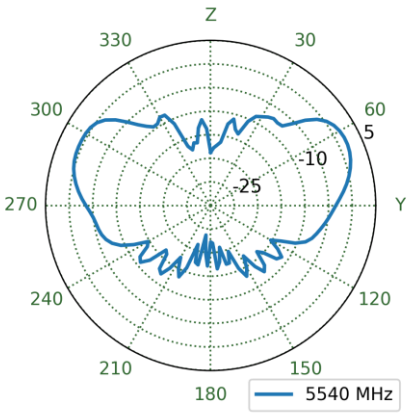
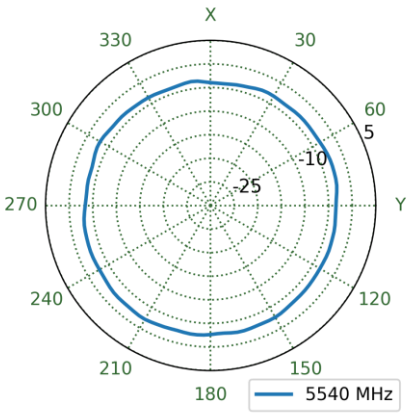
7.59 15x9cm Ground Plane (Straight) Patterns at 5540 MHz



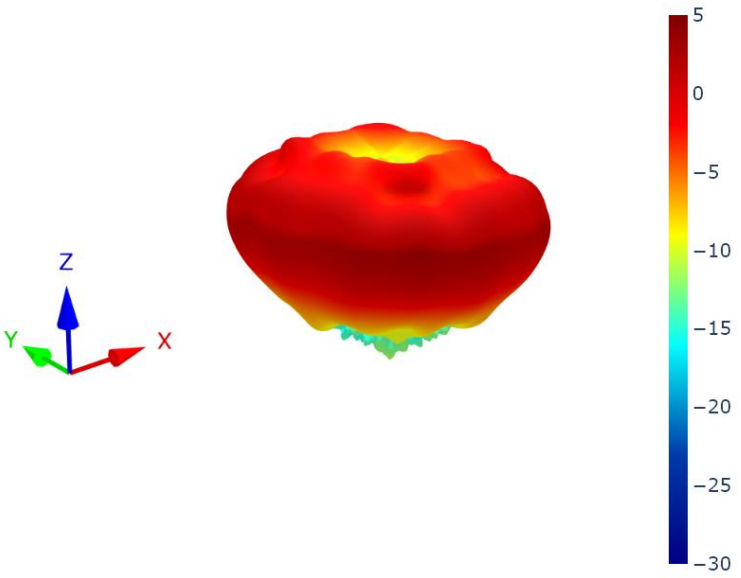
XZ Plane	YZ Plane	XY Plane
		

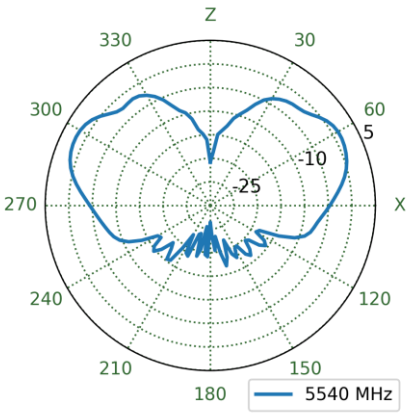
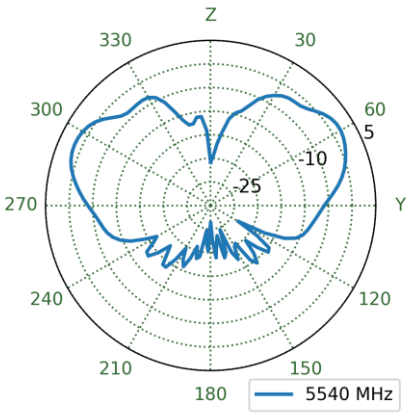
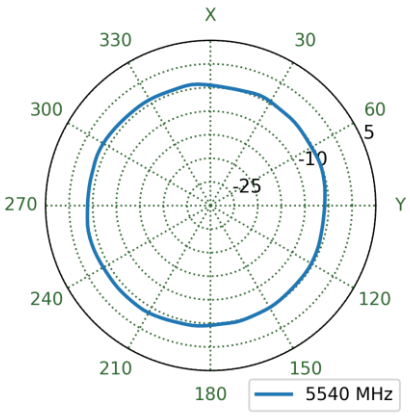
7.60 30x30cm Ground Plane Center (Bent) Patterns at 5540 MHz



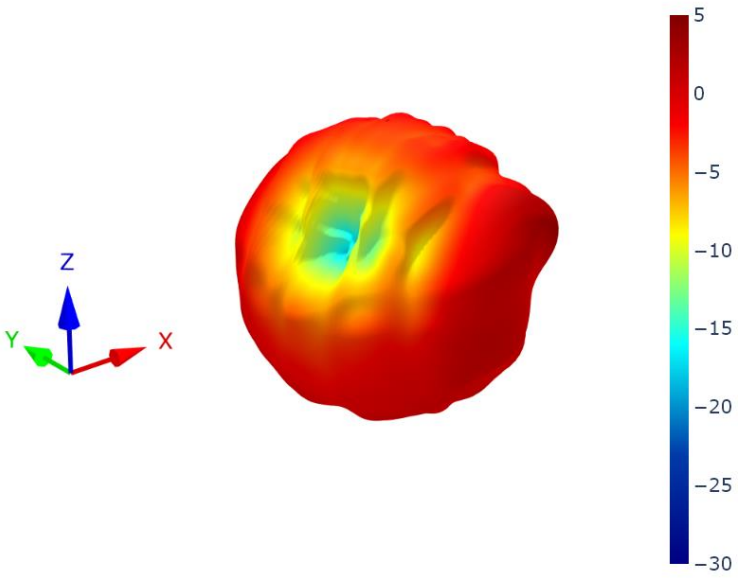
XZ Plane	YZ Plane	XY Plane
		

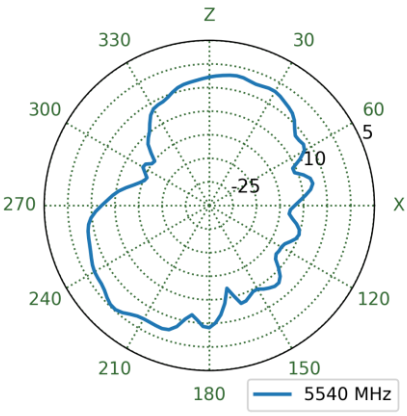
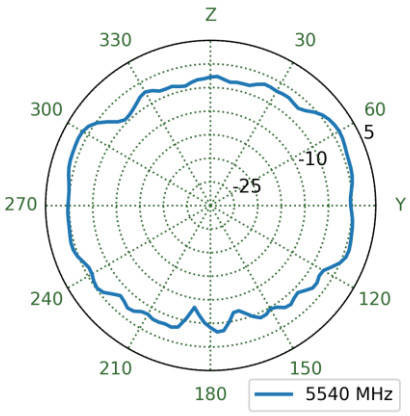
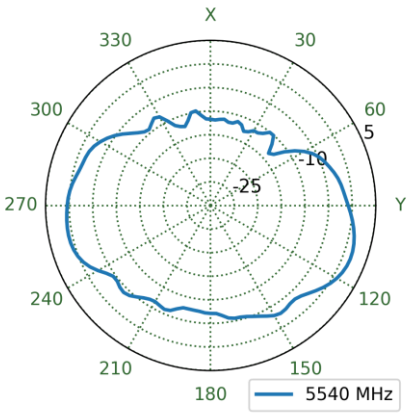
7.61 30x30cm Ground Plane Center (Straight) Patterns at 5540 MHz



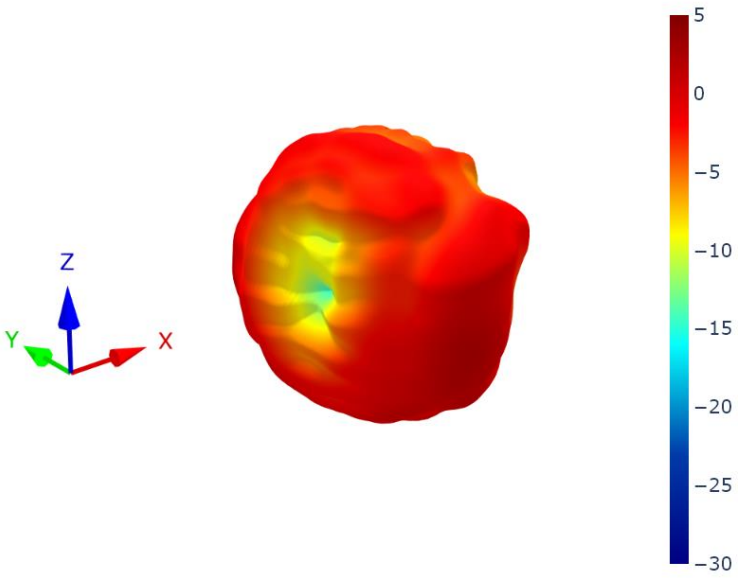
XZ Plane	YZ Plane	XY Plane
		

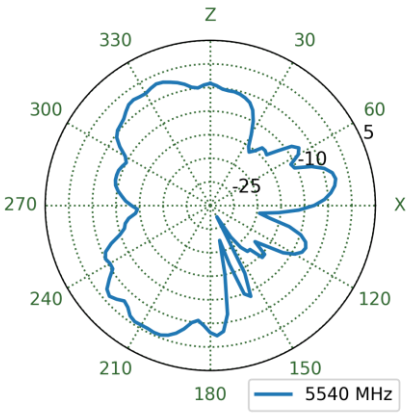
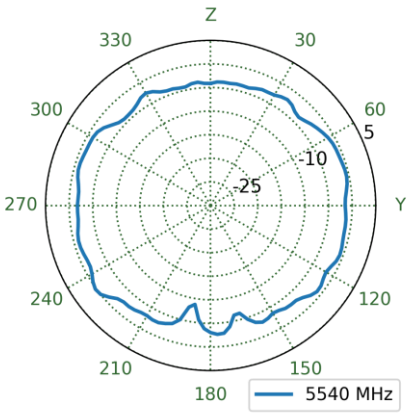
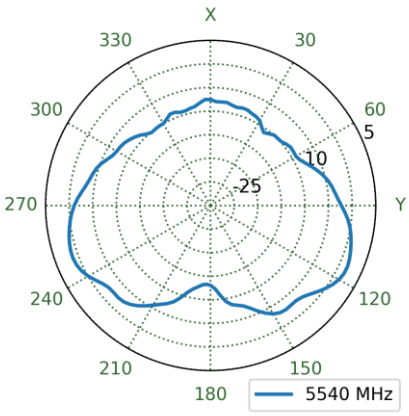
7.62 30x30cm Ground Plane Edge (Bent) Patterns at 5540 MHz



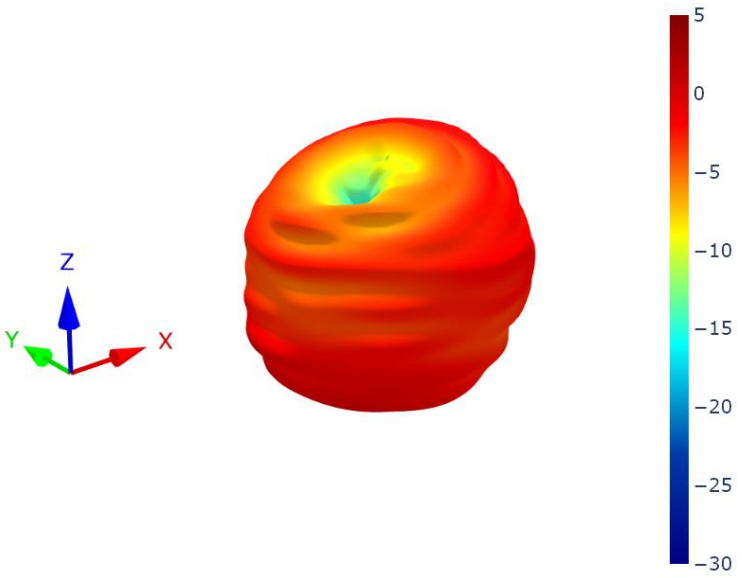
XZ Plane	YZ Plane	XY Plane
		

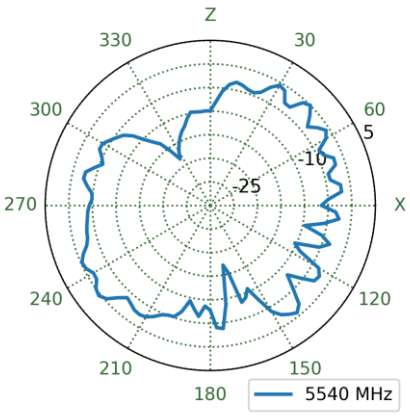
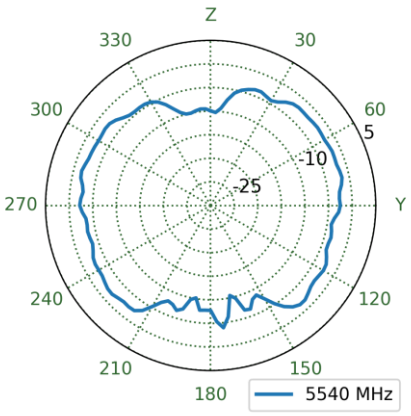
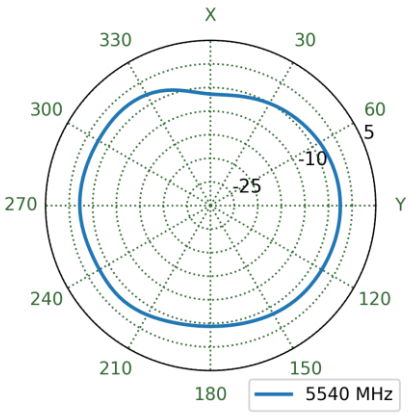
7.63 30x30cm Ground Plane Edge (Straight) Patterns at 5540 MHz



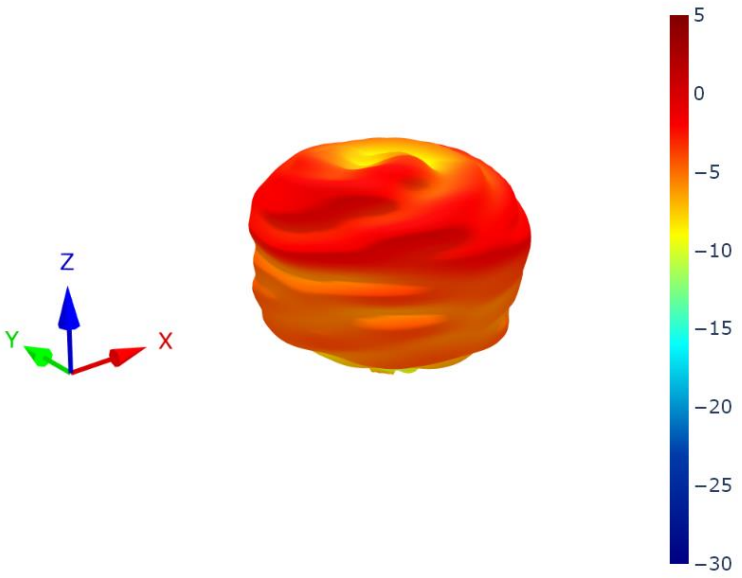
XZ Plane	YZ Plane	XY Plane
		

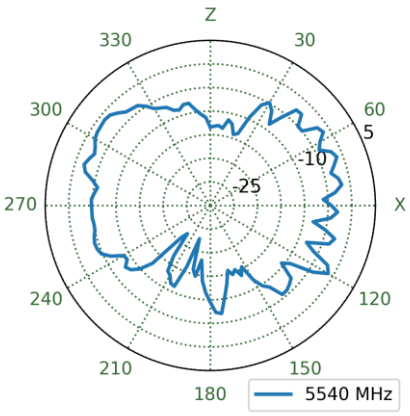
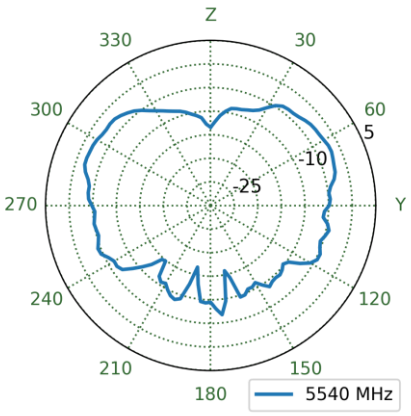
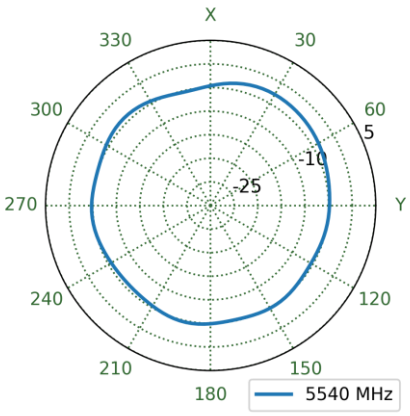
7.64 Free Space (Bent) Patterns at 5540 MHz



XZ Plane	YZ Plane	XY Plane
		

7.65 Free Space (Straight) Patterns at 5540 MHz



XZ Plane	YZ Plane	XY Plane
		

Changelog for the datasheet

SPE-11-8-032 – TG.09.0113

Revision: O (Current Version)	
Date:	2025-03-10
Changes:	Full datasheet update.
Changes Made by:	Gary West

Previous Revisions

Revision: N	
Date:	2020-04-08
Changes:	Updated Data, Packaging and Template
Changes Made by:	Jack Conroy

Revision: I	
Date:	2014-03-08
Changes:	
Changes Made by:	Aine Doyle

Revision: M	
Date:	2018-03-08
Changes:	Packaging Details Updated
Changes Made by:	Made by Andy Mahoney

Revision: H	
Date:	2013-10-22
Changes:	Updated Intro
Changes Made by:	Aine Doyle

Revision: L	
Date:	2017-02-23
Changes:	Intro Updated
Changes Made by:	Made by Andy Mahoney

Revision: G	
Date:	2013-10-18
Changes:	LTE
Changes Made by:	Aine Doyle

Revision: K	
Date:	2016-10-17
Changes:	Drawings Updated
Changes Made by:	Andy Mahoney

Revision: F	
Date:	2012-06-19
Changes:	
Changes Made by:	Aine Doyle

Revision: J	
Date:	2015-03-08
Changes:	
Changes Made by:	Aine Doyle

Revision: E	
Date:	2011-08-05
Changes:	
Changes Made by:	Aine Doyle

Previous Revisions (Continued)

Revision: D	
Date:	2011-07-11
Changes:	
Changes Made by:	Aine Doyle

Revision: C	
Date:	2009-07-06
Changes:	
Changes Made by:	Technical Writer

Revision: B	
Date:	2009-06-09
Changes:	Packaging Details Updated
Changes Made by:	Technical Writer

Revision: A (Original First Release)	
Date:	2009-01-09
Notes:	
Author:	Technical Writer

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