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[TI.16.5F11](#)

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sales@integrated-circuit.com



SPECIFICATION

Part No.	:	TI.16.5F11
Product Name	:	915MHz 5dBi Outdoors Omni-Directional Rigid Whip Antenna
Feature	:	Stable performance at 902 MHz to 928MHz Omni-directional pattern in the azimuth Robust Weatherproof Brass Whip and Casing High Efficiency N-type Male Connector RoHS compliant





I. Introduction

TI.16 is a 5dBi 915MHz ISM band (902MHz to 928MHz) Dipole Omni-directional antenna. This robust whip is suitable for outdoors applications where wide coverage is required especially in the azimuth plane, including metering, remote monitoring. As standard low frequency monopole antenna, its radiation property improves with mounting on metal plate. Connector can be customized on request.

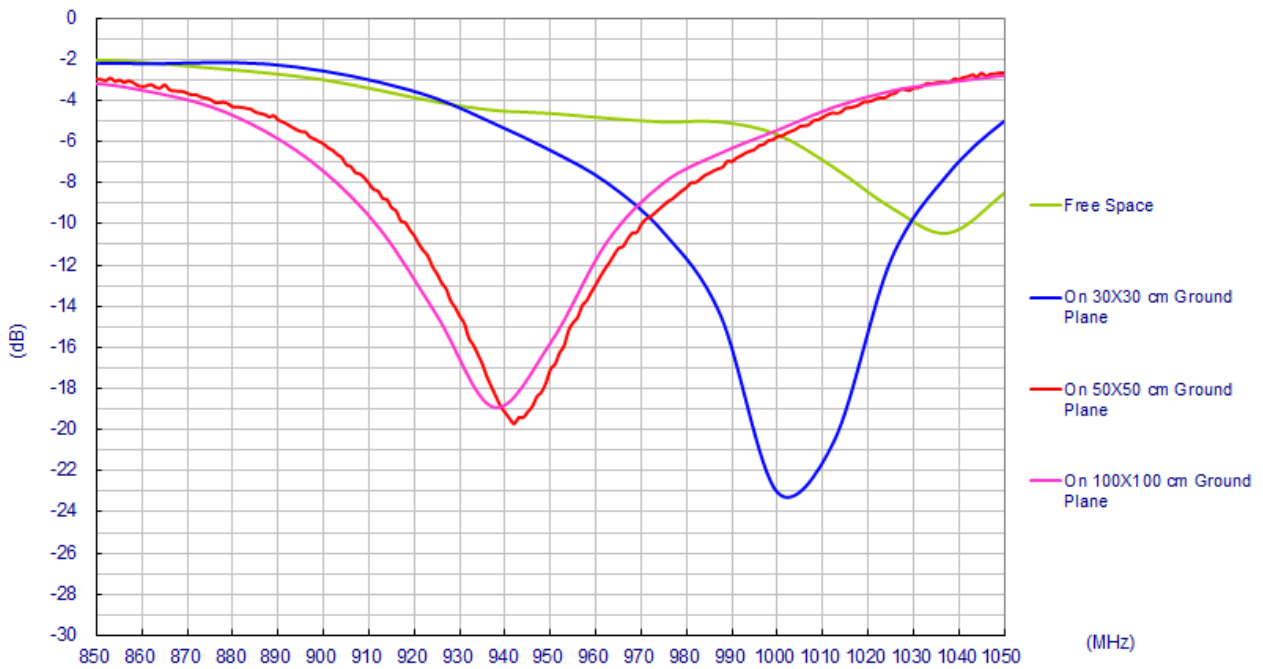
II. Specification Table

		ISM 915MHz		
Frequency (MHz)		900	915	925
Peak Gain (dBi)	Free Space	-2.3	-1.7	-1.27
	Ground (30x30cm)	-1.1	-0.3	0.2
	Ground (50x50cm)	3.9	4.6	4.9
Average Gain (dBi)	Free Space	-7.2	-6.8	-6.4
	Ground (30x30cm)	-6.0	-5.2	-4.6
	Ground (50x50cm)	-3.1	-2.2	-1.7
Efficiency	Free Space	19%	21%	22%
	Ground (30x30cm)	25%	30%	35%
	Ground (50x50cm)	49%	60%	68%
Impedance	50Ω			
Polarization	Linear			
Radiation Pattern	Omni			
Input Power	50 W			
		MECHANICAL		
Dimensions	620mm			
Base Diameter	25mm			
Whip Diameter	19mm at widest			
Whip Material	Coated Brass			
Connector	N Male Straight			
		ENVIRONMENTAL		
Temperature Range	-40°C to 85°C			
Humidity	Non-condensing 65°C 95% RH			

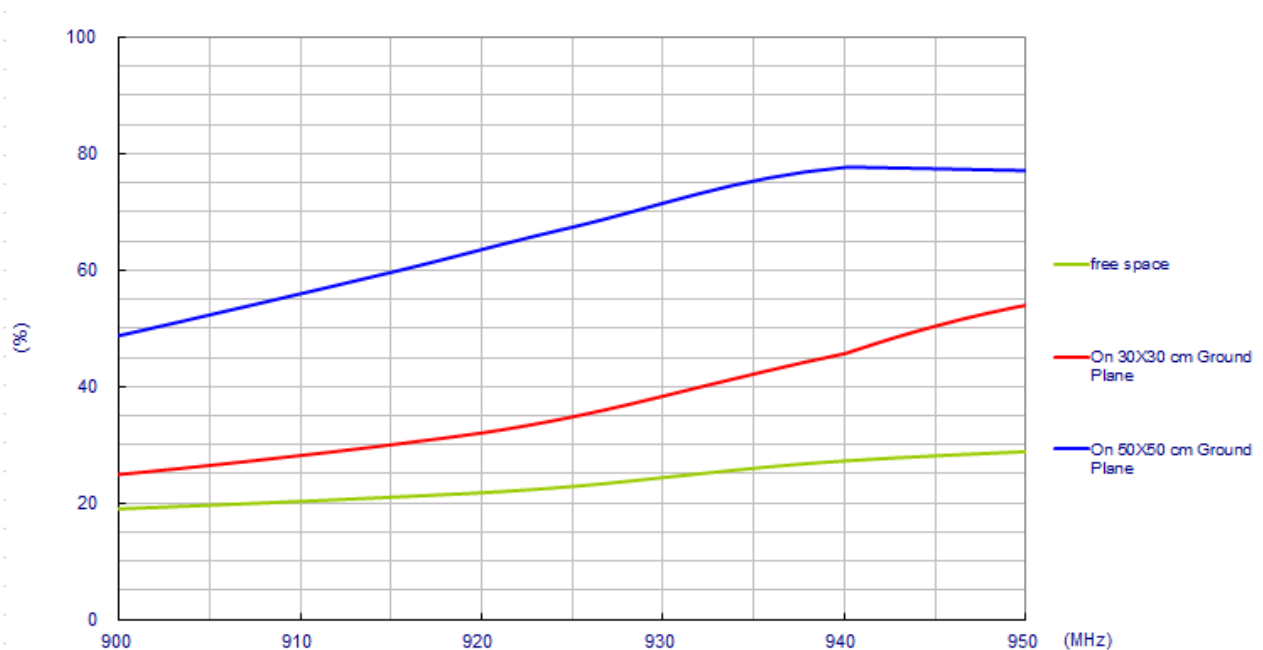


III. Antenna Characteristics

III.1. Return Loss

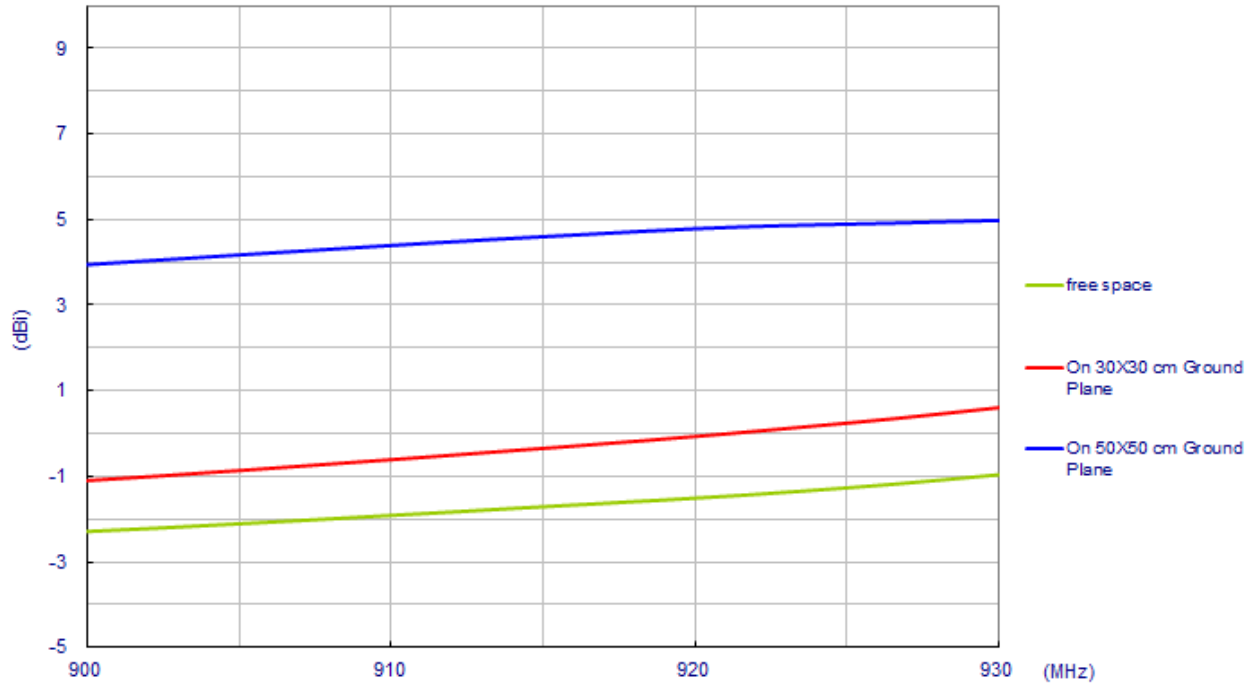


III.2. Antenna Efficiency



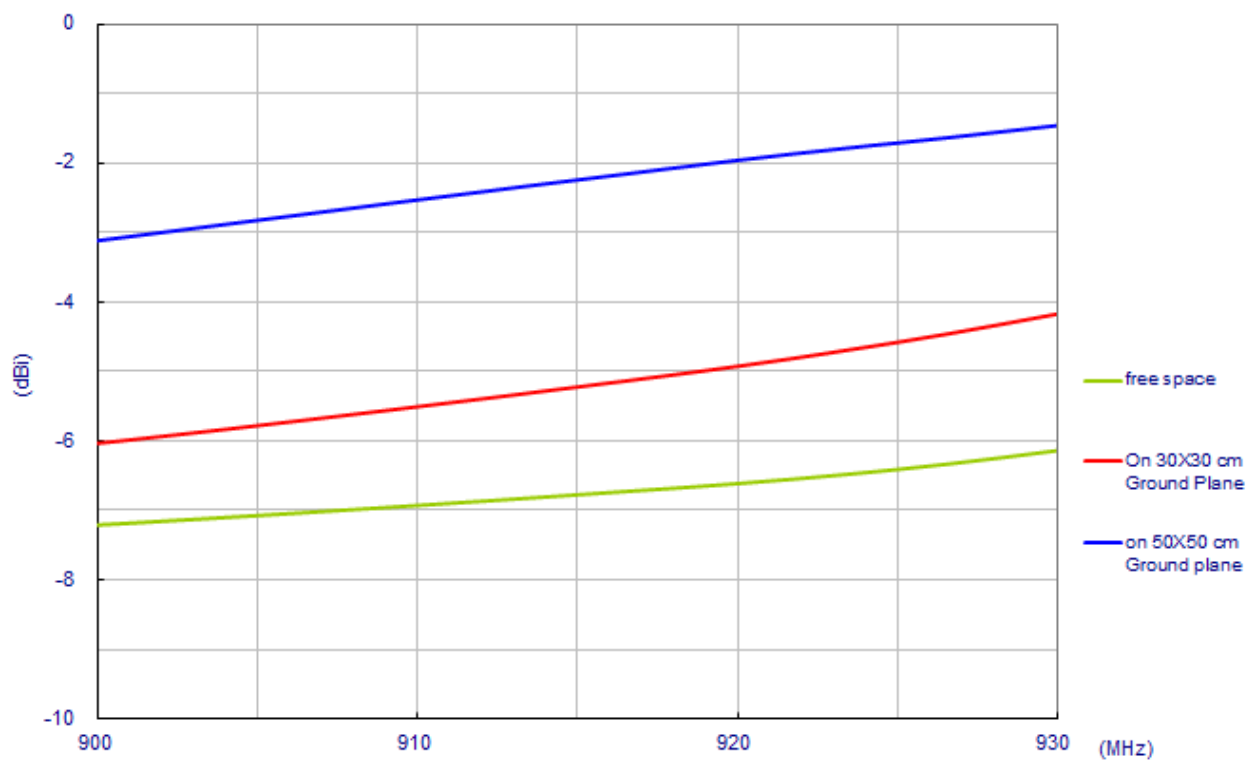


III.3. Peak Gain



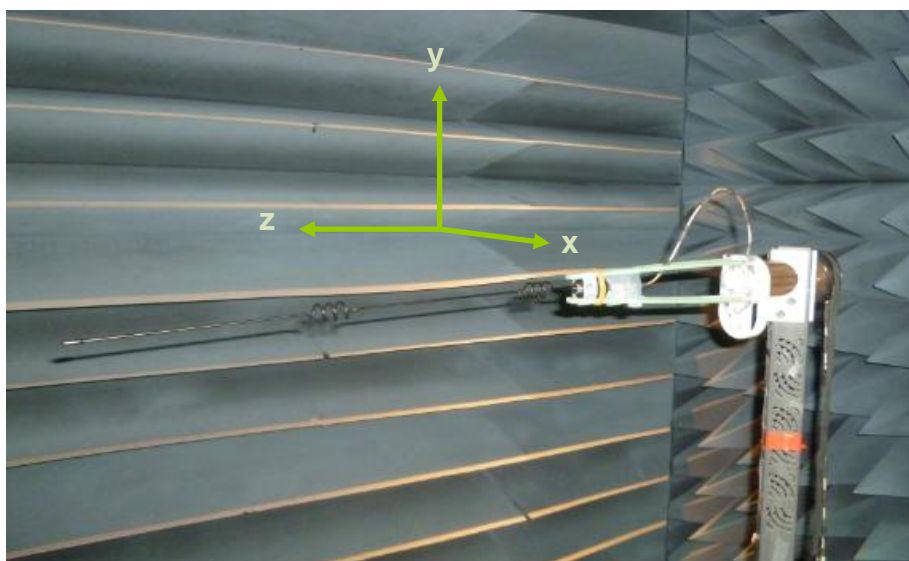


III.4. Average Gain



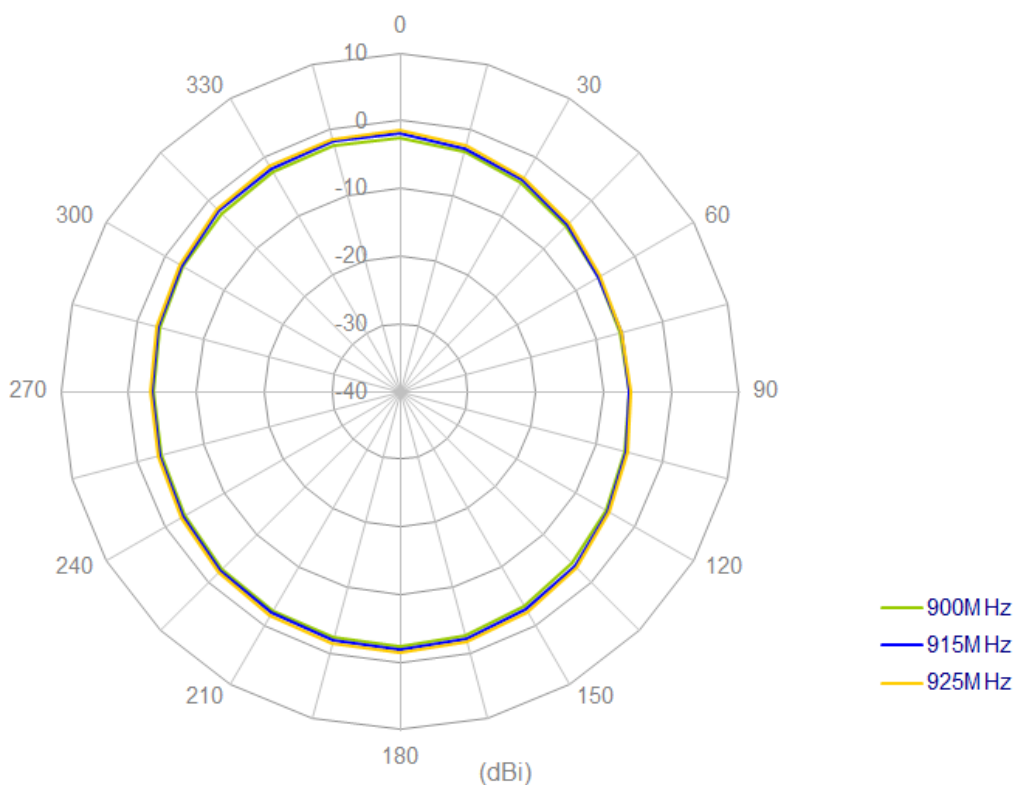
IV. Radiation Patterns

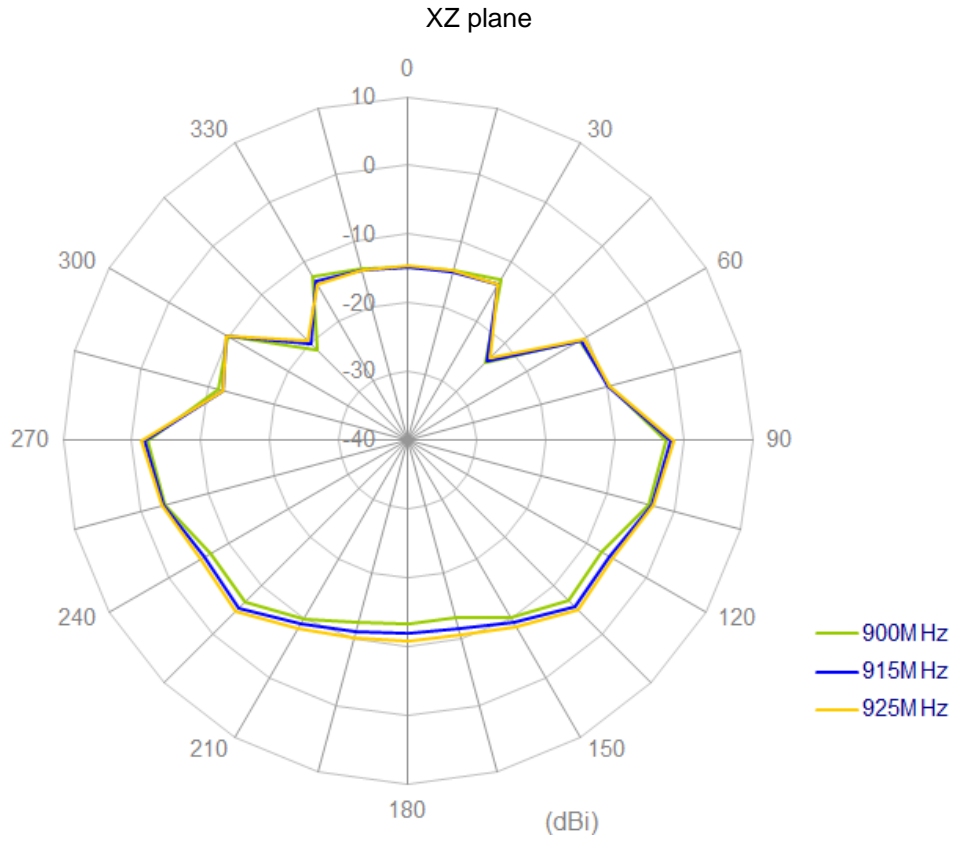
IV.1. Antenna setup (Free Space)



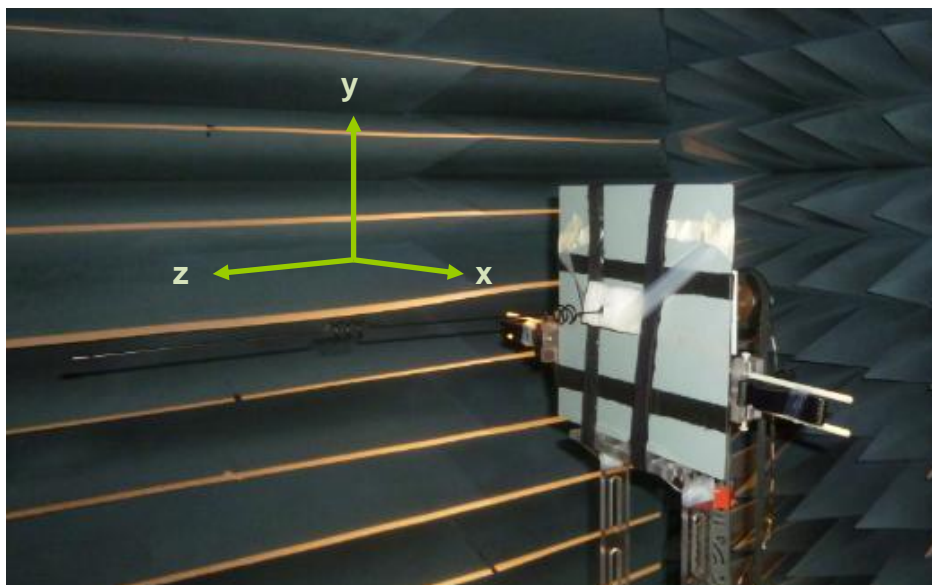
Radiation Pattern

XY plane



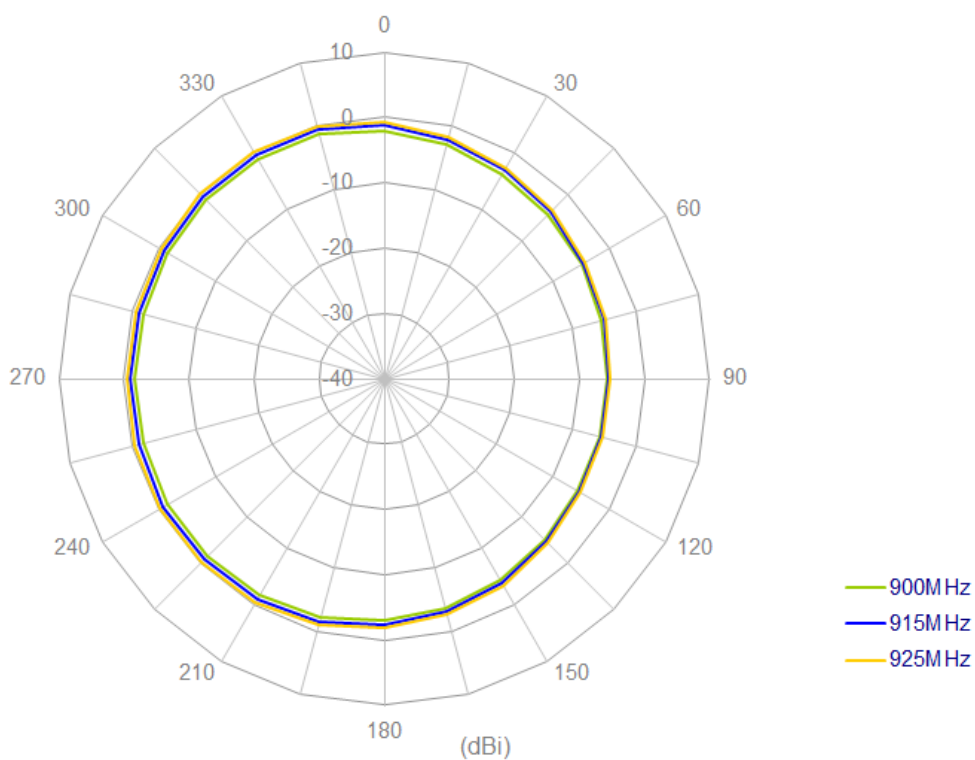


IV.2. Antenna setup (with 300x300mm ground plane)



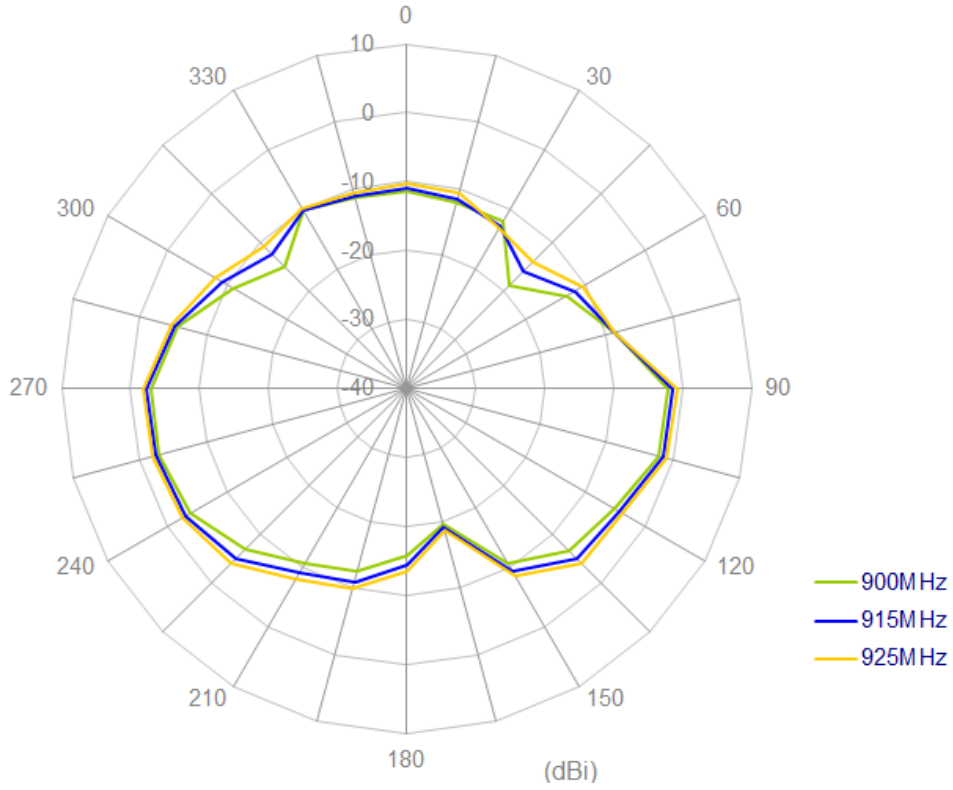
Radiation Pattern

XY plane

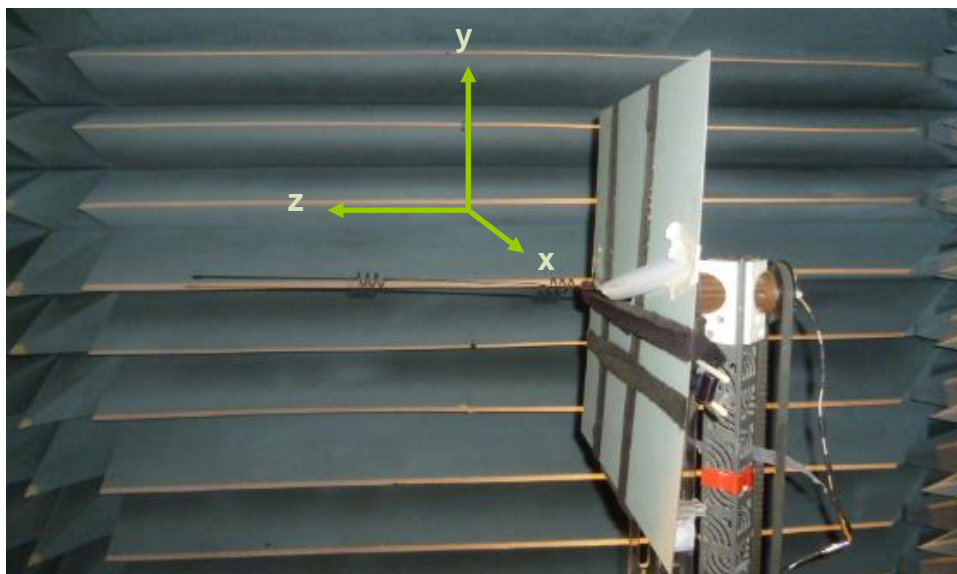




XZ plane

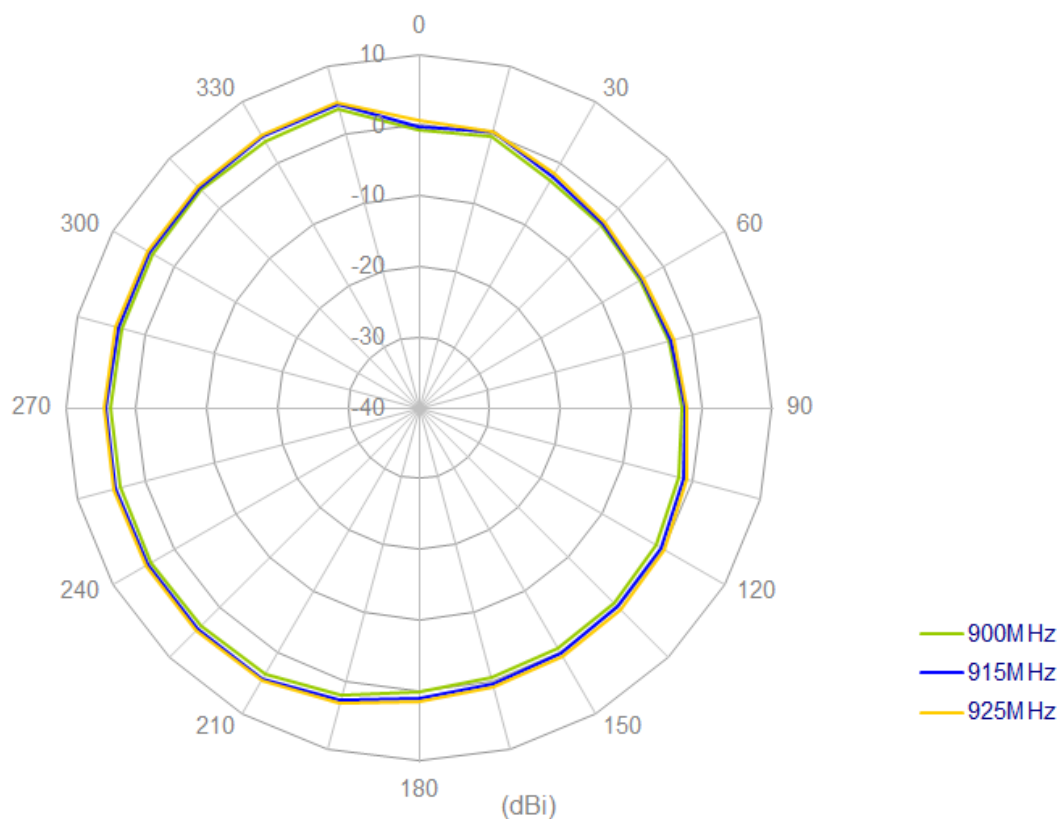


IV.3. Antenna setup (with 500x500mm ground plane)



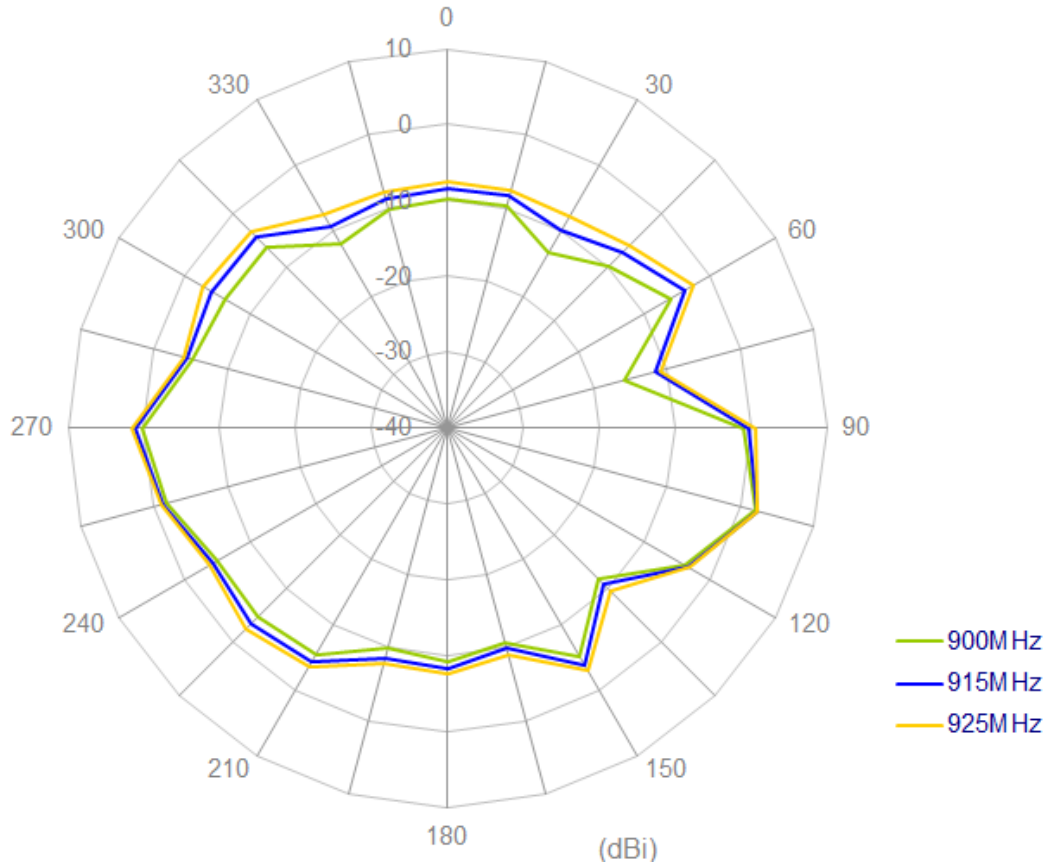
Radiation Pattern

XY plane

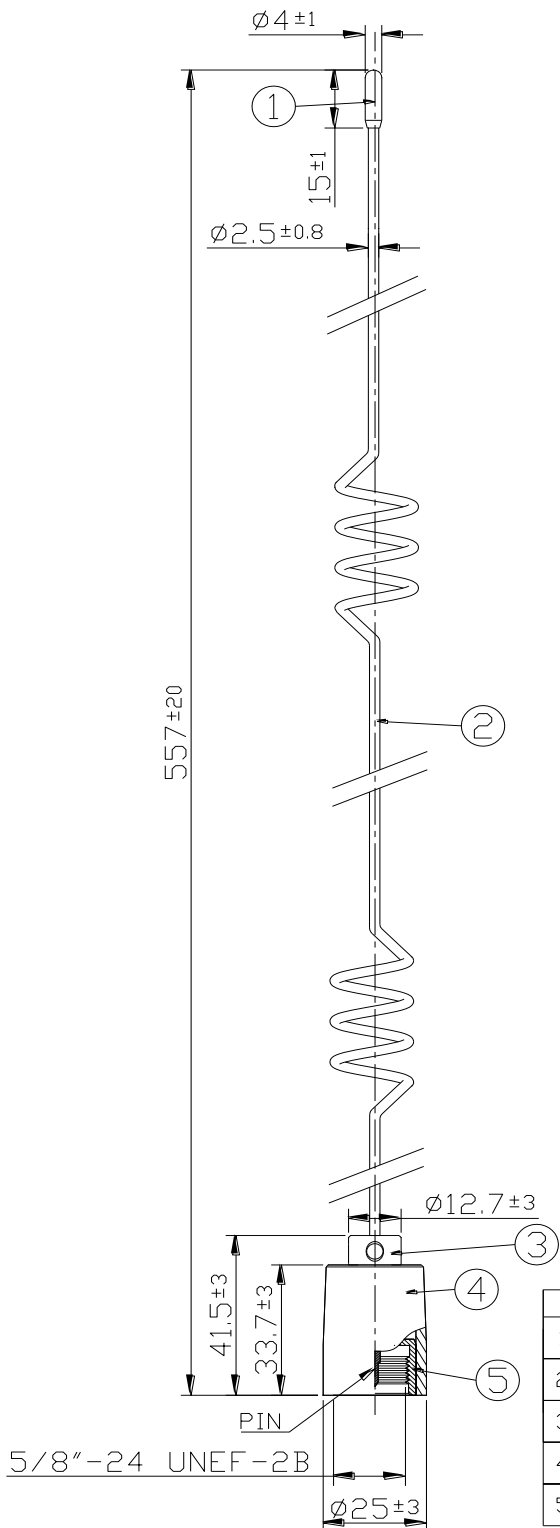




XZ plane

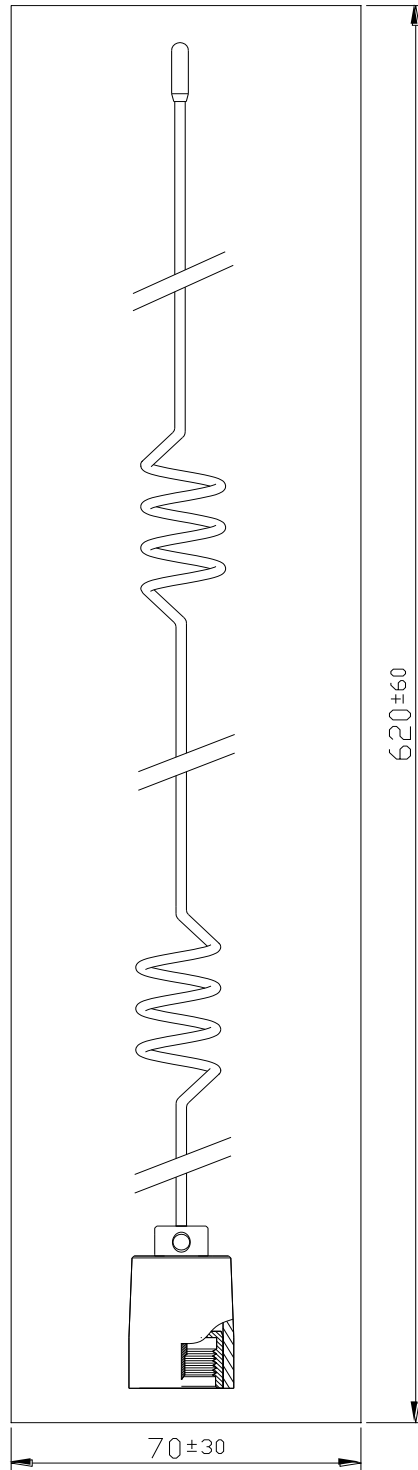


V. Drawing



	Name	P/N	Material	Finish	QTY
1	Top Cap	000612C000002A	Brass	Black	1
2	Spring Antenna	000812C000002A	Brass	Black	1
3	Axis	000612C010002A	Brass	Ni Plated	1
4	NTYPE(M) Housing	000612C030002A	POM	Black	1
5	NTYP(M)Thread	000612C020002A	Brass	Ni Plated	1

VI. Packaging



1PCS/BAG