

BT Antenna Test Report



Customer	福智声学
Project	6877
Antenna Revision	A6
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Checked by	18814303605
Date:	2022. 7. 14

Purpose

This report is to measure the performance of BT antenna for 6877.
.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
- 4.5 OTA

2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C

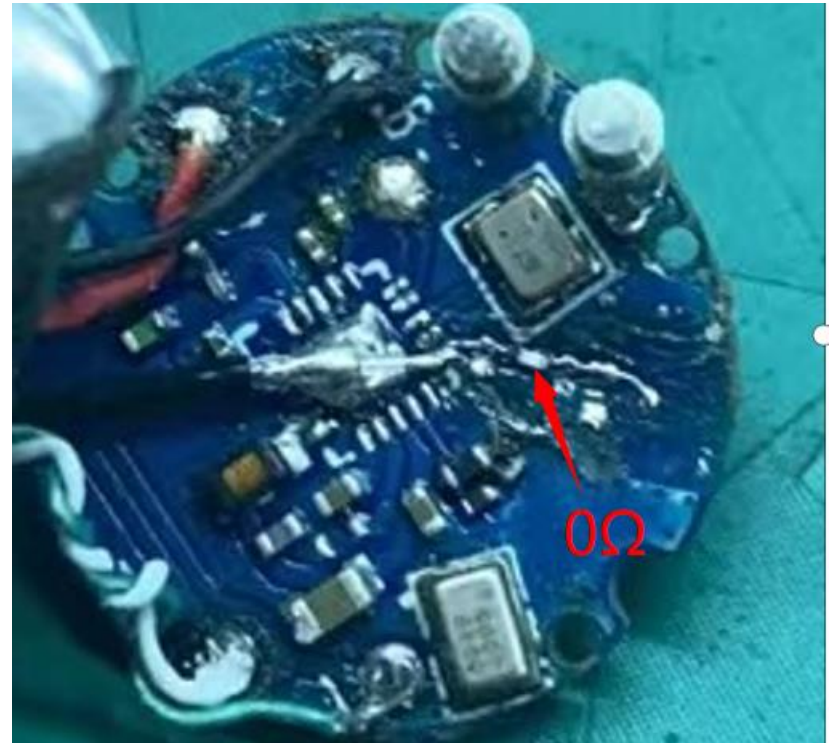


3. Antenna Matching Network

L



R



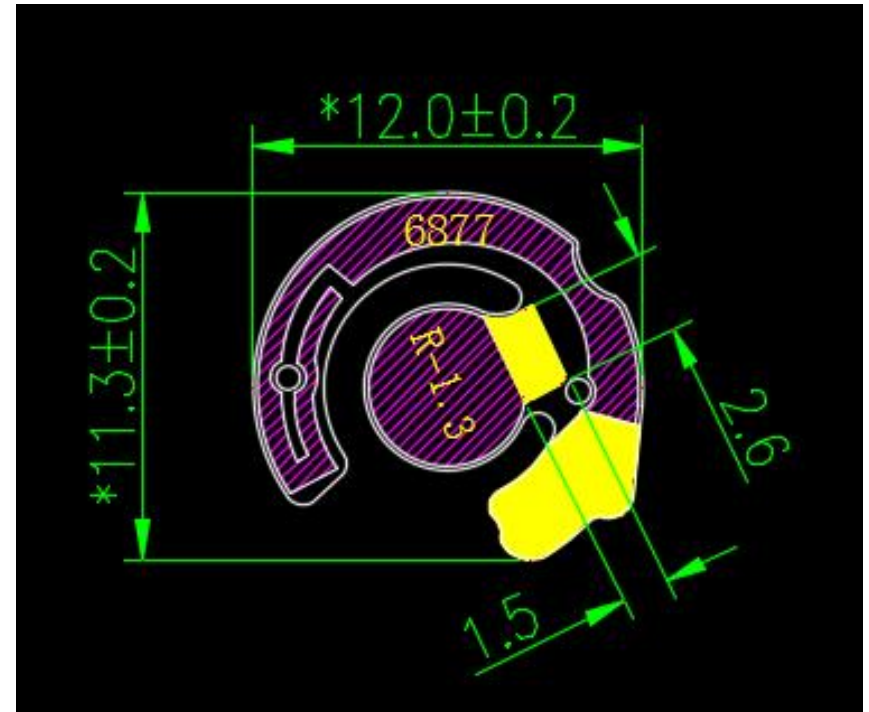
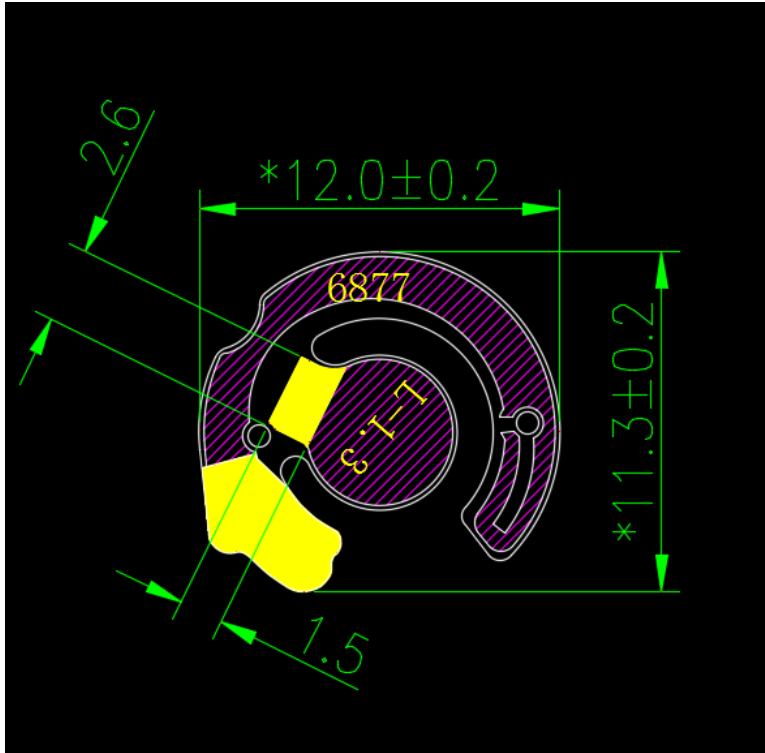
3. Antenna

左右天线设计镜像，增益值没有变化。



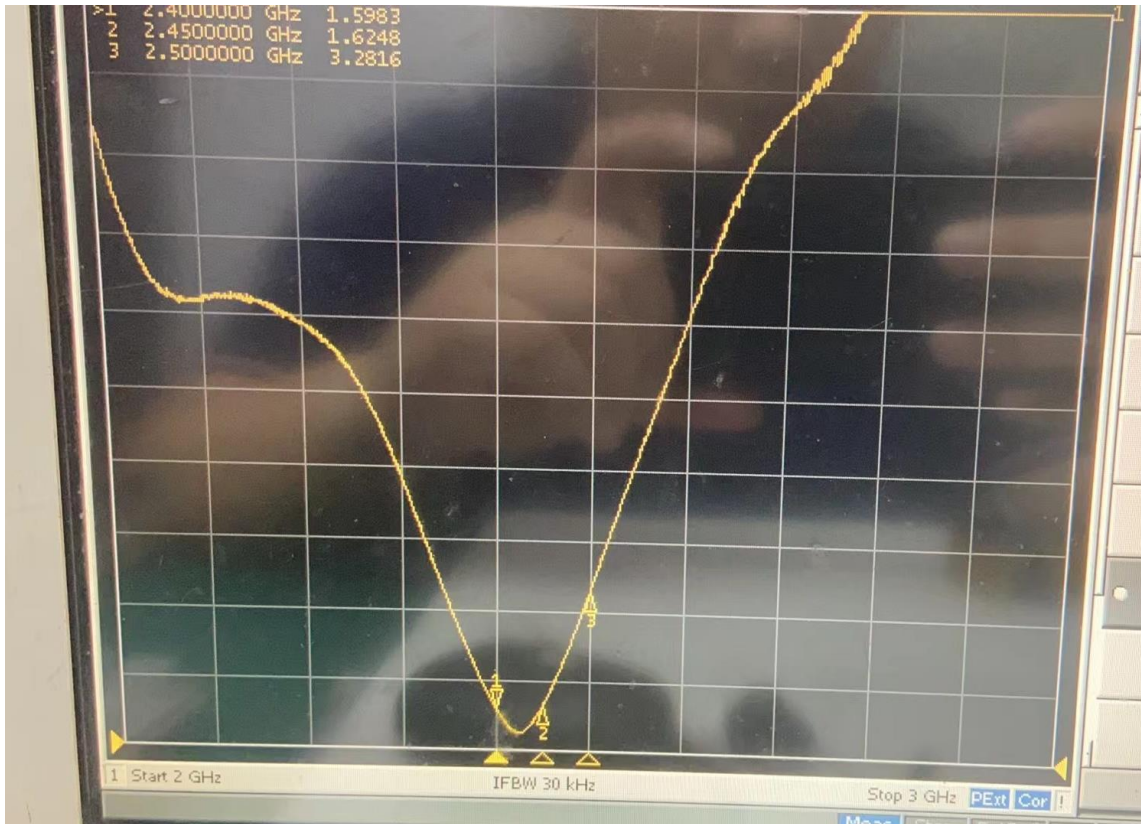
3. Antenna

左右天线设计镜像，增益
值没有变化。



4. Test Result

4.1 S11 Parameter-VSWR



Frequency(MHz)	2400	2450	2500
VSWR	1.59	1.62	3.28

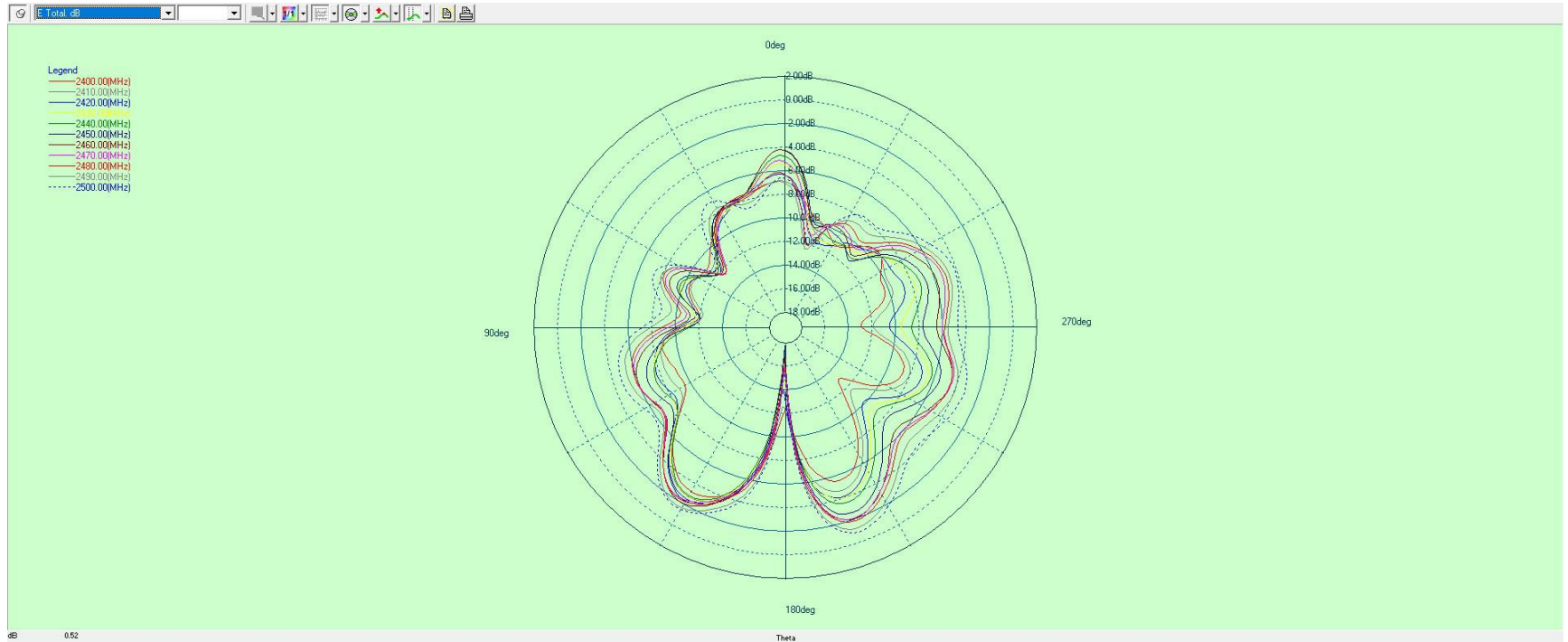
4. Test Result

4.2 Gain & Efficiency

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	27.8	-3.21
2410	28.4	-3.00
2420	28.6	-2.62
2430	28.5	-2.90
2440	27.8	-2.91
2450	26.1	-2.32
2460	25.6	-2.07
2470	25.1	-2.05
2480	24.6	-1.91
2490	25.3	-1.22
2500	26.9	-0.91

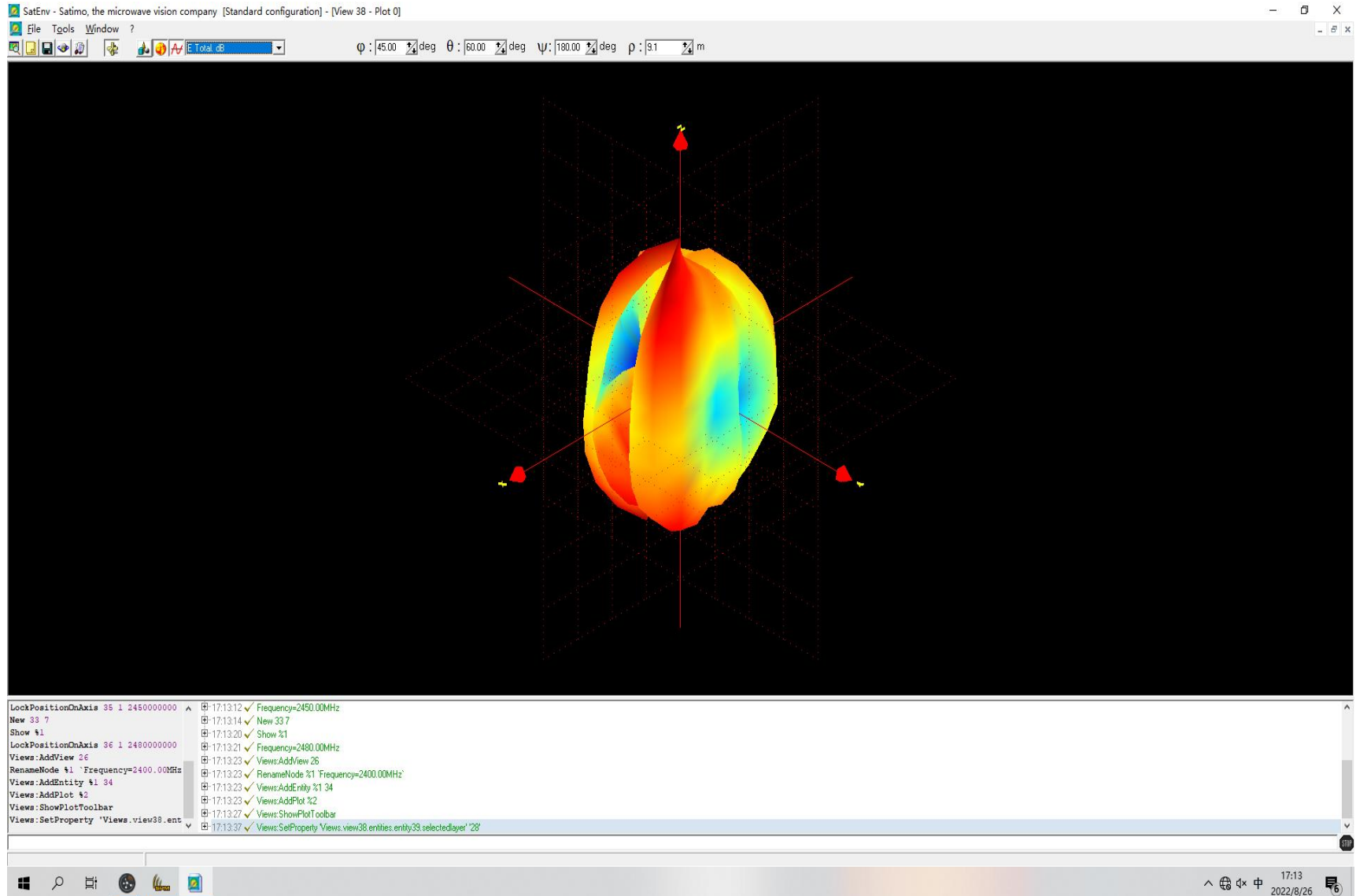
4. Test Result

4.4 2D Pattern

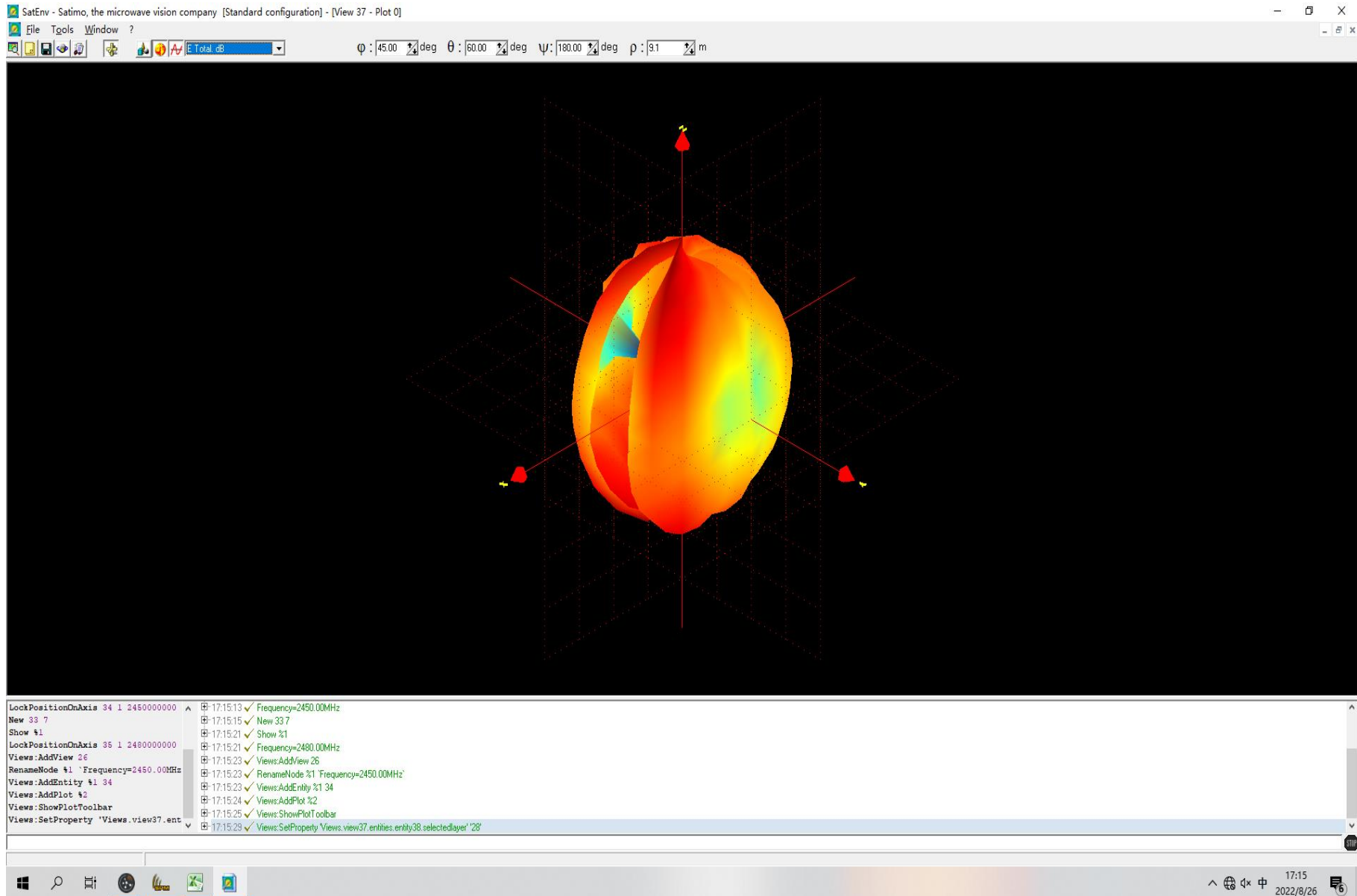


Phi = 0

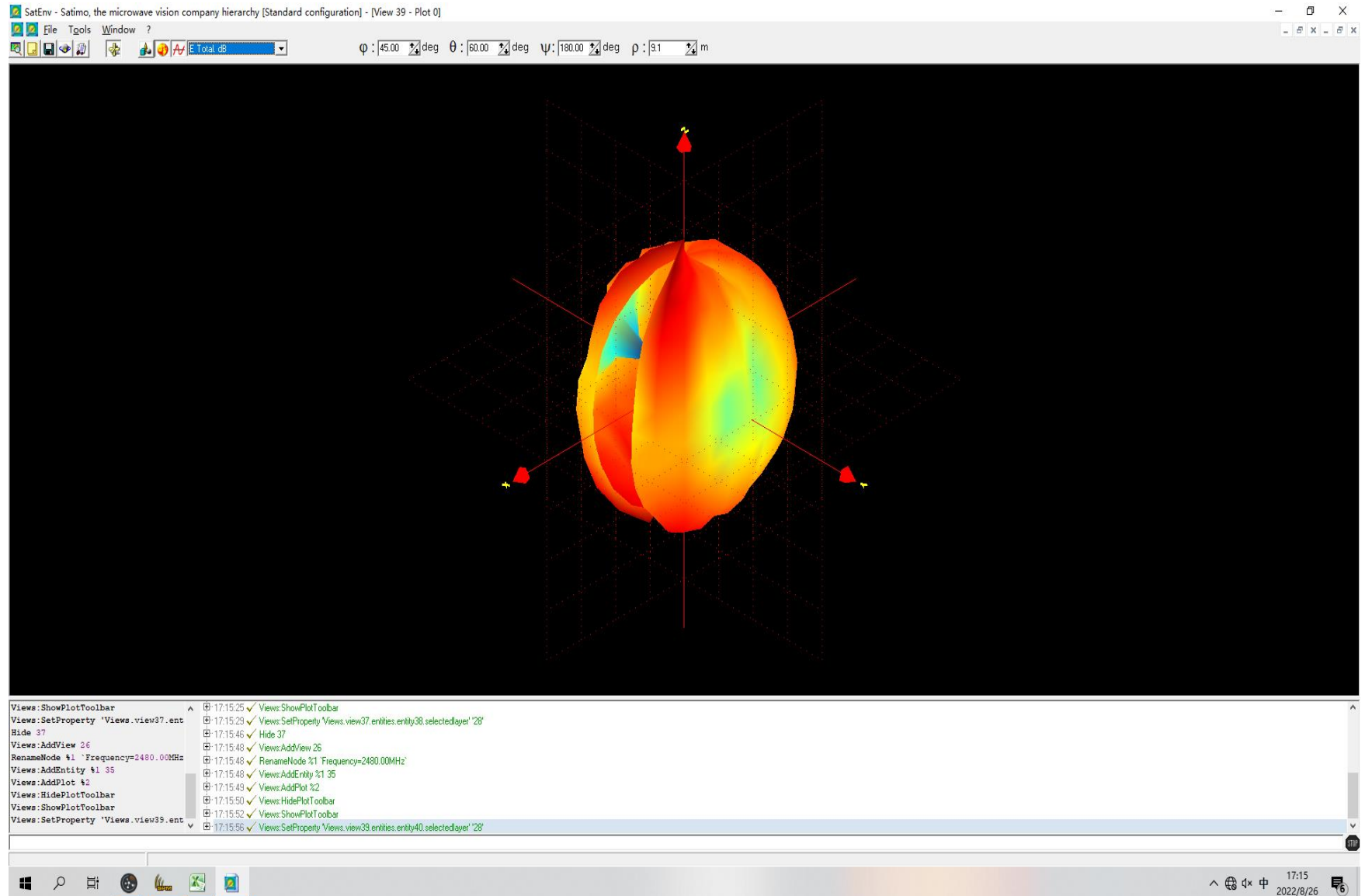
2400



2450

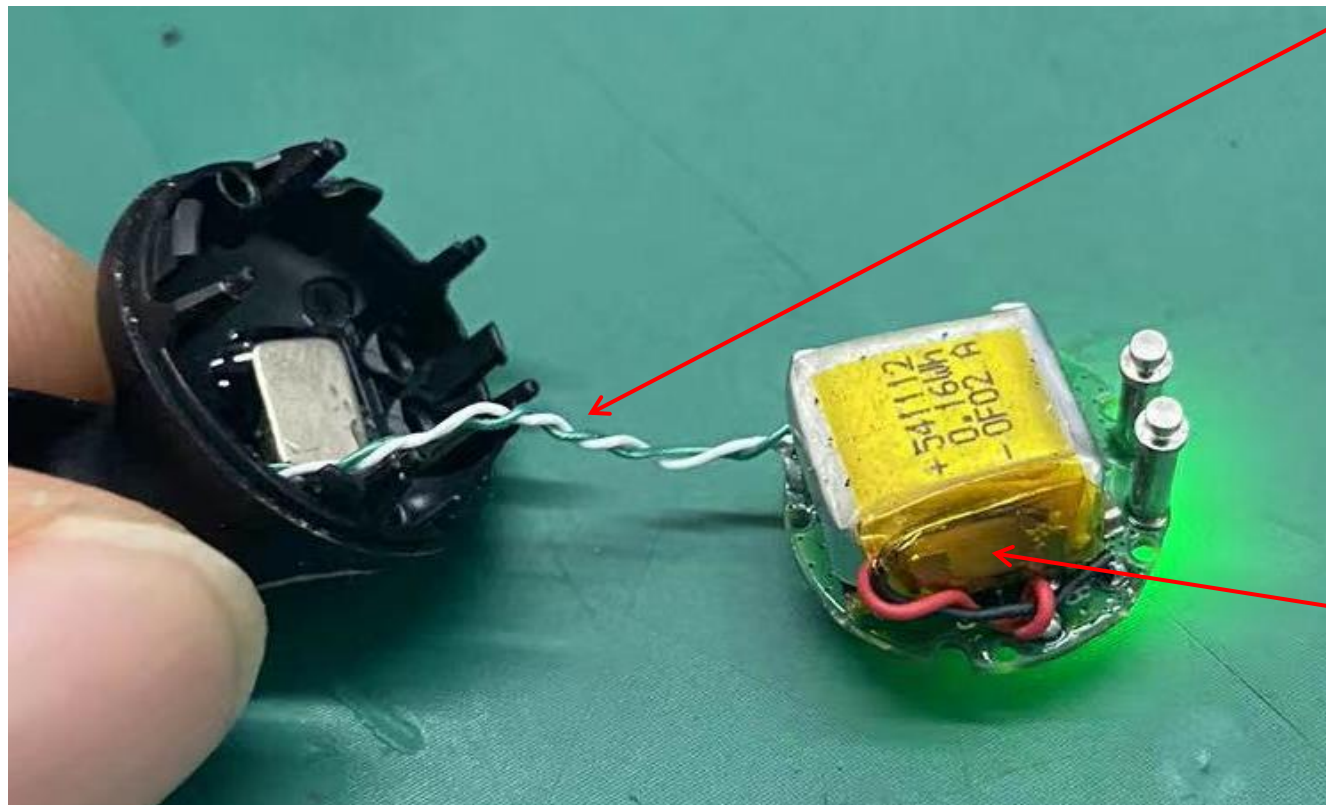


2480



5.喇叭电池摆线方式

L



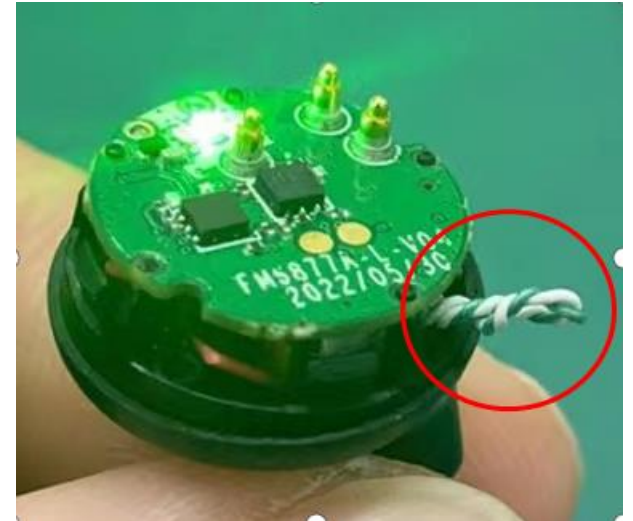
线长25mm左右.中间绕5圈

电池如图所示摆放，
电池距离充电柱大概2-3mm，如果控制不好这个距离可以在电池部分贴一个2-3mm后的泡棉隔开

5. 喇叭电池摆线方式



1



2



3

5.喇叭电池摆线方式

R

线长25mm左右.中间绕5圈



电池如图所示摆放，
电池距离充电柱大概2-3mm，如果控制不好这个距离可以在电池部分贴一个2-3mm后的泡棉隔开

5. 喇叭电池摆线方式

R

2



1



3

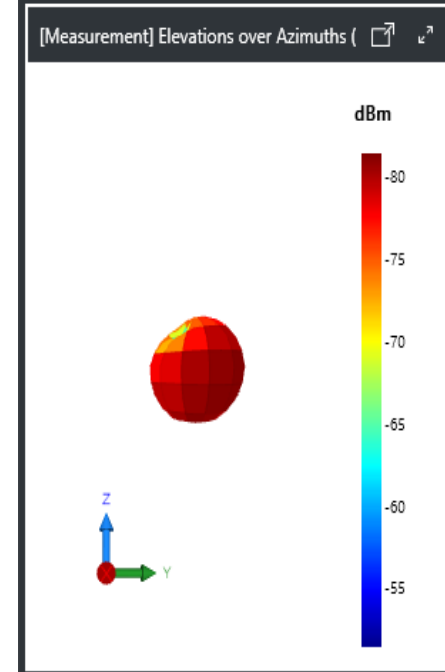
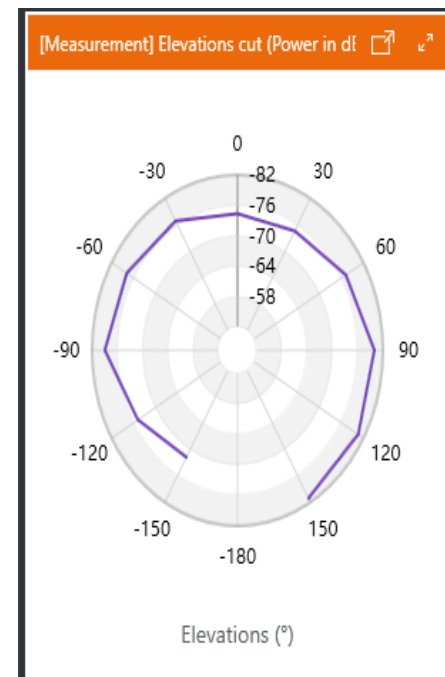
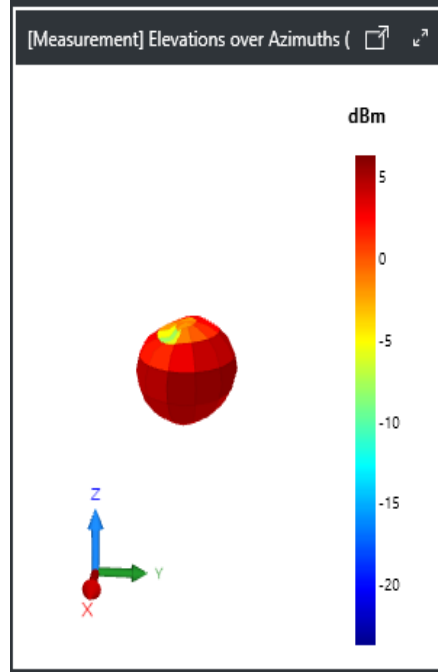
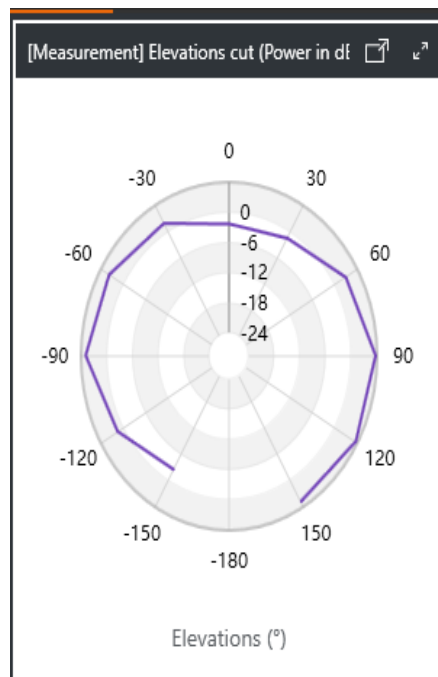


5.5 OTA Data--8#

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
L-BT	0	2.52	-85.17
	39	2.68	-85.62
	78	2.23	-85.31

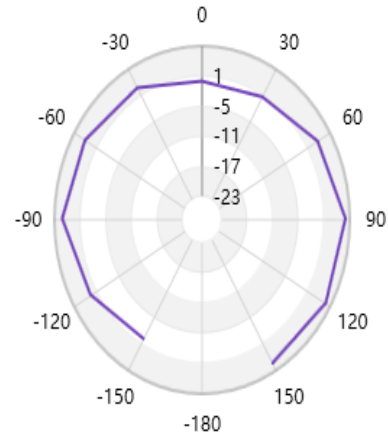
Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
R-BT	0	2.57	-87.22
	39	2.94	-86.46
	78	2.38	-87.16

8#L



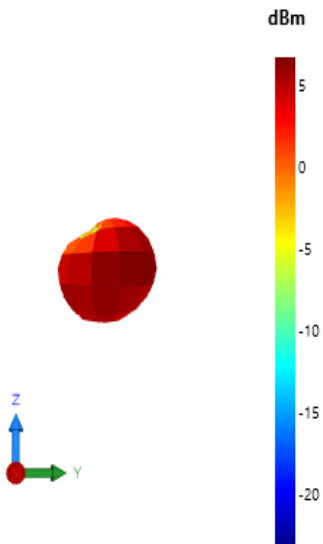
8#R

[Measurement] Elevations cut (Power in dBm)

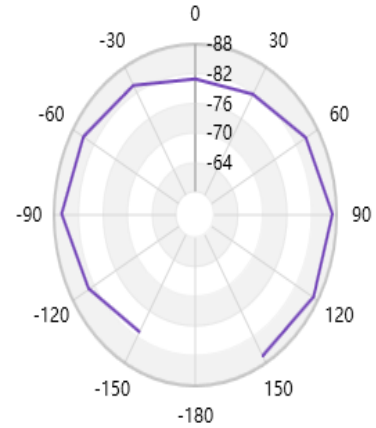


Elevations (°)

[Measurement] Elevations over Azimuths (°)

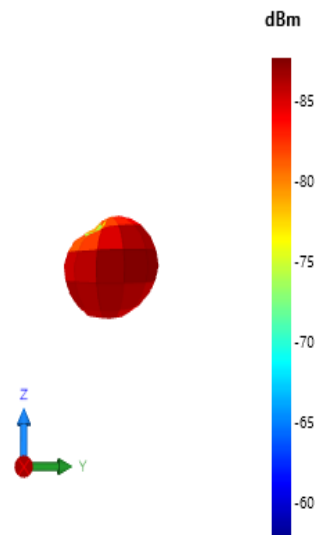


[Measurement] Elevations cut (Power in dBm)



Elevations (°)

[Measurement] Elevations over Azimuths (°)



5.5 OTA Data--7#

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
L-BT	0	2.63	-86.17
	39	2.61	-87.21
	78	2.08	-86.45

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
R-BT	0	2.44	-85.77
	39	2.32	-85.27
	78	2.17	-85.39

5.5 OTA Data--3#

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
L-BT	0	3.08	-85.02
	39	2.50	-86.05
	78	2.41	-85.67

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
R-BT	0	2.18	-85.46
	39	2.21	-84.93
	78	2.19	-85.23

5.5 OTA Data--4#

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
L-BT	0	2.14	-85.29
	39	2.05	-85.14
	78	2.27	-85.39

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
R-BT	0	3.24	-85.84
	39	2.75	-86.19
	78	2.55	-86.20

Thank you !