

美恩微S5182调测报告

Antenna Test Report



◆ 日期 2023年10月31日

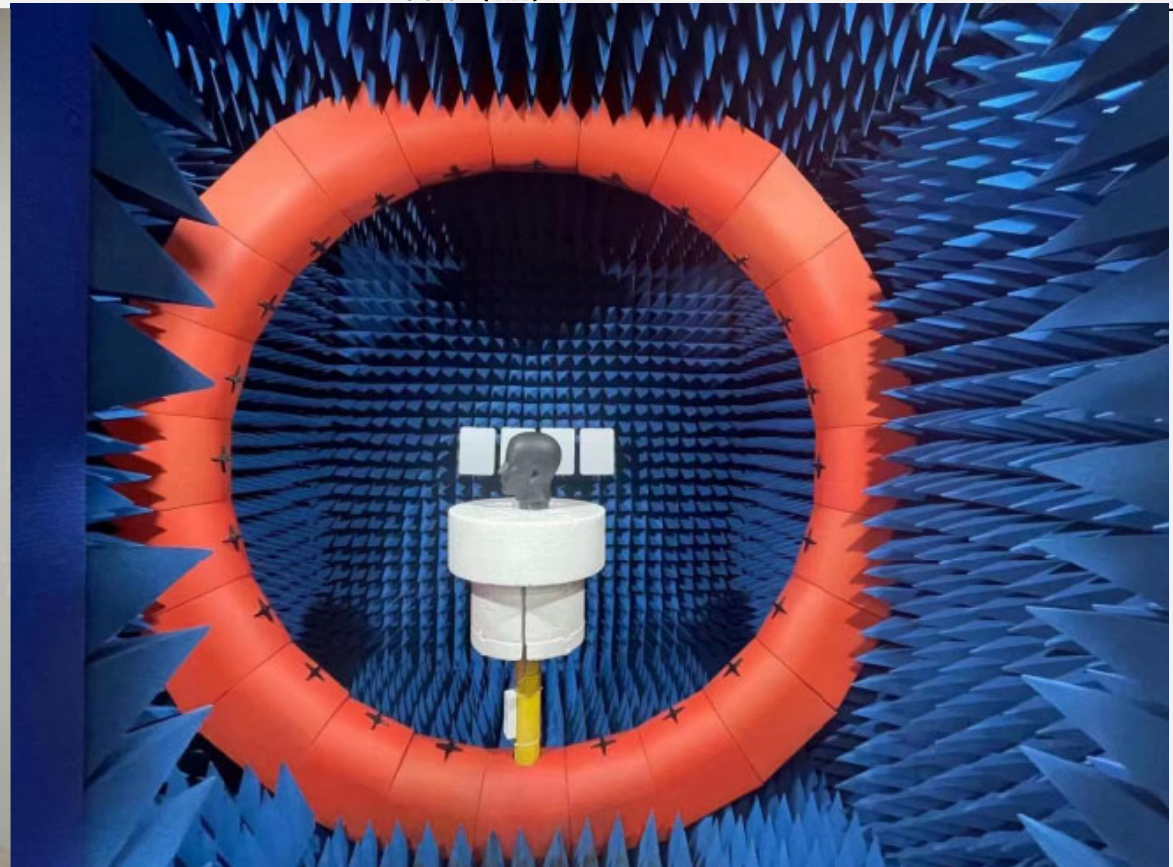
Test item	
1	Matching parameter
2	Network debugging antenna S parameters
3	Microwave darkroom test OTA active data
4	Measurement of antenna efficiency field pattern in microwave darkroom
5	measuring distance
6	Assembly item
7	summary of commissioning test



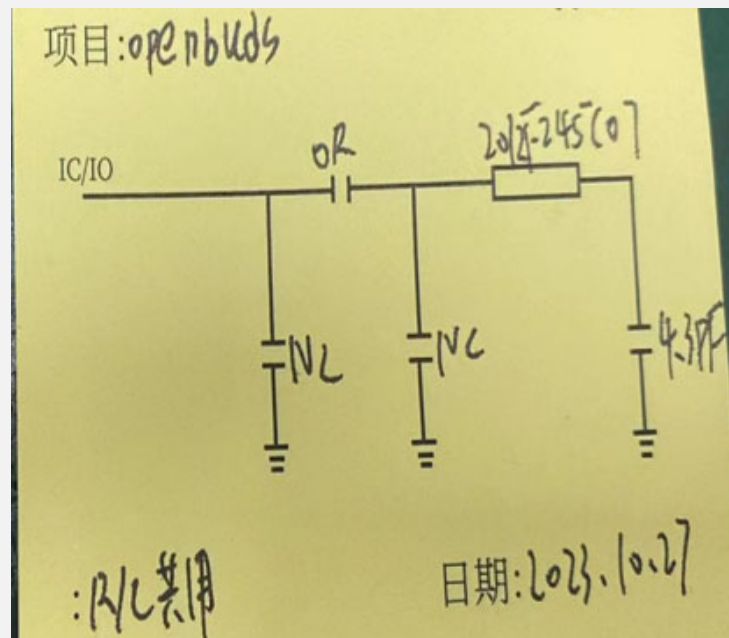
Customer	美恩微	Project name	Openbuds
frequency band	2400MHZ-2500MHZ	engineer:	CK
Date	2023/10/31	phone:	

1.测试工具

矢量网络分析仪&综测仪	Agilent Technologies E5071B & R&S CMW500
暗室	Atenlab M3
测试工程师	CK
温度	25℃
湿度	65% (RH)

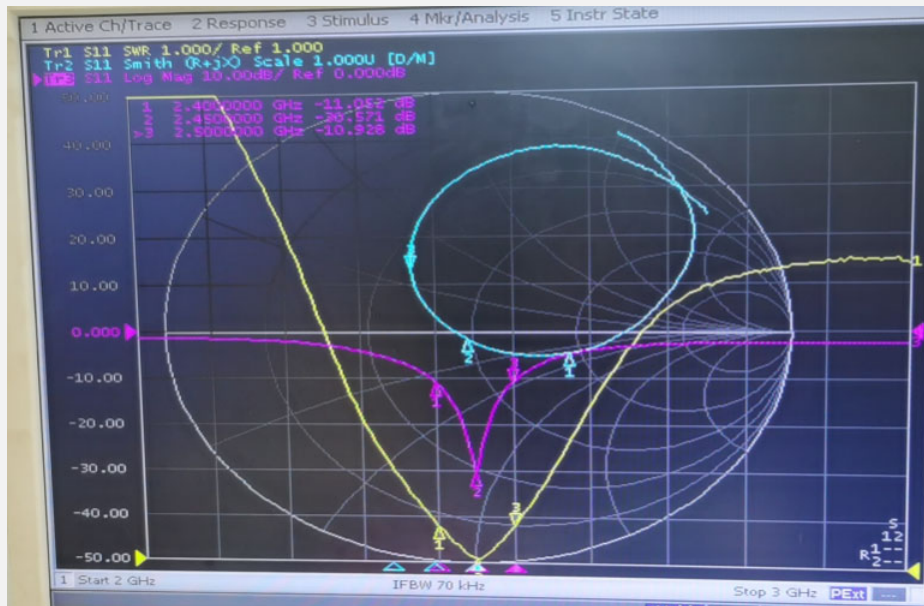


ANT: antenna2012F245C07 L/R Matching Circuit: 左右共参数



S11、SWR、smith chart:

L



R



Fre.(MHz)	2400	2450	2500
L-S11(dB)	-11.05	-30.57	-10.92
R-S11(dB)	-12.84	-29.97	-11.71

Antenna active test data

ANT EIRP&EIS parameter Summary (free field)

频段frequency band	BT 2.4G (L)			BT 2.4G (R)		
信道route	0	39	78	0	39	78
0801# TRP (dBm)	4.58	4.25	4.37	4.45	4.69	4.27
0801# TIS (dBm)	-87.06	-87.59	-87.25	-867.23	-87.37	-87.36

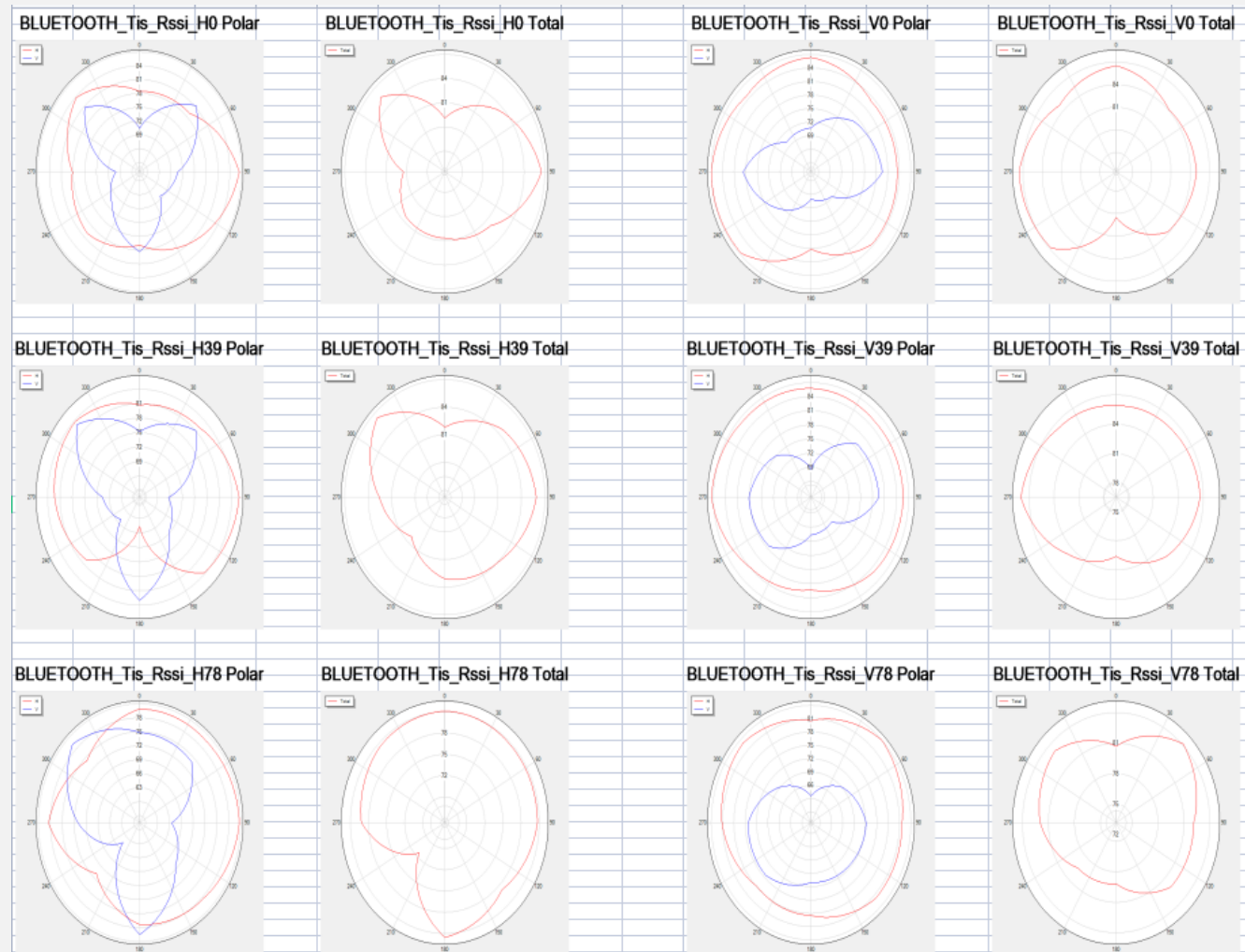
ANT EIRP&EIS parameter Summary (phantom head)

频段frequency band	BT 2.4G (L)			BT 2.4G (R)		
信道route	0	39	78	0	39	78
0801# TRP (dBm)	1.27	1.56	1.28	1.27	1.5	1.06
0801# TIS (dBm)	-83.44	-83.27	-83.13	-83.36	-83.46	-83.69



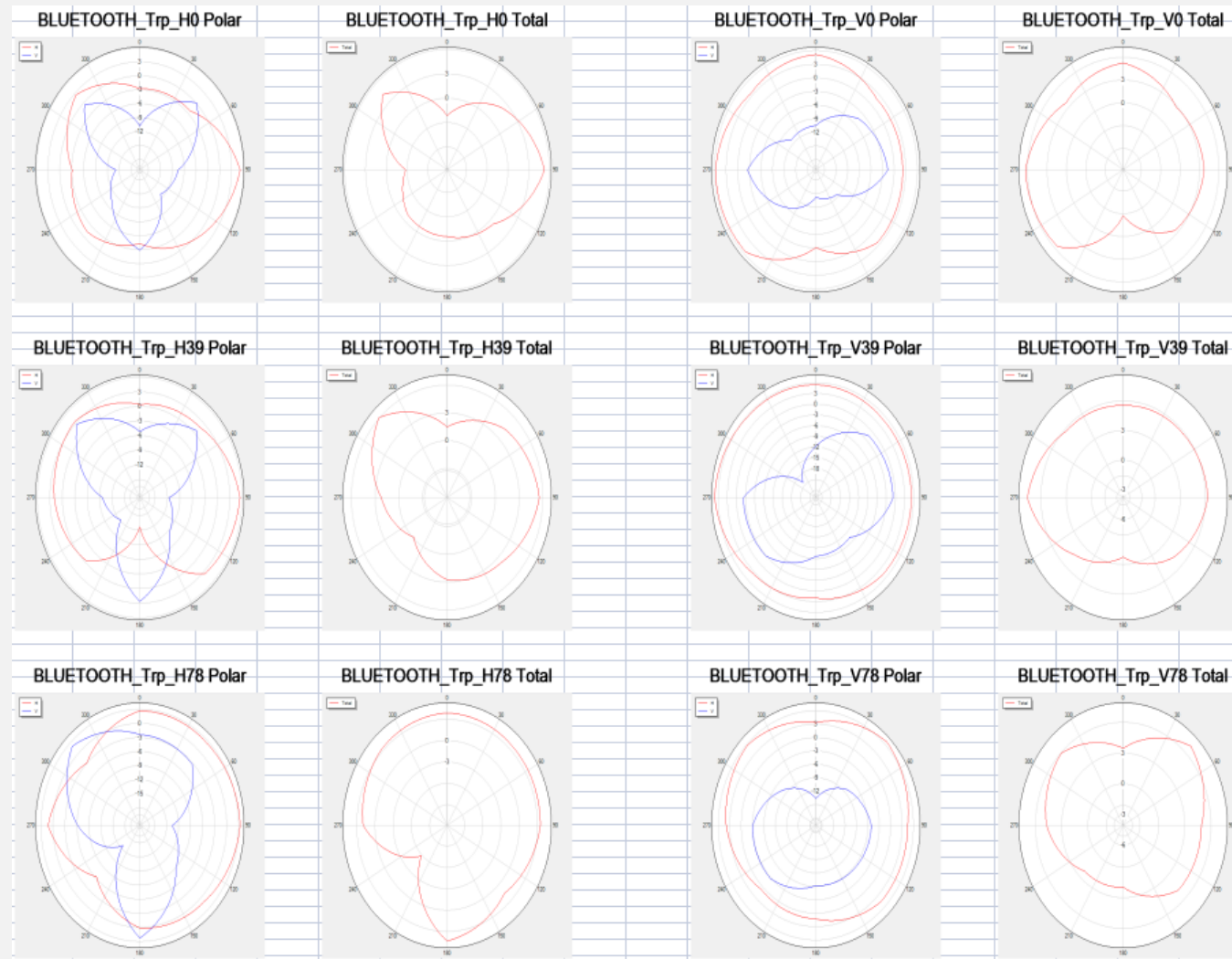
#-L

-L-TIS The antenna pattern of the free field



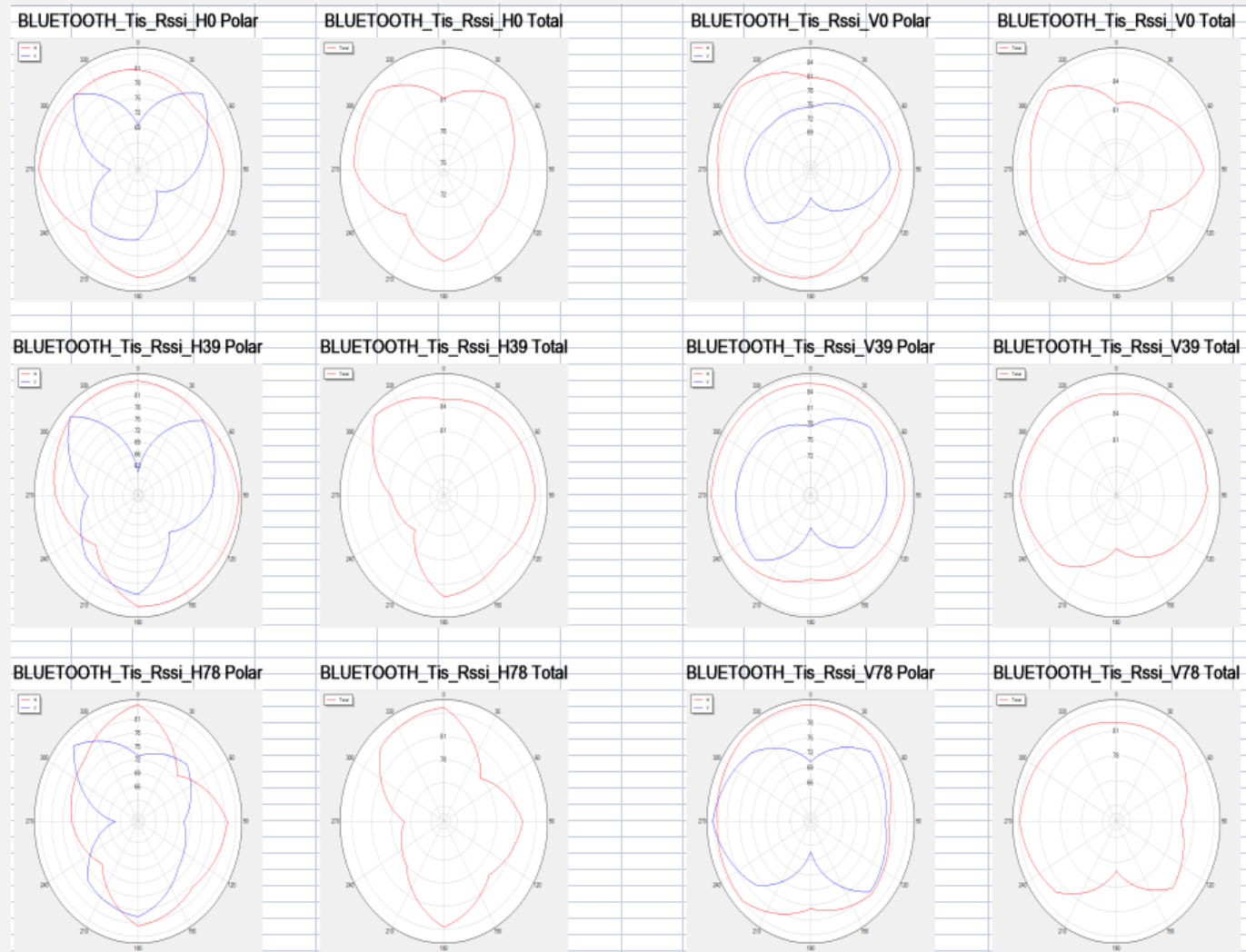
► #-L

-L-TRP The antenna pattern of the free field



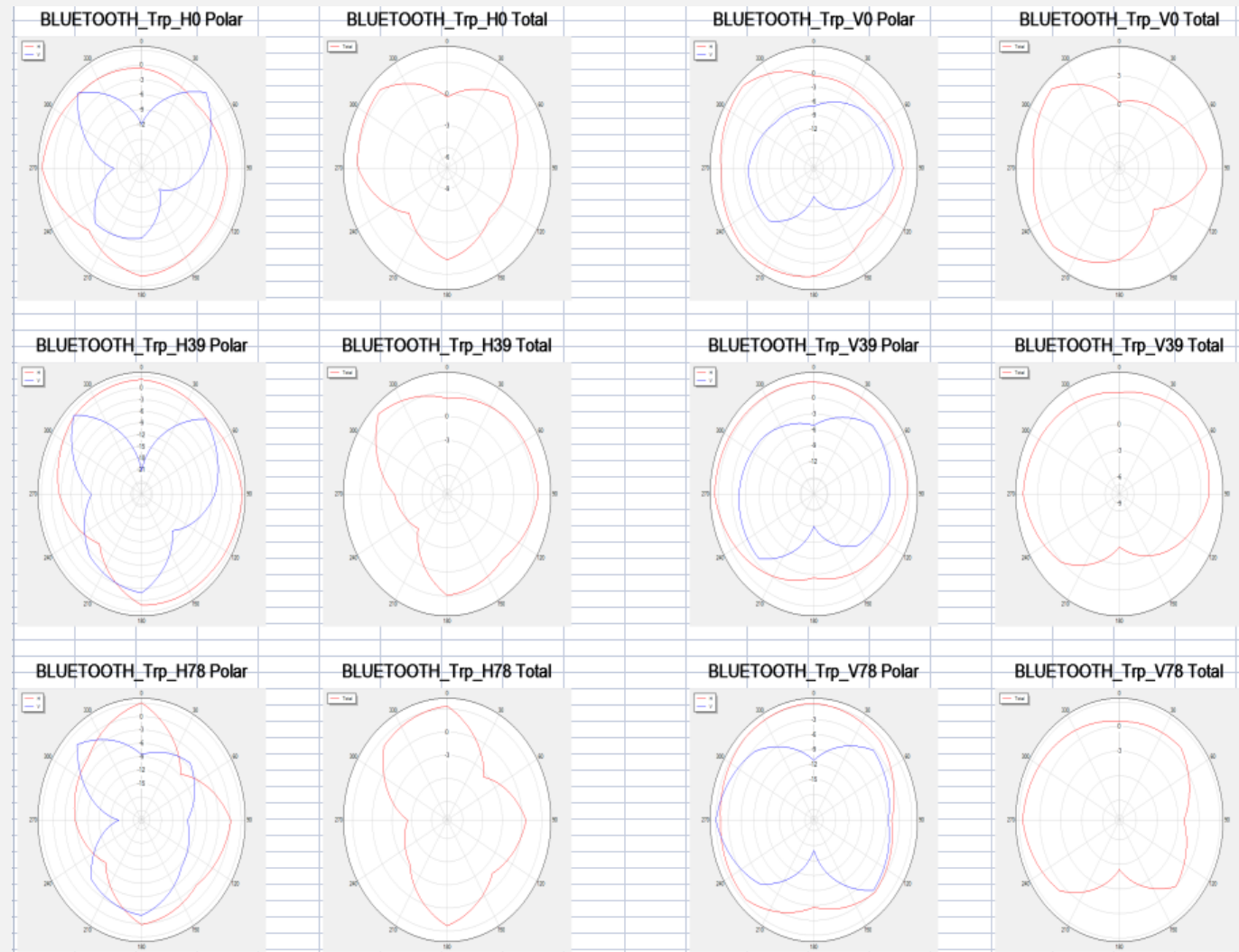


-R-TIS The antenna pattern of the free field



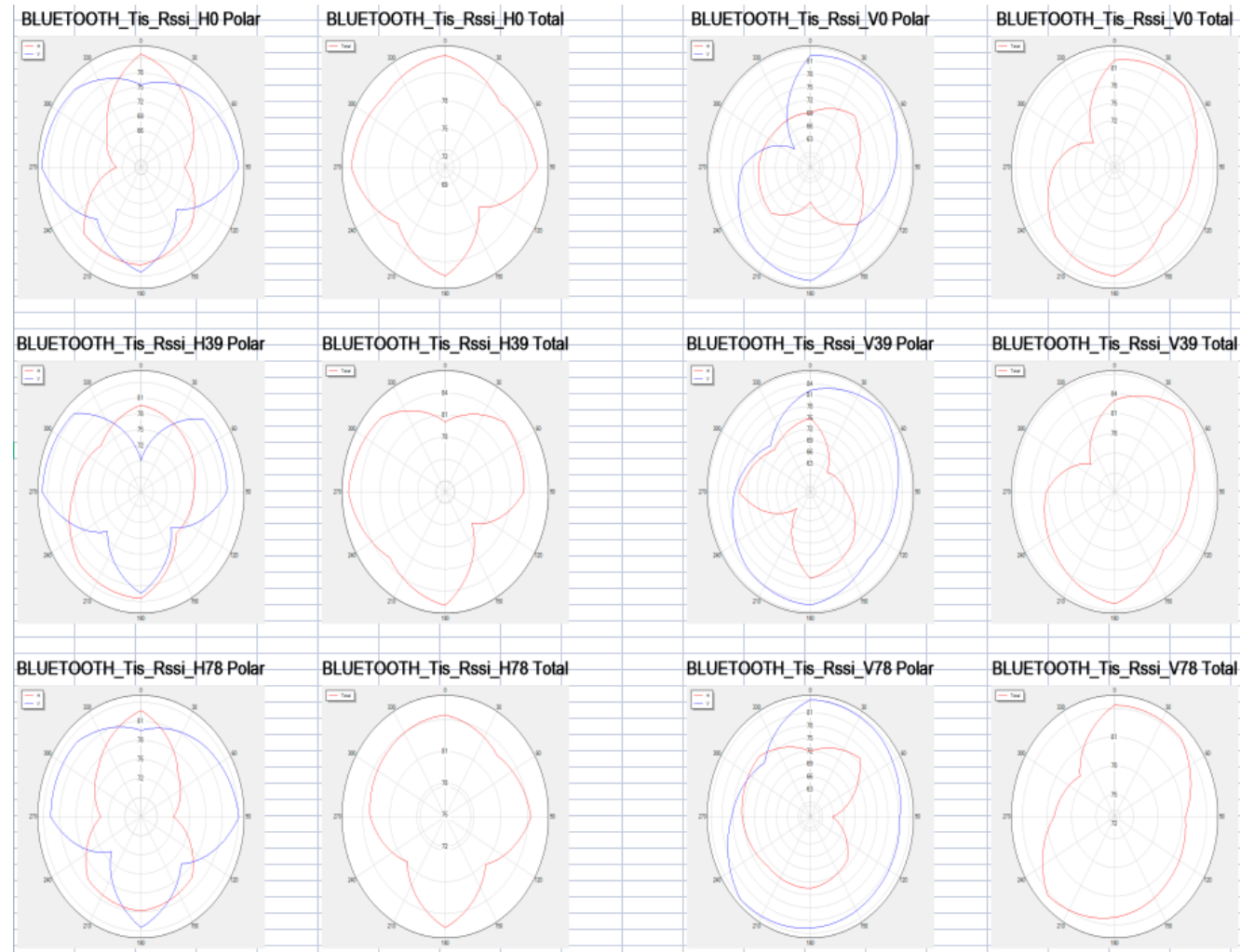


-R-TRP The antenna pattern of the free field



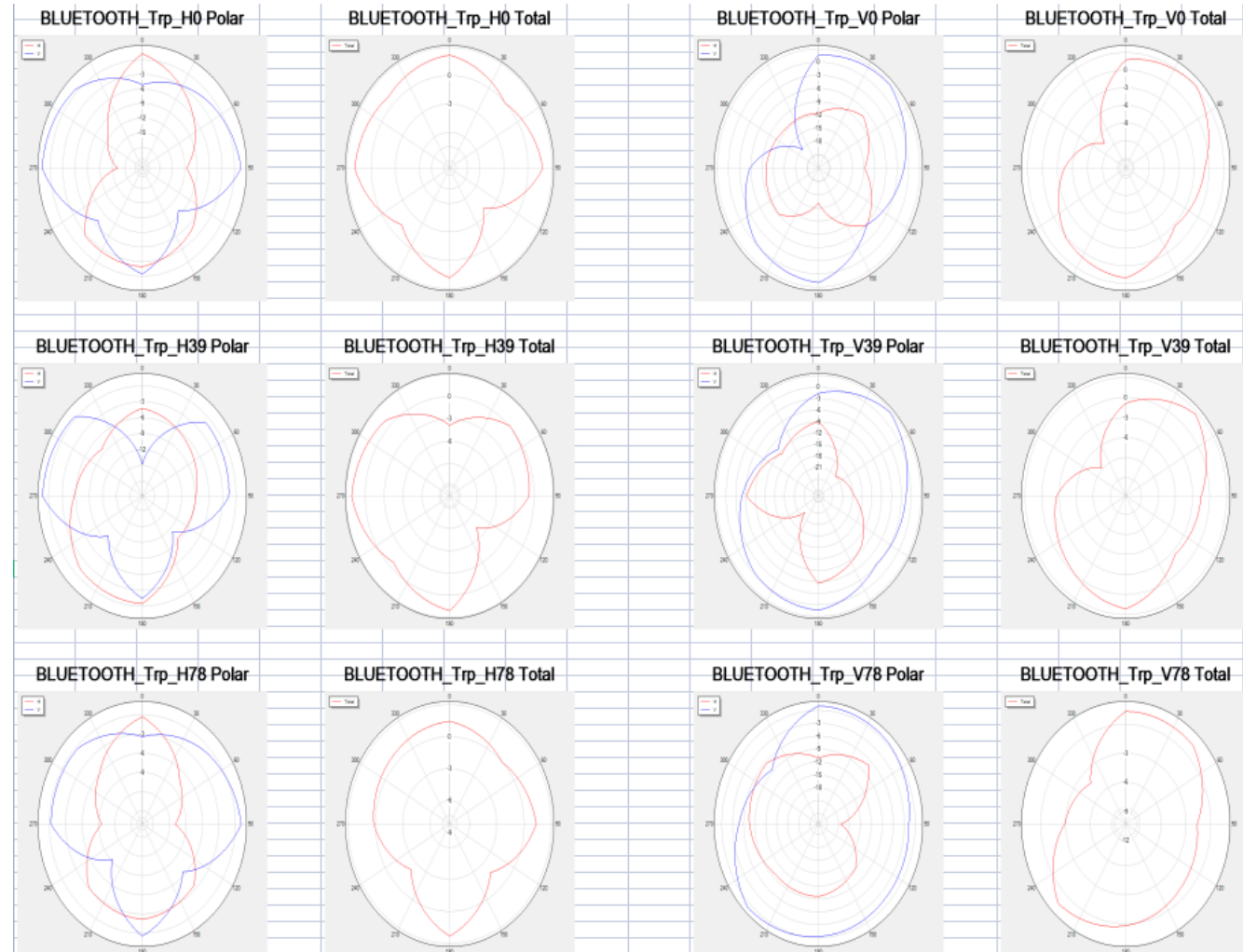
-L-TIS-An antenna pattern simulating a human head

#-L



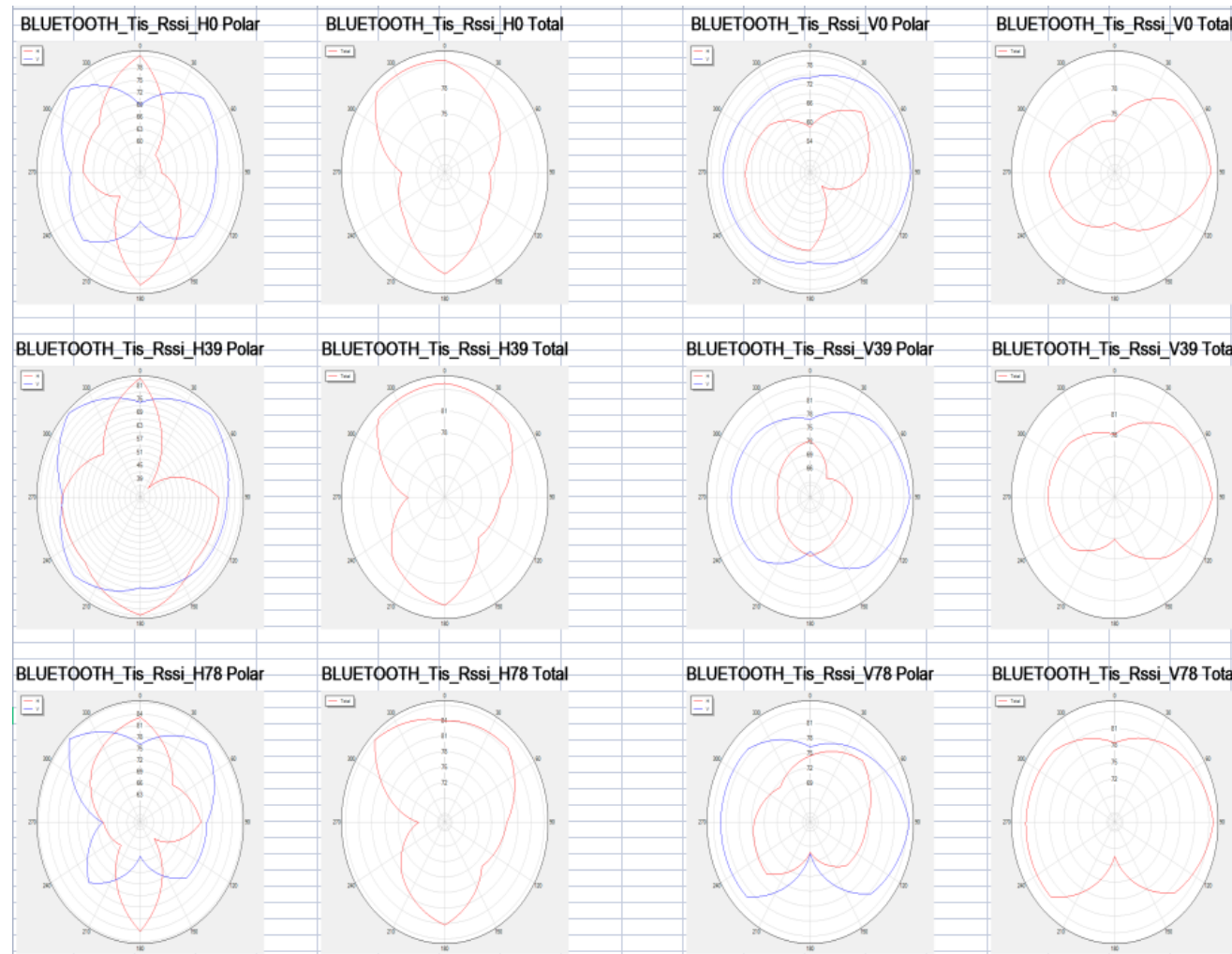
-L-TRP-An antenna pattern simulating a human head

#-L



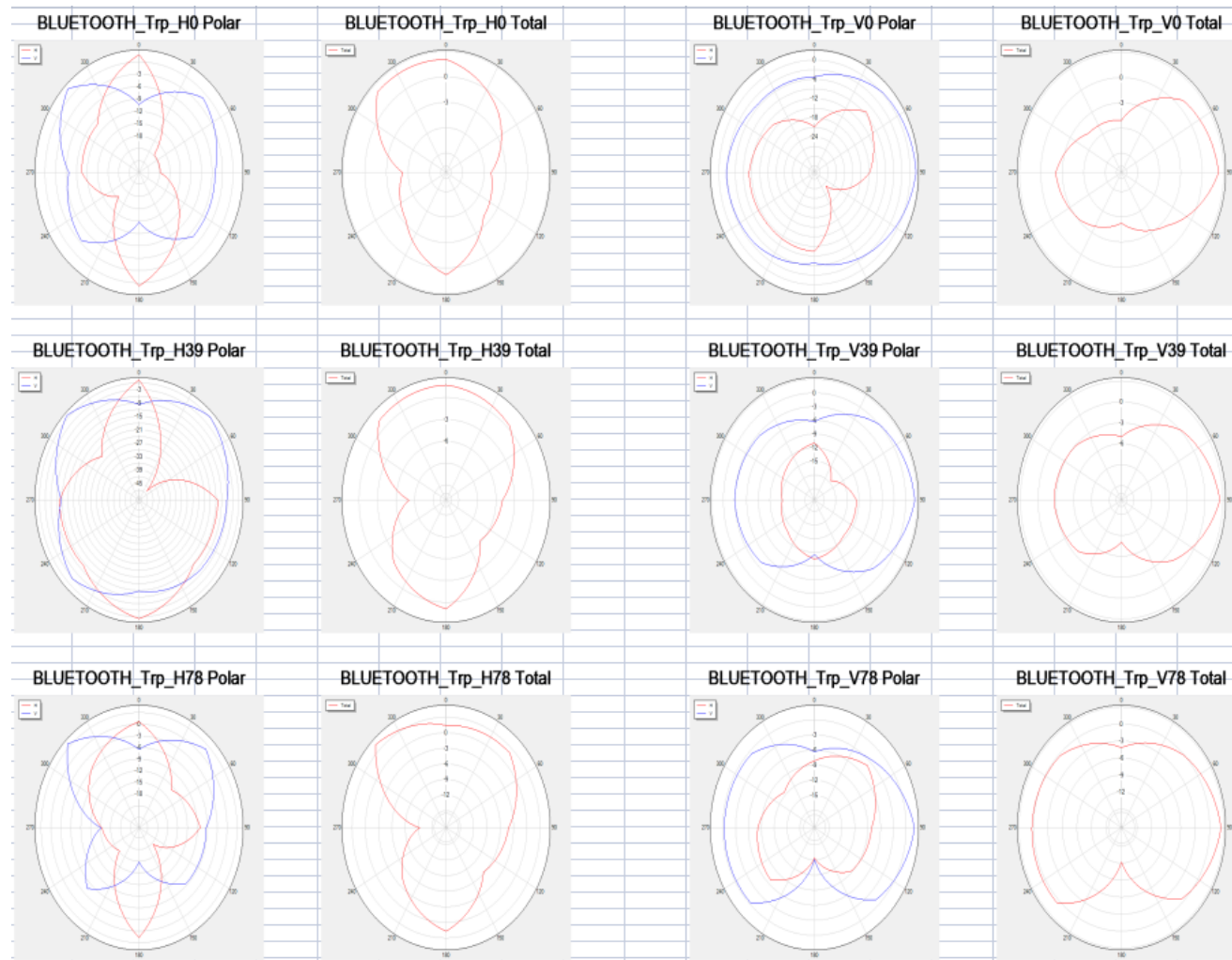
-R-TIS-An antenna pattern simulating a human head

#-R



-L-TRP-An antenna pattern simulating a human head

#-R



Antenna efficiency gain

天线效率与增益图

L

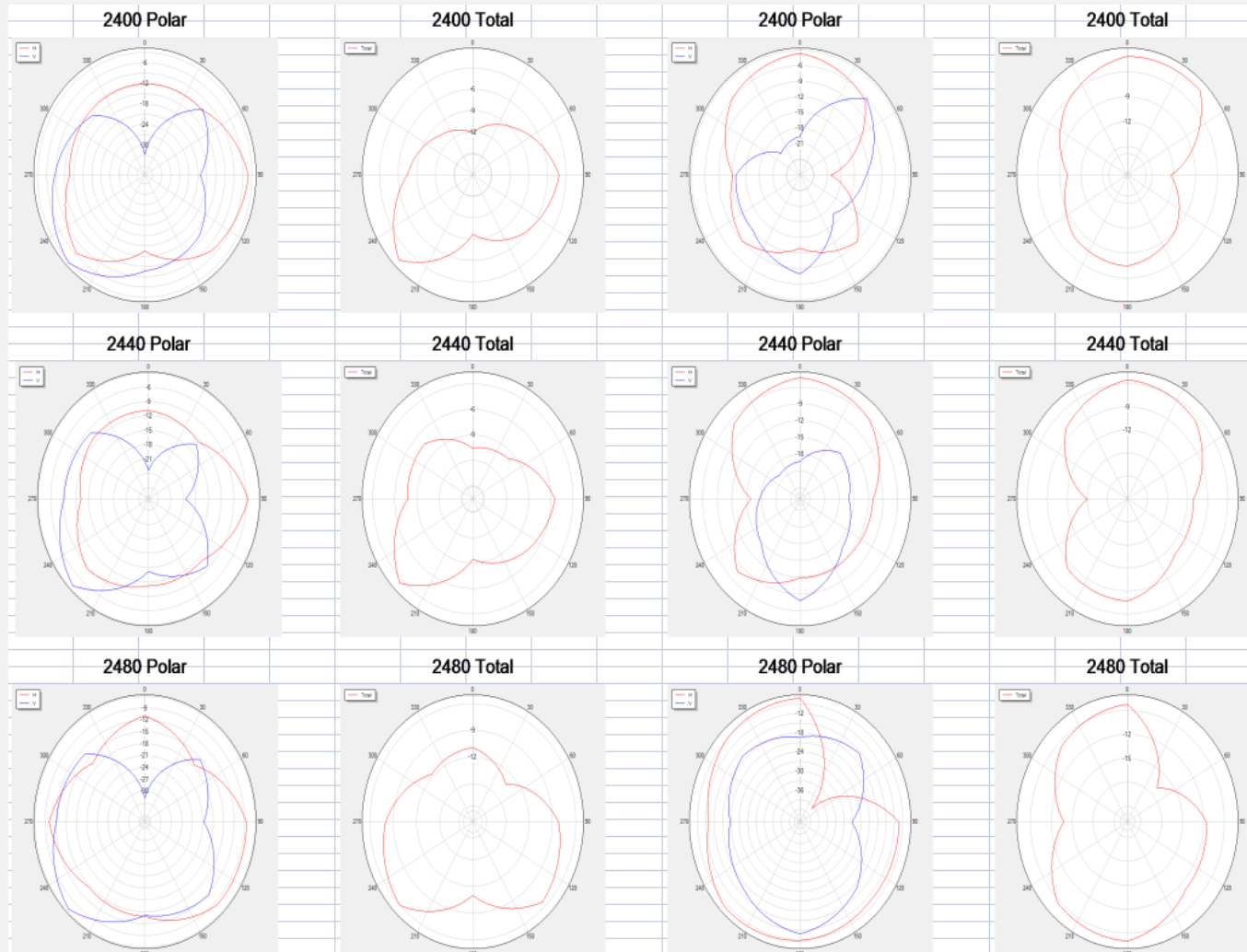
Frequency	Efficiency	percentage	Gain
2400	-4.35	33.18%	-1.49
2410	-4.27	36.62%	-1.25
2420	-4.4	37.91%	-1.14
2430	-4.79	38.96%	-0.79
2440	-3.06	42.71%	-0.28
2450	-4.01	39.8%	-1
2460	-4.54	38.99%	-1.75
2470	-4.04	38.48%	-1.94
2480	-4.13	38.23%	-1.04

R

Frequency	Efficiency	percentage	Gain
2400	-4.97	35.12%	-1.56
2410	-4.87	36.58%	-1.63
2420	-4.79	36.97%	-1.61
2430	-4.15	37.29%	-1.21
2440	-4.01	42.83%	-0.4
2450	-4.19	39.18%	-1.36
2460	-4.71	38.49%	-1.21
2470	-4.29	38.83%	-1.52
2480	-4.4	38.53%	-1.73

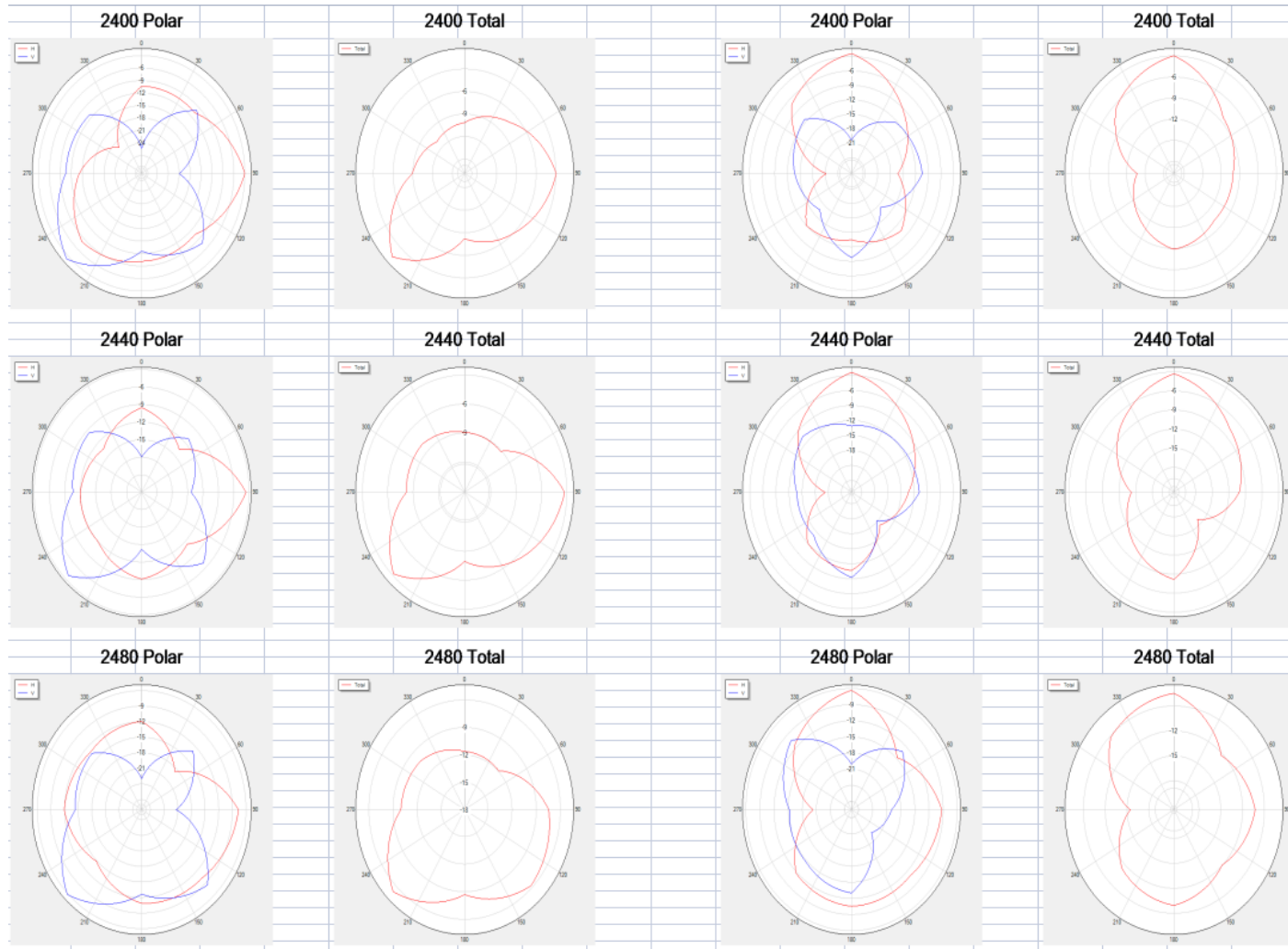
#-R

Antenna radiation pattern 2400.00MHz/2440.00MHz/2480.00MHz



#-L

Antenna radiation pattern 2400.00MHz/2440.00MHz/2480.00MHz



measuring distance

a. Environme

test project	Trying hard not to hear		Pocket test requirement		descr
OPENBUDS			right front	OK	The iPhone5 was tested over 15+ meters in the park
	OK		front-left	OK	
			right rear	OK	
			left rear	OK	

b. summarize

Openbuds 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



2023-5-12