

Omni Antenna Data Sheet

APPROVAL SHEET

Customer Name

Product Model

Rubber ducky antenna

Customer P/N

Specifications

**6000-12000MHz,φ16*110mm
Black plastic shell, hexagonal N-J**

KEESUN P/N

KSANT-12398-A

Date Prepared

2026.09.09

Revision

1.0

KEESUN		
Prepare	DQE	R&D
Customer		
PUR	QC	R&D

Index

1,Cover	1
2,Index	2
3,Product Specification	3
4,Reliability Test	4
5,Product Drawing	5
6,Test Equipment & Conditions	6
7,Test Report	7-10

Product Specification

A. Electrical Characteristics

Frequency	6000-12000MHz
VSWR	< 2.5
Efficiency	≈59%
Peak Gain	-0.5 ~ 3dBi
Impedance	50 Ohm
Polarization	Linear
Horizontal Beamwidth	360°
Vertical Beamwidth	32-127°
Out-of-roundness	±5
Max Power	50W

B. Material & Mechanical

Connector Type	N-J
Dimension	φ16*110±2mm
Weight	0.06Kg
Radome material	ABSHousing (black)

C. Environmental

Operation Temperature	- 45°C ~ +85 °C
Storage Temperature	- 45°C ~ +85 °C
Rated Wind Velocity	36.9m/s
Lighting Protection	DC grounding

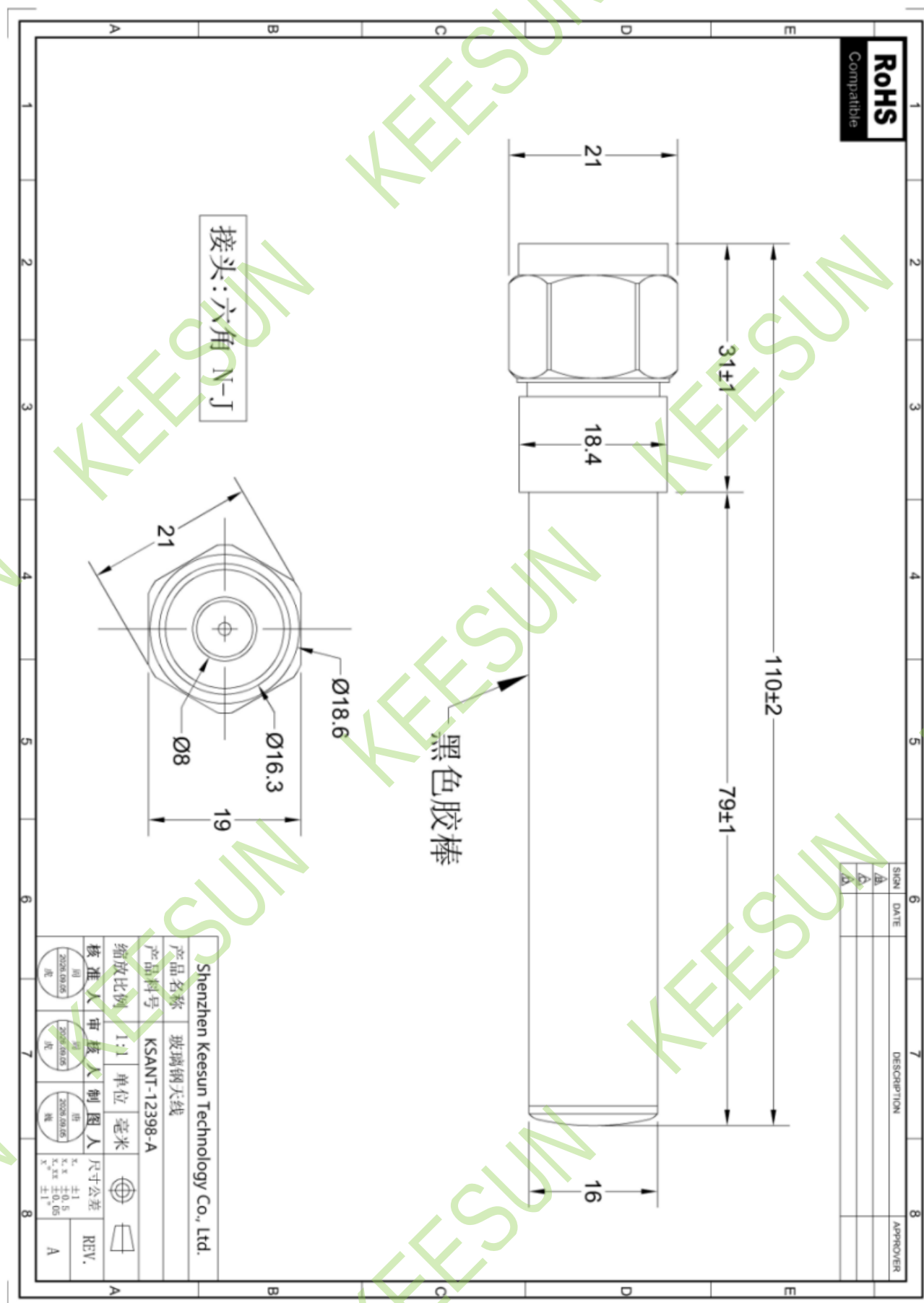
D. Photo



Reliability Test

Item	Test Condition		Specification
Storage Environment	In the absence of specified conditions, the test temperature, humidity, and air pressure are as follows: 1. Temperature: -45°C ~ +85°C 2. Relative humidity: 45%~85% 3. Air pressure: 86 kPa~106 kPa		Normal electrical and mechanical performance
High-Low Temperature Test	Place the sample in 85°C and -45°C environments for 5 cycles (2 hours per cycle), then leave it under normal conditions for 1~2 hours, and inspect the appearance and quality.		Dimensions shall meet specifications, and mechanical & electrical performance shall be satisfied
Constant Damp Heat Test	After exposure to 95±3% relative humidity at 40°C for 2 hours, measure the electrical performance of the sample within 5 minutes after removal, then leave it under normal conditions for 1~2 hours and inspect the appearance and quality.		Dimensions shall meet specifications, and mechanical & electrical performance shall be satisfied
Vibration Test	Vibration frequency range: 10~55 Hz, displacement amplitude: 0.35 mm, acceleration amplitude: 50.0 m/s ² , number of sweep cycles: 30		Normal electrical and mechanical performance
Drop Test	Free fall from 1 m height; select different drop positions for different products (preferentially select directions prone to damage), 1 drop per position.		Normal electrical and mechanical performance
Pull Force Test	Test the withstand force using a push-pull force gauge: ≥ 20 N		Normal electrical and mechanical performance
Withstand Voltage Test	1. Insulation spark voltage: 1.5 kV 2. Sheath spark voltage: 1.5 kV 3. Insulation-to-sheath withstand voltage: 0.5 kV		Normal electrical and mechanical performance
Attenuation Value	2.0(nominal) 2.9(nominal) 3.2(nominal) 3.7(nominal) 4.3(nominal) 4.8(nominal) 5.3(nominal)	1GHz 2GHz 2.4GHz 3.0GHz 4.0GHz 5.0GHz 6.0GHz	3.3dB/m (at20°C)

产品图纸Product Drawing:



Add: 4th Floor, Building B, Haiwei Jingsong Industrial Zone Heping Community Fuhai Street, Baoan District, Shenzhen City.

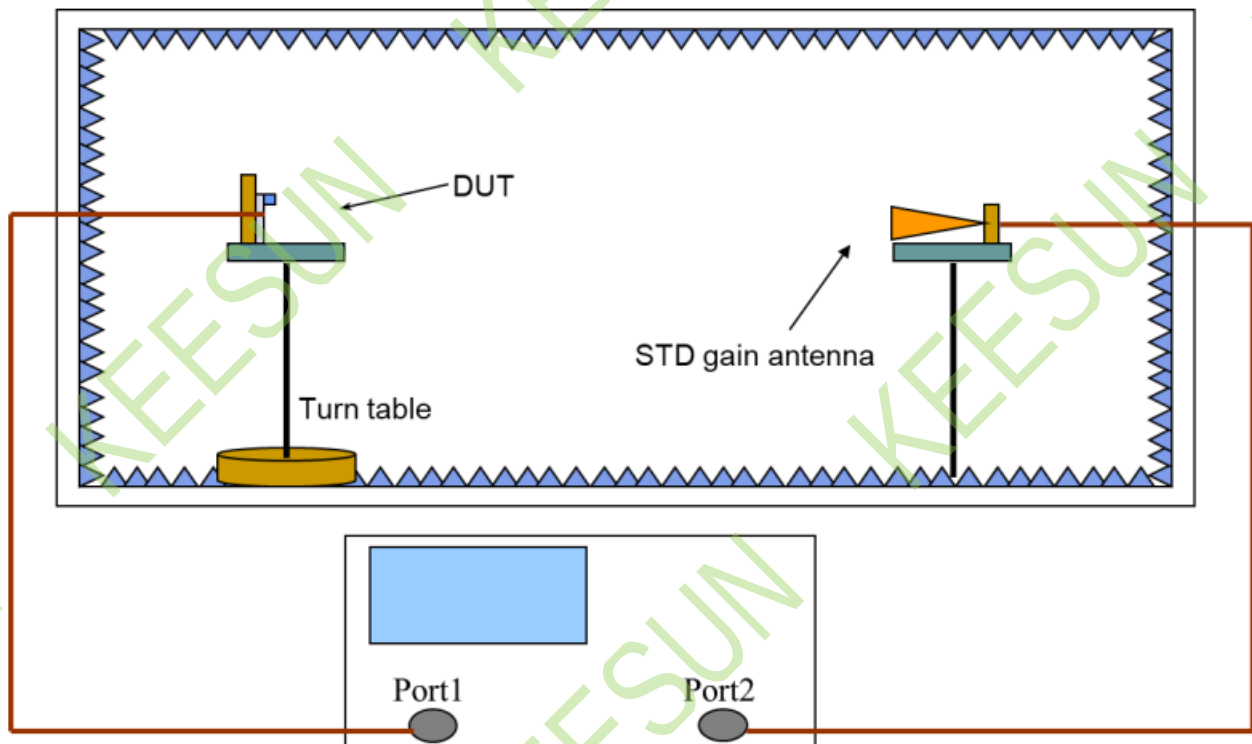
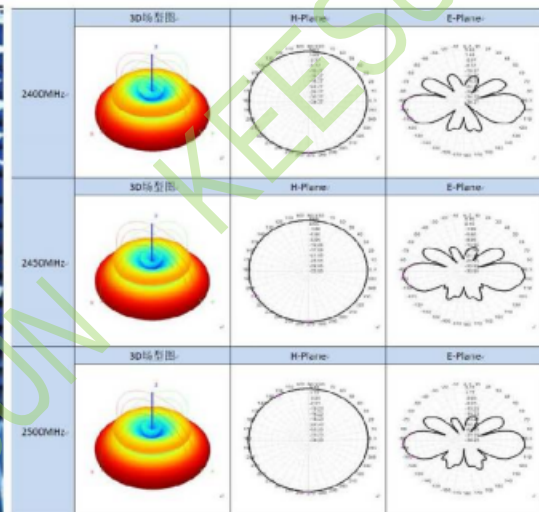
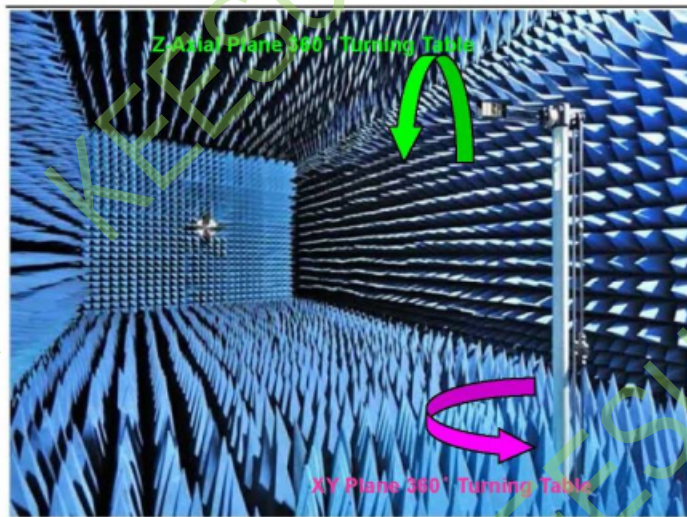
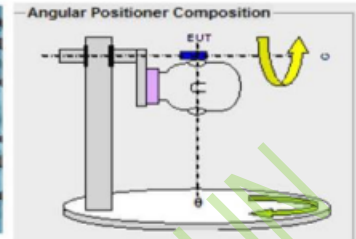
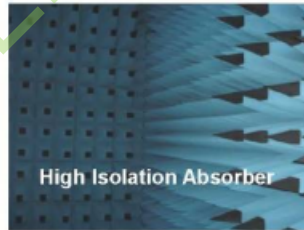
Web: www.keesunantenna.com

Test Equipment & Conditions

1、Network Analyzers : Keysight E5071C

2、3D Chamber Test System

.Chamber Size: 9 x 5 x 4 m³
 .Freq. Range: 0.4 ~ 18.0 GHz
 .Double Ridge Horn Antenna
 .VNA: Agilent E5071C
 .3D Turning Table and Positioner
 .ADT Solution 3D Testing Software

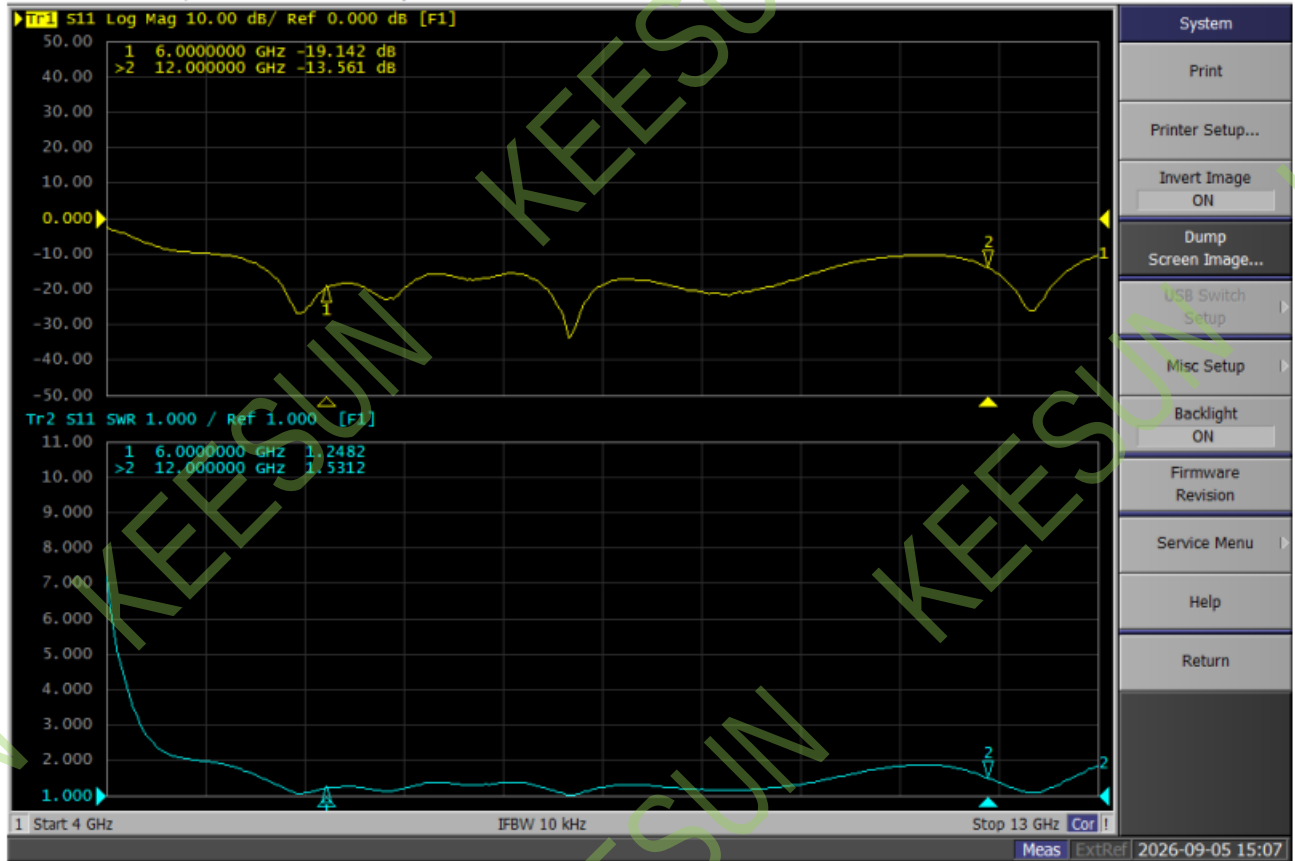


VSWR

E5063A Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

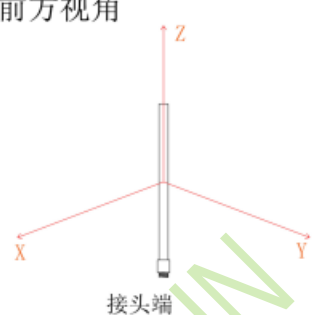
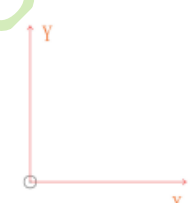
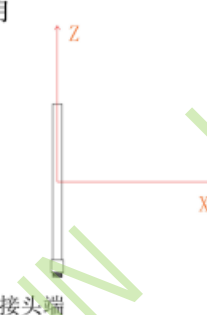
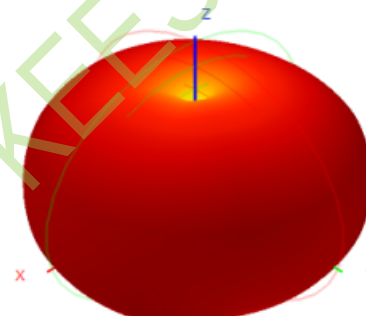
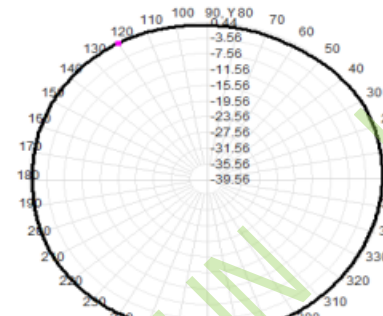
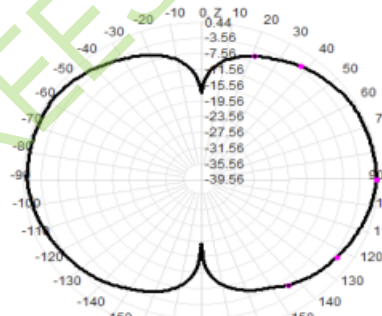
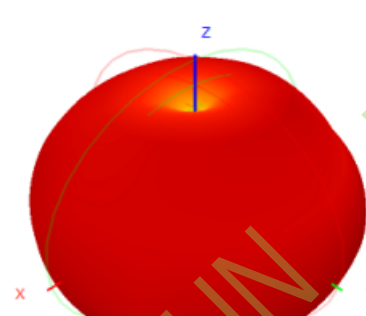
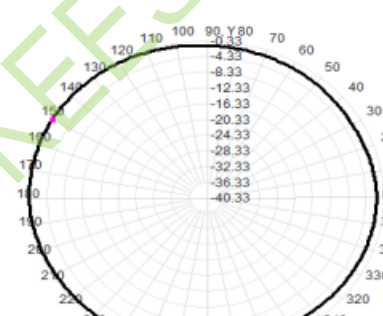
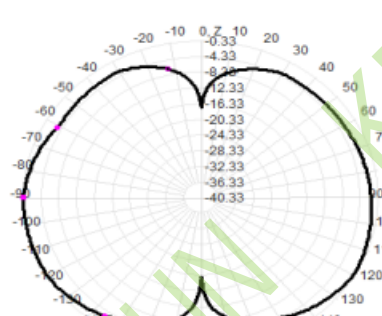
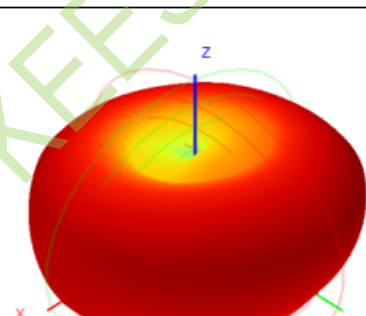
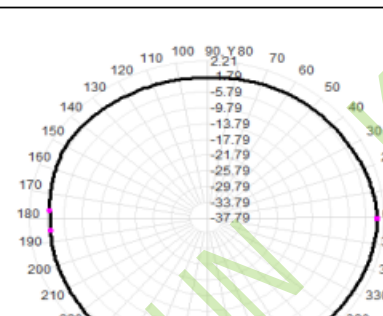
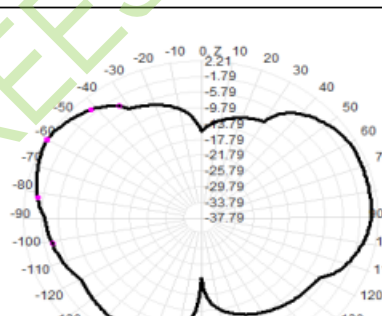
Resize

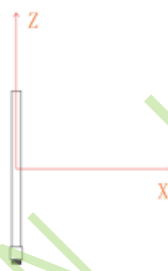
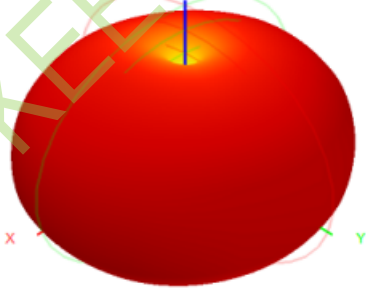
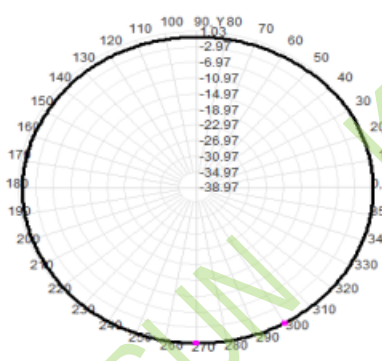
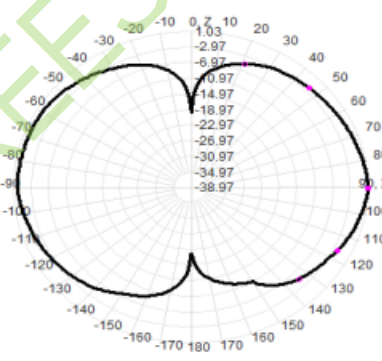
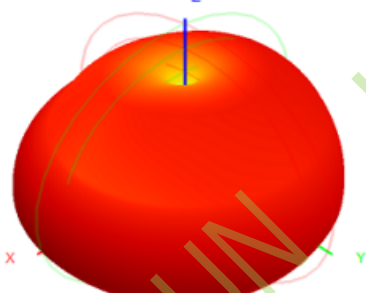
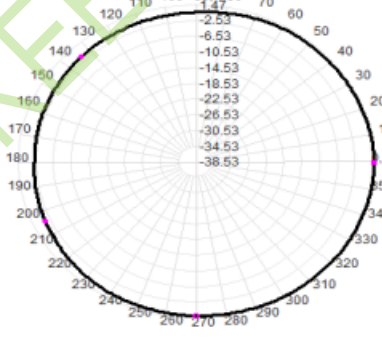
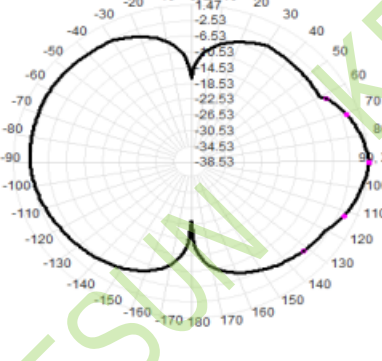


效率&增益Total Efficiency& Gain:

Frequency(MHz)	Gain(dBi)	Efficiency(%)	Frequency(MHz)	Gain(dBi)	Efficiency(%)
6000	0.4	64.5	9100	0.5	58.2
6100	1.0	68.0	9200	0.5	59.1
6200	0.9	67.2	9300	0.3	53.8
6300	1.3	66.9	9400	0.9	63.0
6400	1.7	69.0	9500	1.0	62.3
6500	2.2	70.2	9600	1.1	62.8
6600	1.6	67.0	9700	1.3	63.2
6700	1.9	64.5	9800	1.0	60.3
6800	2.0	61.4	9900	1.2	61.5
6900	1.1	55.2	10000	1.5	61.2
7000	1.4	57.4	10100	1.3	56.7
7100	0.0	51.8	10200	1.1	55.6
7200	-0.3	56.6	10300	1.3	58.7
7300	-0.5	58.7	10400	1.8	62.3
7400	0.3	61.0	10500	1.5	53.4
7500	-0.2	55.3	10600	1.8	56.2
7600	-0.3	54.8	10700	1.2	55.3
7700	-0.4	54.7	10800	1.0	50.5
7800	-0.4	48.3	10900	1.7	54.4
7900	0.0	46.0	11000	1.9	56.8
8000	1.2	50.7	11100	1.6	56.4
8100	2.2	52.8	11200	1.4	53.7
8200	2.8	59.4	11300	1.7	56.9
8300	2.9	63.5	11400	0.8	49.9
8400	2.6	62.4	11500	0.9	52.2
8500	2.5	64.4	11600	0.5	50.6
8600	2.5	66.0	11700	0.7	50.6
8700	1.9	65.4	11800	1.2	59.2
8800	1.0	58.1	11900	0.5	56.4
8900	0.8	58.3	12000	0.8	56.6
9000	1.0	62.9			

场型图

	3D	2D-水平面	2D-垂直面
轴的定义	前方视角  接头端	顶端俯视 	侧面视角  接头端
6000MHz			
7200MHz			
8500MHz			

	3D	2D-水平面	2D-垂直面
轴的定义	前方视角  接头端	顶端俯视 	侧面视角  接头端
9500MHz			
10500MHz			
12000MHz	