

YONG CHENG INTERNATIONAL(OTA)

JX56调测报告

Specification规格书



Test item	
1	Matching parameter
2	Network debugging antenna S Parameters
3	Microwave darkroom test OTA active data
4	Measurement of antenna efficiency field pattern in microwave darkroom
5	measuring distance
6	Assembly item
7	summary of commissioning test



Customer

KLX

Project name

JX56

frequency
band

2400MHZ-2500MHZ

engineer:

CK

Date

2026/03/06

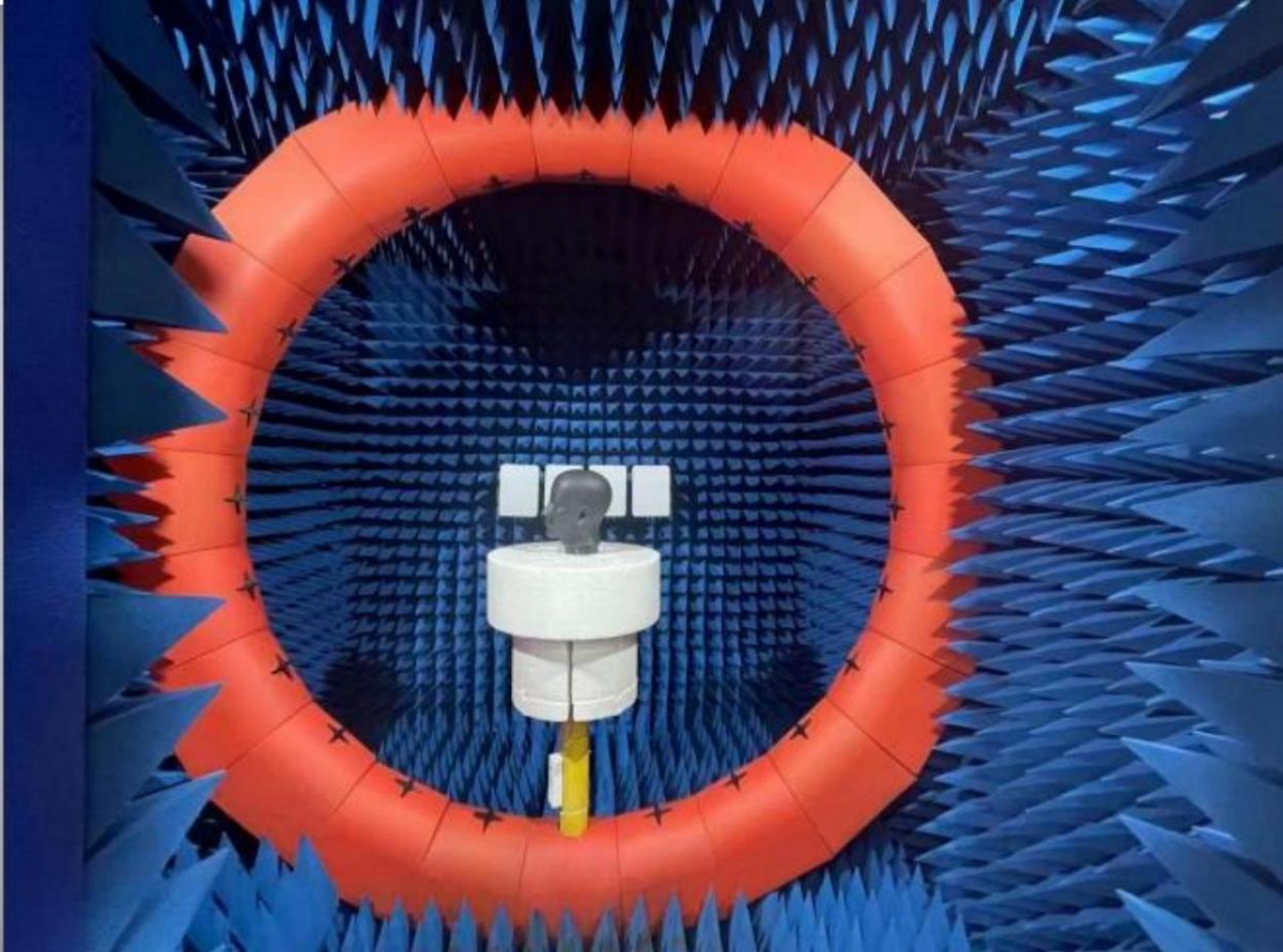
phone:

13530576606



1.测试工具

矢量网络分析仪&综测仪	Age lent Tech mo logie s E5071B & R & s C MW500
暗室	Aten lab M3
测试工程师	CK
温度	25℃
湿度	65% (RH)





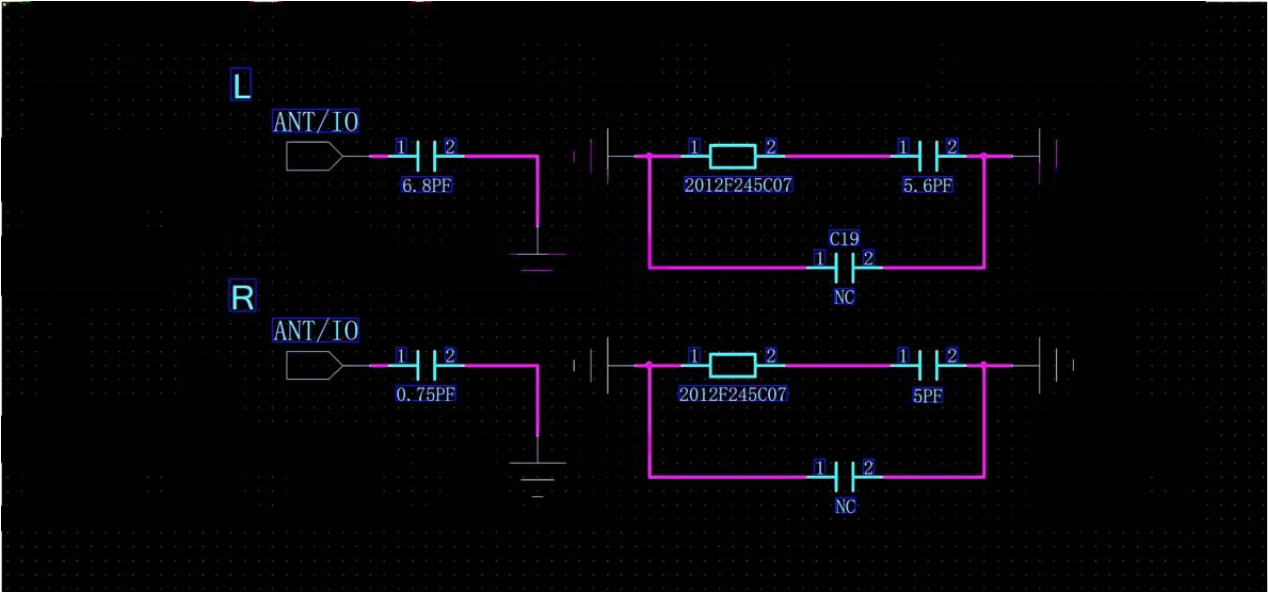
Antenna Placement

ANT: 2012F245C07

antenna(咏成国际)

L/R

Matching Circuit:



Application:

WLAN, 802.11b/g, Bluetooth, WLAN, etc...

Features

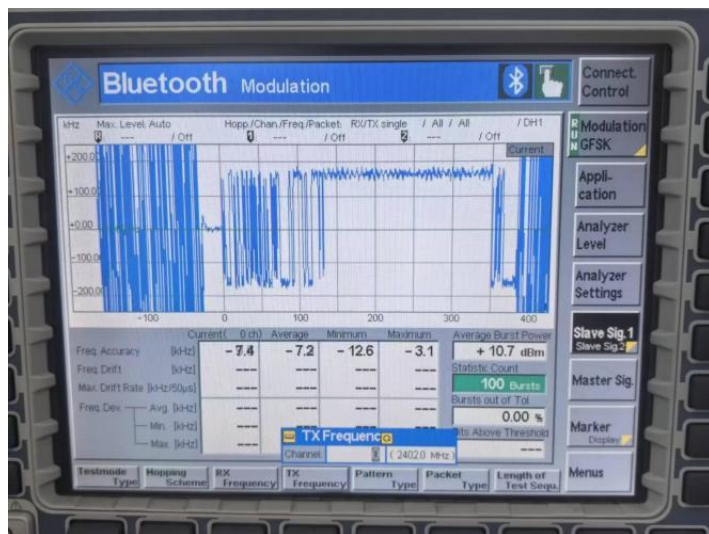
SMD, high reliability, ultra Impact, Omni-directiona.

Part number Information

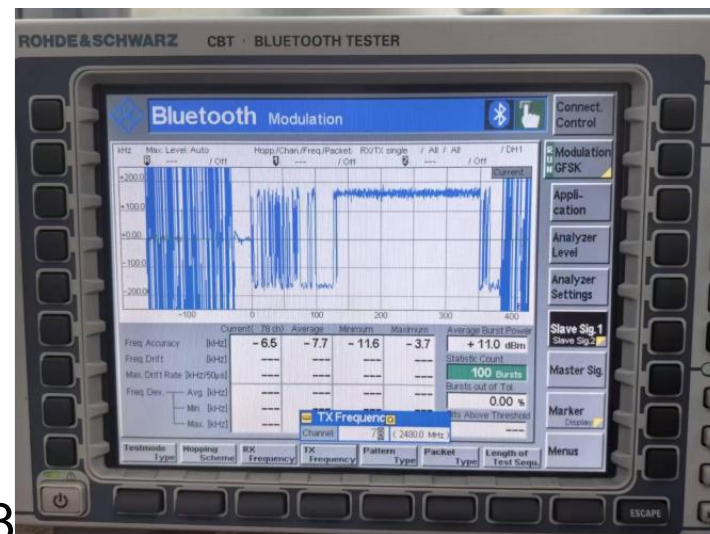
RANT	2012	F	245	C	07
(A)	(B)	(C)	(D)	(E)	(F)
(A)Product Type	Chip Antenna				
(B) Size Code	2.0x1.2mm(+0.2mm)				
(C) Material	High K material				
(D) Frequency	2.4 ~ 2.5GHz				
(E) Feeding mode	PIFA & Single Feeding				
(F) Antenna type	Type=07				



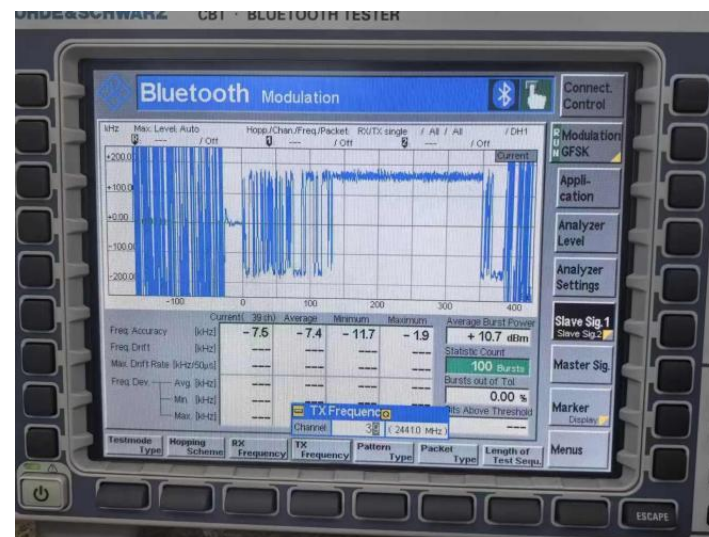
	型号	封装	品牌	公差
L	2012F245C07	0805	咏成国际	
	6.8PF	0201	微容	±0.1
	5.6PF	0201	微容	±0.1
R	2012F245C07	0805	咏成国际	
	0.75PF	0201	微容	±0.1
	5PF	0201	微容	±0.1



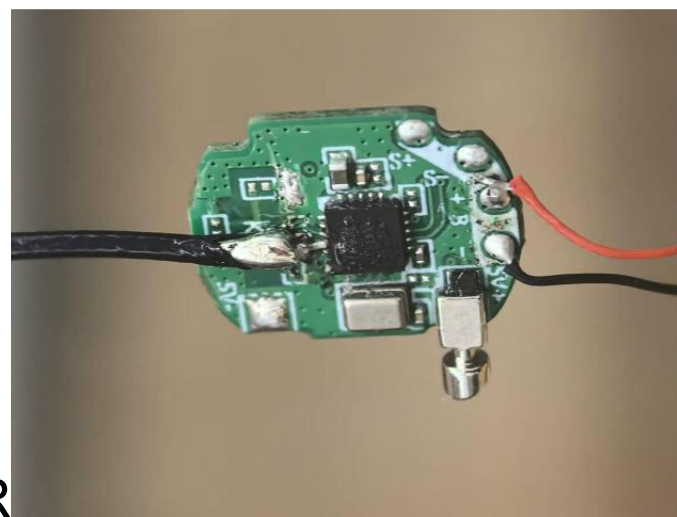
信道: 0



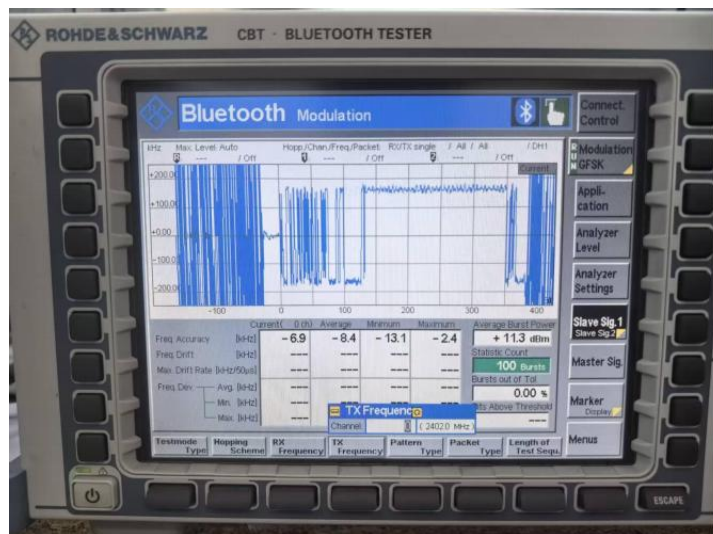
信道: 78



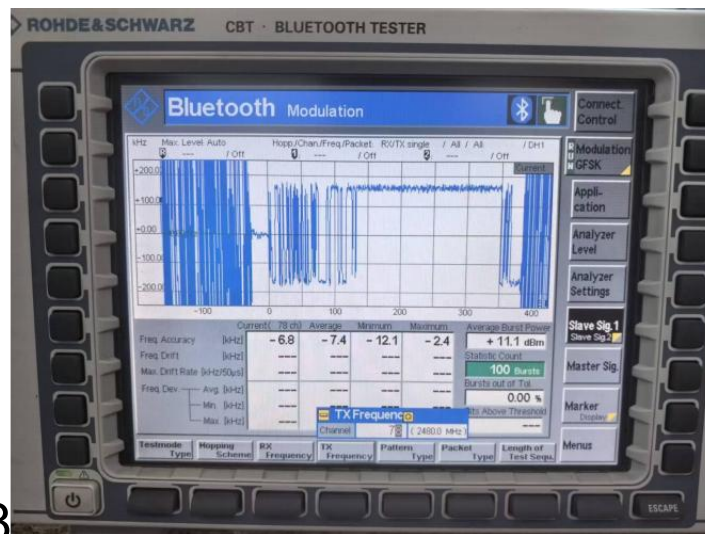
信道: 39



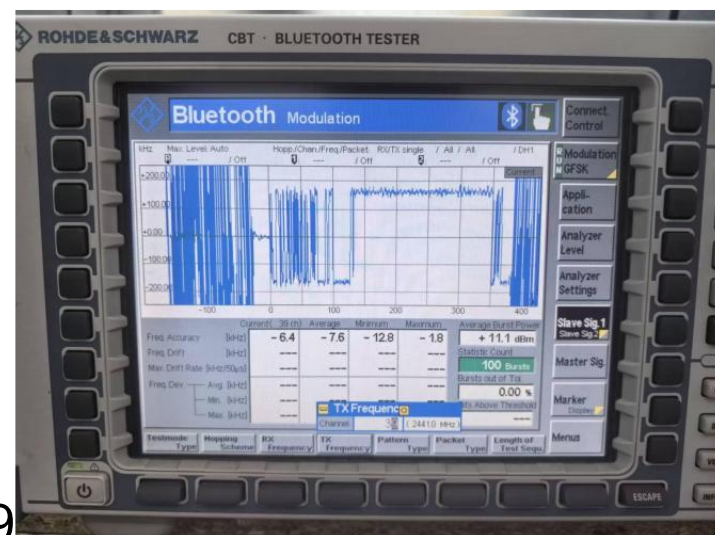
PCBA:R



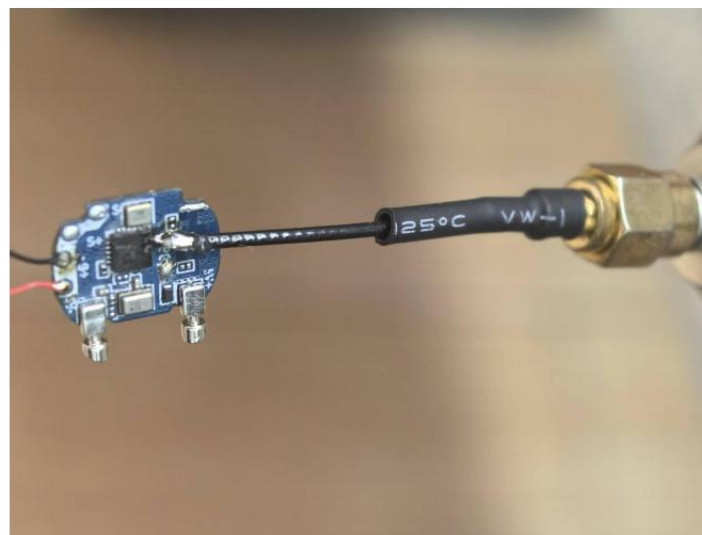
信道: 0



信道: 78



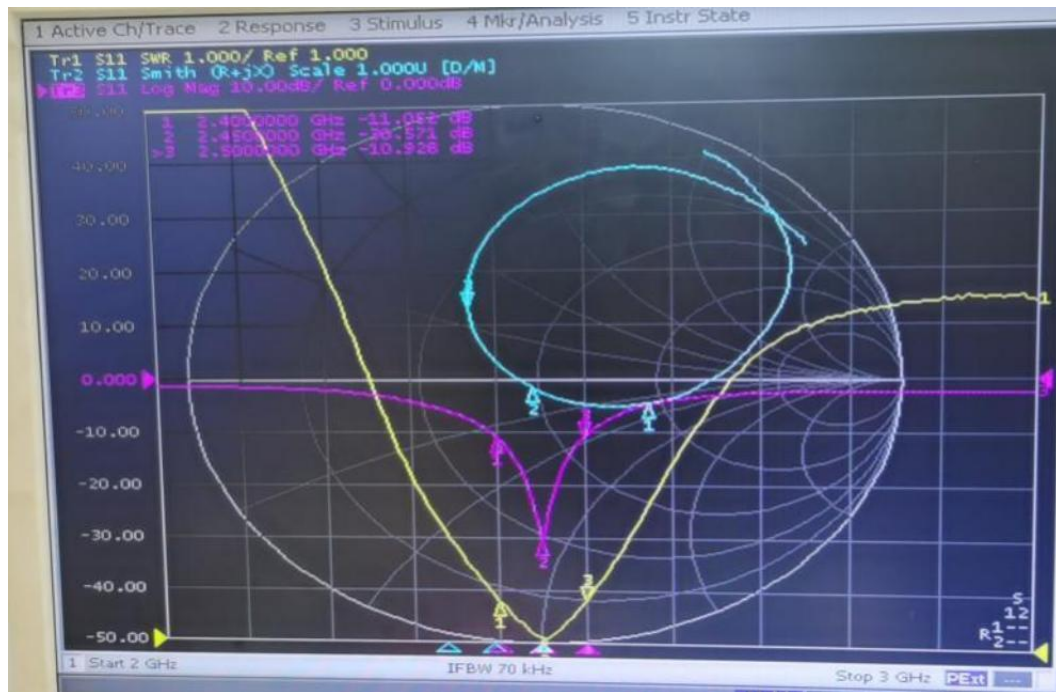
信道: 39



PCBA:L

S11、SWR、smith chart:

L



R



Antenna active test data

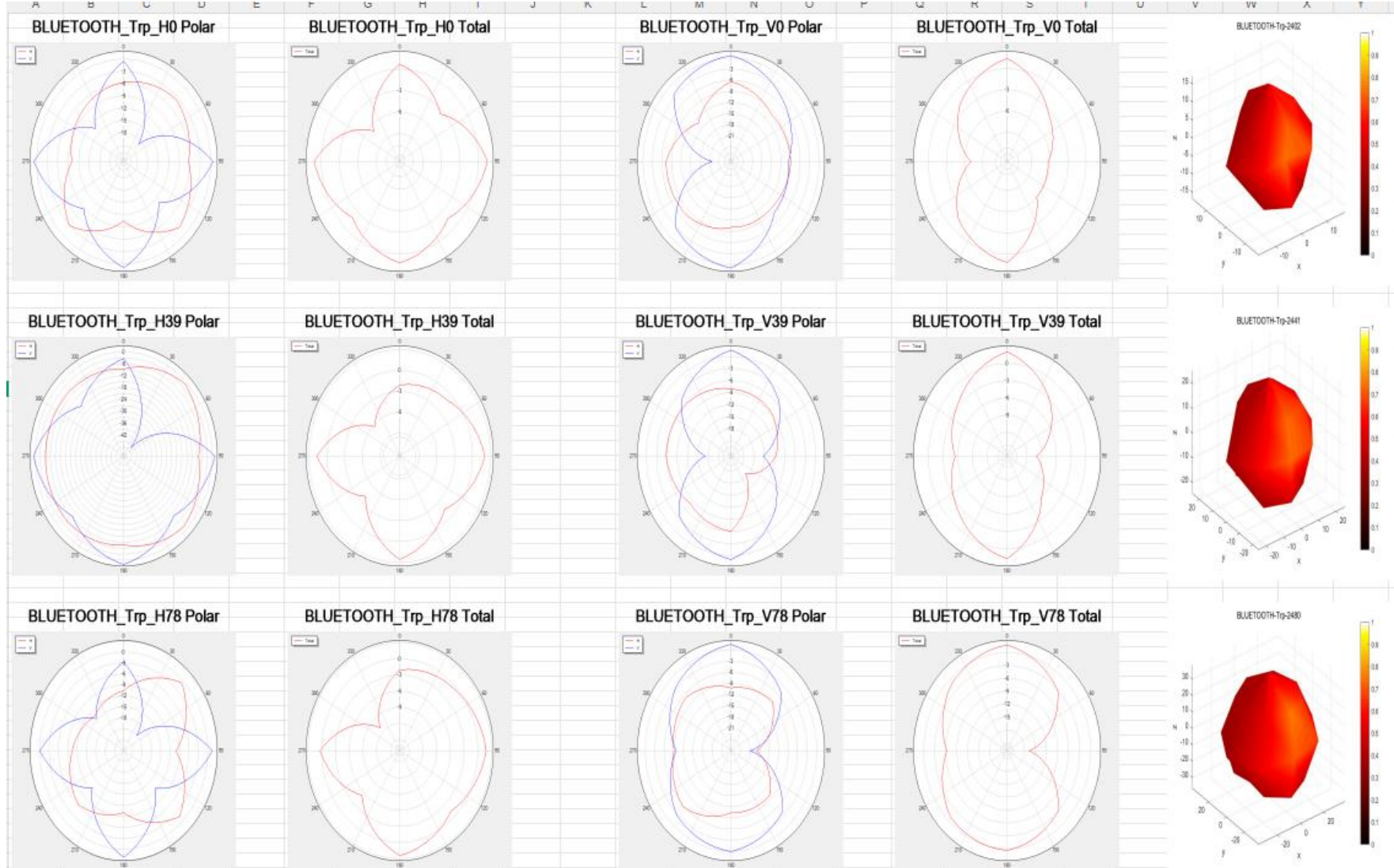
ANT EIRP&EIS parameter Summary (free field)						
频段frequency band	BT 2.4G (1L)			BT 2.4G (1R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	2.99	2.94	2.71	2.83	2.60	2.83
# TIS (dB m)	-86.24	-87.48	-86.93	-85.77	-85.10	-86.74

ANT EIRP&EIS parameter Summary (phantom head)						
频段frequency band	BT 2.4G (1L)			BT 2.4G (1R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	1.04	-0.47	-0.48	0.08	-0.47	0.46
# TIS (dB m)	-81.5	-81.02	-81.82	-80.57	-80.38	-81.39



#-L

-L- The antenna pattern of the free field

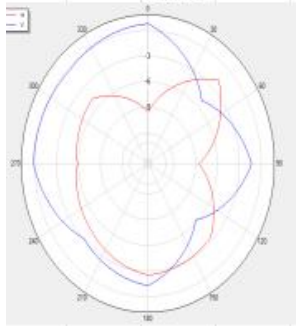




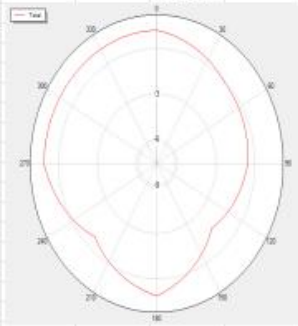
#-L

-R The antenna pattern of the free field

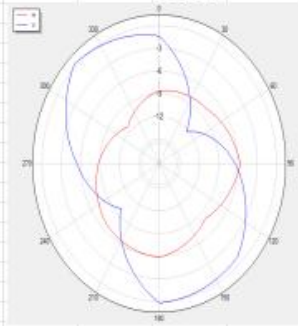
BLUETOOTH_Trp_H0 Polar



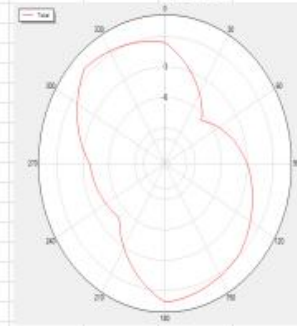
BLUETOOTH_Trp_H0 Total



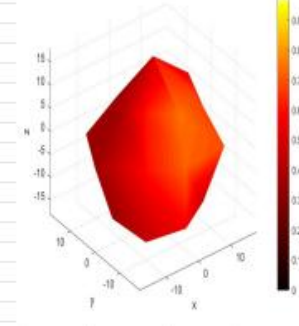
BLUETOOTH_Trp_V0 Polar



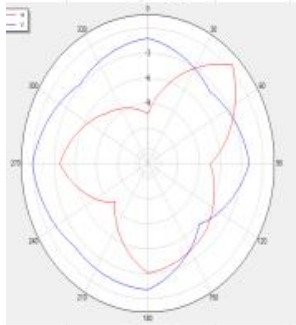
BLUETOOTH_Trp_V0 Total



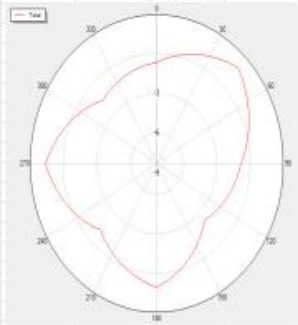
BLUETOOTH_Trp-2402



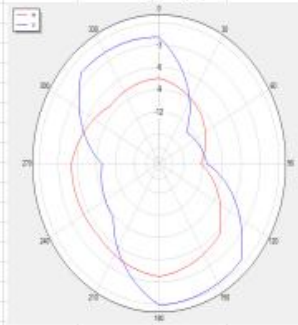
BLUETOOTH_Trp_H39 Polar



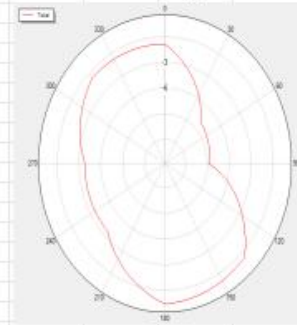
BLUETOOTH_Trp_H39 Total



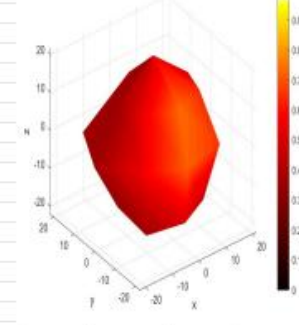
BLUETOOTH_Trp_V39 Polar



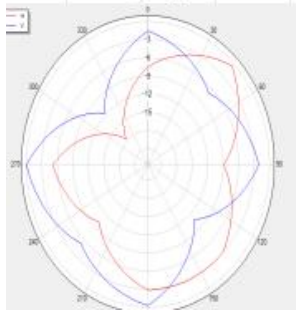
BLUETOOTH_Trp_V39 Total



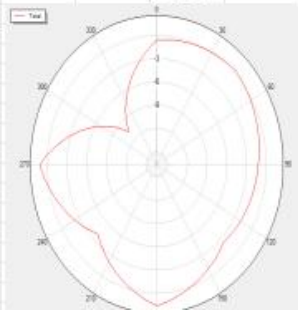
BLUETOOTH_Trp-2441



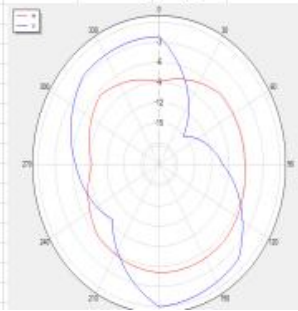
BLUETOOTH_Trp_H78 Polar



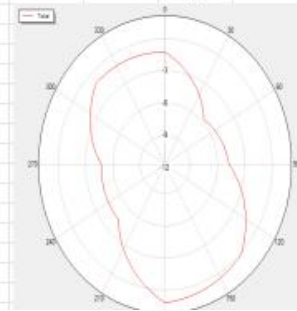
BLUETOOTH_Trp_H78 Total



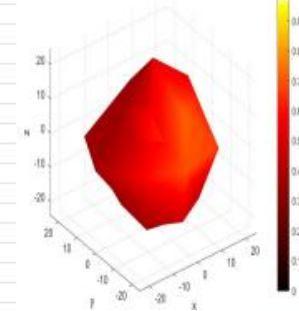
BLUETOOTH_Trp_V78 Polar



BLUETOOTH_Trp_V78 Total

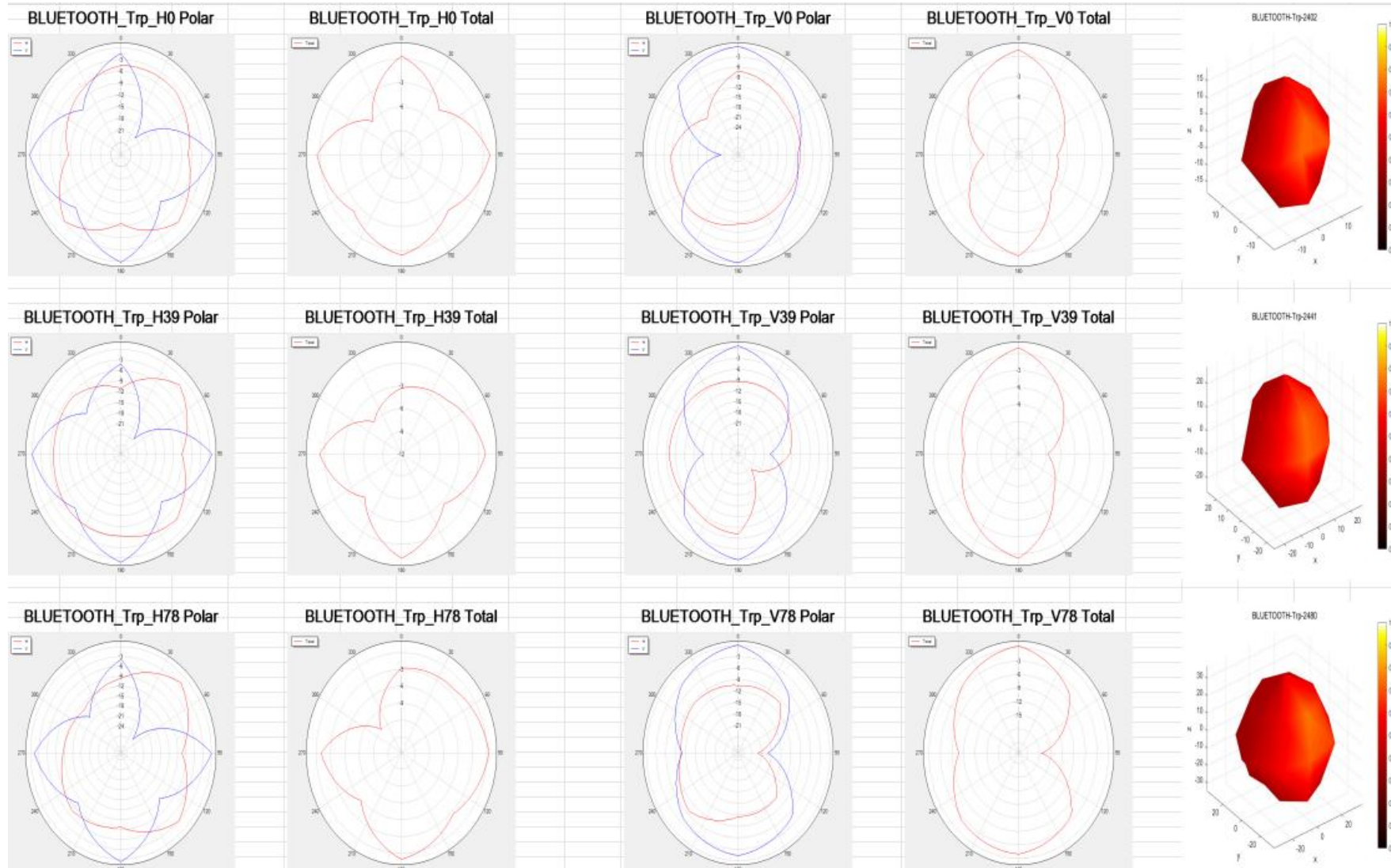


BLUETOOTH_Trp-2480



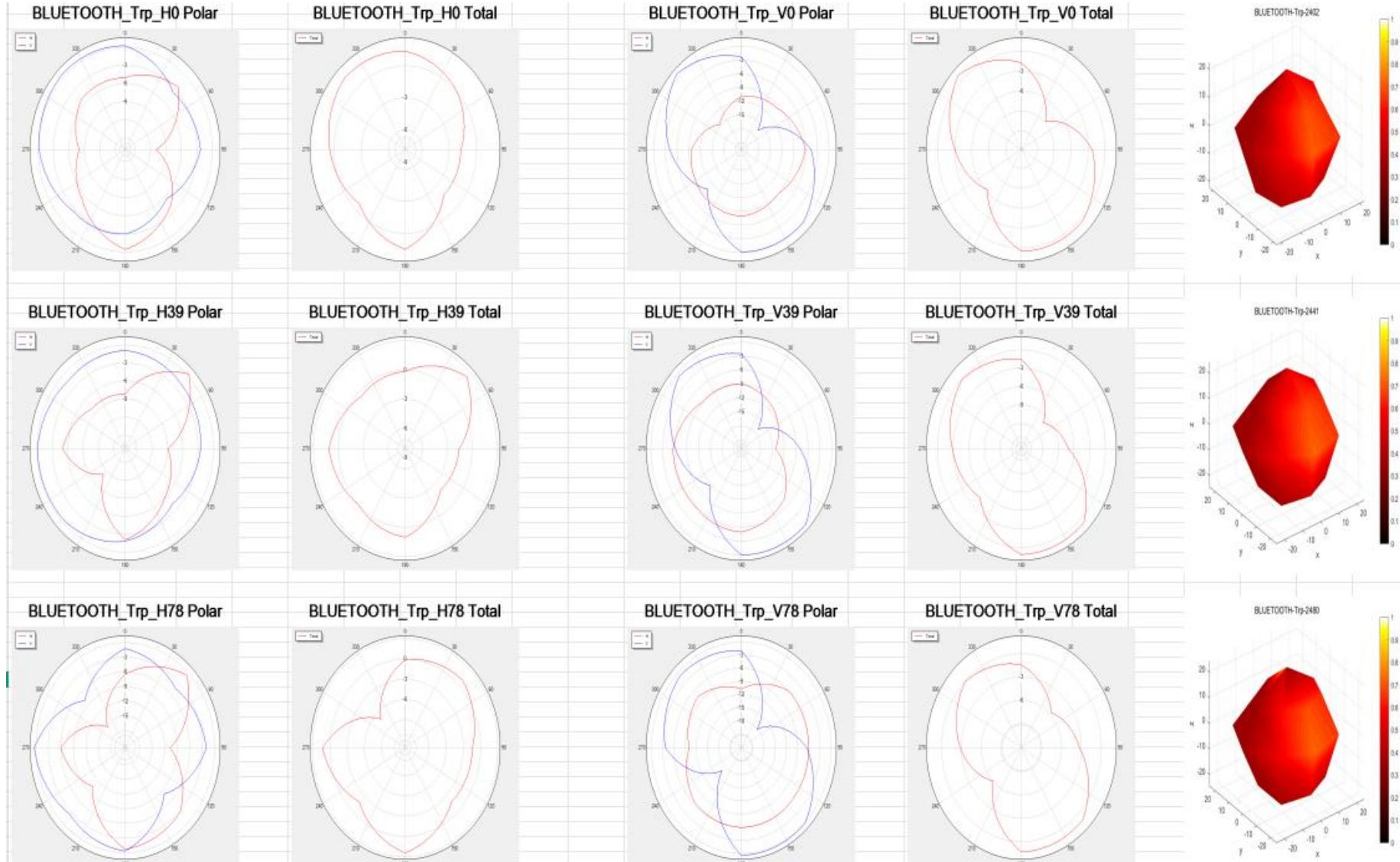
L-An antenna pattern simulating a human head

#-L



-R-head An antenna pattern simulating a human head

#-R

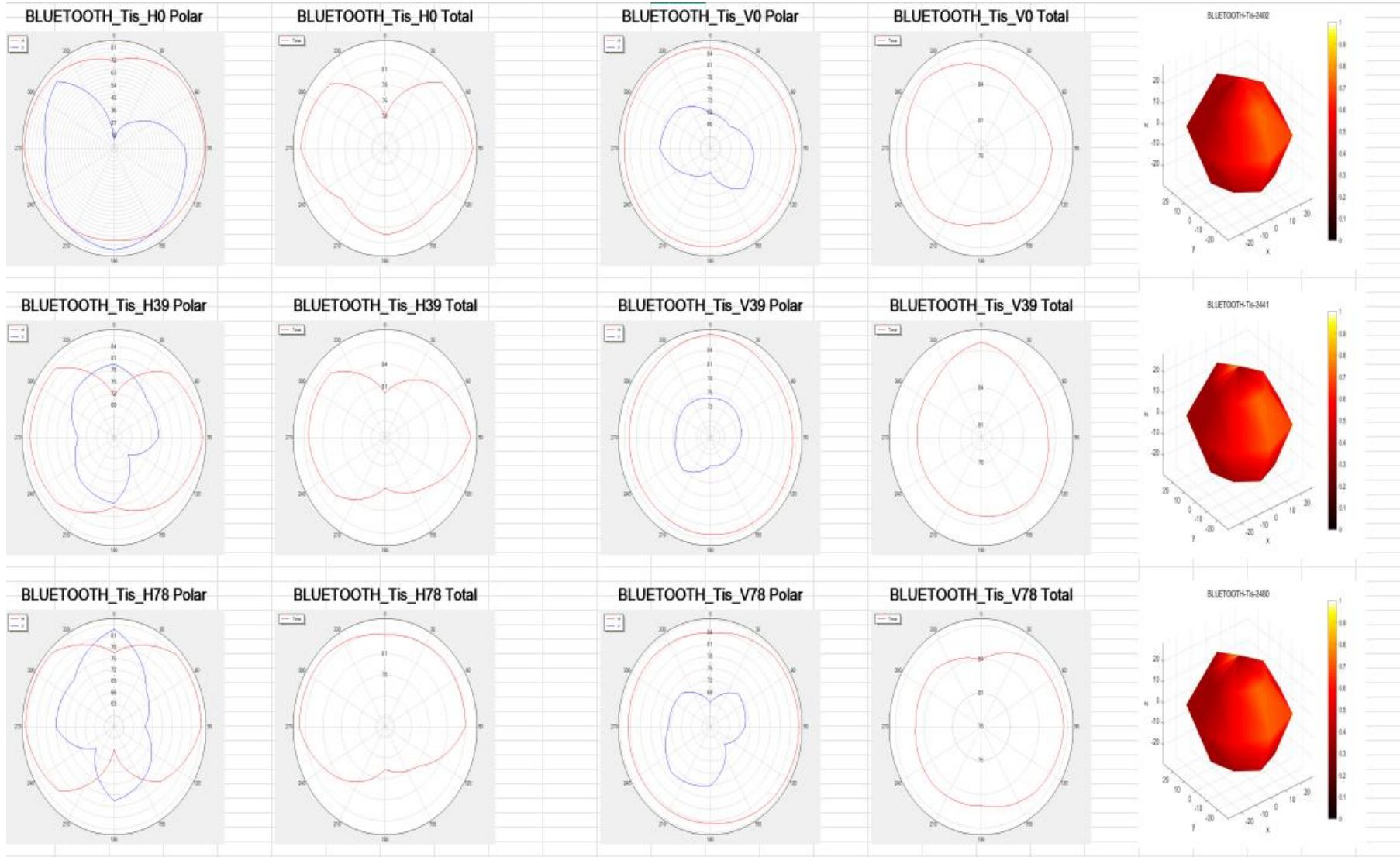


ANT EIRP&EIS parameter Summary (free field)						
频段frequency band	BT 2.4G (2L)			BT 2.4G (2R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	3.91	2.94	2.78	3.95	2.9	2.68
# TIS (dB m)	-86.24	-87.48	-86.93	-85.82	-85.98	-87.67

ANT EIRP&EIS parameter Summary (phantom head)						
频段frequency band	BT 2.4G (2L)			BT 2.4G (2R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	0.26	-0.68	-0.95	0.42	-0.27	-0.37
# TIS (dB m)	-80.01	-80.4	-82.14	-80.6	-81	-81.34

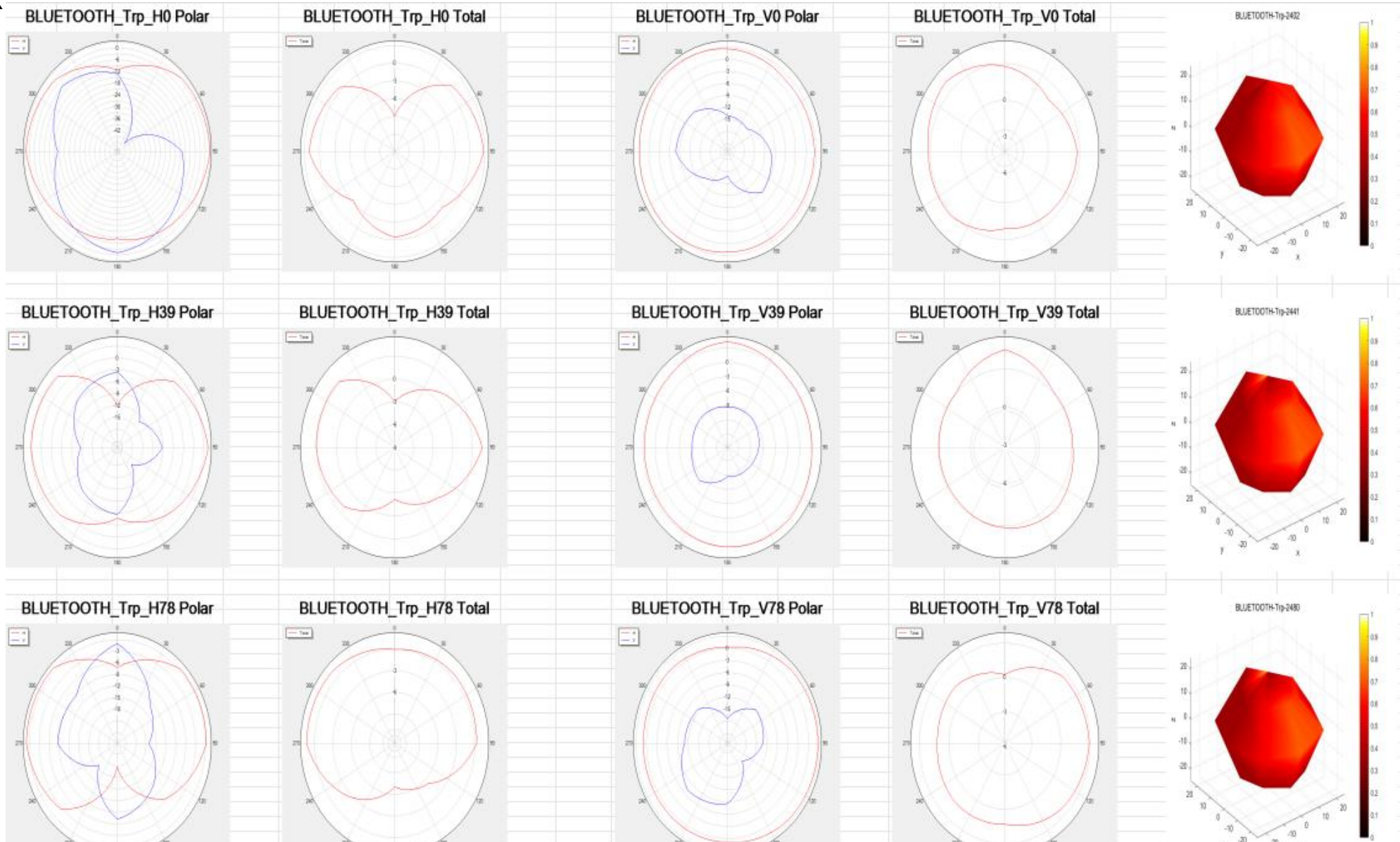
-L The antenna pattern of the free field

#-L



-R The antenna pattern of the free field

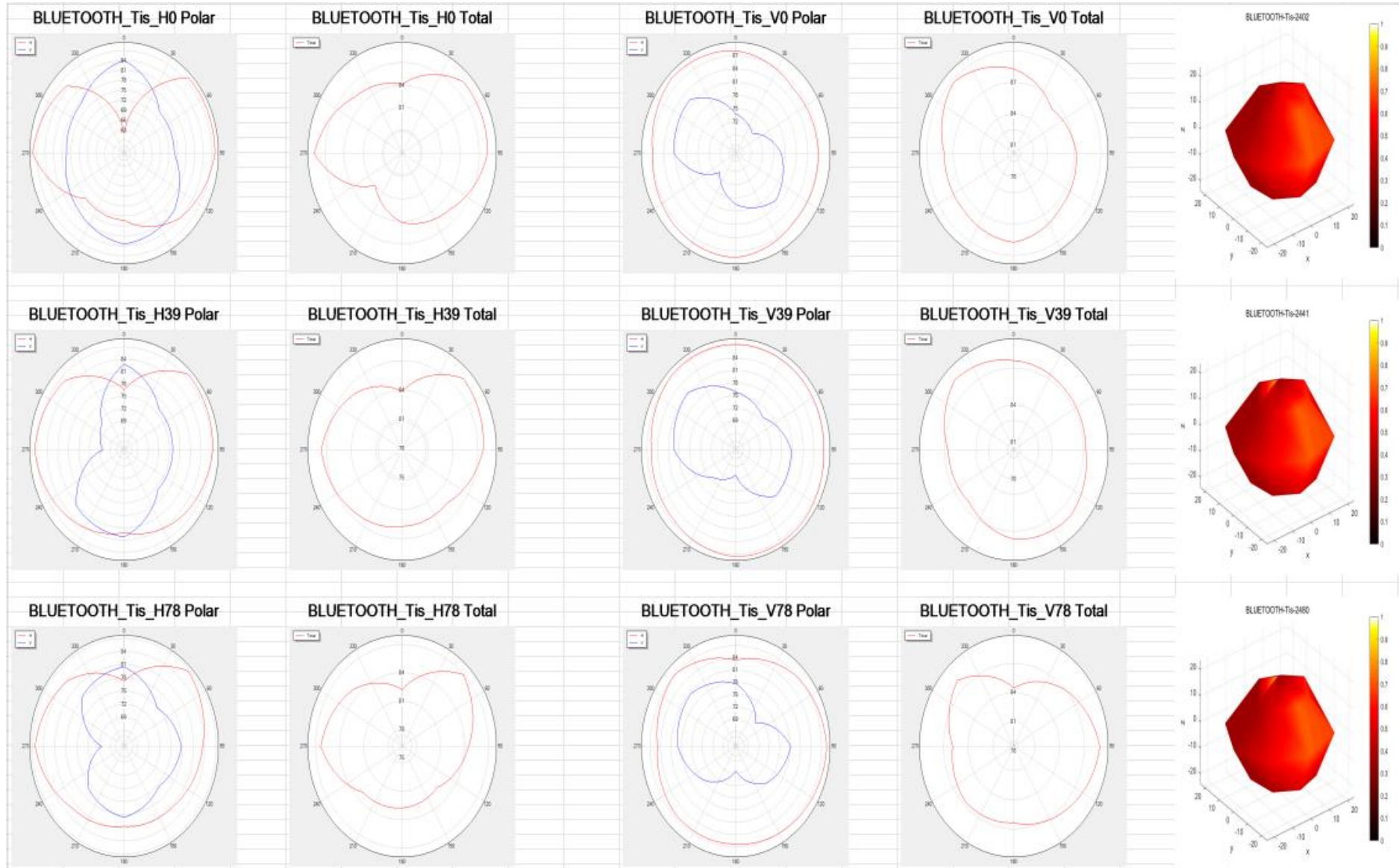
#-R





-L-head Antenna pattern simulating a human head

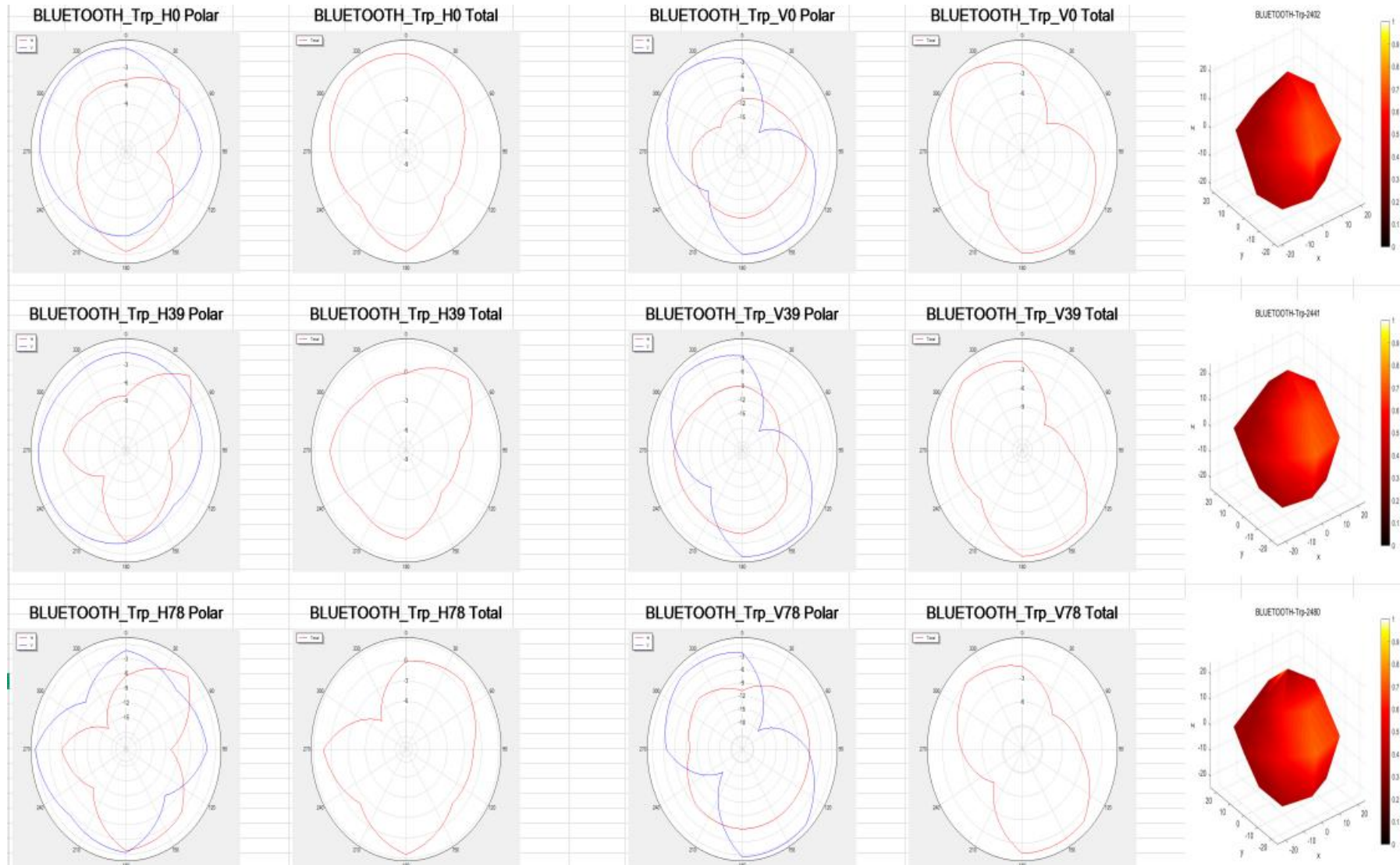
#-L





-R-head An antenna pattern simulating a human head

#-R



ANT EIRP&EIS parameter Summary (free field)

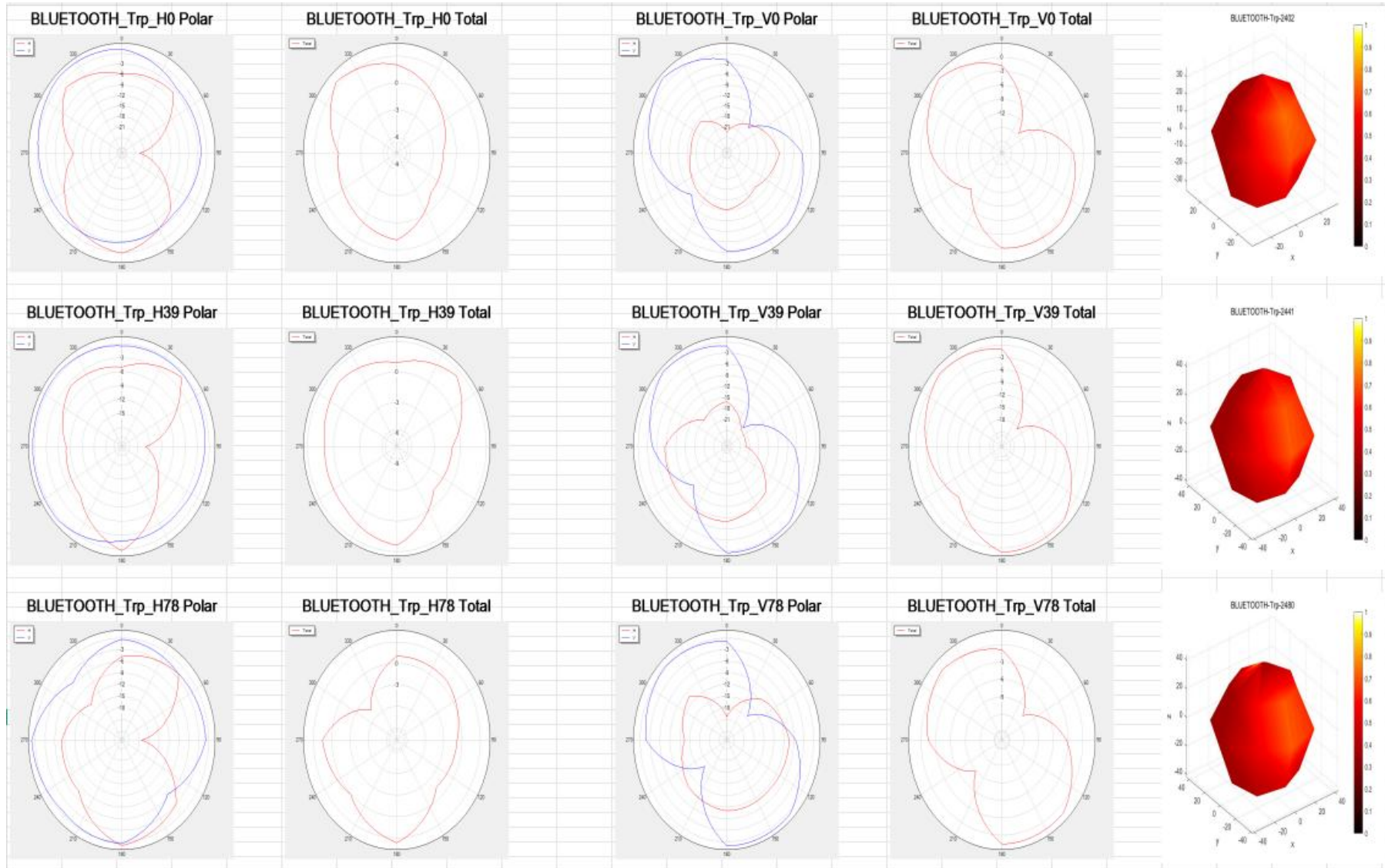
频段frequency band	BT 2.4G (3L)			BT 2.4G (3R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	4.14	4.16	2.88	3.74	2.6	3.72
# TIS (dB m)	-86.73	-87.72	-87.85	-85.77	-85.1	-86.13

ANT EIRP&EIS parameter Summary (phantom head)

频段frequency band	BT 2.4G (3L)			BT 2.4G (3R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	0.95	-0.27	-0.22	0.99	-0.88	0.03
# TIS (dB m)	-81.66	-81.69	-81.13	-80.58	-81.39	-80.7

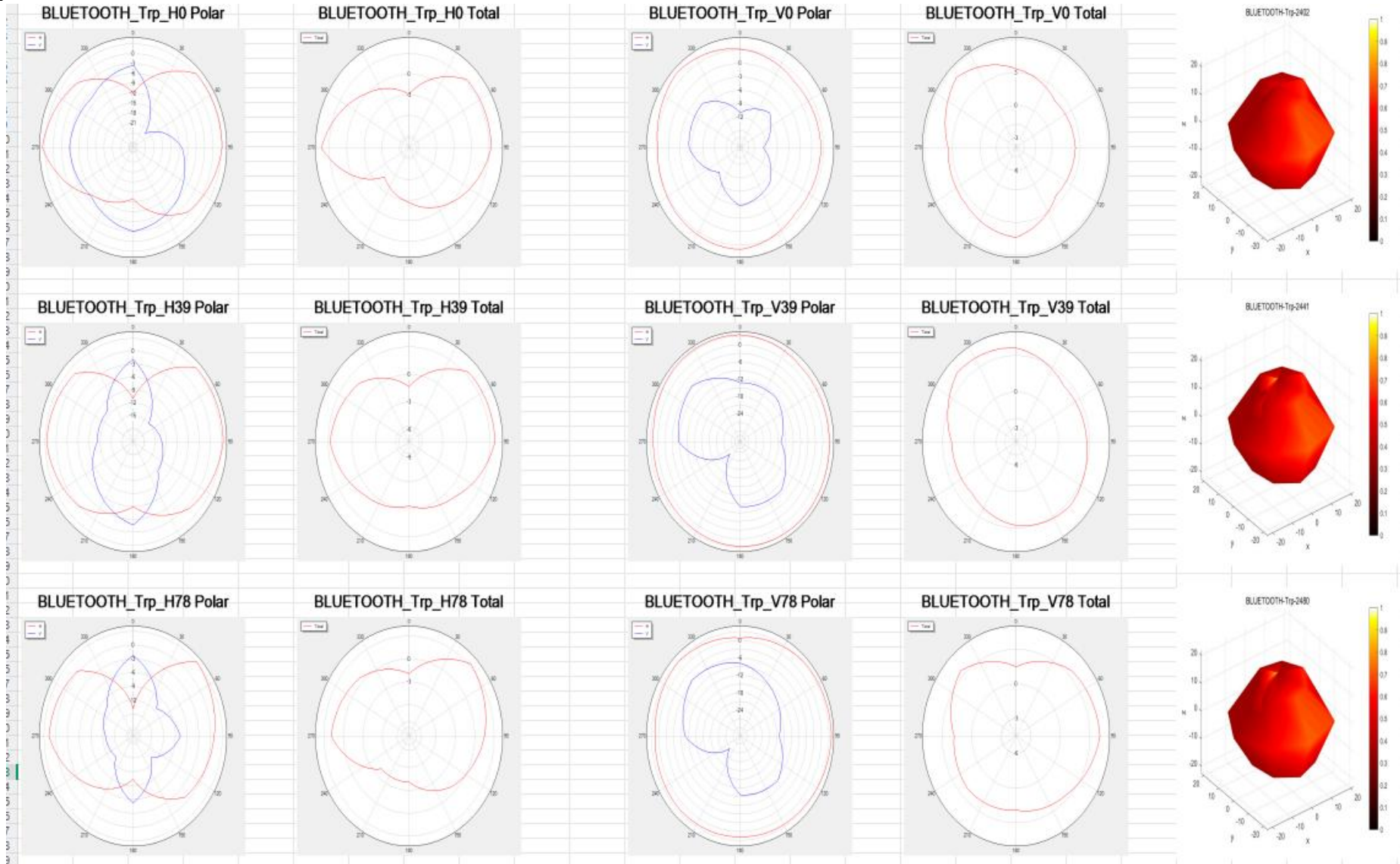
-L The antenna pattern of the free field

#-L



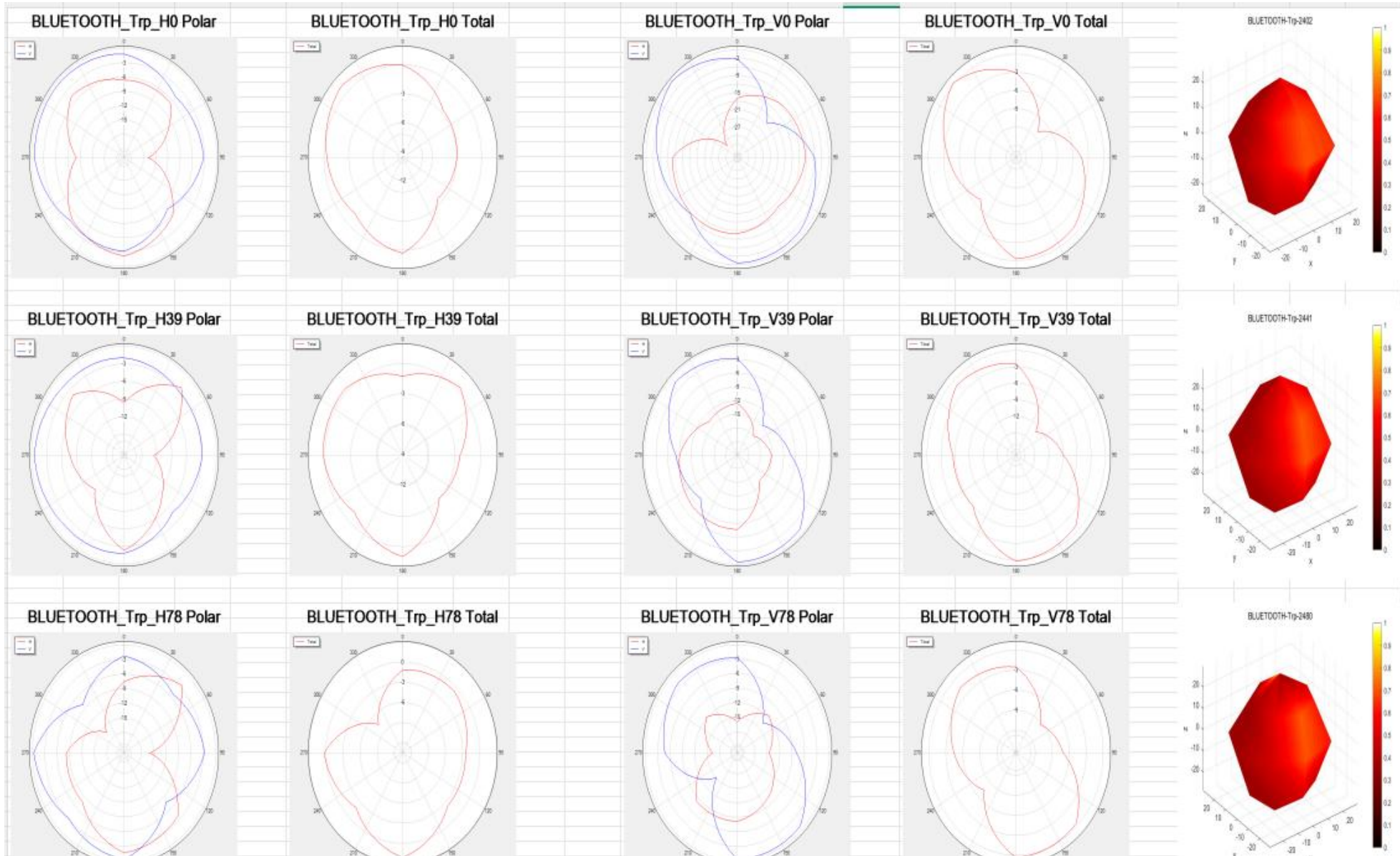
-R The antenna pattern of the free field

#-R



-L head An antenna pattern simulating a human head

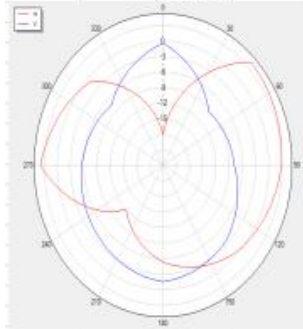
#-L



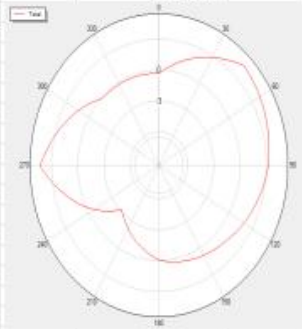
-R headAn antenna pattern simulating a human head

#-R

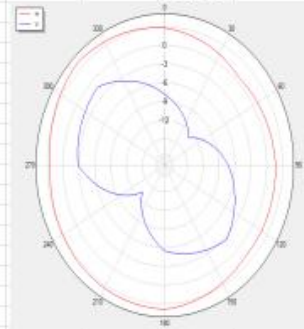
BLUETOOTH_Trp_H0 Polar



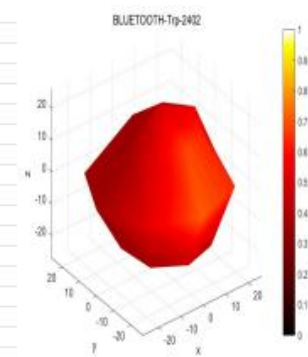
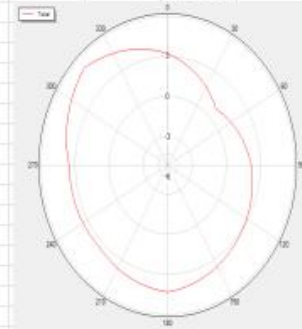
BLUETOOTH_Trp_H0 Total



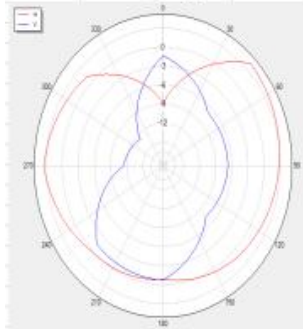
BLUETOOTH_Trp_V0 Polar



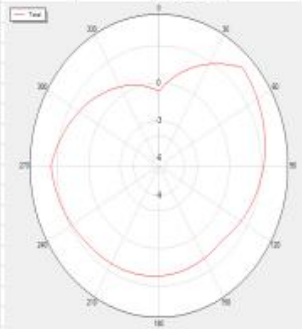
BLUETOOTH_Trp_V0 Total



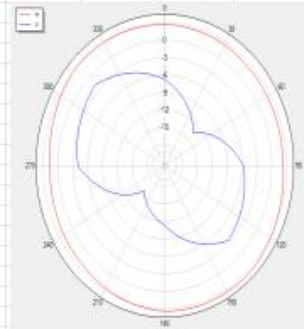
BLUETOOTH_Trp_H39 Polar



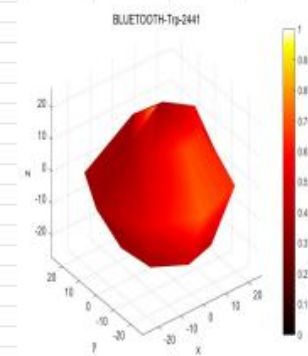
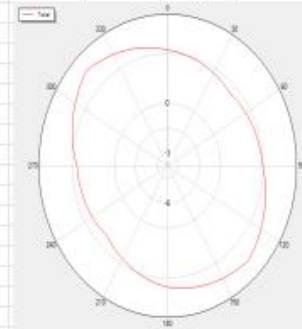
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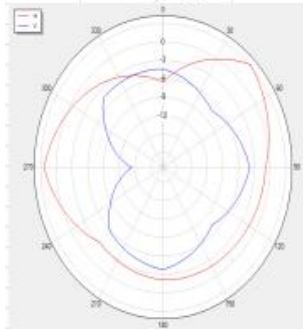
BLUETOOTH_Trp_V39 Polar



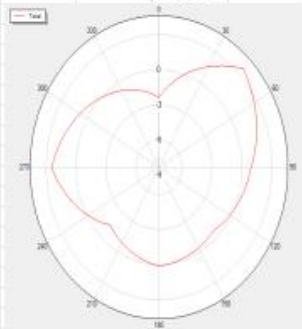
BLUETOOTH_Trp_V39 Total



BLUETOOTH_Trp_H78 Polar



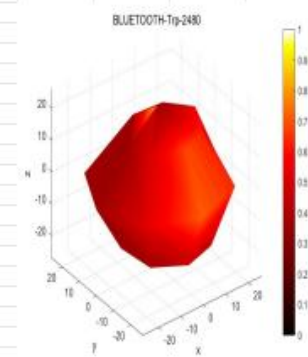
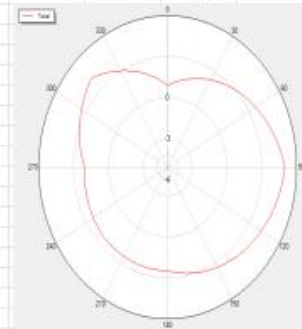
BLUETOOTH_Trp_H78 Total



BLUETOOTH_Trp_V78 Polar



BLUETOOTH_Trp_V78 Total



Antenna efficiency gain

天线效率与增益图

L

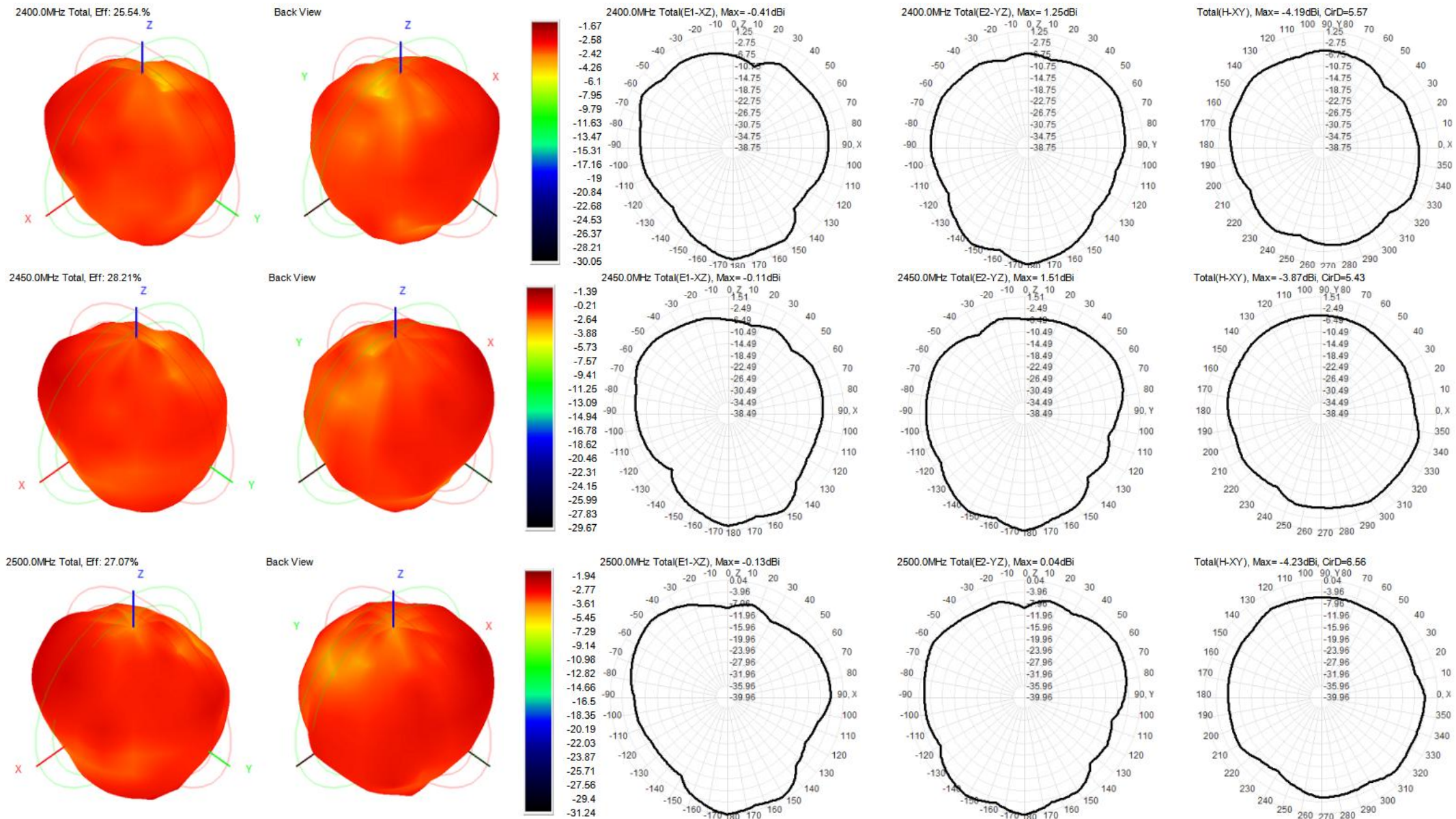
Frequency	Effic (DB)	Percen(%)	Gain(DBi)
2400	-5.15	25.54%	-1.67
2410	-5.4	27.83%	-1.58
2420	-5.39	28.84%	-1.47
2430	-5.48	28.19%	-1.39
2440	-5.77	28.51%	-1.81
2450	-5.5	28.21%	-1.39
2460	-5.59	27.62%	-1.25
2470	-5.36	29.1%	-1
2480	-5.13	27.10%	-1.07
2490	-5.54	27.55%	-1.66
2500	-5.68	27.07%	-1.94

R

Frequency	Effic (DB)	Percen(%)	Gain(DBi)
2400	-5.11	26.53%	-1.43
2410	-5.41	28.83%	-1.58
2420	-5.36	28.88%	-1.42
2430	-5.41	28.31%	-1.39
2440	-5.74	29.51%	-1.43
2450	-5.6	29.41%	-1.37
2460	-5.54	29.62%	-1.28
2470	-5.43	27.56%	-1.21
2480	-5.31	26.71%	-1.47
2490	-5.24	26.95%	-1.62
2500	-5.48	26.07%	-1.43

#-L

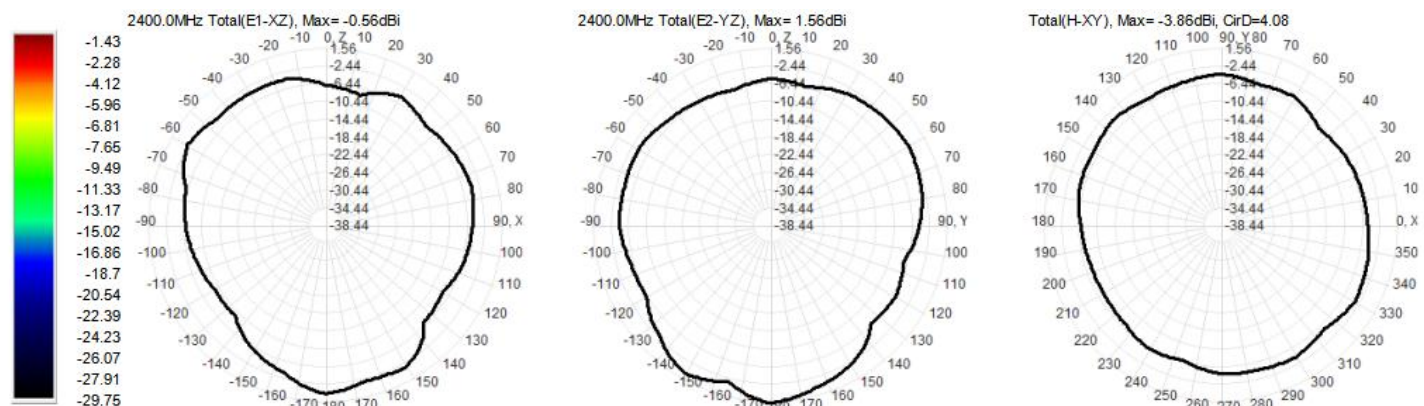
Antenna radiation pattern 2400. 00MK Z/2450. 00MK Z/2500. 00MHZ



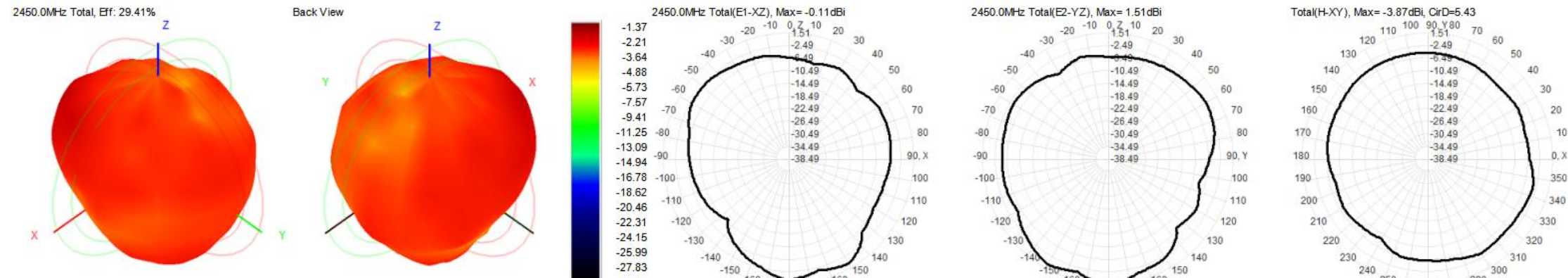
#-R

Antenna radiation pattern

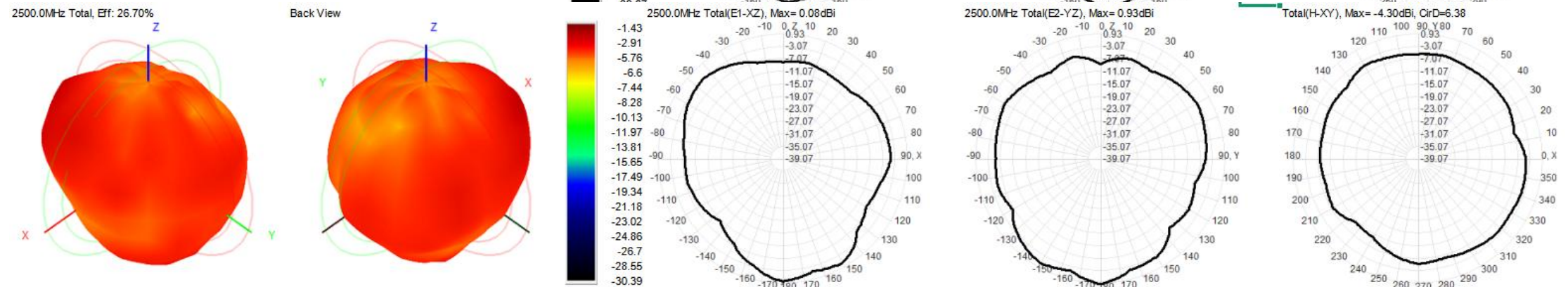
2400.0MHz Total, Eff: 26.53%



2450.0MHz Total, Eff: 29.41%



2500.0MHz Total, Eff: 26.70%



measuring distance

a. Environme

test project /手机	Trying hard not to hear	Pocket test requirement		descr
JX56	OK	right front	OK	The iPhone5 was tested over 1 5 + meters in the park
		front-left	OK	
		right rear	OK	
		left rear	OK	

b. summarize

JX56 machine actual test, OTA data test,
basically distance matching ,our park grass test effect is excellent

assembly method

Thank you for watching

Wish you enjoy your life

o

2023-5-12