



TAOGLAS®



Datasheet

Part No:
FW.79.SMA.A

Description

700~930MHz ISM/NB-IoT/LoRa Flexible Terminal Mount Monopole Antenna with over molded SMA(M), 15.5mm(D) x 90mm(L)

Features:

Flexible Terminal Mount Monopole Antenna
Covering 700-930MHz
IP67 Waterproof Enclosure
Dims: Ø15.5 x 90 mm
Connector: SMA(M)
RoHS & Reach Compliant

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1. Introduction



The Taoglas Meteor Series FW.79 is a high-performance, compact monopole antenna designed for ISM, NB-IoT, LTE-M, and LoRa applications across the 700–930 MHz frequency range. With a peak gain of up to 3.25 dBi and excellent efficiency, this antenna delivers robust, long-range wireless connectivity in space-constrained designs.

Encased in a rugged, overmoulded polyurethane housing, the antenna is IP67-rated to withstand dust, water, and challenging environmental conditions, ensuring consistent performance in both indoor and outdoor deployments. Measuring only 90 mm in length and 15.5 mm in diameter, the FW.79 provides a discreet form factor without sacrificing on performance.

The antenna comes standard with an SMA(M) connector for quick and secure integration into gateways, routers, modems, or sensor devices. Its flexible, durable whip design resists impact and vibration, making it an ideal choice for field-deployed IoT and M2M applications

Typical Applications

- Smart metering and utilities (water, gas, electricity)
- Industrial telemetry and SCADA systems
- Smart agriculture (soi, and irrigation monitoring)
- Smart city infrastructure (lighting, parking, waste, air quality)
- Asset tracking and logistics (trailers, containers, bins)

For more information or sample, contact your regional Taoglas office.

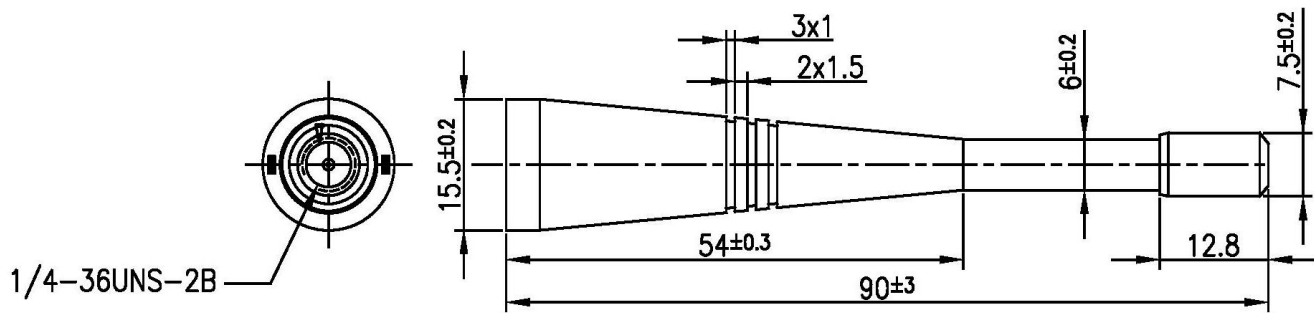
2. Specification

Electrical									
Band	Frequency (MHz)	Measurement	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
698-894MHz	698-894	15x9cm PCB	60.5	-2.18	3.25	50 Ω	Linear	Omni directional	10W
		9x15cm PCB	75.0	-1.25	3.25				
		Free Space	23.5	-6.29	1.58				
880-960MHz	880-960	15x9cm PCB	56.3	-2.50	2.89				
		9x15cm PCB	69.4	-1.59	2.59				
		Free Space	32.6	-4.87	1.54				

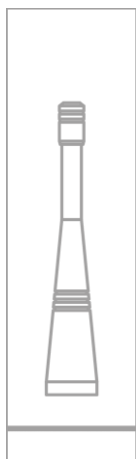
Mechanical	
Dimensions	Ø15.5mm x 90 mm
Weight	10.6g
Mount	Terminal, connector
Material	Polyurethane
Connector	SMA(M)

Environmental	
Waterproof Rating	IP67 Rated Enclosure
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



4. Packaging



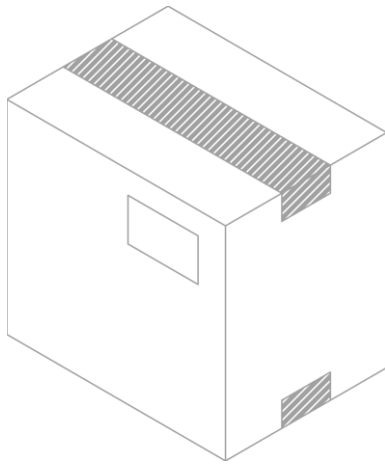
- ☑ 1 PCS / Small PE Bag
- ☑ Small PE Bag (mm): 140x40 (Ref)
- ☑ Weight (g): 11.4 ±3%



- ☑ 25 PCS / PE Bag
- ☑ PE Bag(mm): 300x210 (Ref)
- ☑ Weight (g): 295.2 ±3%
- ☑ SPQ Label



- ☑ 250 PCS / Box
- ☑ Box(mm): 290x210x120
- ☑ Weight (kg): 3.26 ±3%
- ☑ QTY Label



- ☑ 500 PCS / Carton
- ☑ Carton(mm): 312x230x290
- ☑ Weight (kg): 7 ±3%
- ☑ Carton Label

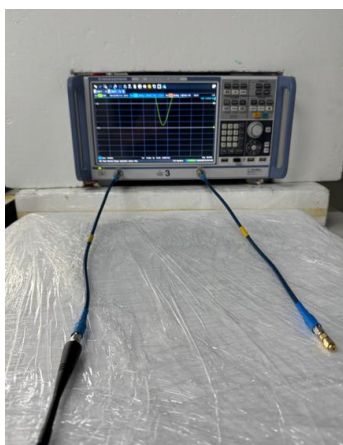
5. Antenna Characteristics

5.1 Test Setup

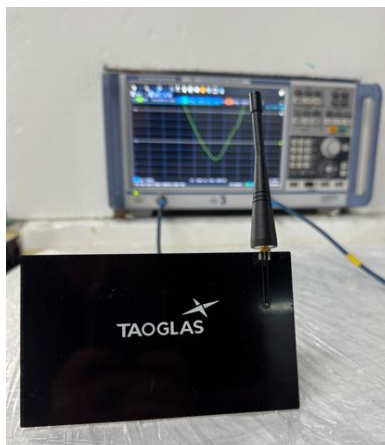
AUT



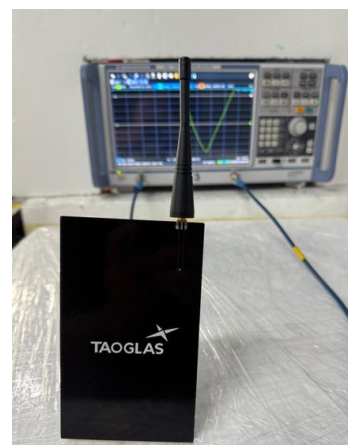
Vector Network Analyzer



Free Space

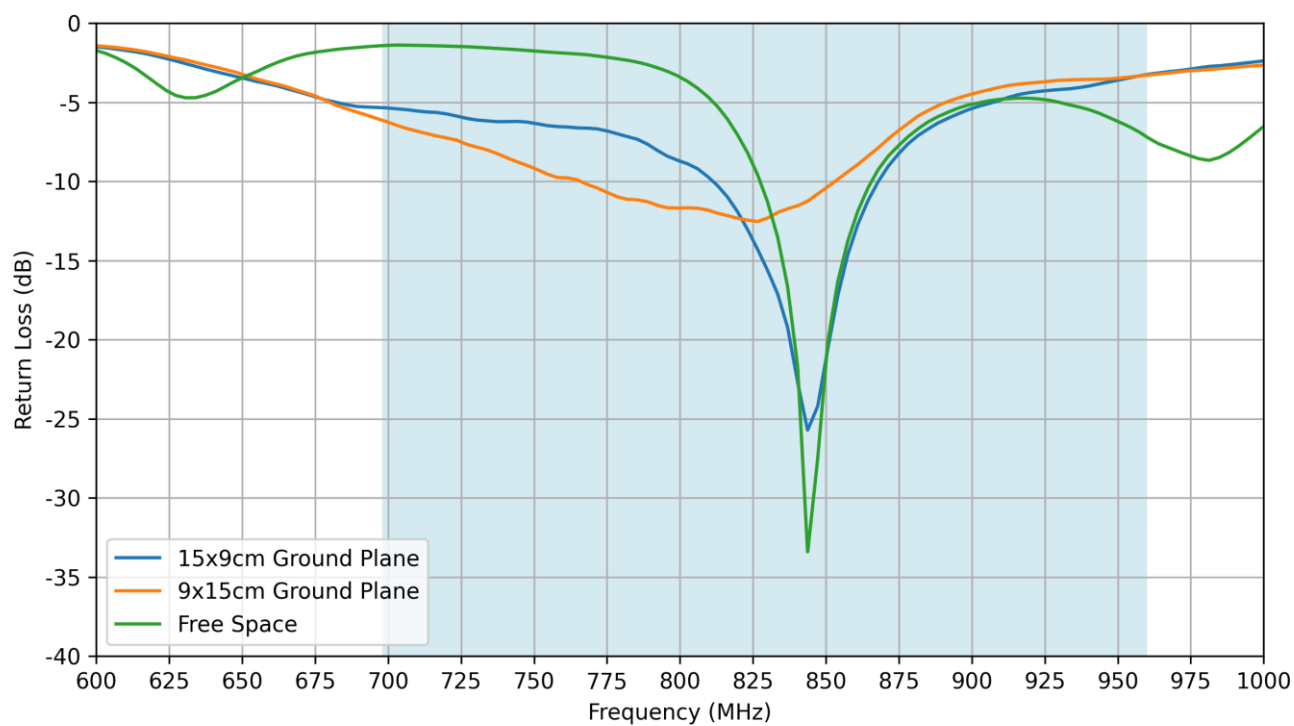


15x9cm Ground Plane

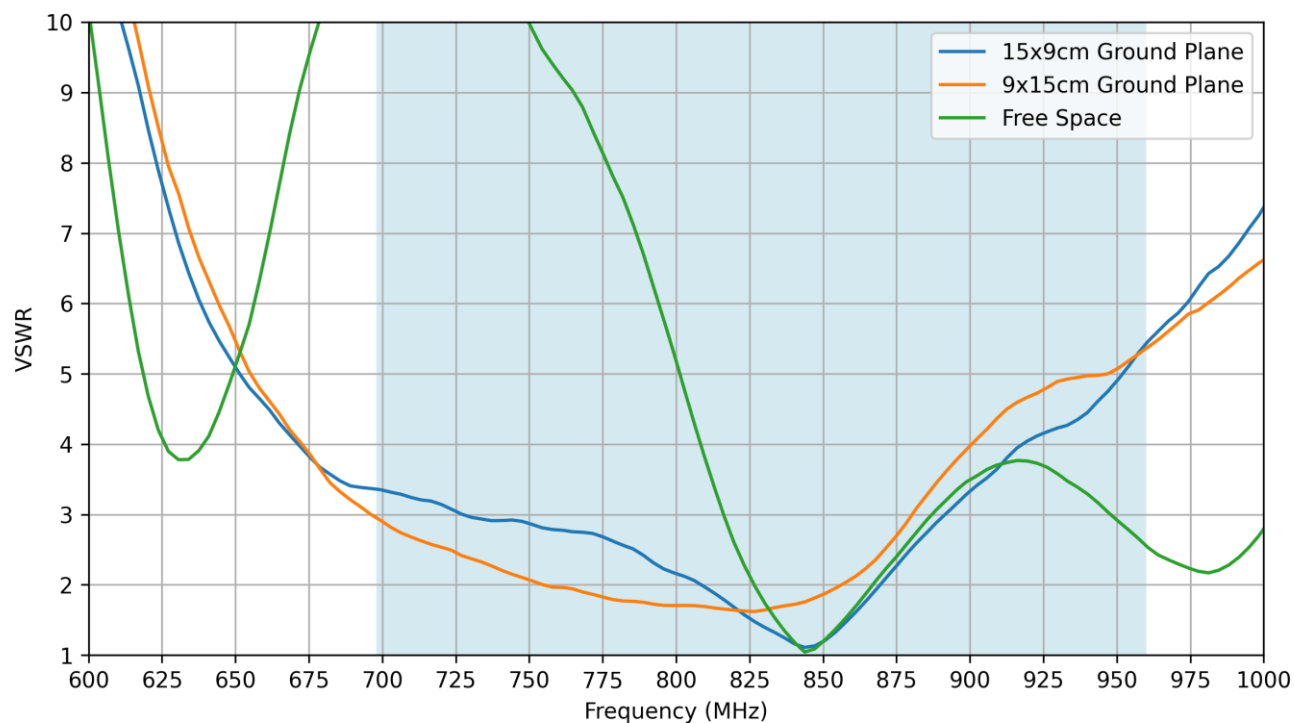


9x15cm Ground Plane

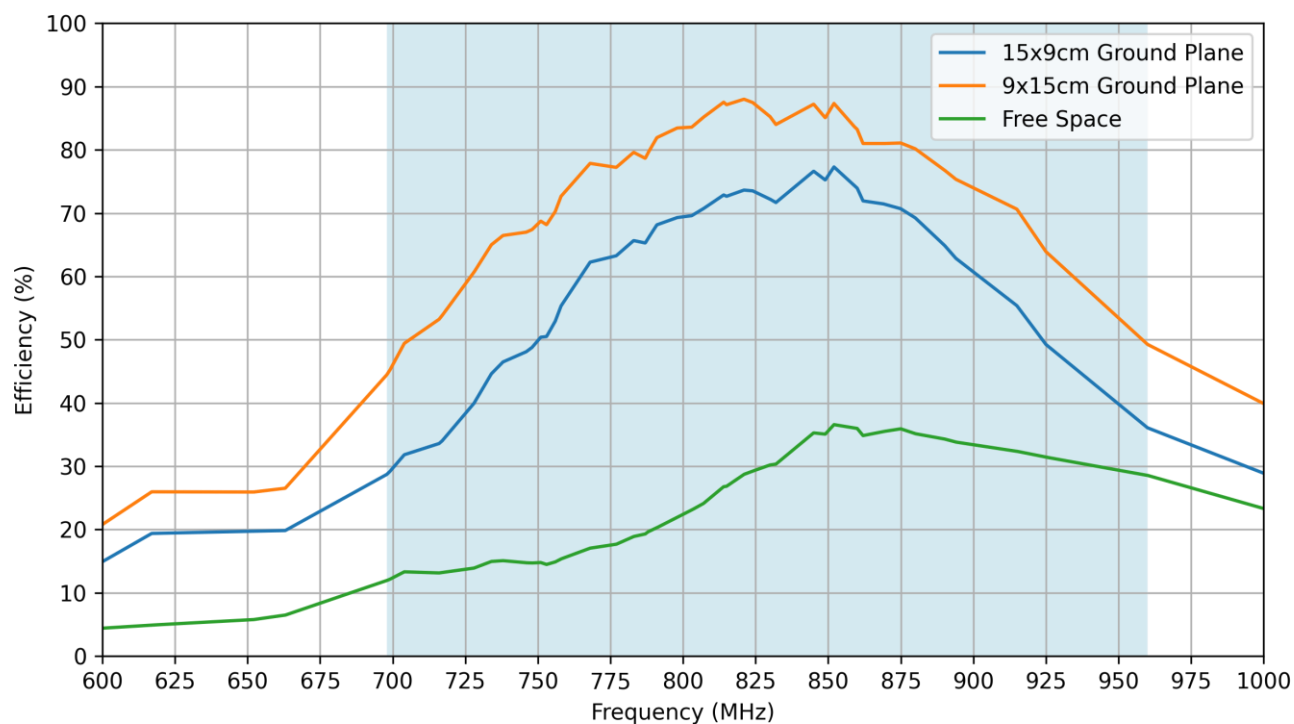
5.2 Return Loss



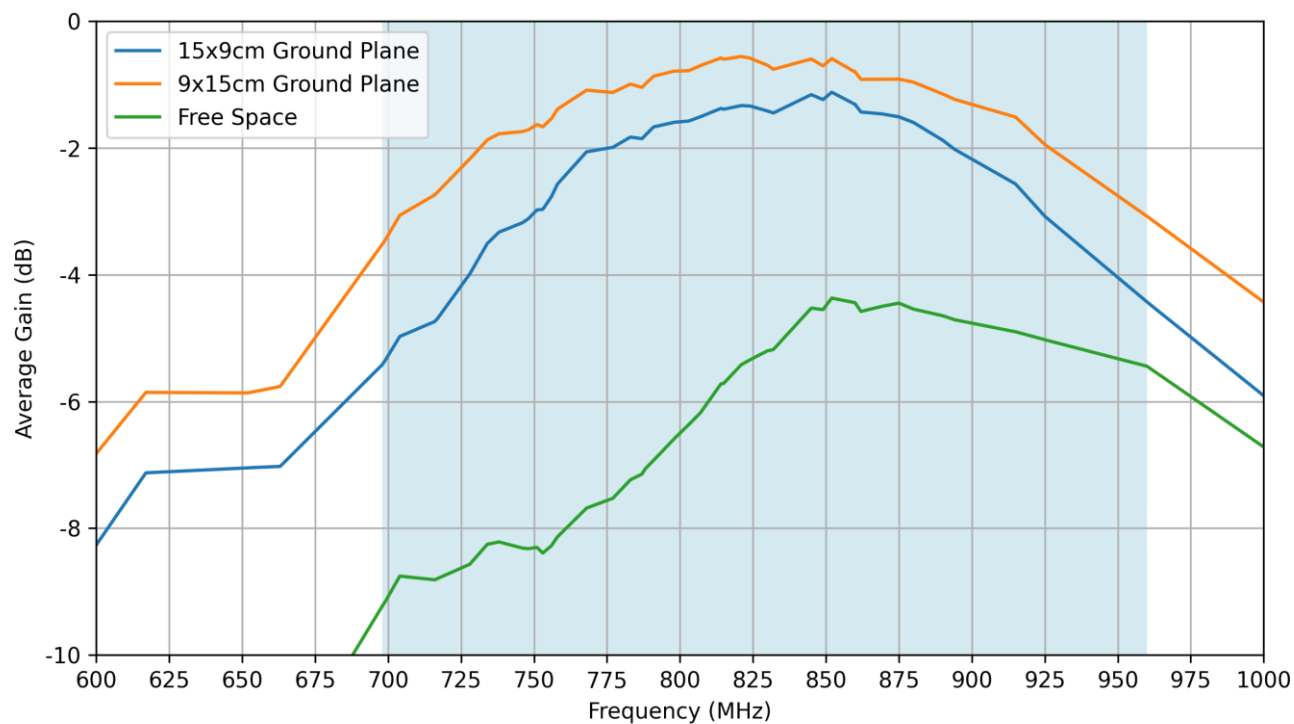
5.3 VSWR



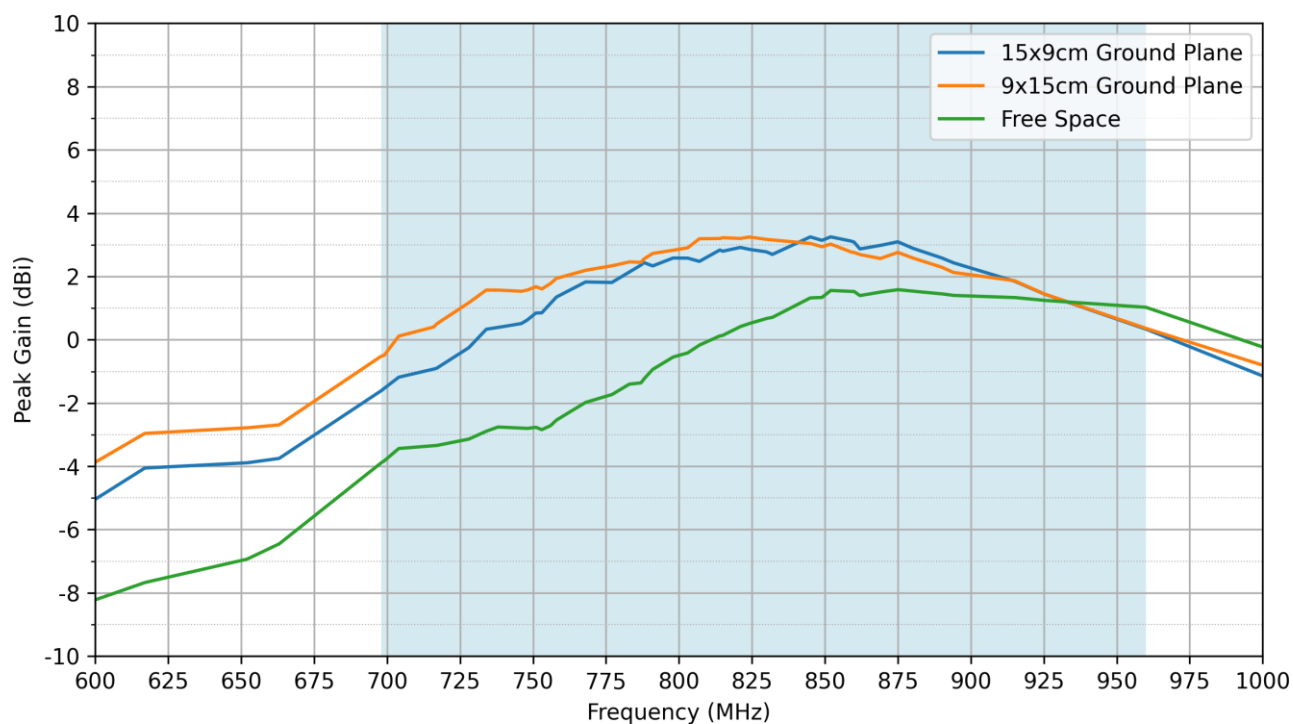
5.4 Efficiency



5.5 Average Gain



5.6 Peak Gain



6. Radiation Patterns

6.1 Test Setup



Free Space

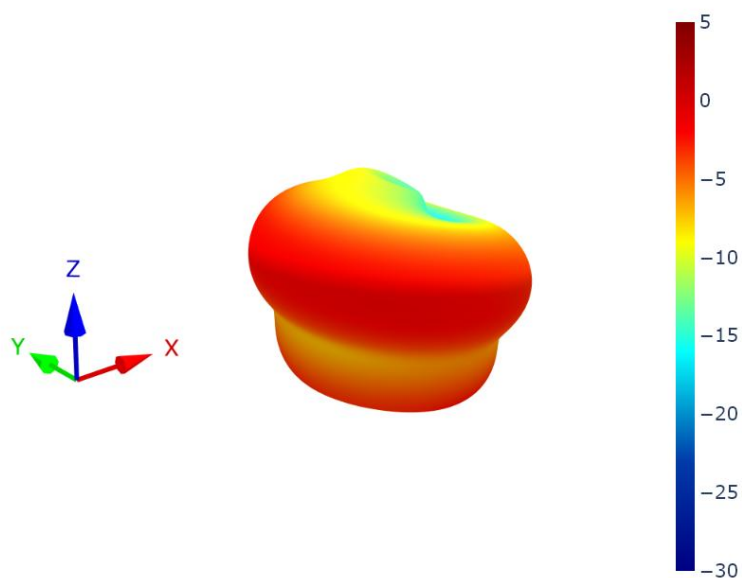


15x9cm Ground Plane

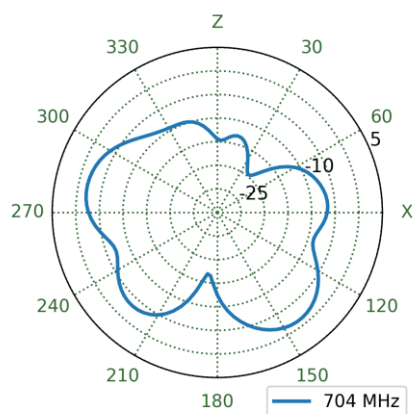


9x15cm Ground Plane

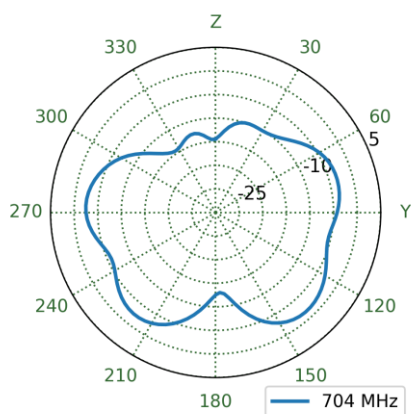
6.2 15x9cm Ground Plane Patterns at 704 MHz



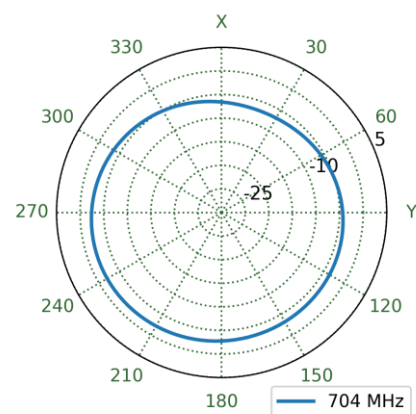
XZ Plane



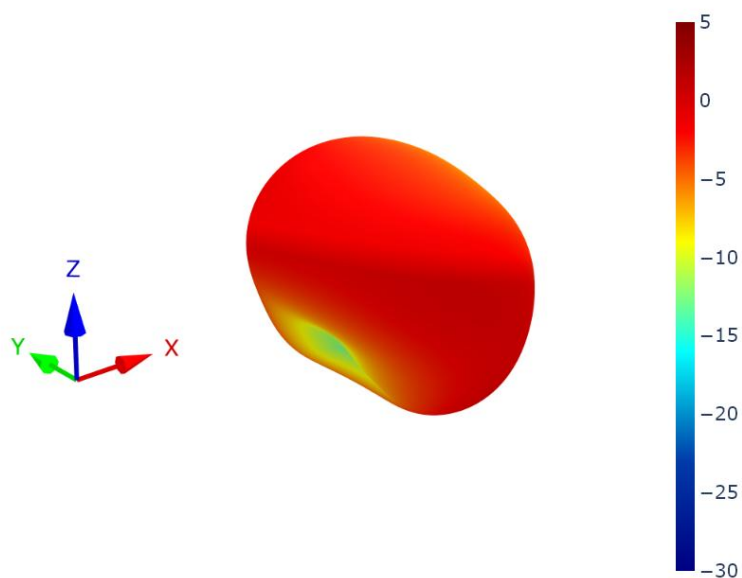
YZ Plane



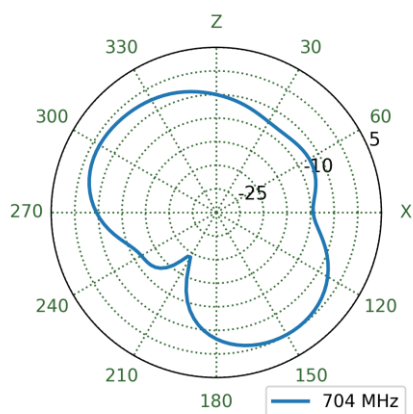
XY Plane



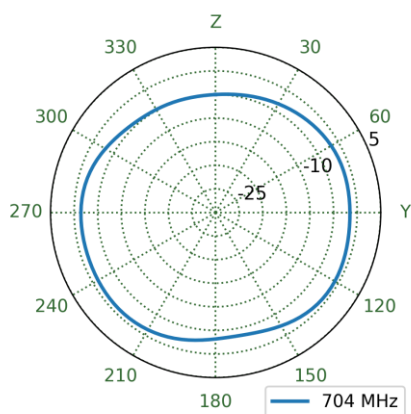
6.3 9x15cm Ground Plane Patterns at 704 MHz



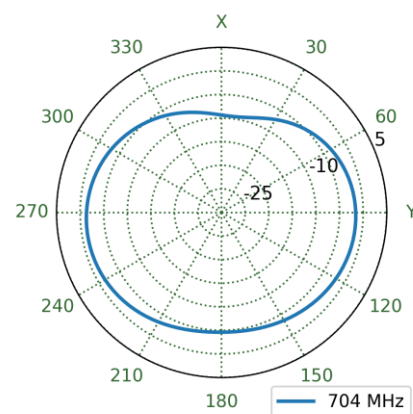
XZ Plane



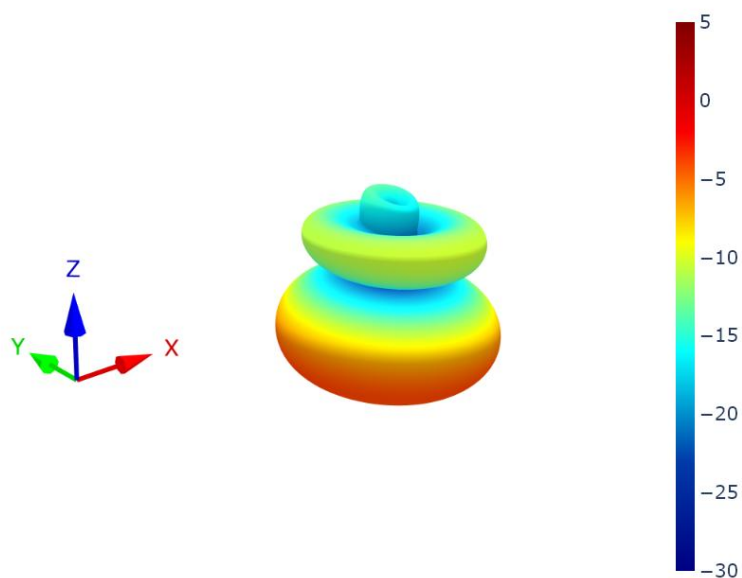
YZ Plane



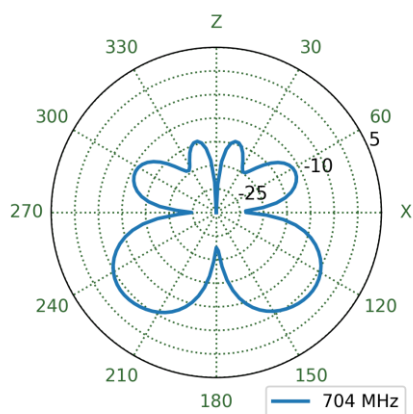
XY Plane



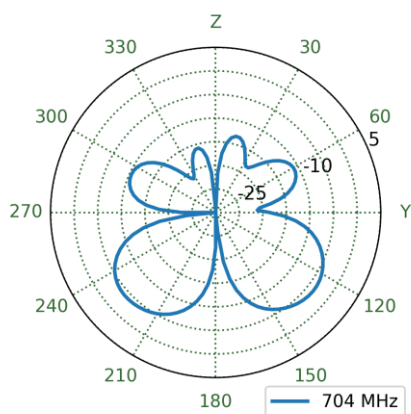
6.4 Free Space Patterns at 704 MHz



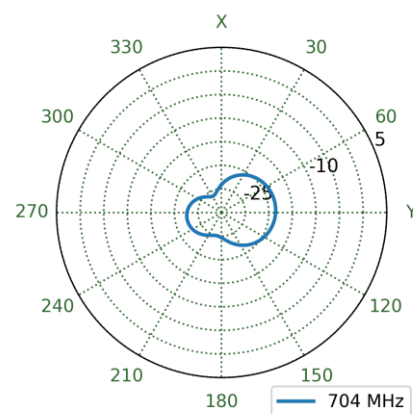
XZ Plane



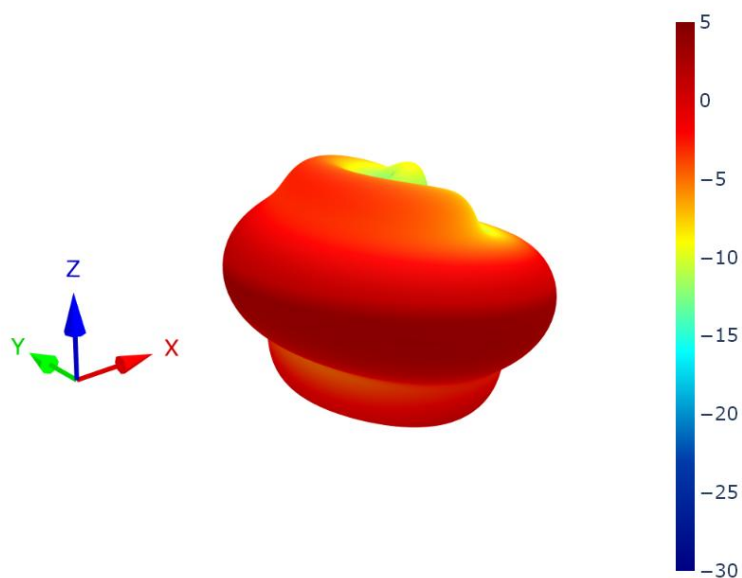
YZ Plane



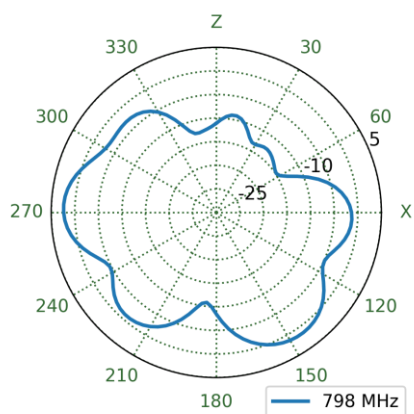
XY Plane



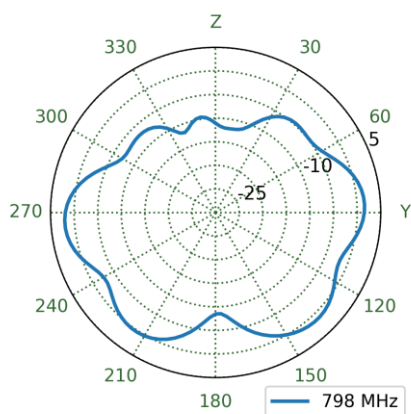
6.5 15x9cm Ground Plane Patterns at 798 MHz



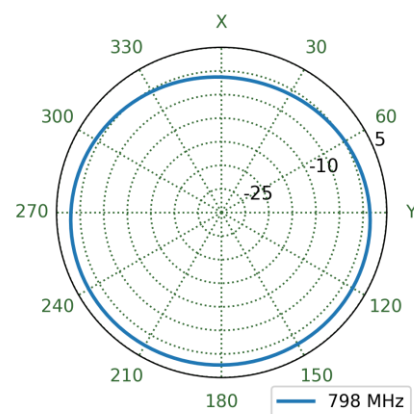
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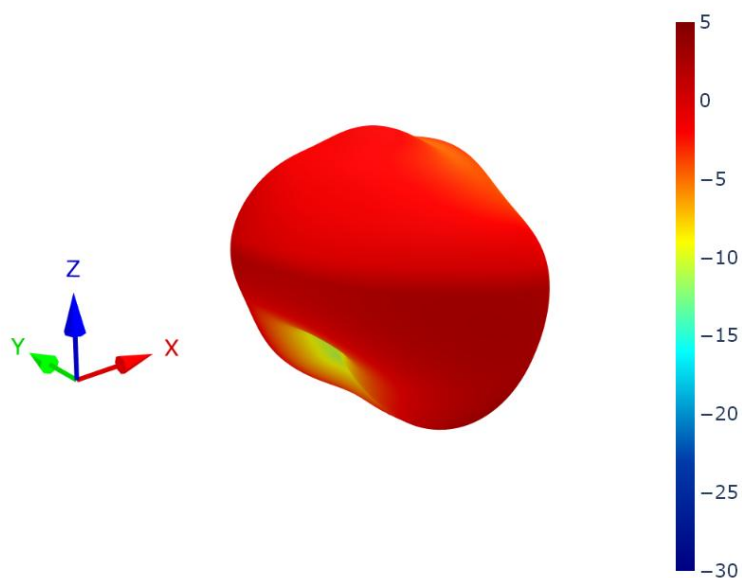
YZ Plane



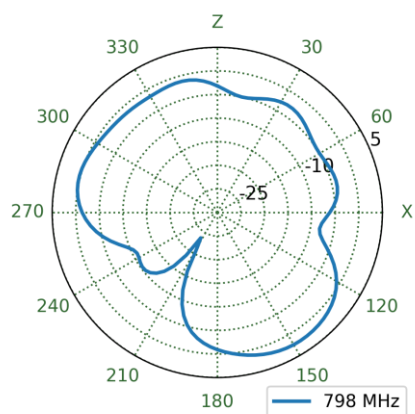
XY Plane



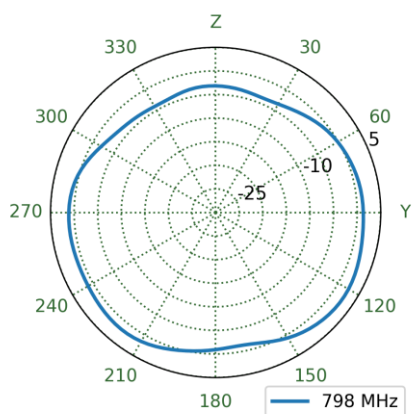
6.6 9x15cm Ground Plane Patterns at 798 MHz



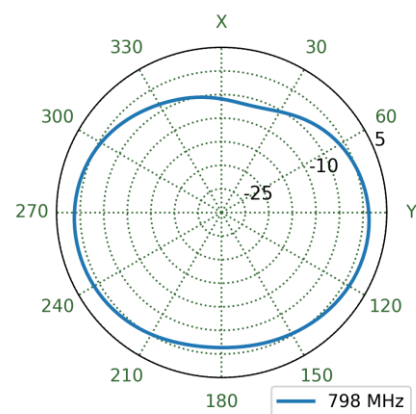
XZ Plane



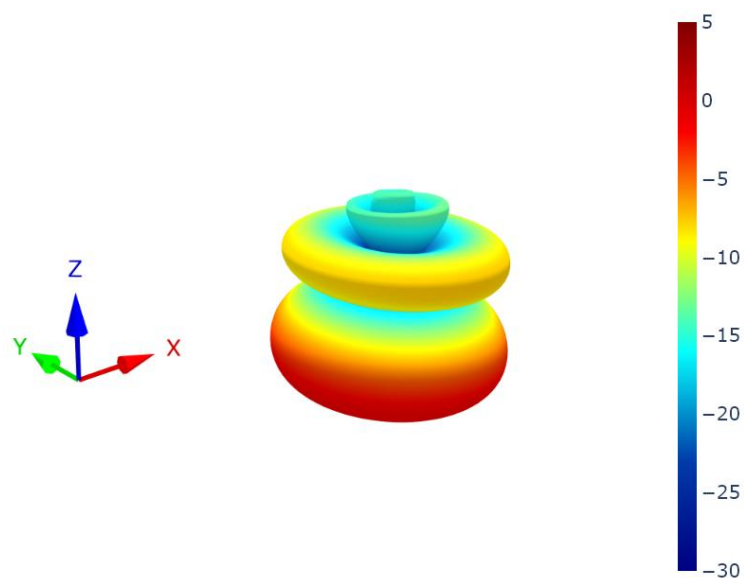
YZ Plane



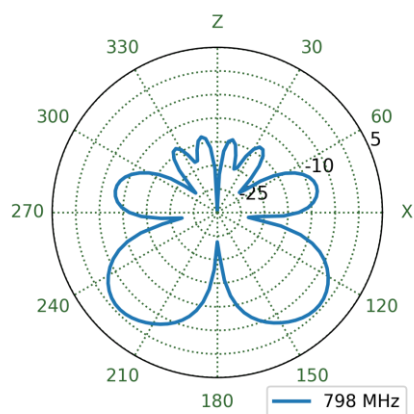
XY Plane



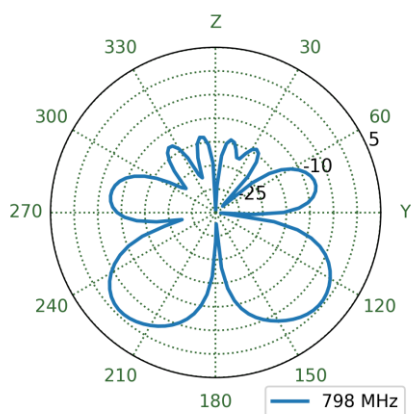
6.7 Free Space Patterns at 798 MHz



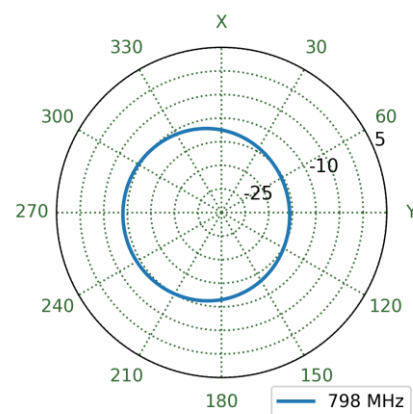
XZ Plane



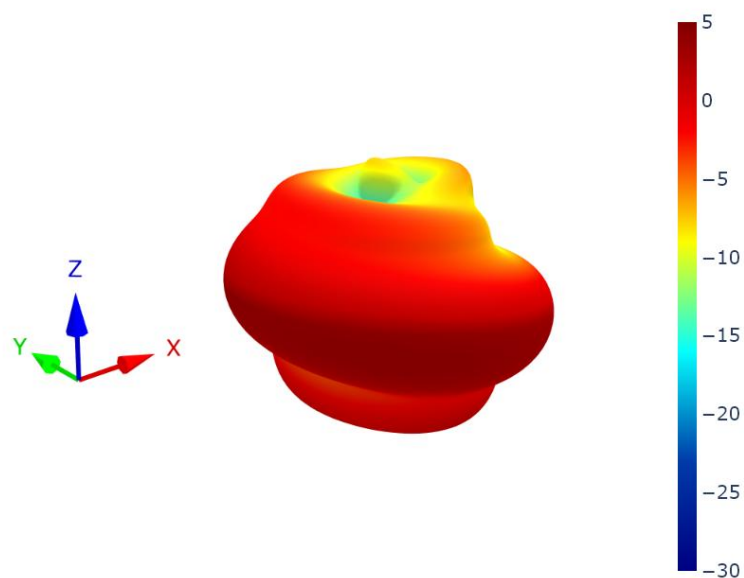
YZ Plane



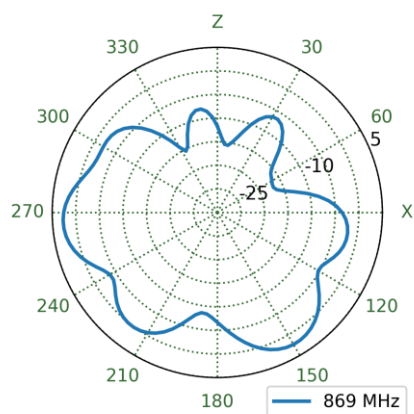
XY Plane



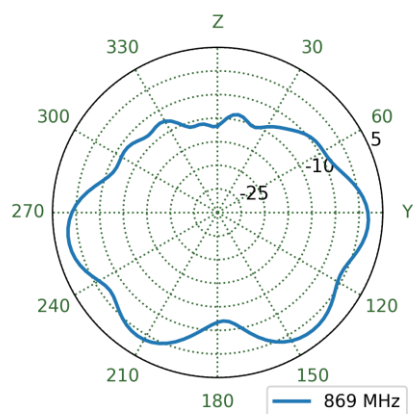
6.8 15x9cm Ground Plane Patterns at 869 MHz



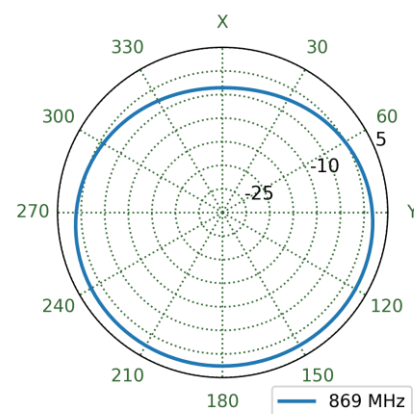
XZ Plane



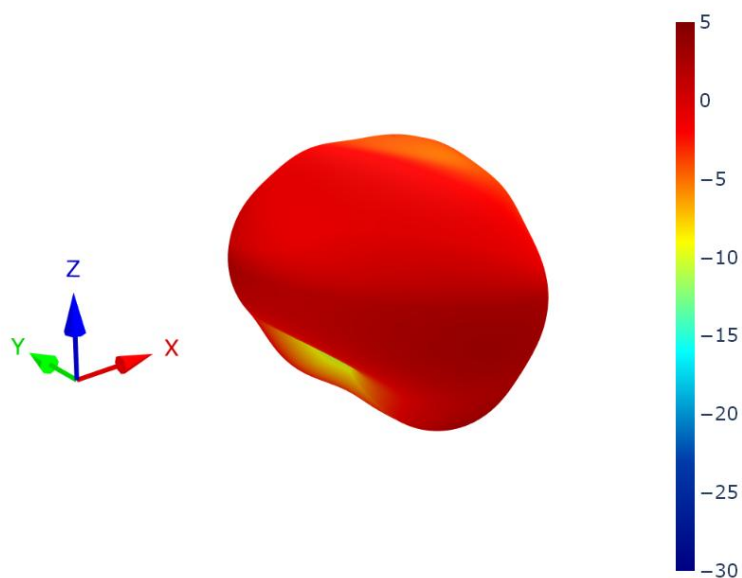
YZ Plane



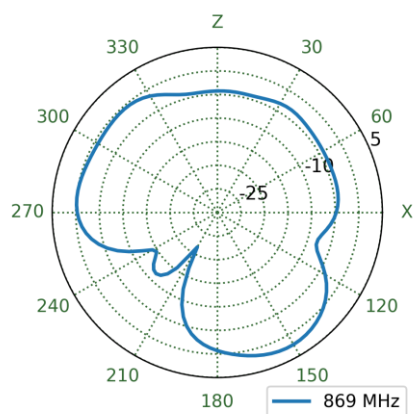
XY Plane



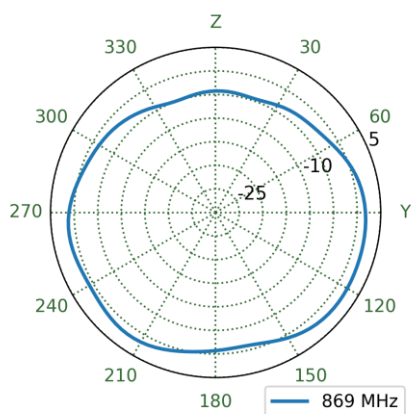
6.9 9x15cm Ground Plane Patterns at 869 MHz



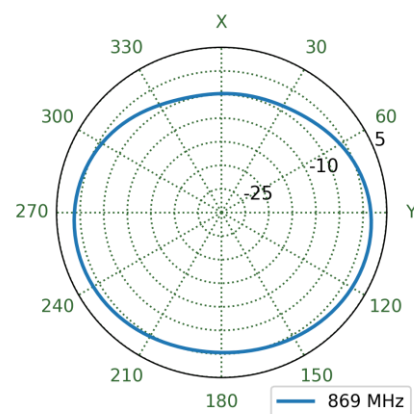
XZ Plane



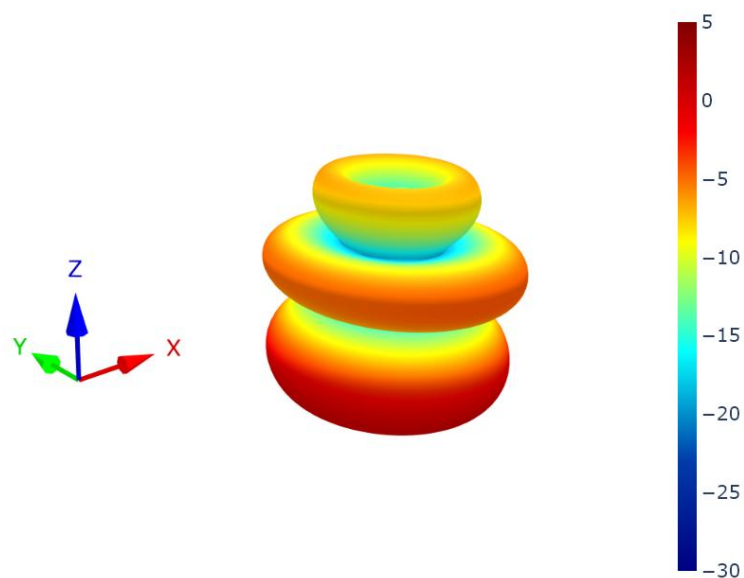
YZ Plane



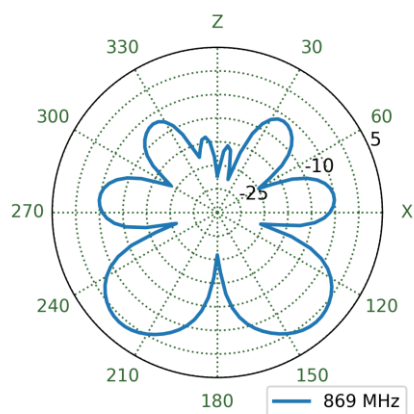
XY Plane



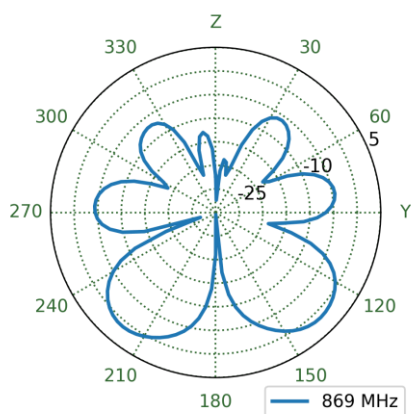
6.10 Free Space Patterns at 869 MHz



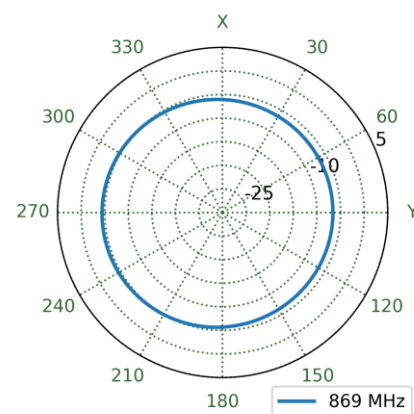
XZ Plane



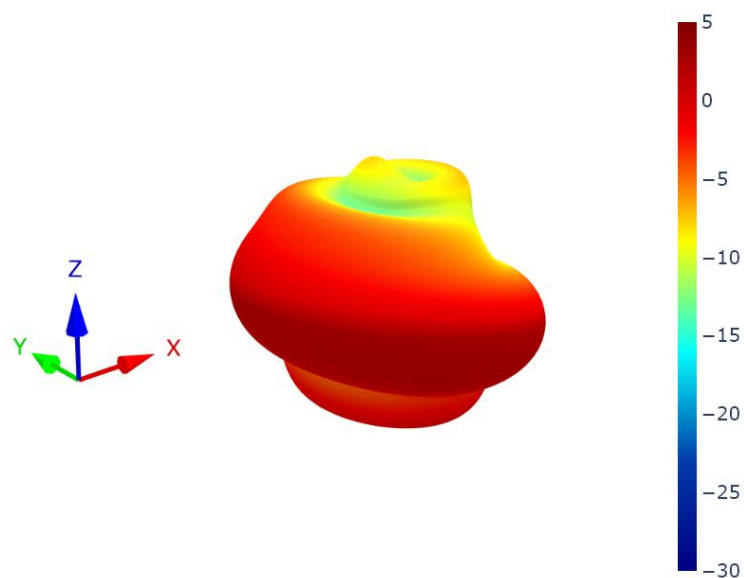
YZ Plane



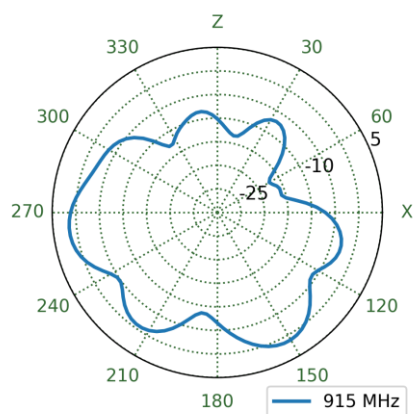
XY Plane



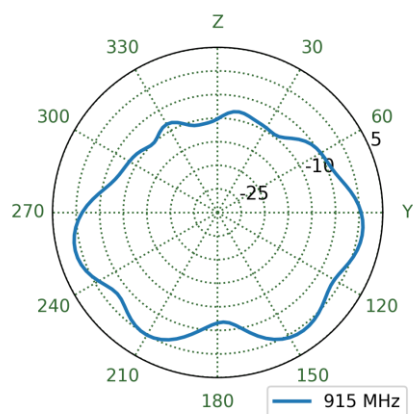
6.11 15x9cm Ground Plane Patterns at 915 MHz



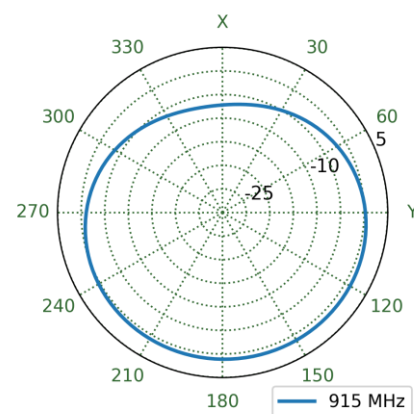
XZ Plane



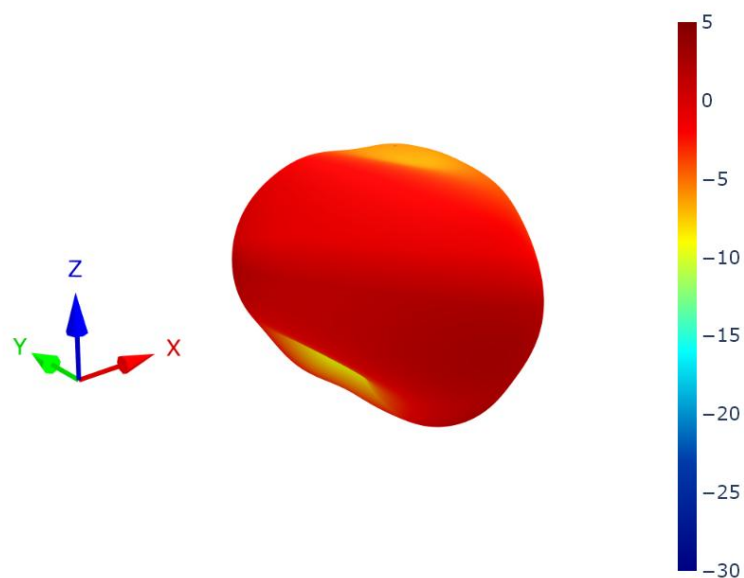
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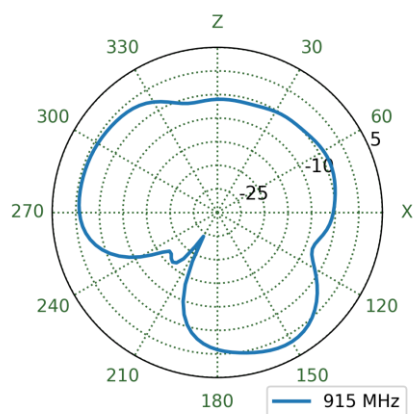
XY Plane



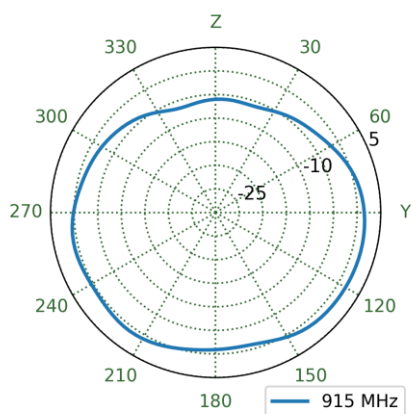
6.12 9x15cm Ground Plane Patterns at 915 MHz



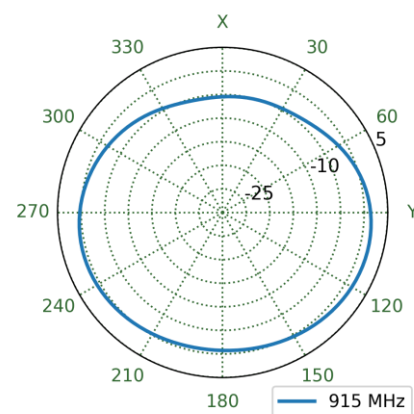
XZ Plane



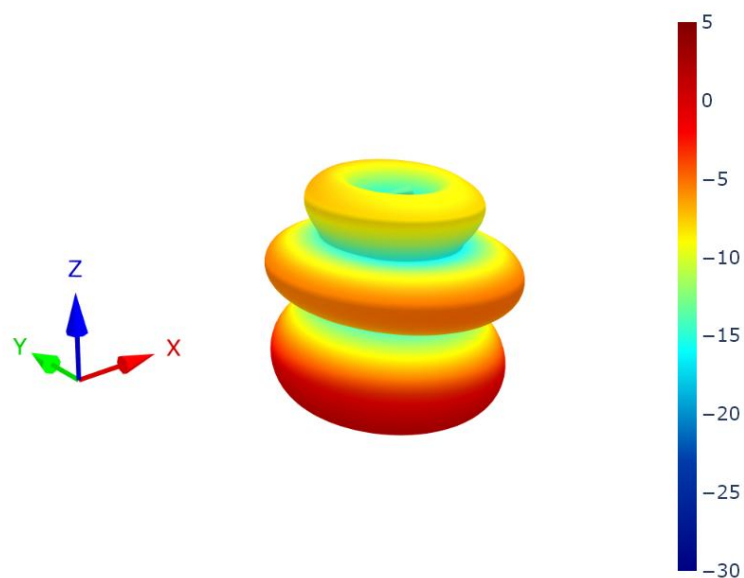
YZ Plane



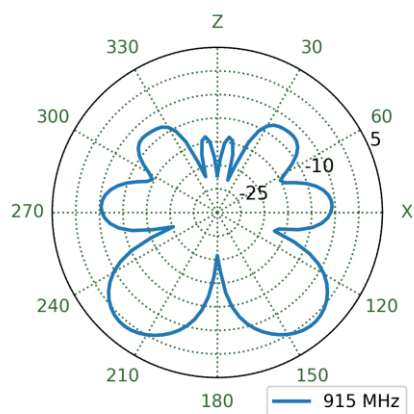
XY Plane



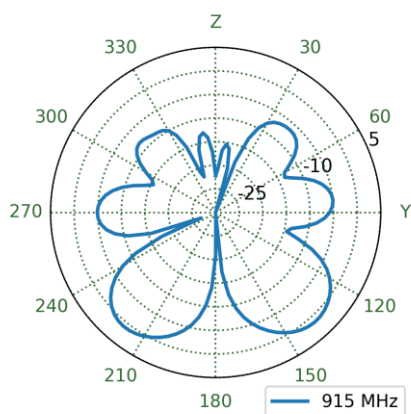
6.13 Free Space Patterns at 915 MHz



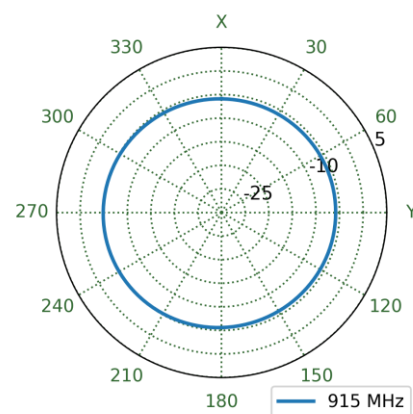
XZ Plane



YZ Plane



XY Plane



Changelog for the datasheet

SPE-25-8-269 - FW.79.SMA.A

Revision: A (Original First Release)	
Date:	2025-09-29
Notes:	Initial Release
Author:	Gary West

Previous Revisions



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