ANT Datasheet

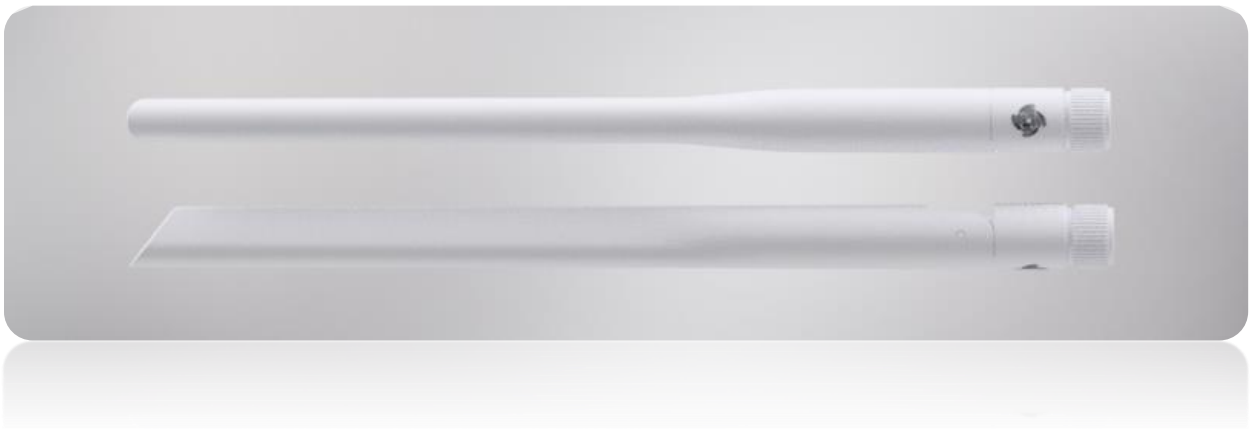
Shenzhen RAKwireless Technology Co.,Ltd.

Room 506, Building B, New Compark, Pingshan First Road,

Taoyuan Street, Nanshan District, Shenzhen, Guangdong, P.R. China

Features

- Frequency Range: 902~928MHz
- Quite good VSWR
- Max Gain: 2.3dBi
- High efficiency
- Vertically polari



Specifications

Model		KRAKBJ2701C01A
Electrical Specifications	Frequency Range	902MHz~928MHz
	Peak Gain	2.3 dBi
	VSWR	≤ 1.5
	Efficiency	>80%
	Feed Impedance	50 Ohms
	Polarization	Vertical

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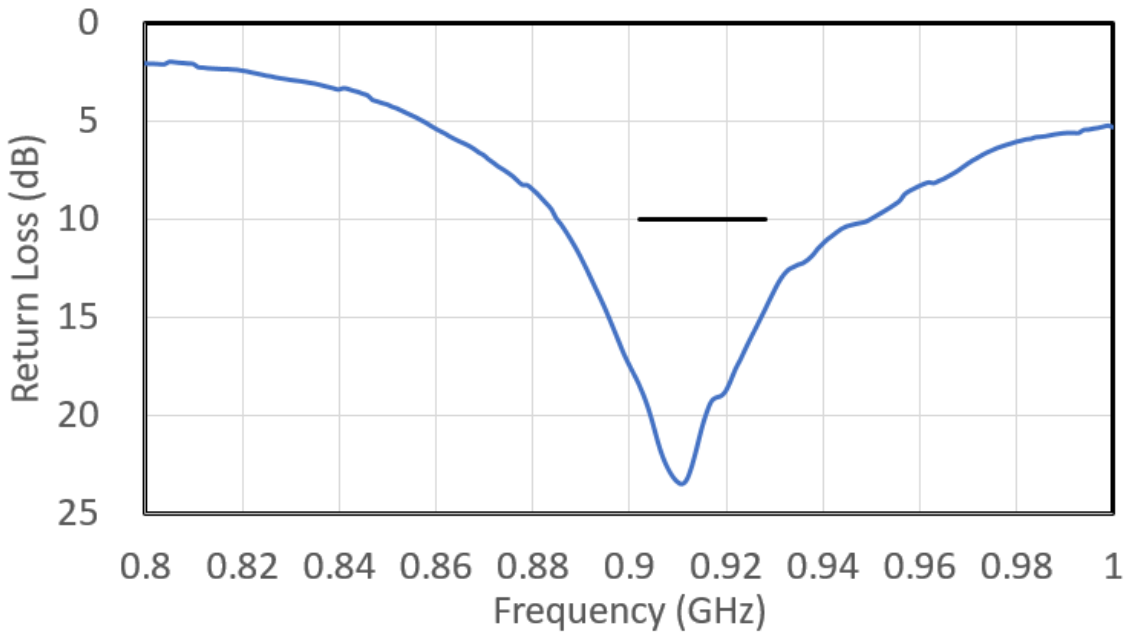
Mechanical Specifications	**Cover material(color)**	Plastic(White)
	Interface	RPSMA
	Dimensions (mm)	Φ13.0mm x 198.0mm
	Operation Temp (°C)	-30°C ~ +75°C
	Humidity range	5%~95%

S11&VSWR

Frequency(MHz)	S11	VSWR
902MHz	-18.3	1.28
928MHz	-14.6	1.46



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Peak Gain & Efficiency

Frequency(MHz)	Peak Gain (dBi)	Efficiency (%)
902	2.3	82.6
904	2.2	82.3
906	2.2	82.7
908	2.3	84.0
910	2.3	85.0
912	2.3	85.7
914	2.3	86.0
916	2.2	86.1
918	2.2	85.9
920	2.2	86.0
922	2.2	86.4
924	1.9	85.9
926	1.9	85.1
928	2.1	85.5
Average	-	84.9

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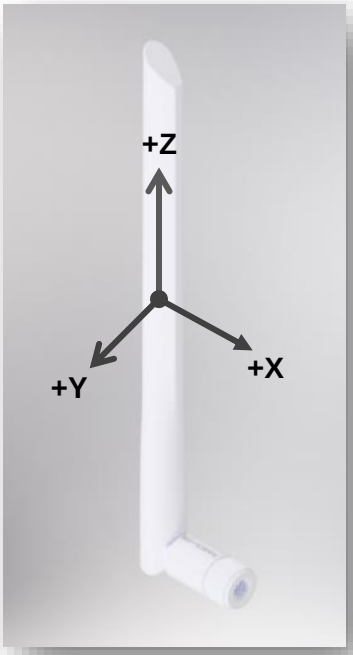
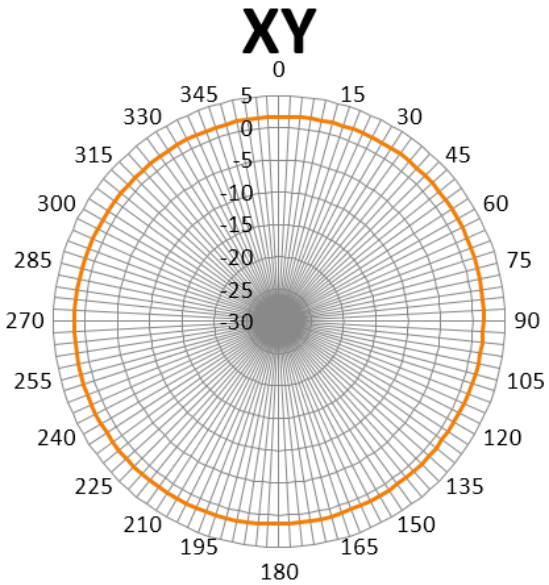
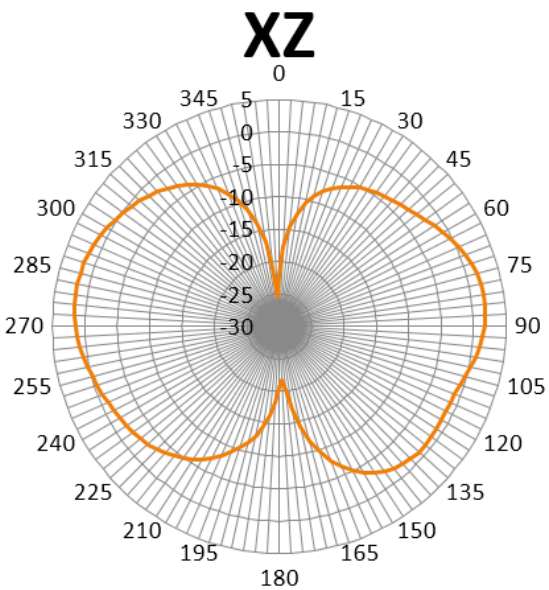
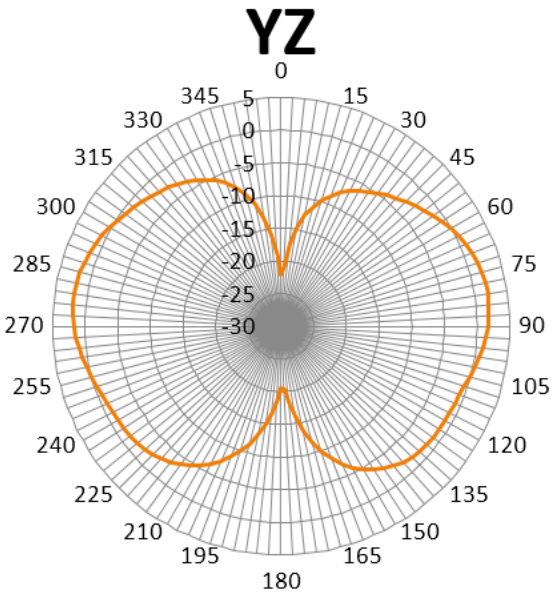
Radiation Patterns









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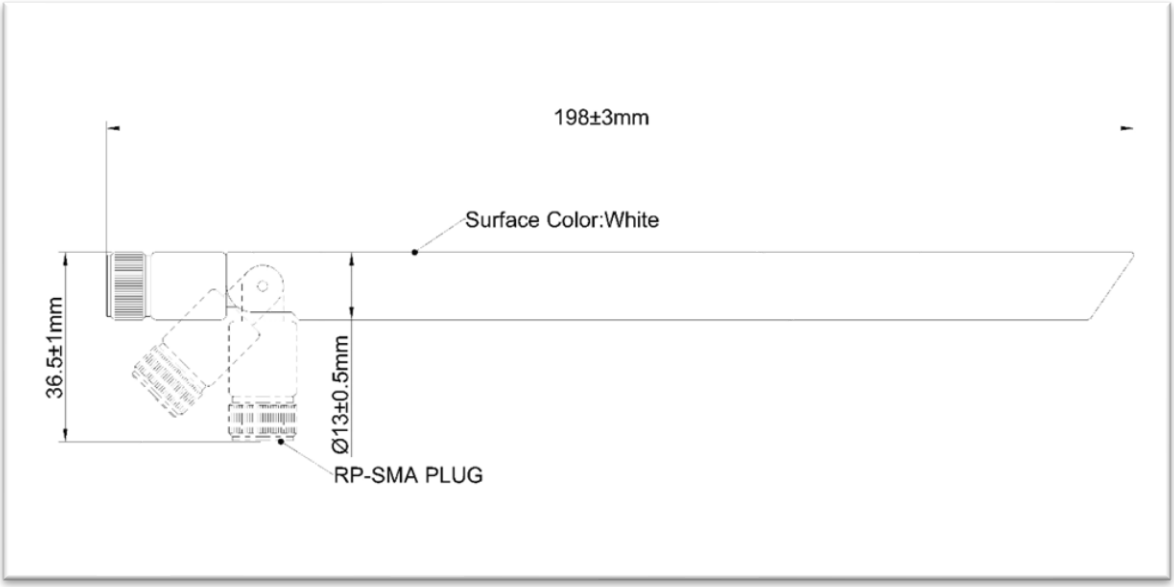
Mechanical Specifications



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上海增信电子有限公司
Signal Plus Technology Co., Ltd.

Antenna Test Report

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Tel:021-54266190 Fax:021-54266191 Web:www.zxsignal.com

Revision History

Revision	Note	Date
V1	New Issue	2020.06.11

Data Preview

2.4G:

Freq.(MHz)	**2400**	**2450**	**2500**	2600	2700	2800
VSWR	4.05	3.67	3.00	2.04	1.41	1.05
Gain(dBi)	0.78	1.57	1.75	2.15	2.23	2.17
Eff.	43.6%	49.5%	58.7%	73.5%	77.9%	78.1%

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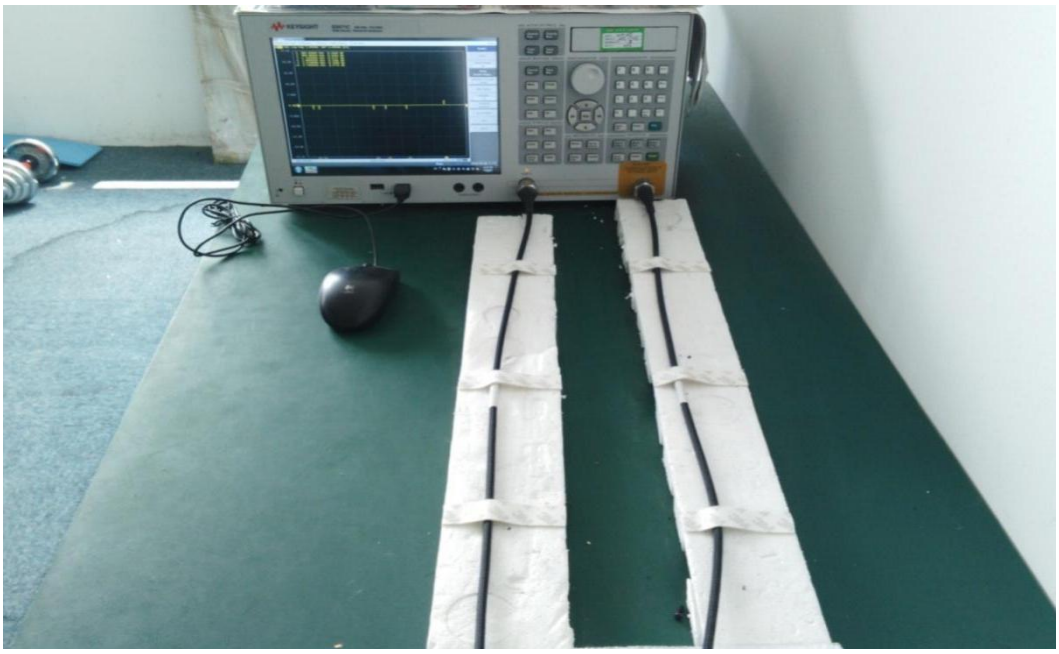
1. RF Fixture Experiment

1.1 Test Setup

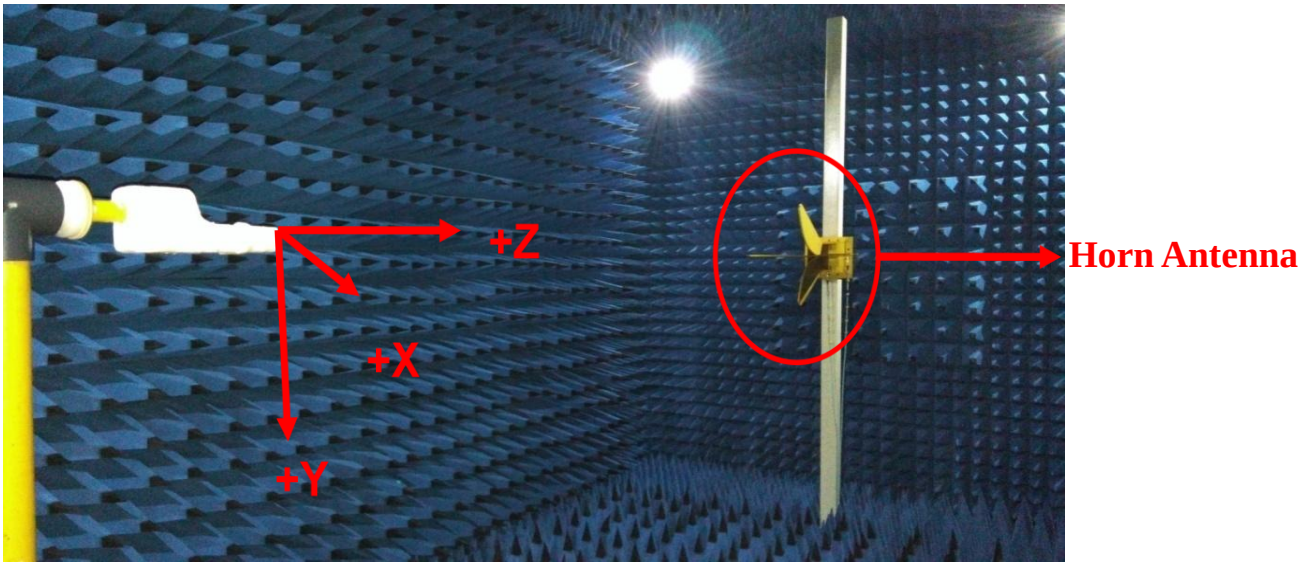
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S11) were performed using an KeySight E5071C Network Analyzer. The isolation between antennas is also tested. The testing wasperformed with apparatus in free space.

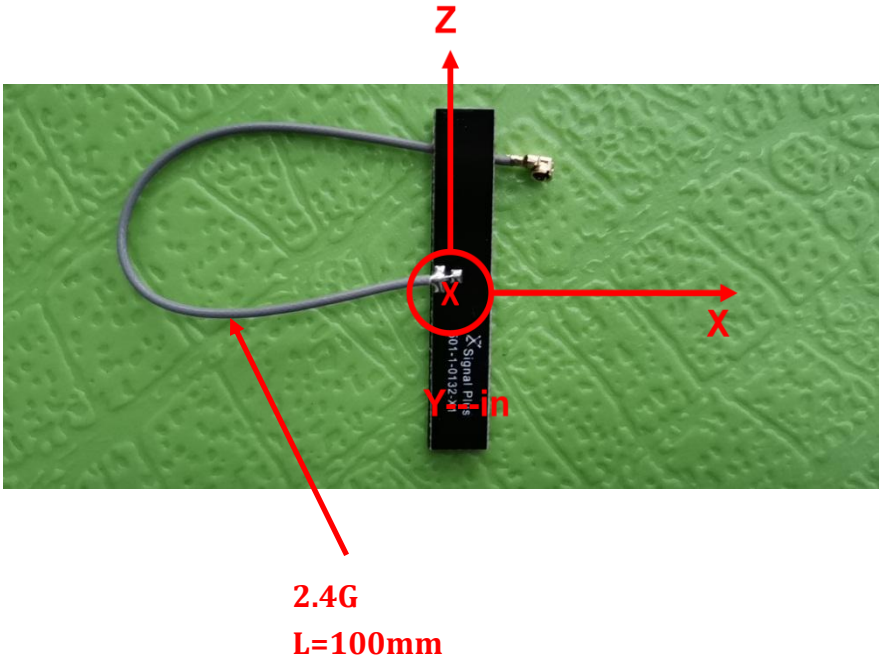


1.1.2 Anechoic Chamber Test Setup

The gain of the antenna was measured in the anechoic chamber. The chamber provides less than –30 dB reflectivity from 400 MHz through 6 GHz. The chamber size is:7m*4m*3m.The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



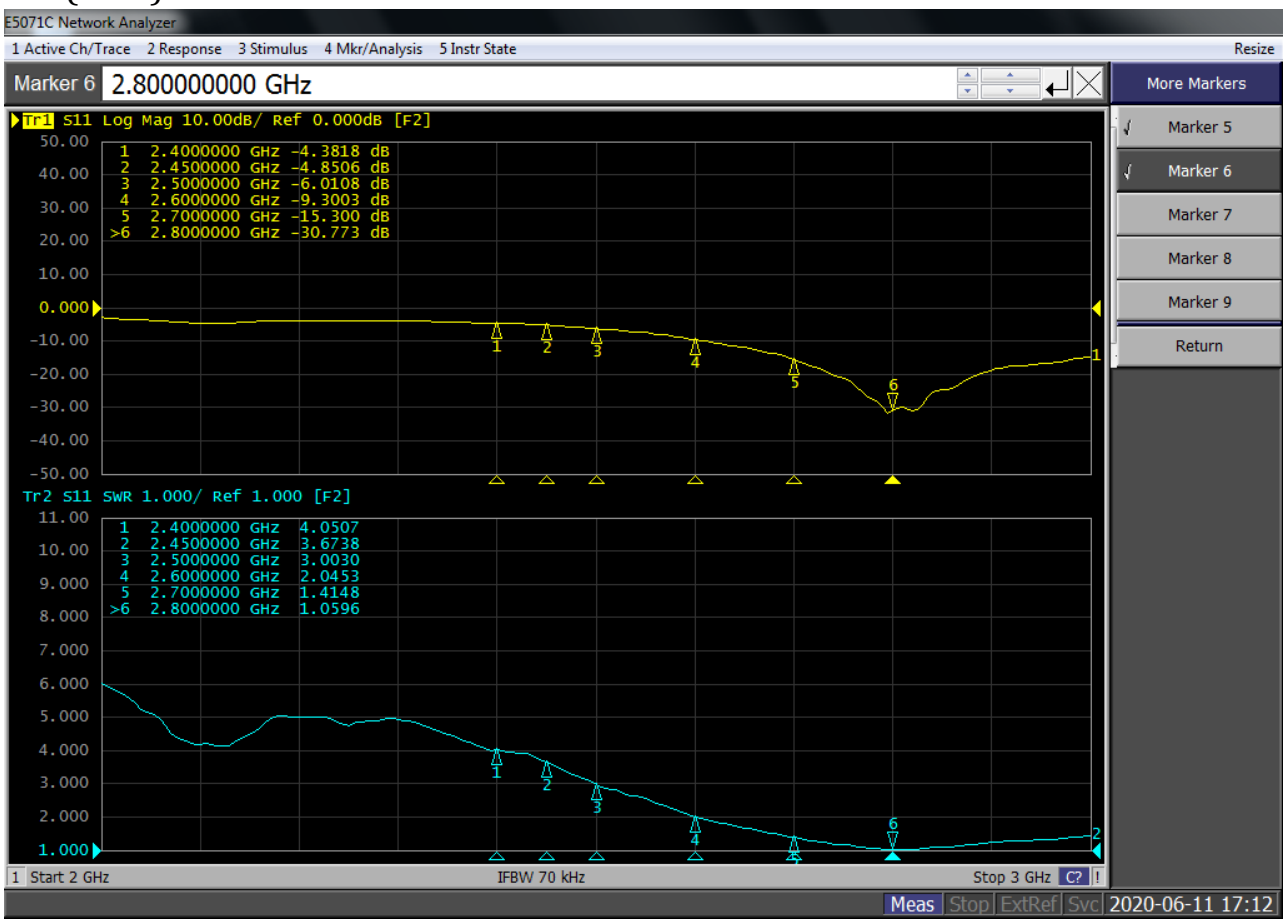
2.Antenna Solution



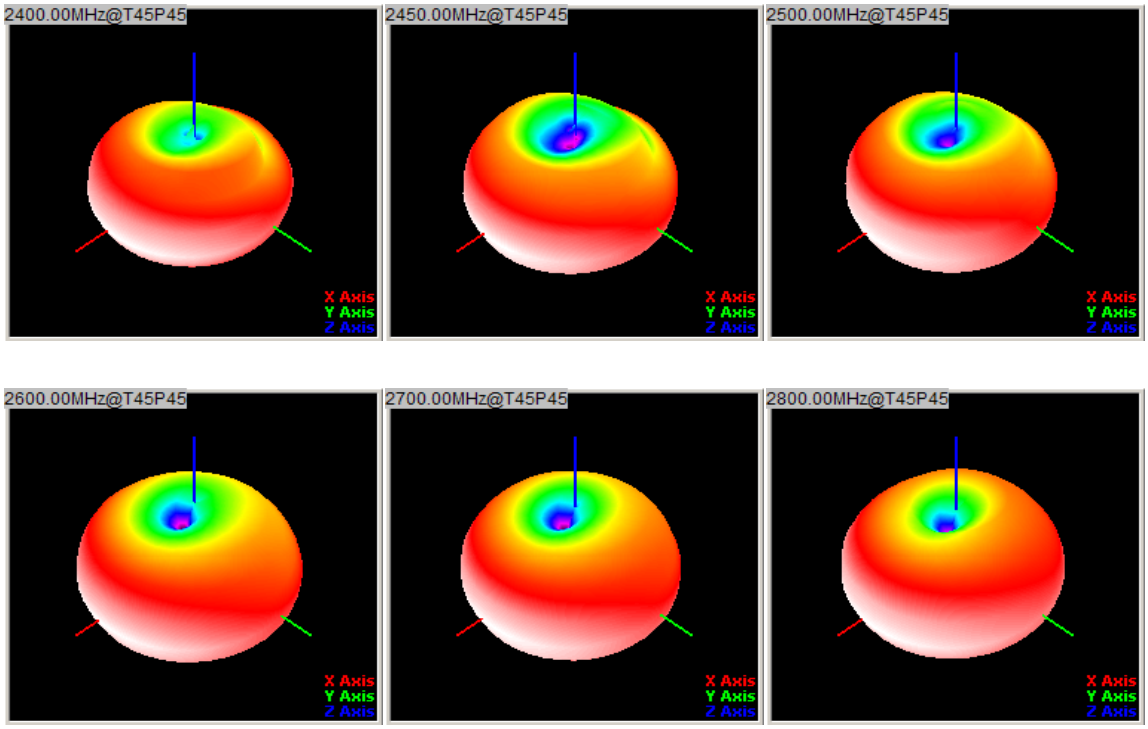
2.4G

L=100mm

S11(2.4G)

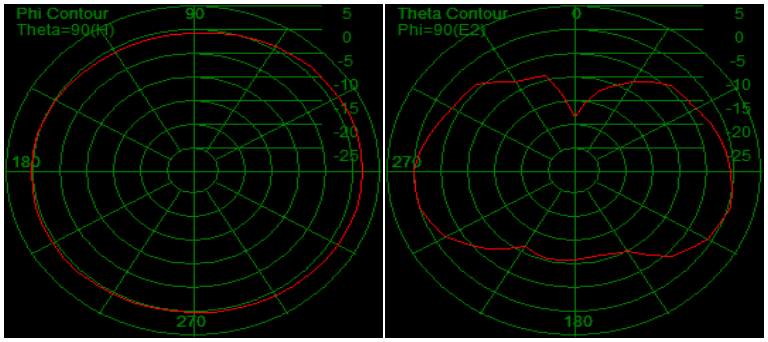


Radiation patterns:3D

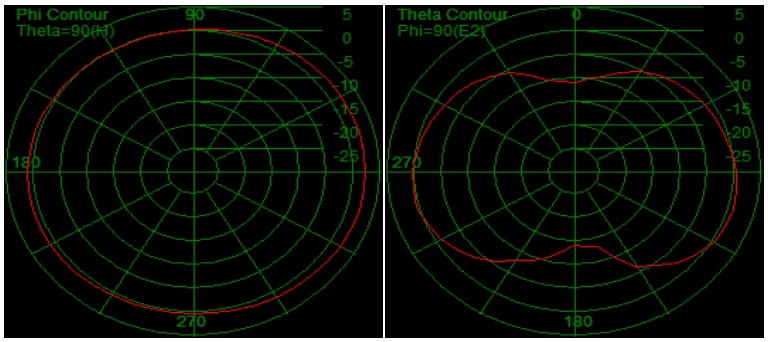


Radiation patterns:2D

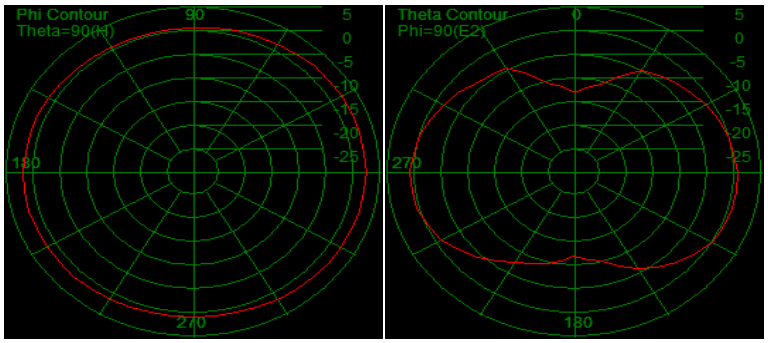
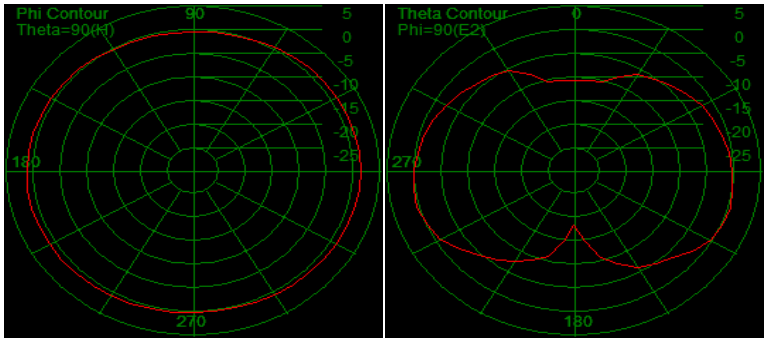
2450MHz



2600MHz



2700MHz



2800MHz