

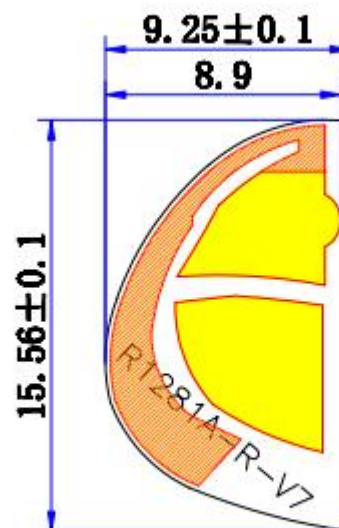
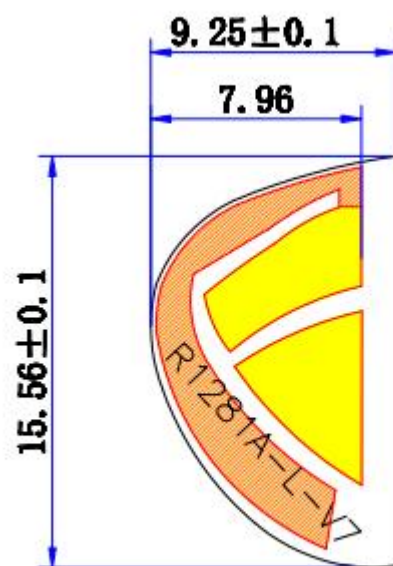
R1281 Antenna Test Report

Customer	
Project	R1281
Antenna Revision	A1
Product Description	FPC
Product No	
DATE	2022. 12. 07

Product Overview & Dimension

Front





Purpose

This report is to measure the performance of BT antenna for R1281. The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

Content

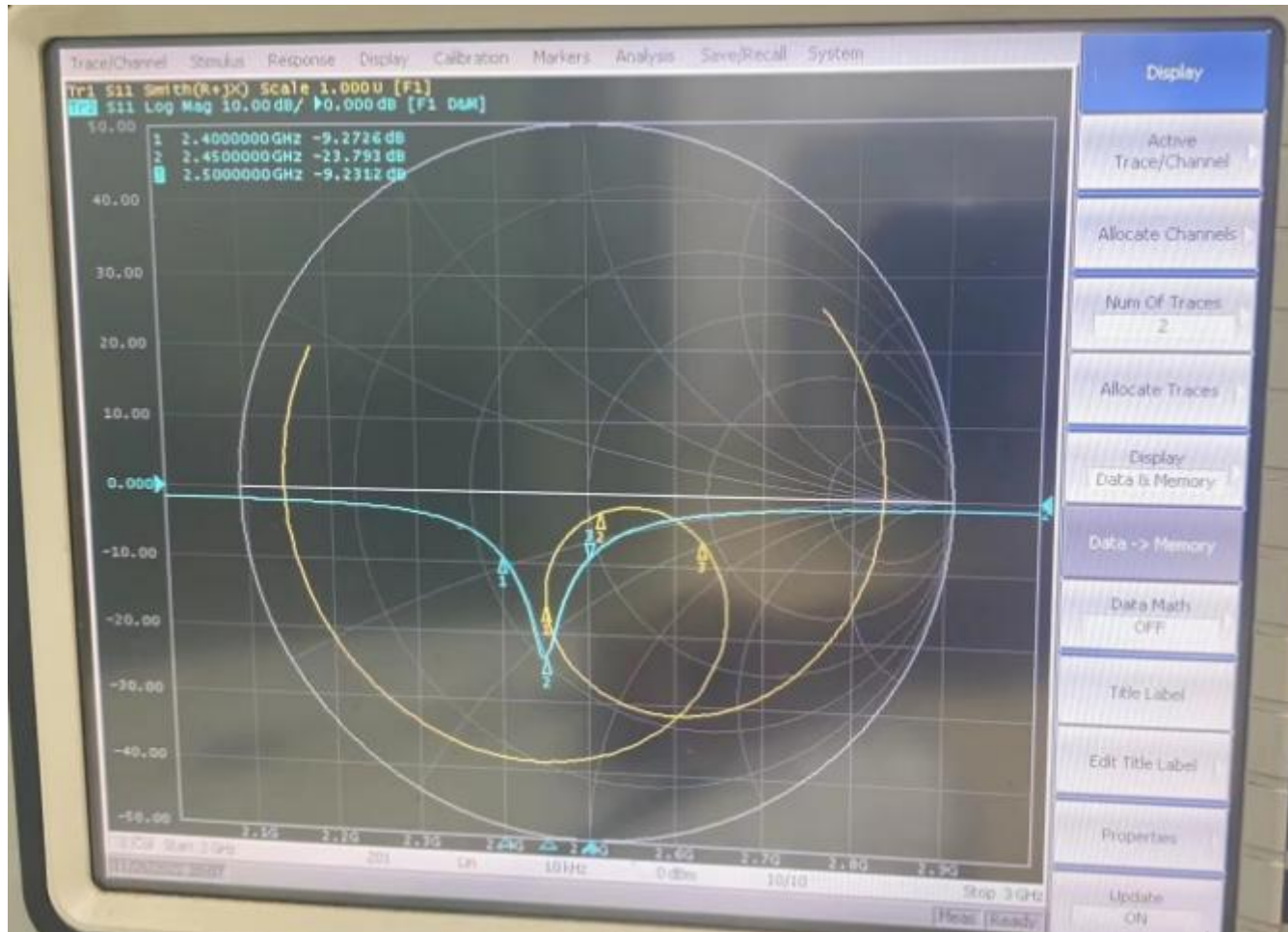
1. Product Overview & Dimension
2. Test system
3. Antenna Matching Network
4. Test Result
 - 4.1 S11 Parameter
 - 4.2 Test coordinate
 - 4.3 2D Pattern
 - 4.4 OTA Data
 - 4.5 BT Boot measured
5. Antenna Assembly & environmental processing

2. Test System

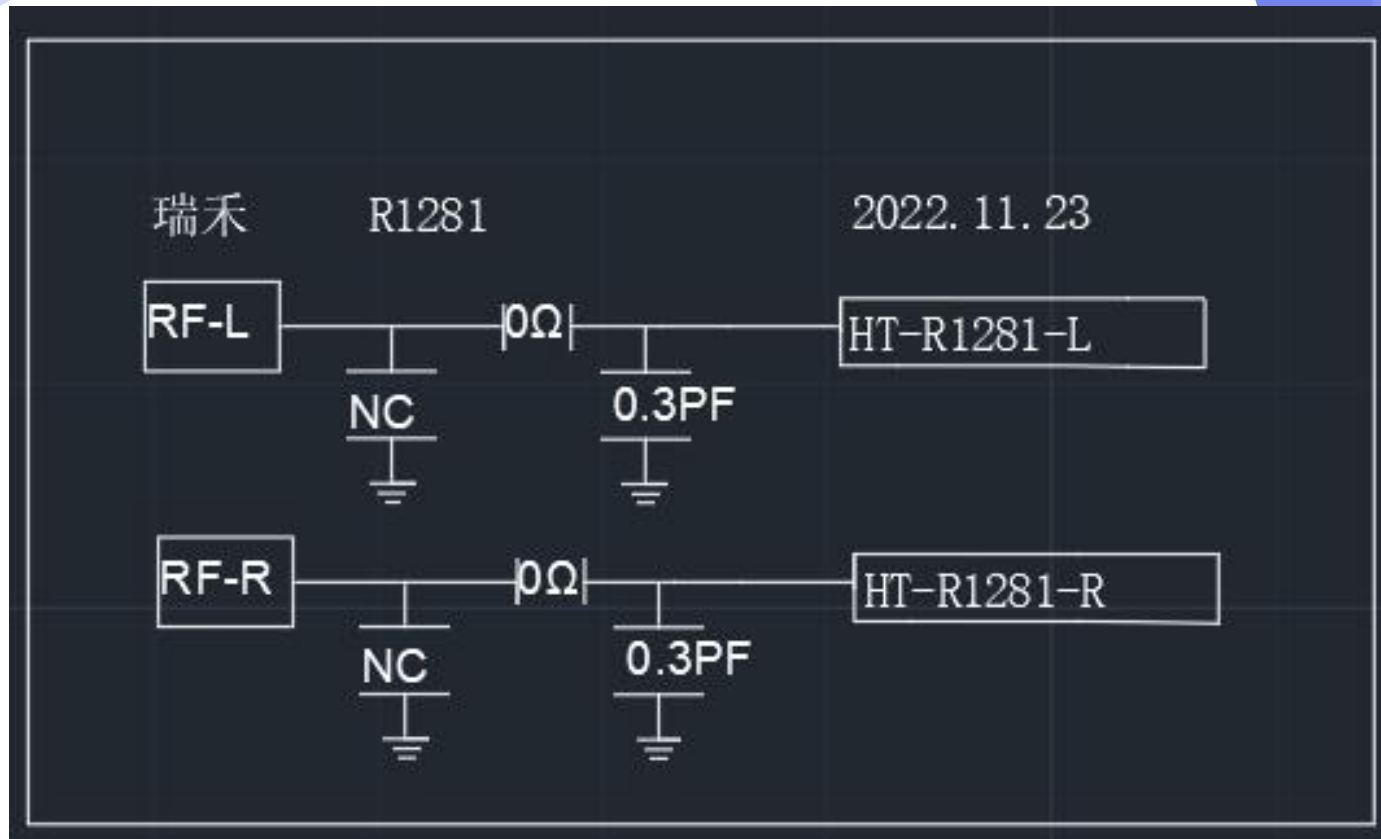
Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



S11—(BT ANT)



(L/R)



Test Result

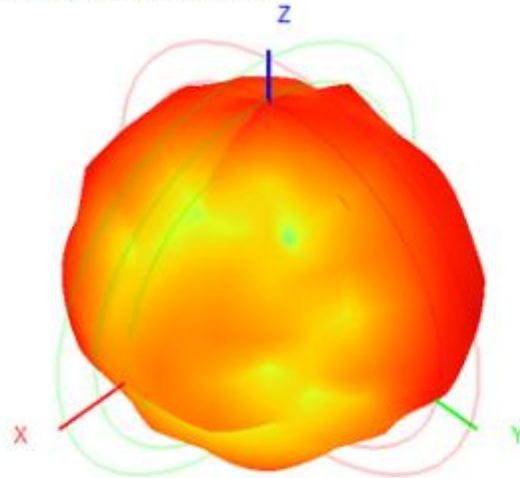
Gain & Efficiency—**BT- ANT(L/R)**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	23.61	0.83
2410	25.67	0.96
2420	27.79	1.65
2430	30.75	1.87
2440	32.71	1.82
2450	35.24	1.80
2460	35.12	1.36
2470	36.38	1.50
2480	34.63	0.76
2490	35.53	1.05
2500	35.16	1.00

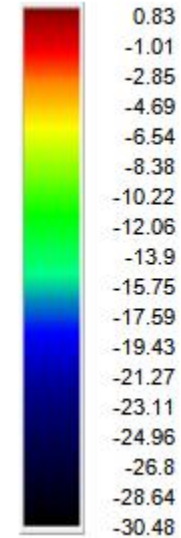
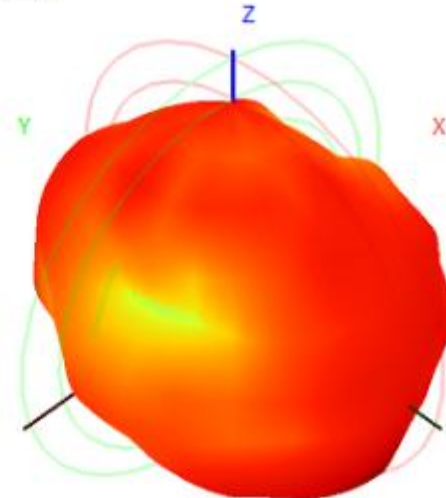
Test Result

2D&3D — BT- ANT

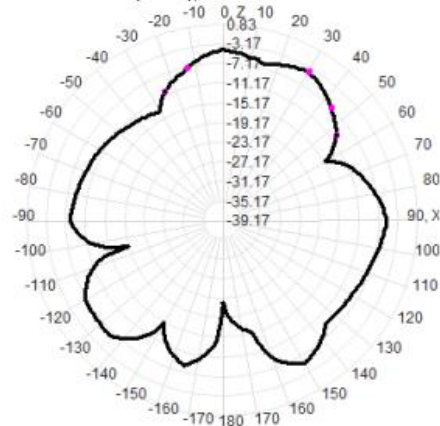
2400.0MHz H+V, Eff: 23.6%



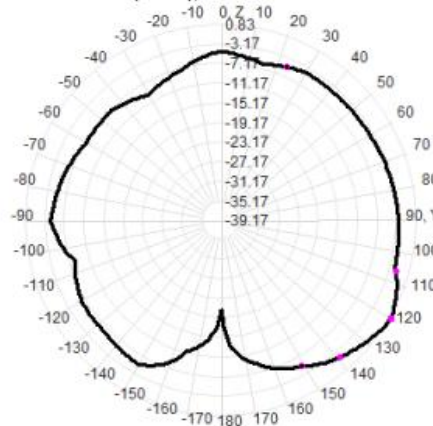
Back View



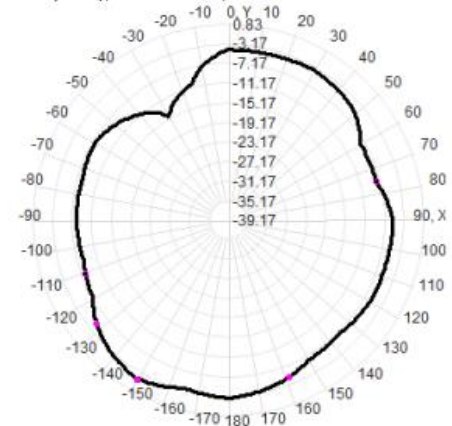
2400.0MHz Total(E1-XZ), Max=-4.15dBi



2400.0MHz Total(E2-YZ), Max=0.83dBi



Total(H-XY), Max=-1.94dBi, CirD=12.70

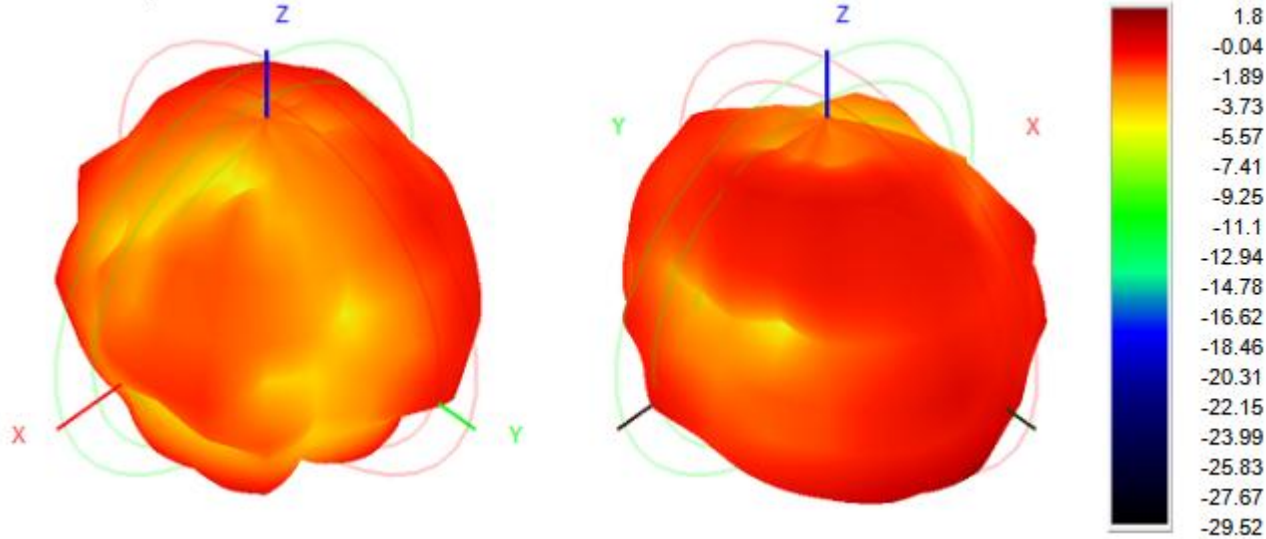


Test Result

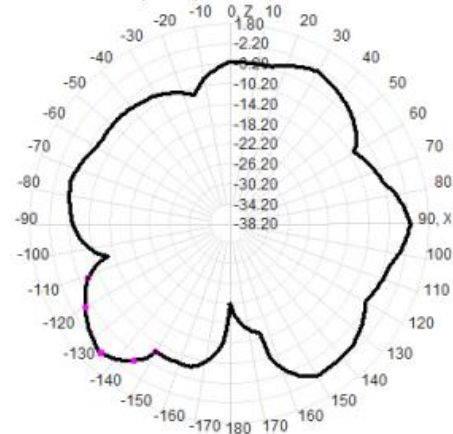
2D&3D — BT- ANT

2450.0MHz H+V, Eff: 35.2%

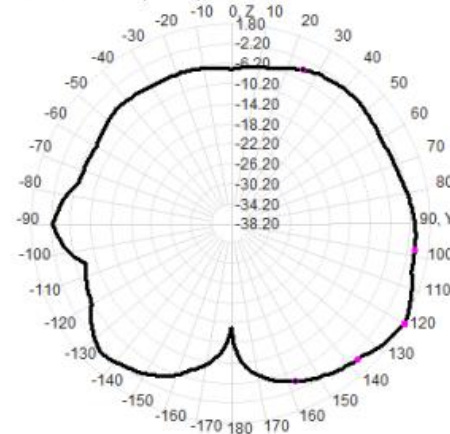
Back View



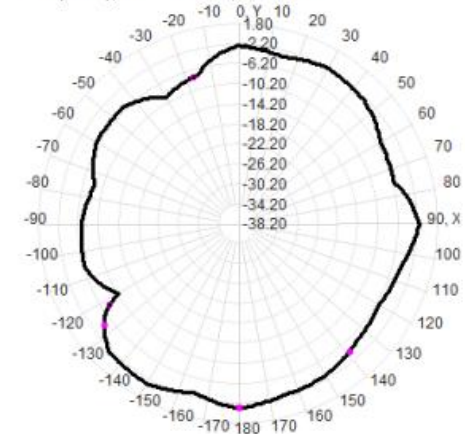
2450.0MHz Total(E1-XZ), Max=-1.65dBi



2450.0MHz Total(E2-YZ), Max=1.80dBi



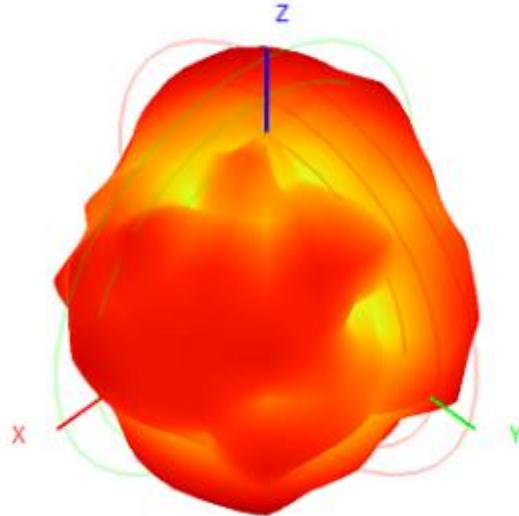
Total(H-XY), Max=-1.48dBi, CirD=8.96



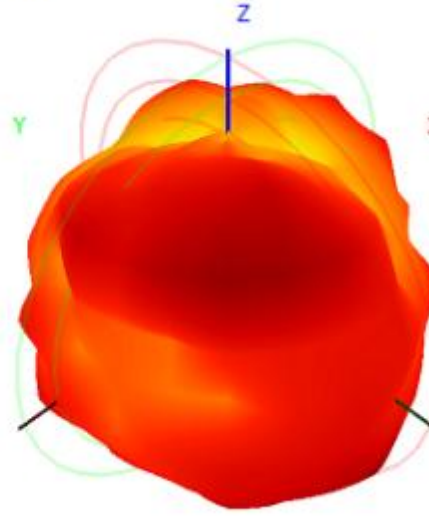
Test Result

2D&3D — BT- ANT

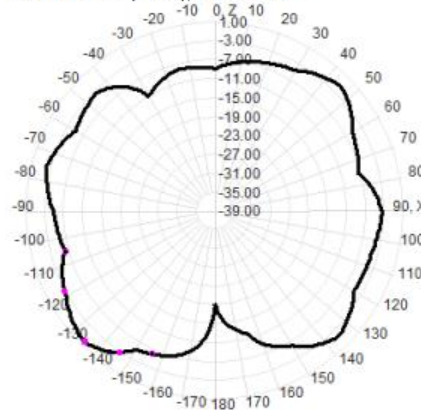
2500.0MHz H+V, Eff: 35.2%



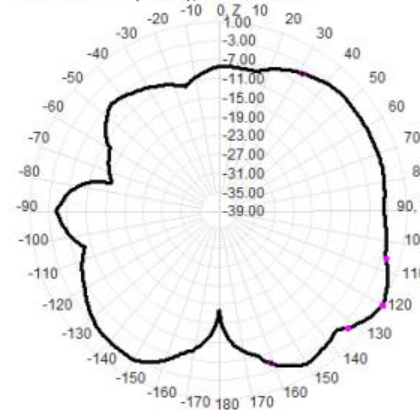
Back View



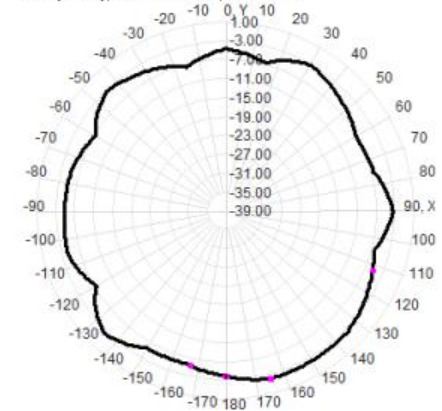
2500.0MHz Total(E1-XZ), Max= 0.09dBi



2500.0MHz Total(E2-YZ), Max= 1.00dBi

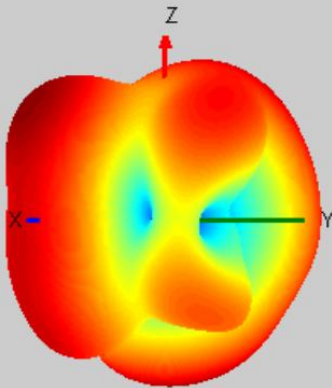
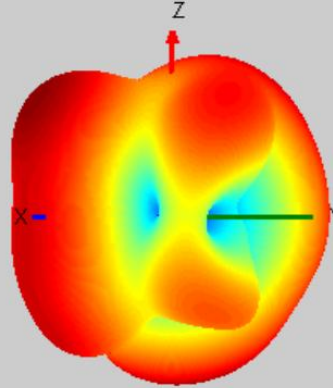


Total(H-XY), Max= -2.42dBi, CirD=5.12



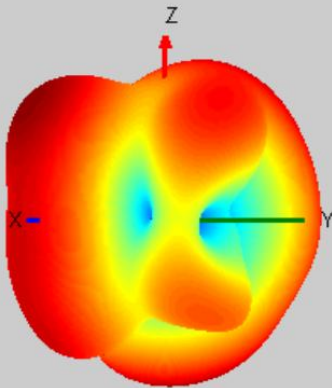
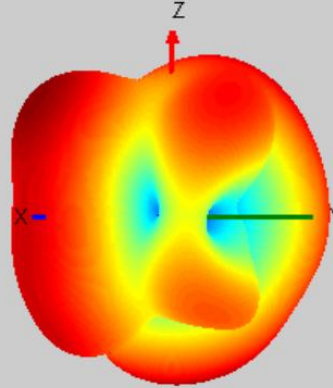
OTA DATA(--传导)

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	9.10	-93
		39	9.43	-93
		78	9.12	-93

(L)(R)

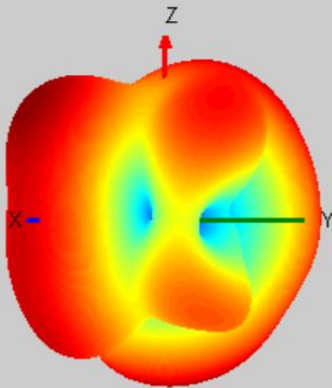
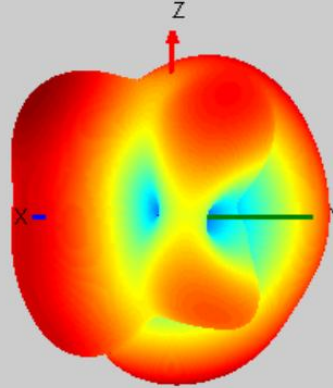
OTA DATA(自由空间)--L

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	3.43	-85.69
		39	3.65	-84.31
		78	3.45	-4.65

(L)(R)

OTA DATA(自由空间)--R

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	3.44	-85.61
		39	3.69	-85.17
		78	3.72	-84.71

(L)(R)

Thanks for your comment!

- ✧ Shenzhen Hetuo Technology Co., LTD
- ✧ Shenzhen: Room 1202B, Building C6,
Hengfeng Industrial City, Xixiang, Bao
'an District, Shenzhen
- ✧ RF: Hu Xuwen