



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

规格承认书
SPECIFICATION FOR APPROVAL

日期
DATE: 2023.05.19

版本
REV.: A

客 户
CUSTOMER:

客 户 料 号
CUSTOMER P/N:

品 名
PART NAME: 外置黑色天线 WIFI双频 2.4G&5G With SMA内螺纹针

供 方 料 号
SUPPLIER P/N: 6341F00011

送样日期Date: 送样数量Q'TY: Pcs

客户确认CUSTOMER APPROVED BY		
核准 Approved by	审核 Checked by	拟制 Prepared by

供方确认SUPPLIER SIGNATURE		
核准 Approved by	审核 Checked by	拟制 Prepared by
Jack		andy

ZX-QT-RD-0011-A1

Add:上海市徐汇区桂箐路69号30栋605室 Tel:021-54266190 Fax:021-54266191

Specification

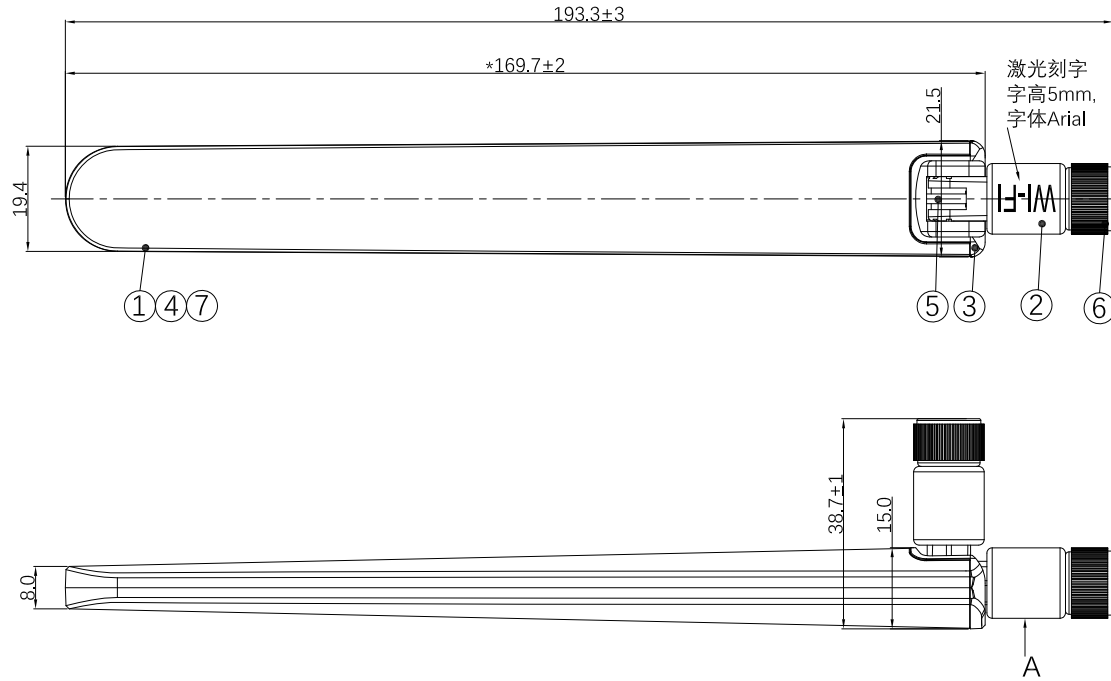
1. Electrical Properties :

- 1.1 Frequency Range.....2400~2500MHz&5150~5850MHz
- 1.2 Impedance 50 Ω
- 1.3 VSWR ≤ 2.0
- 1.5 Gain 5dBi

2. Physical Properties :

- 2.1 Cable..... RG174
- 2.2 Connector SMA Male
- 2.3 Operating Temp. -20°C ~ +65°C
- 2.4 Storage Temp. -30°C ~ +75°C

REV	DATE	DESCRIPTION
X1	05/08-2023	New Issue



1.ELECTRICAL PROPERTIES:

- 1.1 Frequency Range.....2400-2500MHz&5150-5850MHz
- 1.2 Impedance.....50 Ohm Nominal
- 1.3 VSWR.....2.0Max
- 1.4 Gain.....3.0dBi

2.These Products are in conformity with ROHS 2.0;

3."*" is the key control size.

NO	DESCRIPTION	Q'TY	REMARK
7	Foam	EVA,Black,single-sided adhesive	1
6	Connector	Big SMA, SMA Male, Black Plastic screw sleeve; Tooth nickel plating;	1
5	Cable	RG178 Cable,Transparent brown	1
4	PCB	FR4,黑色	1
3	Antenna Base	PC,Black	1
2	Antenna Base	PC+PBT,Black	1
1	Antenna Body	ABS,Black,	1

CUSTOMER'S SINGATURE	XXX.	±2.0	APPROVED	CUSTOMER:		
	XX.	±1.5		PART NO: 612002000000001		
	X.	±1.0		PART NAME: RF ASSEMBLY(5G CPE)		
	.X	±0.5	DRAWING yzq	Z&X P/NO: 6341F00011		
	.XX	±0.2		REV	UNIT	FILE:
	⊕	⊖		X1	mm	SHEET: 1/1

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Antenna Test Report

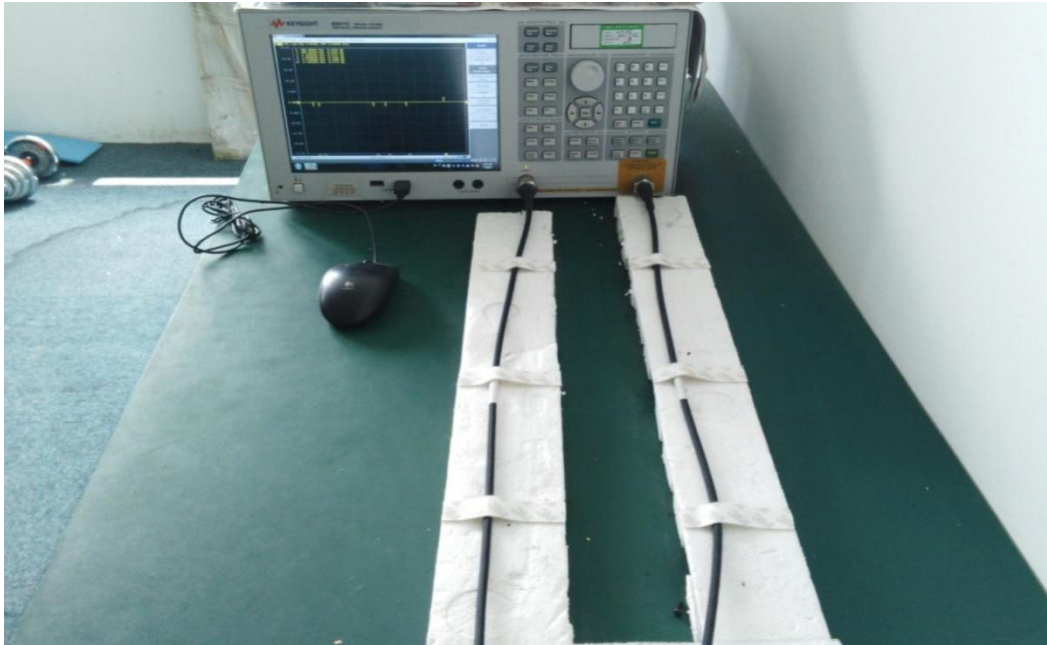
2.4G&5G

1. RF Fixture Experiment

1.1 Test Setup

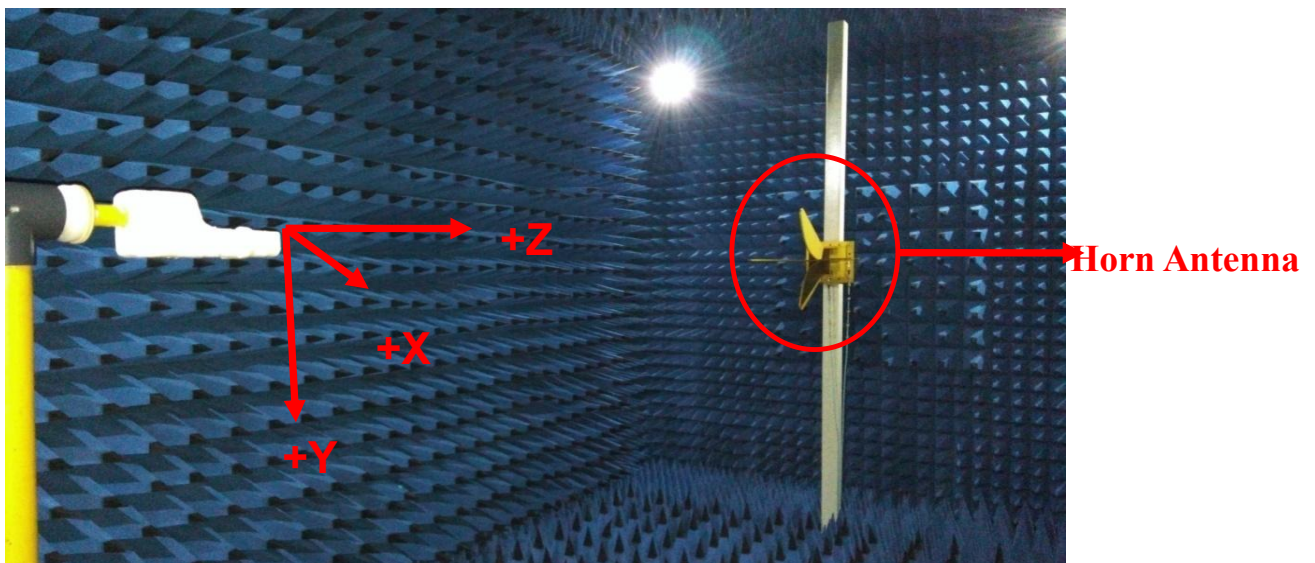
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed 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.



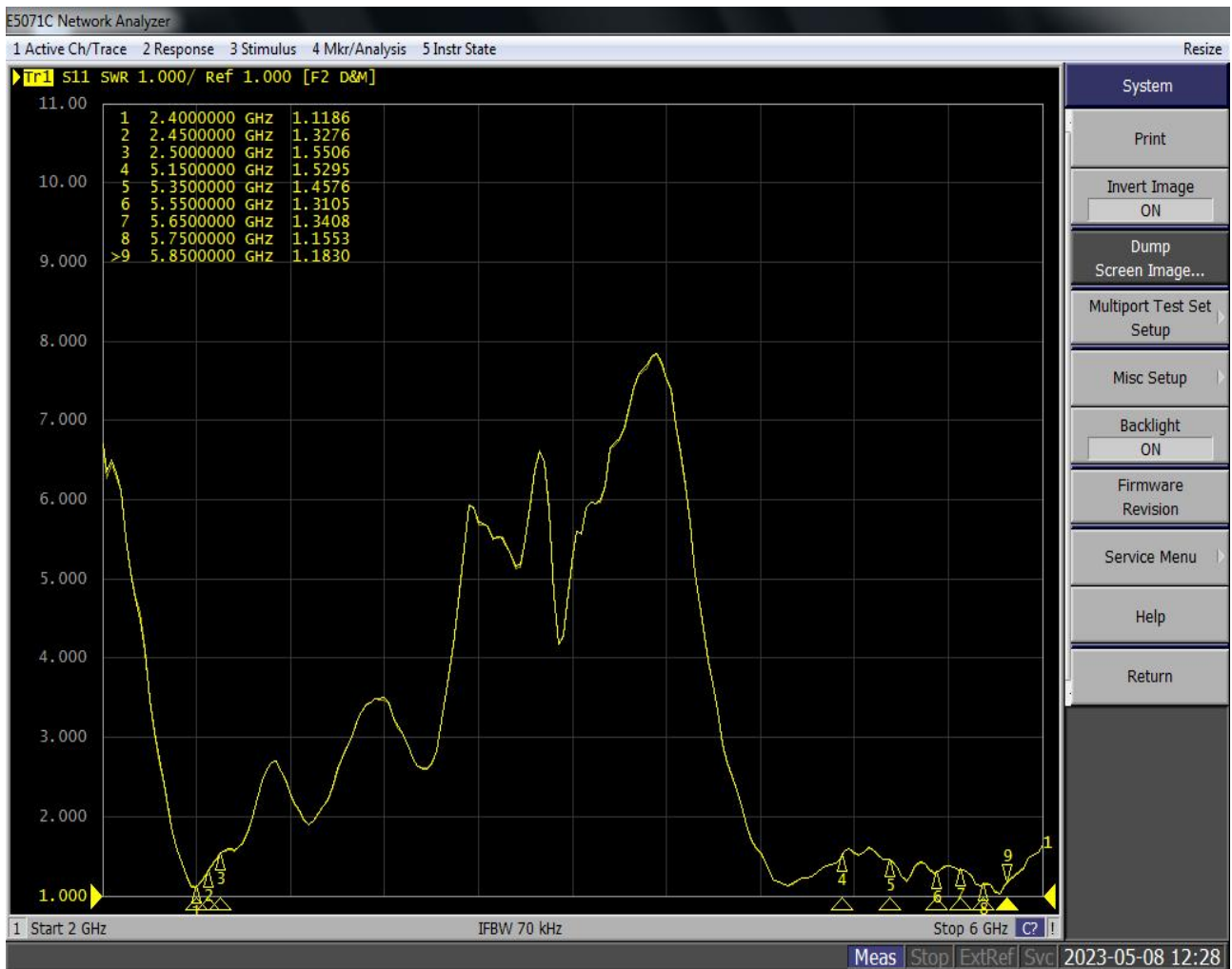
2.Antenna Solution



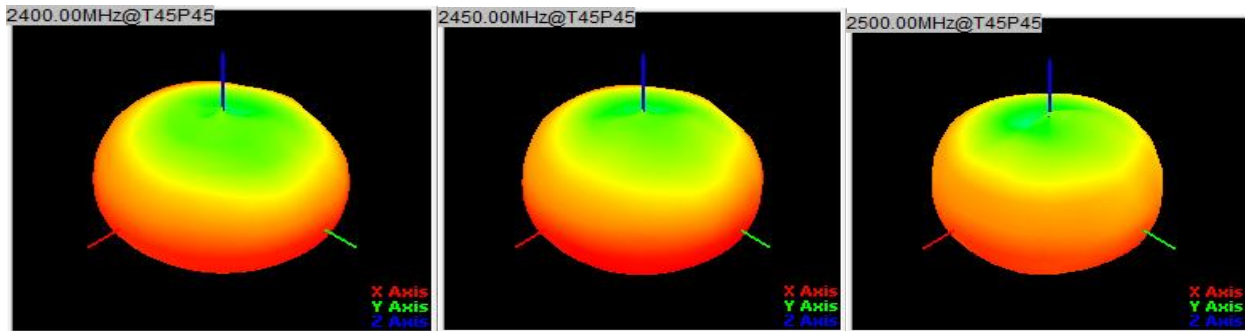
Data Preview

Freq.(MHz)	2400	2450	2500	5150	5250	5350	5450	5550	5650	5750	5850
VSWR	1.11	1.32	1.55	1.52	1.34	1.45	1.39	1.31	1.34	1.15	1.18
Gain(dBi)	3.63	3.78	3.09	3.06	3.64	4.32	5.15	4.63	4.32	4.66	4.86
Eff.%	79.9	81.9	73.4	66	63.8	69.6	73.3	68.9	64.5	68.4	68.2

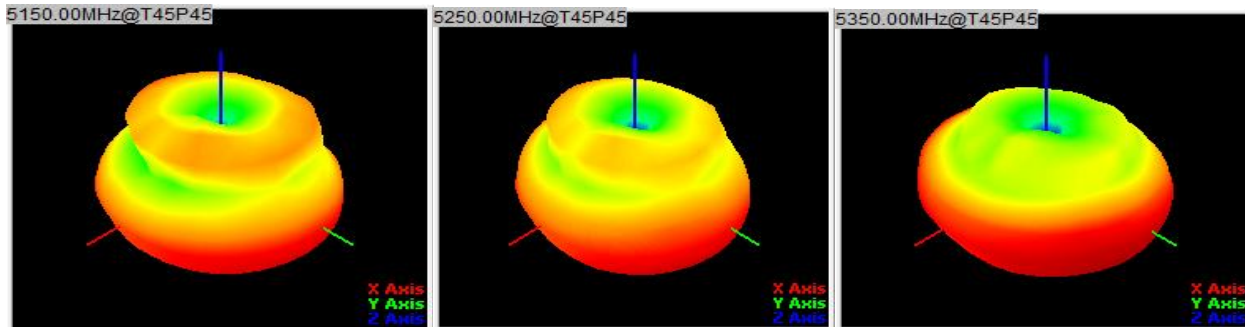
S11



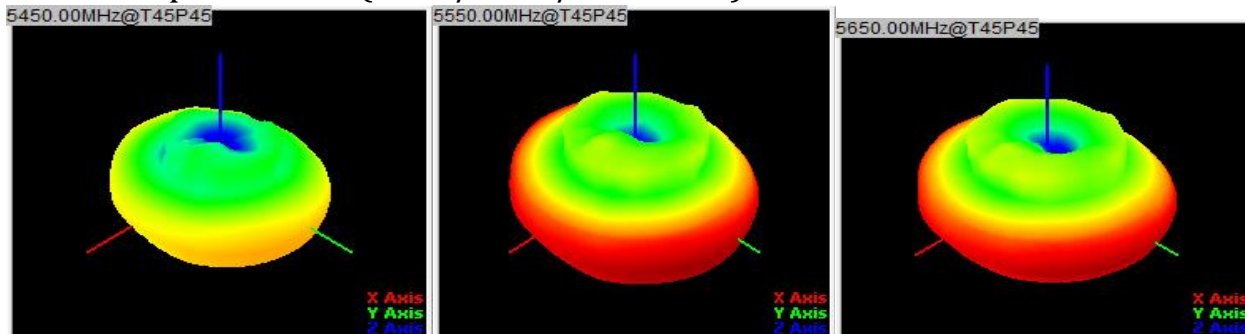
Radiation patterns:3D(2400/2450/2500MHz)



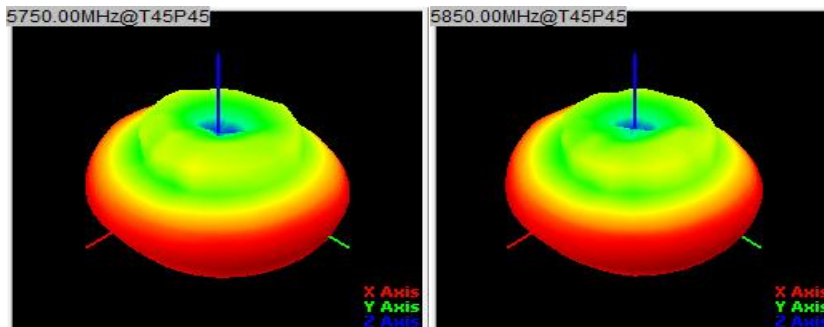
Radiation patterns:3D(5150/5250/5350MHz)



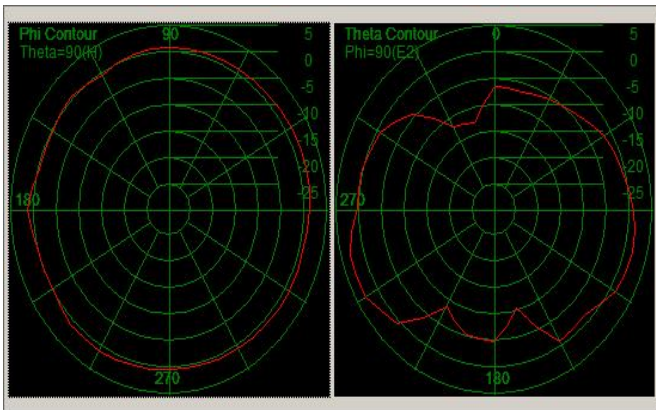
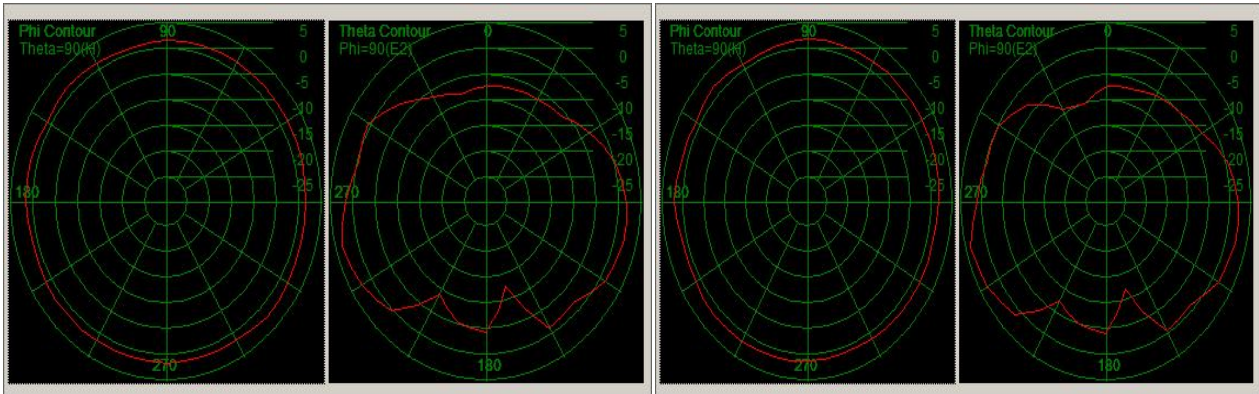
Radiation patterns:3D(5450/5550/5650MHz)



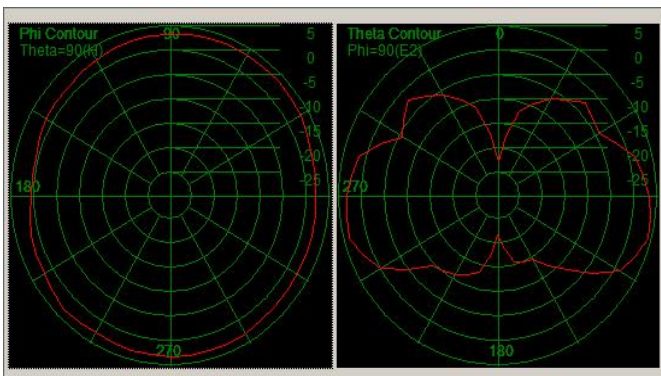
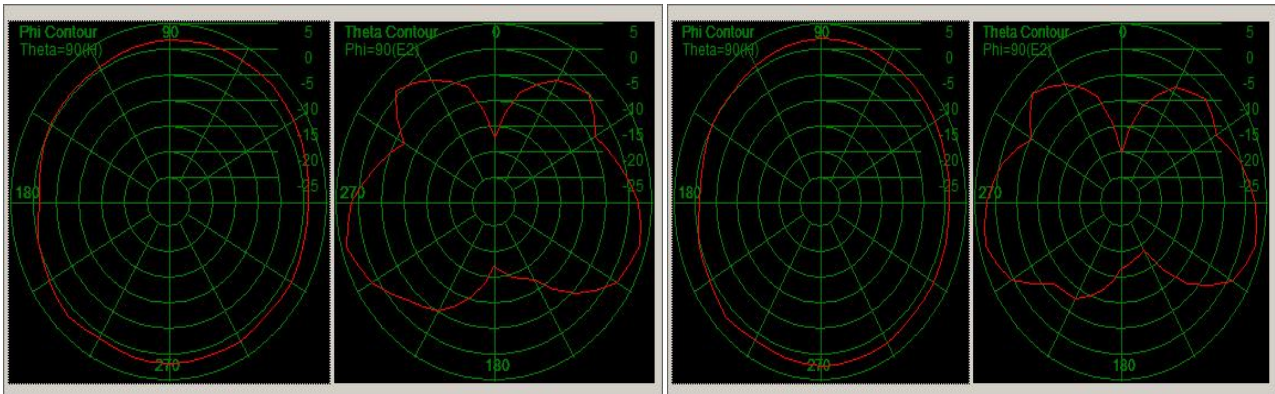
Radiation patterns:3D(5750/5850MHz)



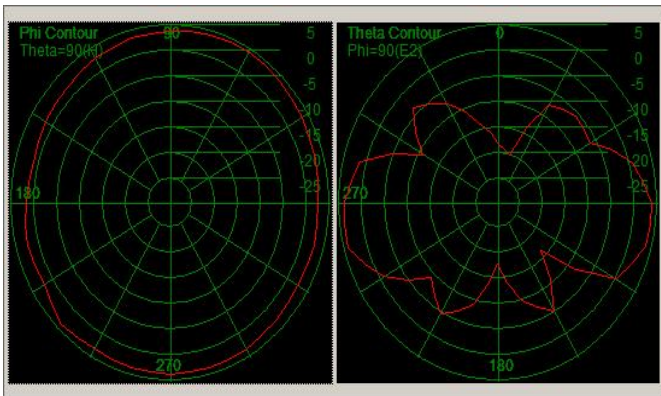
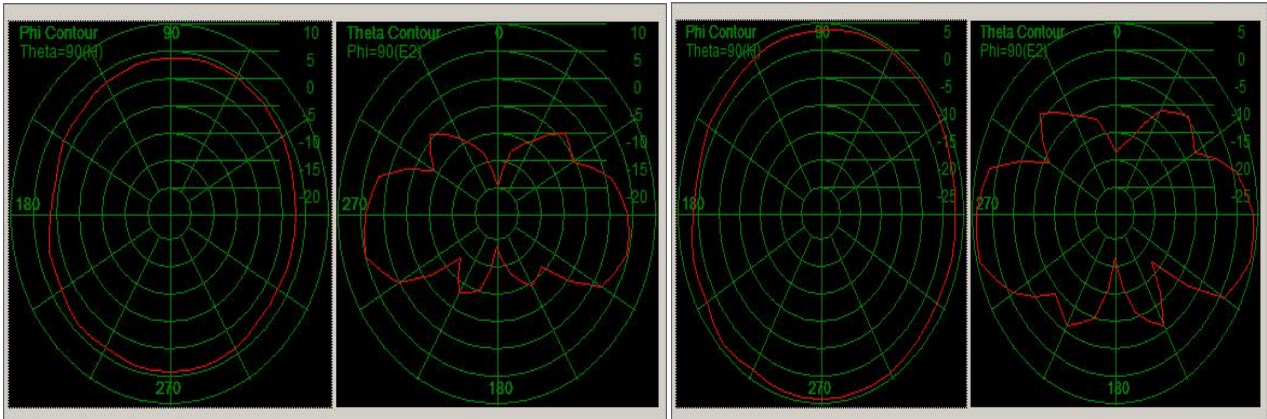
Radiation patterns:2D(2400/2450/2500MHz)



Radiation patterns:2D(5150/5250/5350MHz)



Radiation patterns:2D(5450/5550/5650MHz)



Radiation patterns:2D(5750/5850MHz)

