



东莞市一佳电子通讯科技有限公司

Dongguan YiJia Electronics Communication Technology Co.,Ltd.

规格承认书

SPECIFICATION FOR APPROVAL

日期
Date 2024/01/05

编号
File No 24010505

版本
Revision 1.0

客户
CUSTOMER:

Autel Robotics Co.,Ltd.

客户料号
CUSTOMER NO:

501007934

品名
PART NAME:

RF Antenna _R

供方料号
SUPPLIER NO:

YJI01.005.098.305A

送样日期Date:

送样数量Q'TY:

客户确认CUSTOMER APPROVED BY

APPROVAL	CHIEF	SUPERVISOR

供方确认 SUPPLIER SIGNATURE

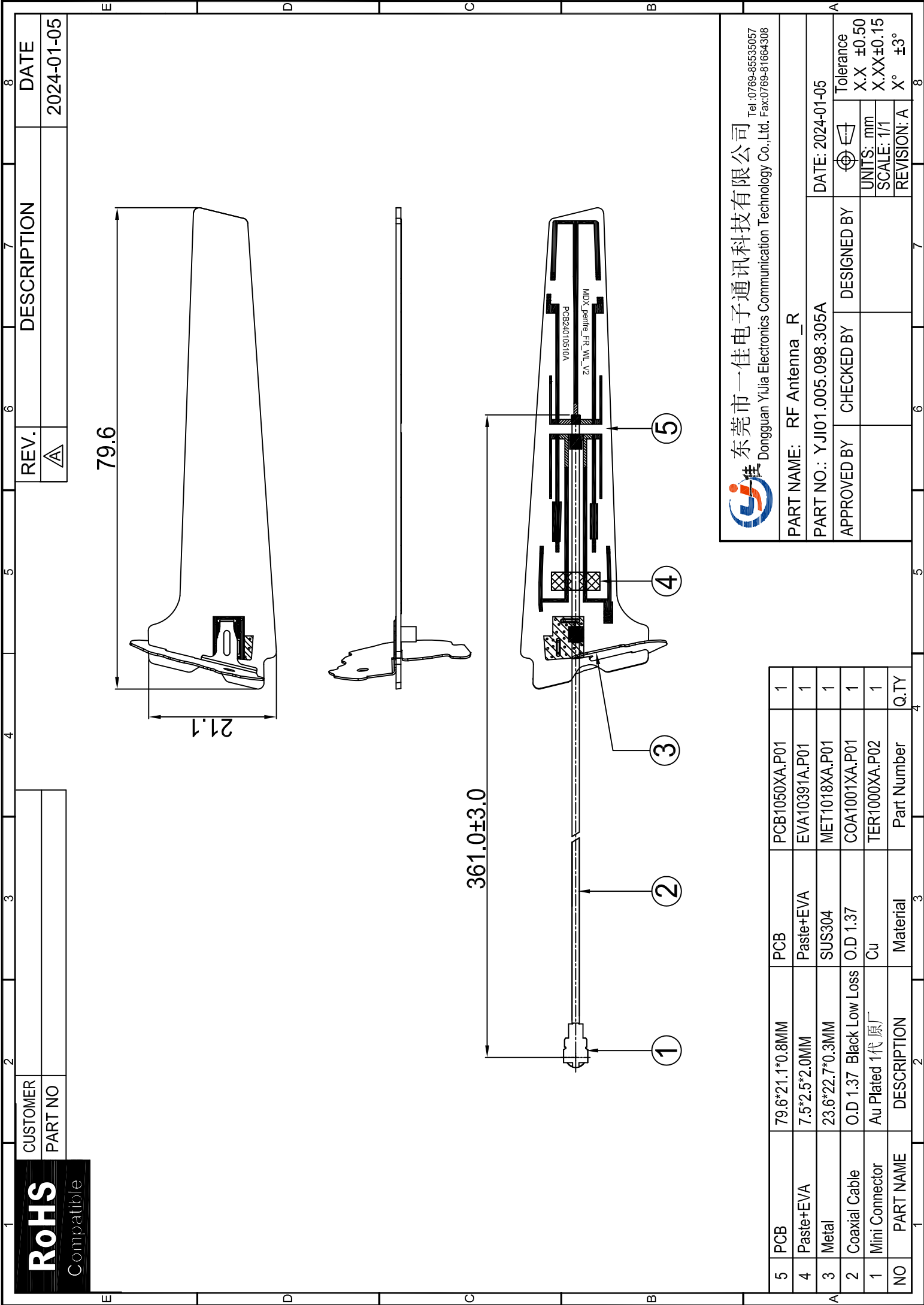
APPROVAL	CHECK	DESIGN
 ChenGuoqiang	XieLi	ChenXingyi

YJ-RD-F04-A



承认书项目表

NO .	内 容 (Contents)	页 数 (Number of Page)	页 码 (Page Code)
1	承认书封面 (Spec Cover)	1	1
2	承认书项目表 (Spec Item)	1	2
3	工程成品图 (Drawing)	1	3
4	天线规格 (Antenna Specification)	1	4
5	S参数测试 (S Parameter)	1	5
6	无源测试 (Passive Test)	5	6 ~ 10
7	方向图 (Radiation Pattern)	5	11 ~ 15
8	天线装配图 (Antenna Profile)	3	16 ~ 18
9	材质证明 (Material Certificate)	36	19 ~ 54
10	RoHS报告 (RoHS Test Report)	**	**
11	N/A	N/A	N/A
12	-	-	-
13	-	-	-



RoHS
Compatible

CUSTOMER
PART NO

REV.
A

DESCRIPTION
DATE
2024-01-05

5	PCB	79.6*21.1*0.8MM	PCB	PCB1050XA.P01	1
4	Paste+EVA	7.5*2.5*2.0MM	Paste+EVA	EVA10391A.P01	1
3	Metal	23.6*22.7*0.3MM	SUS304	MET1018XA.P01	1
2	Coaxial Cable	O.D 1.37 Black Low Loss	O.D 1.37	COA1001XA.P01	1
1	Mini Connector	Au Plated 1代 原厂	Cu	TER1000XA.P02	1
NO	PART NAME	DESCRIPTION	Material	Part Number	Q.TY

东莞市一佳电子通讯科技有限公司
Dongguan Yijia Electronics Communication Technology Co., Ltd.

Tel: 0769-85535057
Fax: 0769-81664308

PART NAME: RF Antenna_R			DATE: 2024-01-05		
PART NO.: YJ01.005.098.305A			DESIGNED BY		
APPROVED BY			CHECKED BY		
			Tolerance		
			UNITS: mm		
			SCALE: 1/1		
			REVISION: A		



天线规格

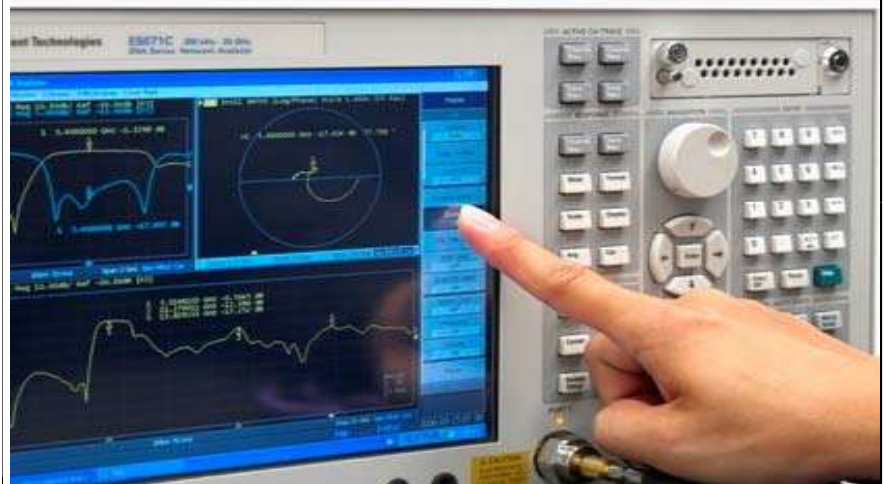
Antenna Specification

Electrical Properties	
Frequency	830-930MHz 1.44GHz 2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	3.0 Max@830-930MHz 3.0 Max@1.44GHz 2.0 Max@2.4-2.5GHz 2.0 Max@5.15-5.85GHz
Gain	2.5 dBi@830-930MHz 1.4 dBi@1.44GHz 2.3 dBi@2.4-2.5GHz 2.0 dBi@5.15-5.85GHz
Radiation	Omni-directional
Polarization	Linear
Physical Properties	
Connector	1 IPEX
Cable Type	O.D.1.37mm
Cable Length	361mm
Cable Color	Black
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%

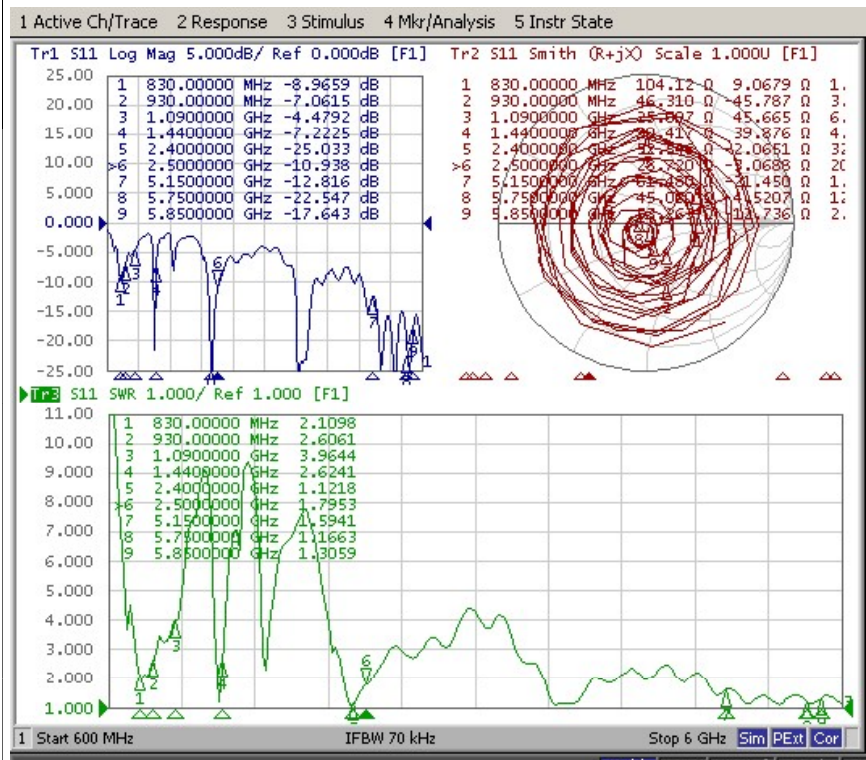


Antenna Performance Test

**Agilent
E5071B**

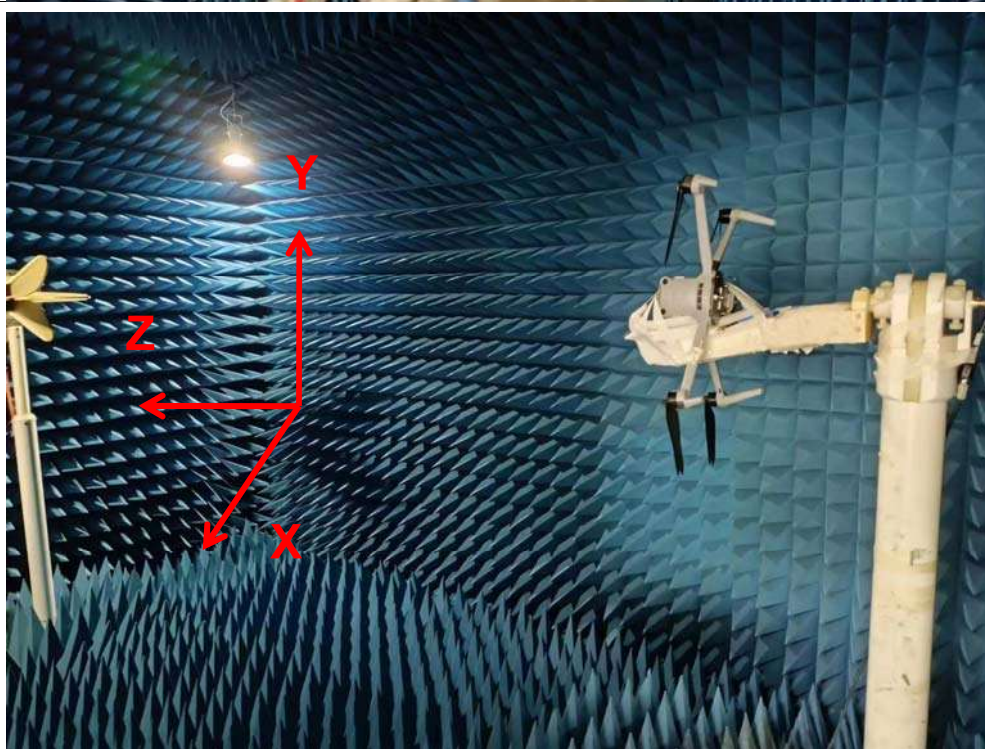
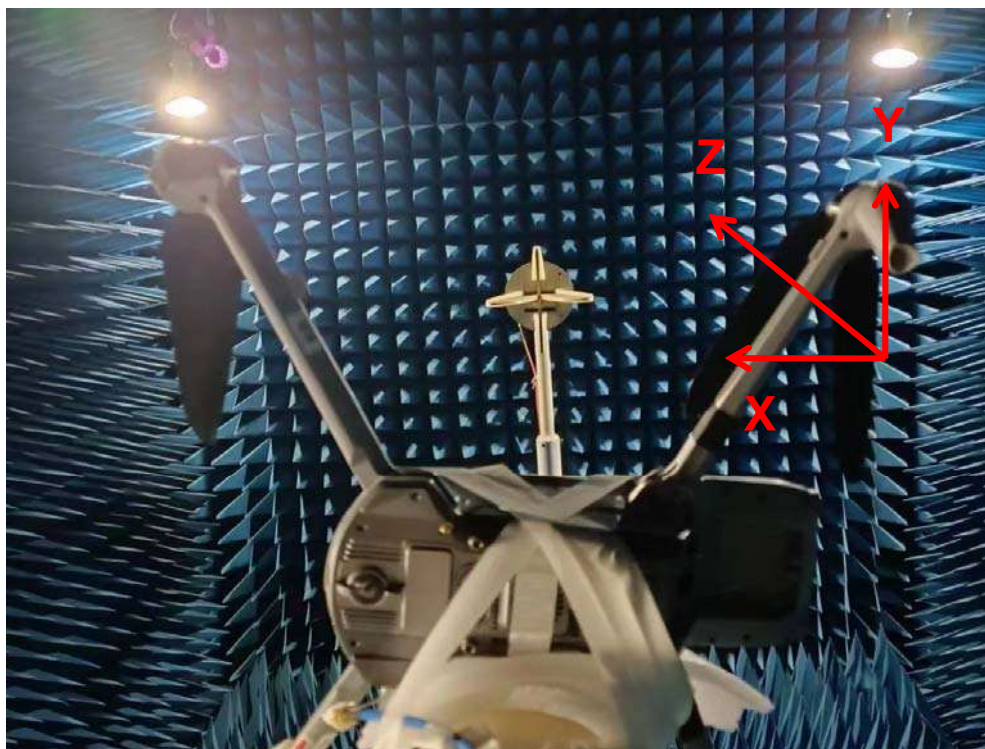


**S
Parameter
Test //
-R
Antenna**





Antenna Passive Test





Passive Test For Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
820	54.2	-2.7	1.4
830	64.8	-1.9	2.1
840	64.3	-1.9	1.7
850	59.5	-2.3	1.4
860	59.8	-2.2	1.3
870	62.3	-2.1	2.2
880	61.4	-2.1	2.5
890	58.0	-2.4	2.4
900	56.9	-2.5	2.5
910	44.0	-3.6	1.1
920	44.6	-3.5	0.7
930	43.3	-3.6	0.7
940	41.4	-3.8	0.6
950	38.2	-4.2	0.1
960	40.1	-4.0	0.5



Passive Test For Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1430	56.9	-2.5	1.4
1438	48.5	-3.1	1.0
1446	42.9	-3.7	0.4
1454	38.5	-4.2	-0.1
1462	33.5	-4.8	-0.9
1470	28.4	-5.5	-1.5
1478	24.1	-6.2	-2.1
1486	20.8	-6.8	-2.3
1494	19.6	-7.1	-2.4
1502	18.0	-7.5	-2.7
1510	16.3	-7.9	-2.9



Passive Test For WIFI2.4 Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	62.5	-2.0	2.1
2410	64.1	-1.9	2.3
2420	64.3	-1.9	2.2
2430	62.1	-2.1	2.0
2440	59.8	-2.2	1.7
2450	62.2	-2.1	1.7
2460	61.3	-2.1	1.4
2470	60.9	-2.2	1.3
2480	59.0	-2.3	1.1
2490	59.4	-2.3	1.1
2500	59.6	-2.3	1.0



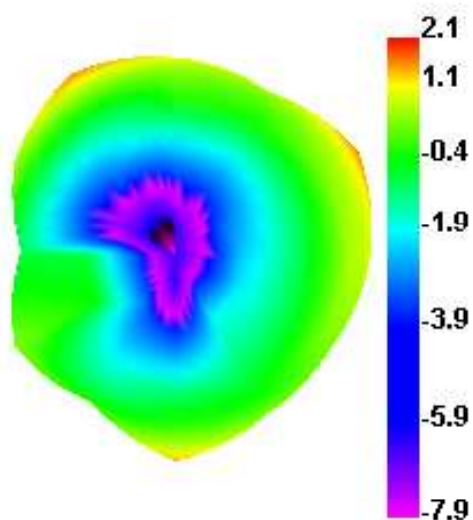
Passive Test For WiFi5.8 Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	28.9	-5.4	1.1
5200	34.4	-4.6	1.3
5250	43.4	-3.6	2.0
5300	46.3	-3.3	1.9
5350	42.6	-3.7	1.7
5400	36.7	-4.4	1.2
5450	37.0	-4.3	0.9
5500	42.1	-3.8	1.0
5550	39.5	-4.0	0.1
5600	35.6	-4.5	-0.6
5650	36.7	-4.4	0.1
5700	32.3	-4.9	-0.6
5750	29.0	-5.4	-1.5
5800	21.7	-6.6	-2.8
5850	16.8	-7.7	-3.6

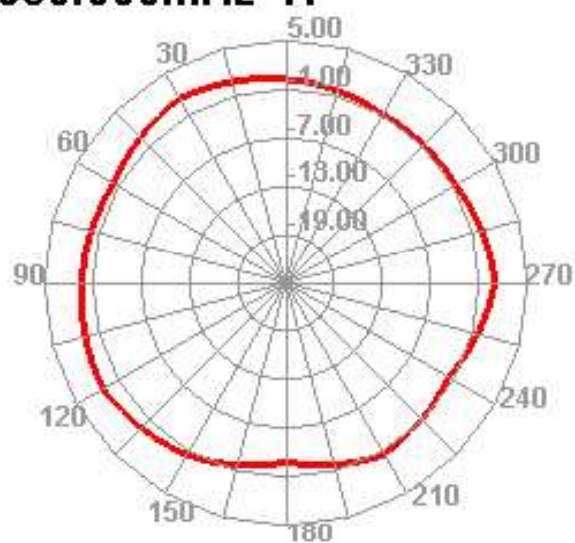


Radiation Pattern For Antenna

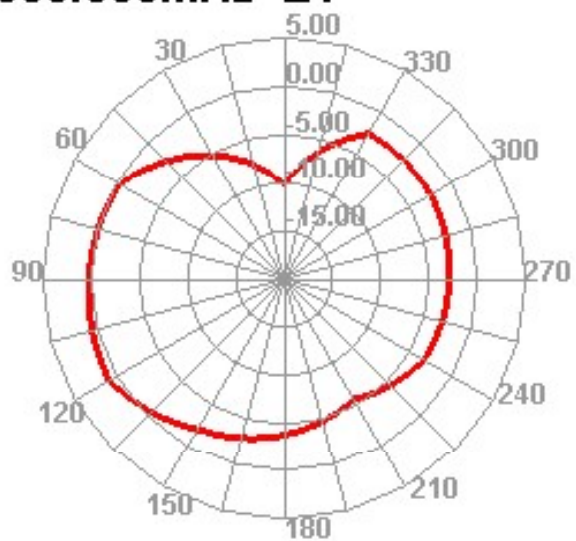
830.000MHz



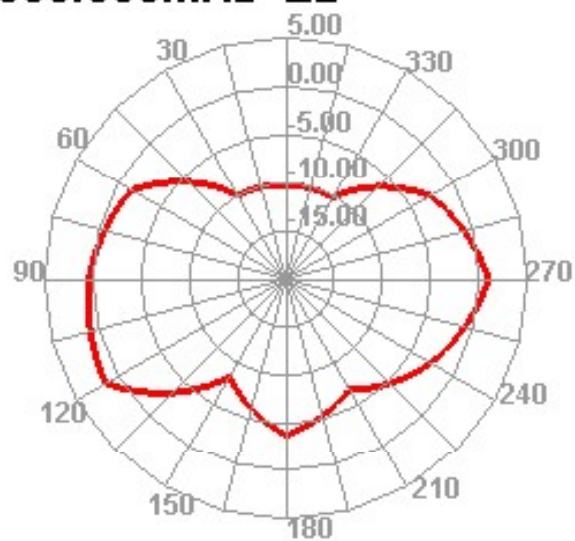
830.000MHz H



830.000MHz E1



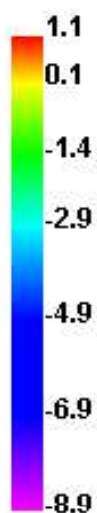
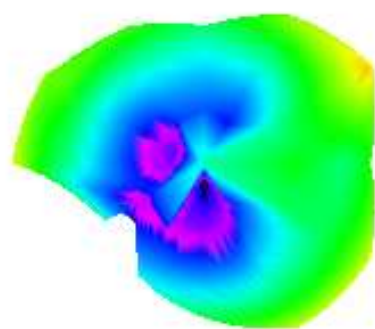
830.000MHz E2



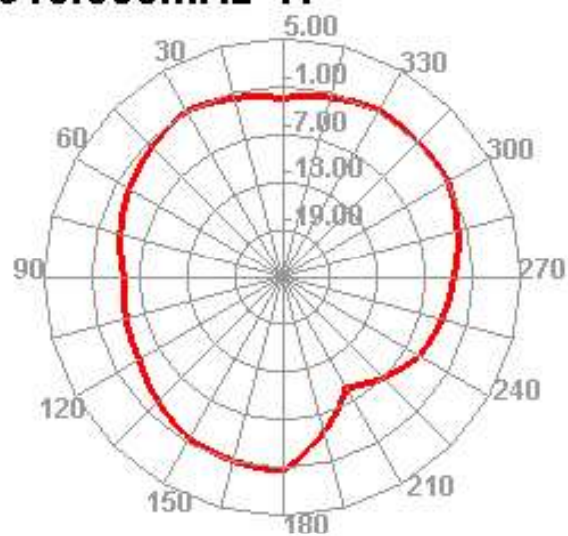


Radiation Pattern For Antenna

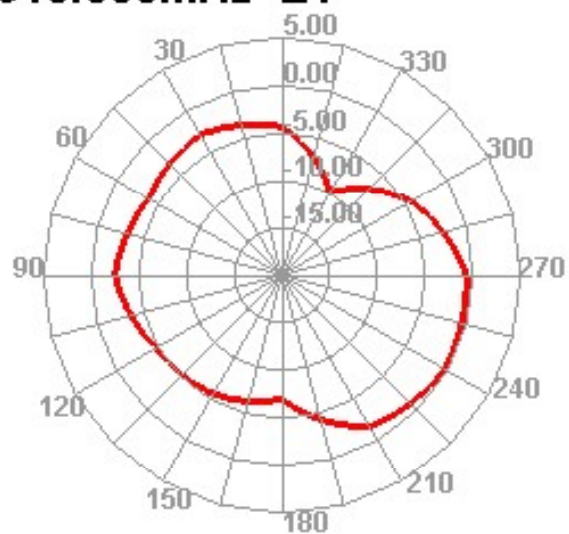
910.000MHz



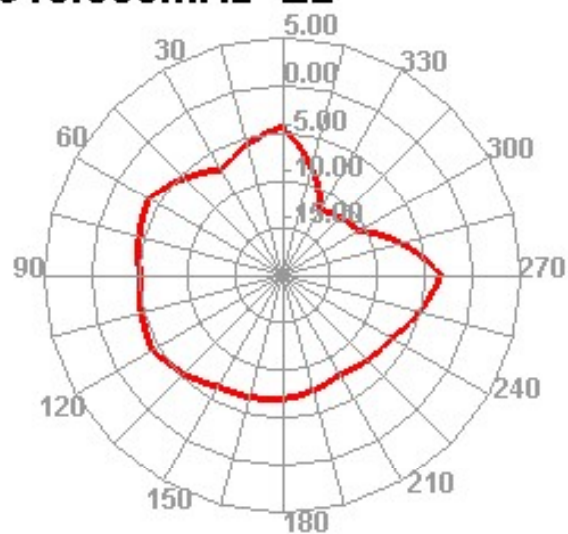
910.000MHz H



910.000MHz E1



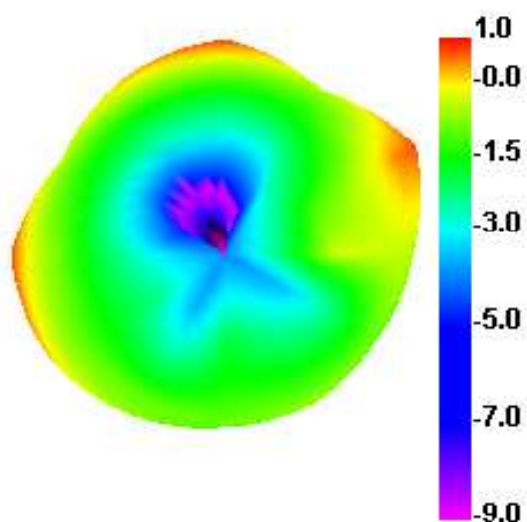
910.000MHz E2



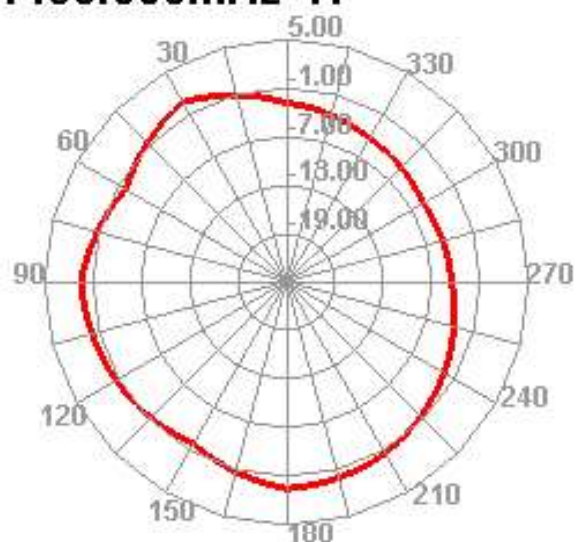


Radiation Pattern For Antenna

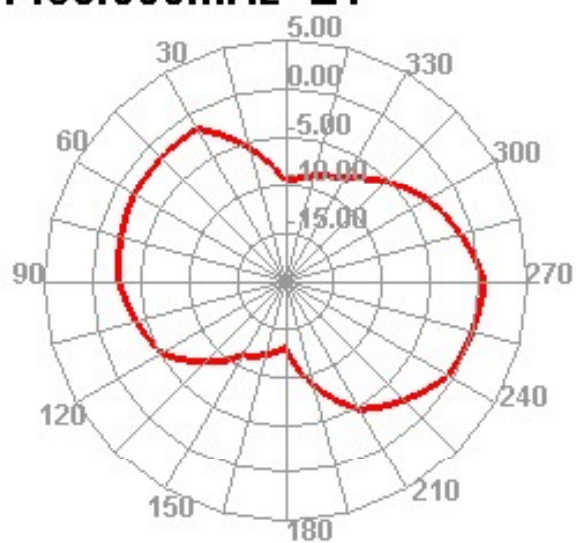
1438.000MHz



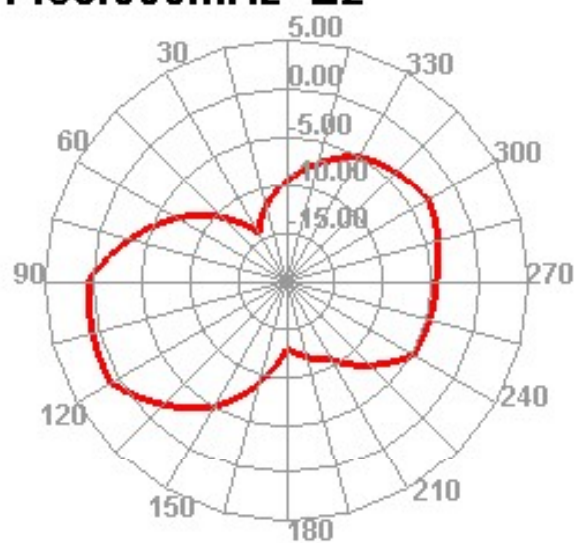
1438.000MHz H



1438.000MHz E1



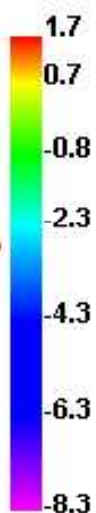
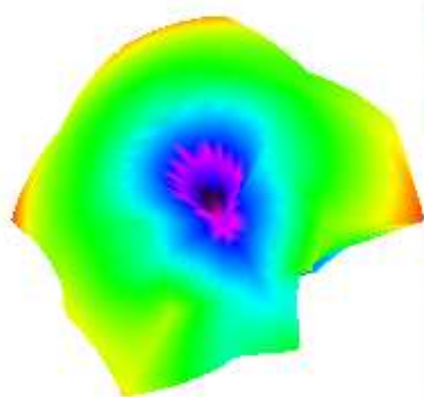
1438.000MHz E2



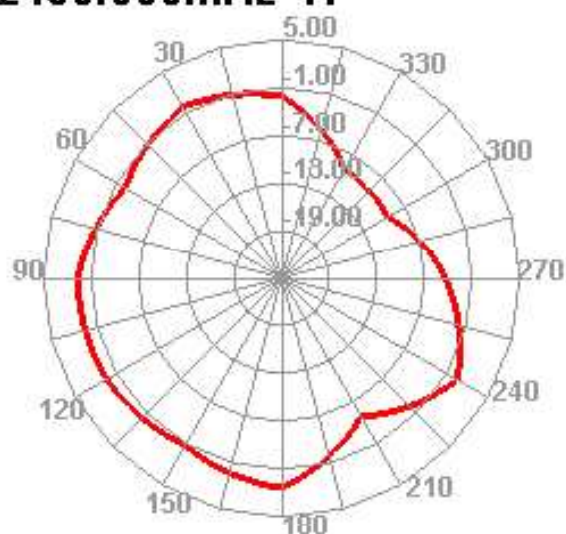


Radiation Pattern For Antenna

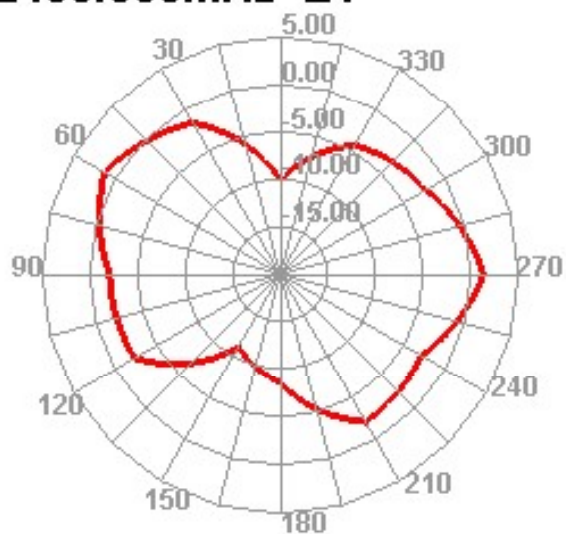
2450.000MHz



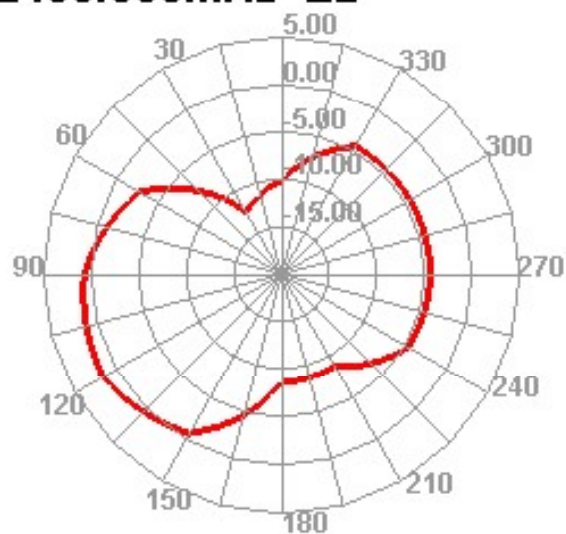
2450.000MHz H



2450.000MHz E1



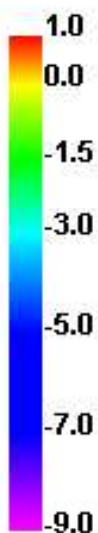
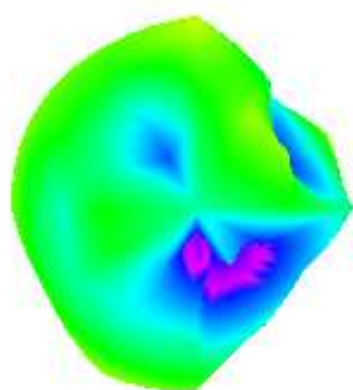
2450.000MHz E2



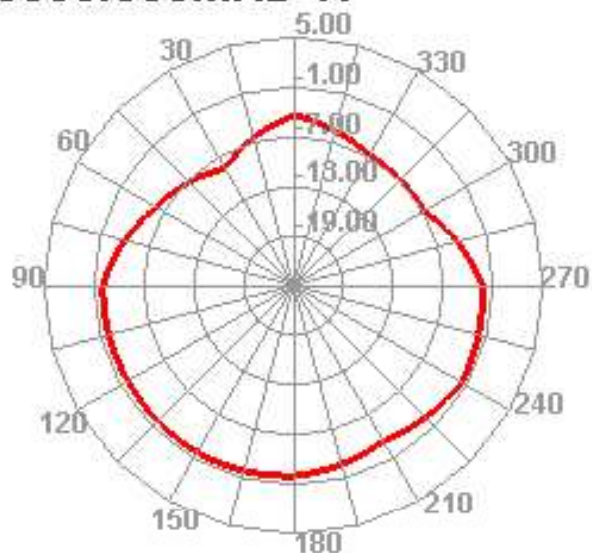


Radiation Pattern For Antenna

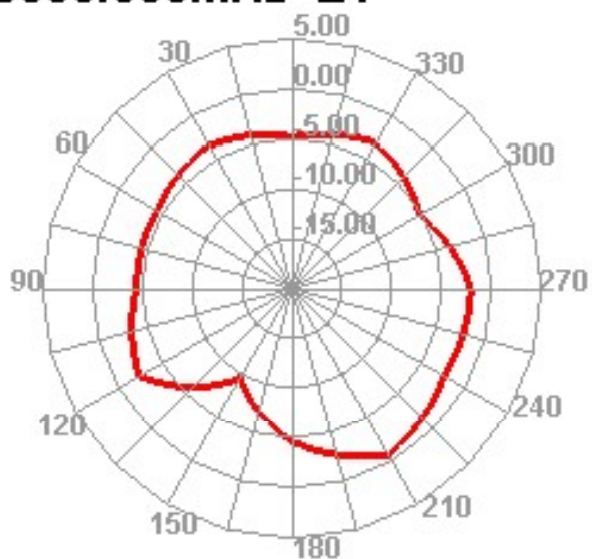
5500.000MHz



5500.000MHz H



5500.000MHz E1



5500.000MHz E2

