



YONG CHENG INTERNATIONAL(OTA)

Z12-E8调测报告

Antenna Test Report



◆ 日期 2025年04月09日

Manufacturer: Shenzhen Dream Technology Co., LTD
Manufacturer add.: 401, Building B, Jingang Science Park, St. Fuhai ,
Dist.Bao' an , Shenzhen City, China



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

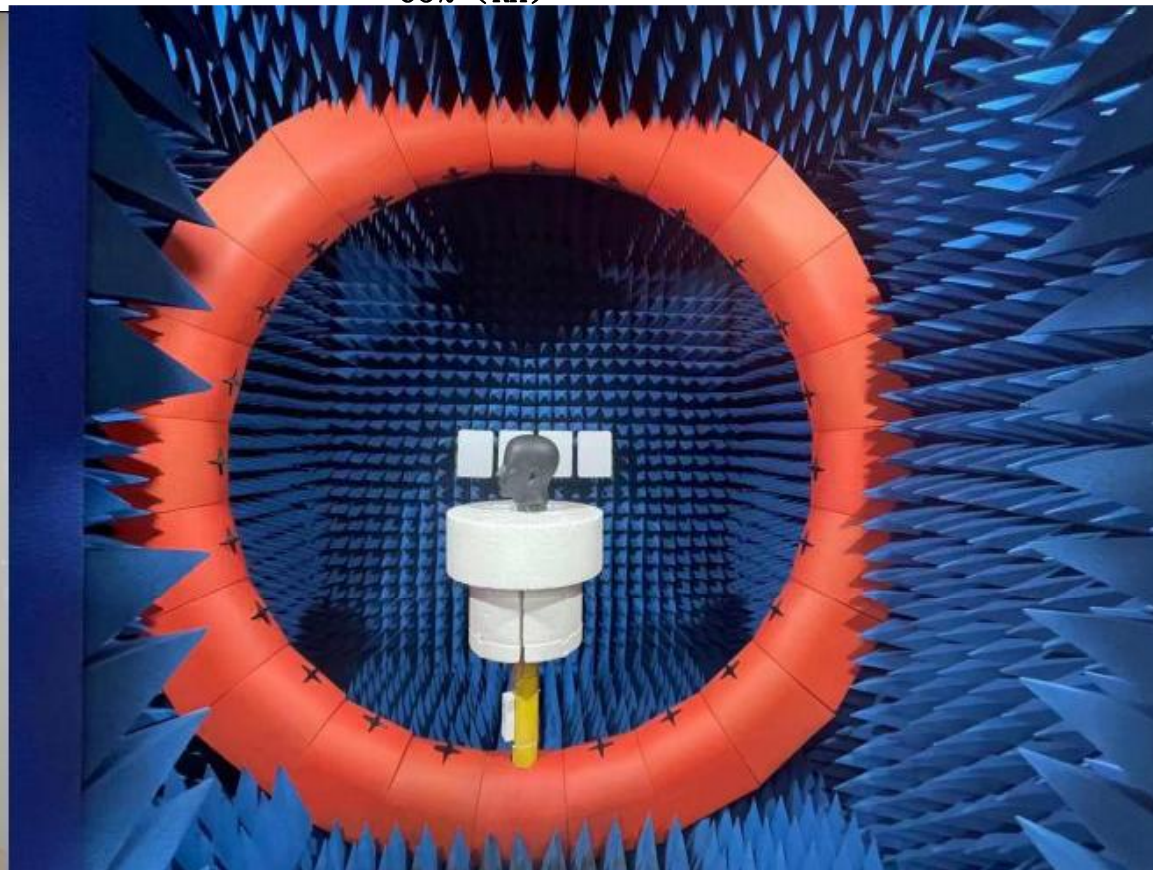


Customer	ZW	Project name	Z12_E8
frequency band	2400MHZ-2500MHZ	engineer:	CK
Date	2025/04/09	phone:	13530576606



1.测试工具

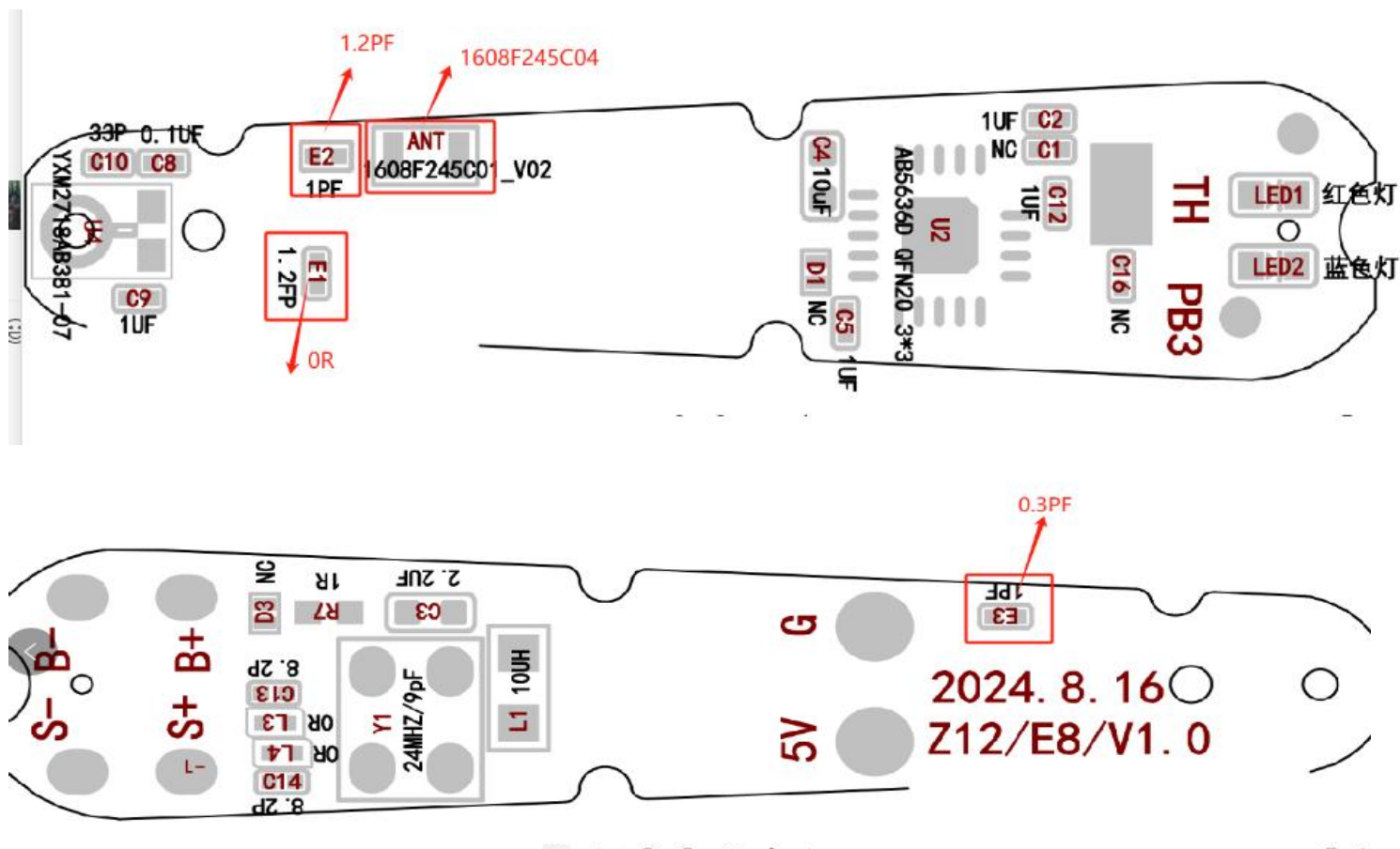
矢量网络分析仪&综测仪	Agilent Technologies E5071B & R&S CMW500
暗室	Atenlab M3
测试工程师	CK
温度	25℃
湿度	65% (RH)



Antenna Placement

ANT: 1608F245C04(咏成国际)

L/R Matching Circuit: 左右参数



S11、SWR、smith chart:

L



R



Fre.(MHz)	2400	2440	2480
L-S11 (db)	-15.1	-31.55	-14.61
R-S11 (db)	-14.67	-32.01	-15.01

Antenna active test data

ANT EIRP&EIS parameter Summary (free field)

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
# TRP (dBm)	4.75	4.68	4.57	4.83	4.57	4.89
# TIS (dBm)	-88.86	-88.38	-88.87	-88.57	-88.69	-88.78

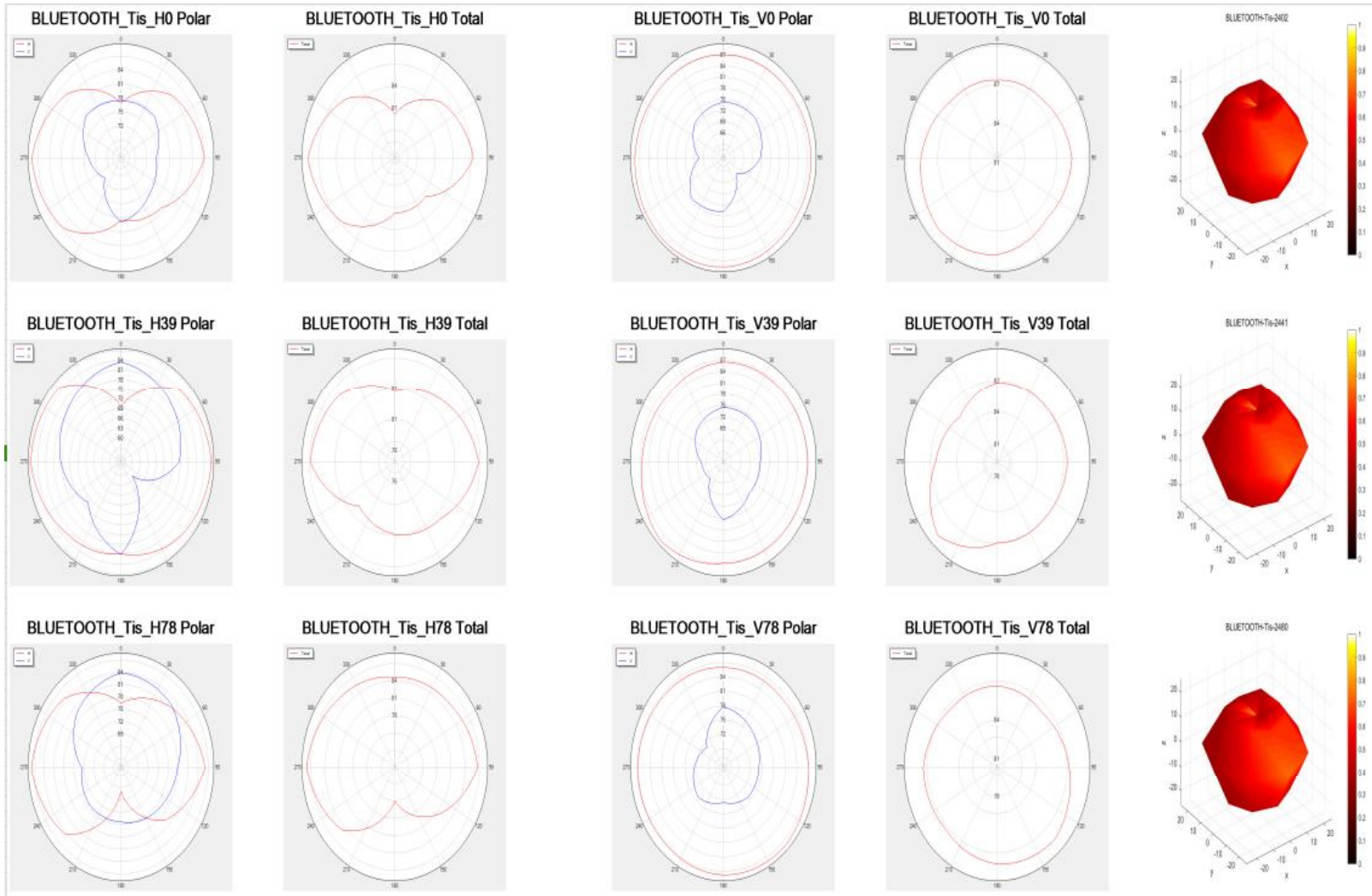
ANT EIRP&EIS parameter Summary (phantom head)

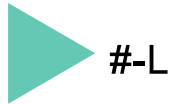
ANT EIRP&EIS parameter Summary (phantom head)						
频段frequency band	BT 2.4G (L)			BT 2.4G (R)		
信道route	0	39	78	0	39	78
# TRP (dBm)	0.86	1.22	0.24	0.83	0.97	0.56
# TIS (dBm)	-83.58	-83.97	-83.84	-83.96	-83.47	-83.68



#-L

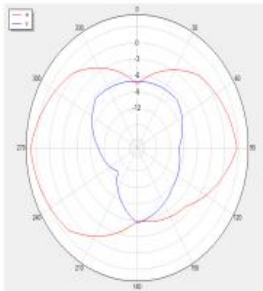
-L-TIS The antenna pattern of the free field



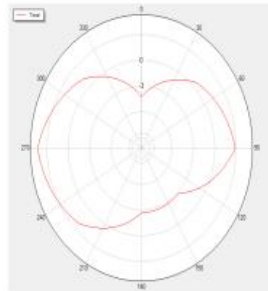


-L-TRP The antenna pattern of the free field

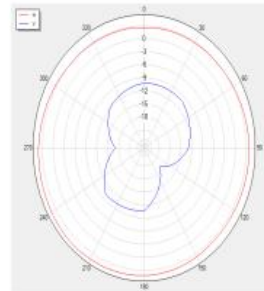
BLUETOOTH_Trp_H0 Polar



BLUETOOTH_Trp_H0 Total



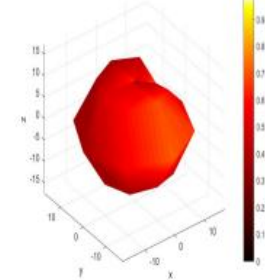
BLUETOOTH_Trp_V0 Polar



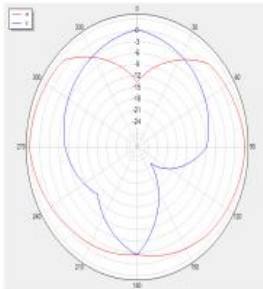
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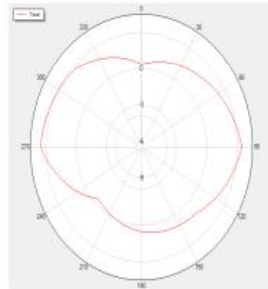
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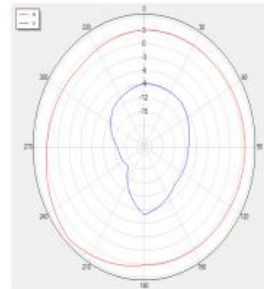
BLUETOOTH_Trp_H39 Polar



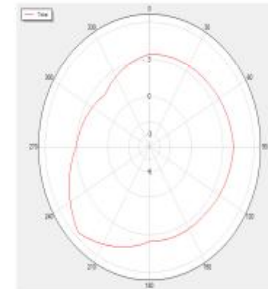
BLUETOOTH_Trp_H39 Total



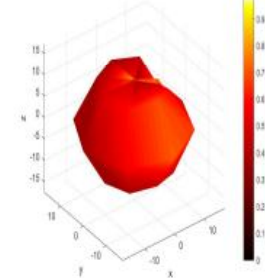
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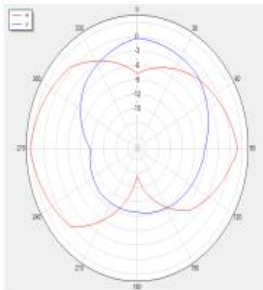
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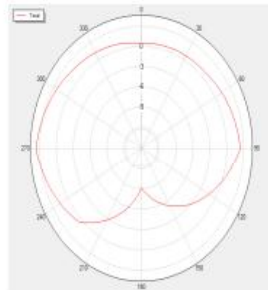
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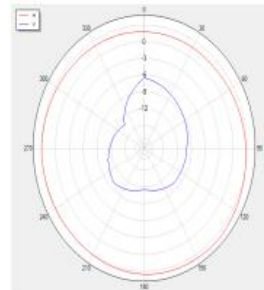
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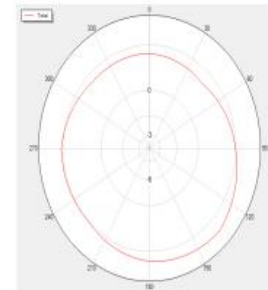
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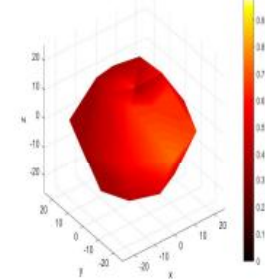
BLUETOOTH_Trp_V78 Polar

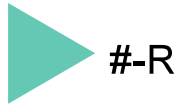


BLUETOOTH_Trp_V78 Total

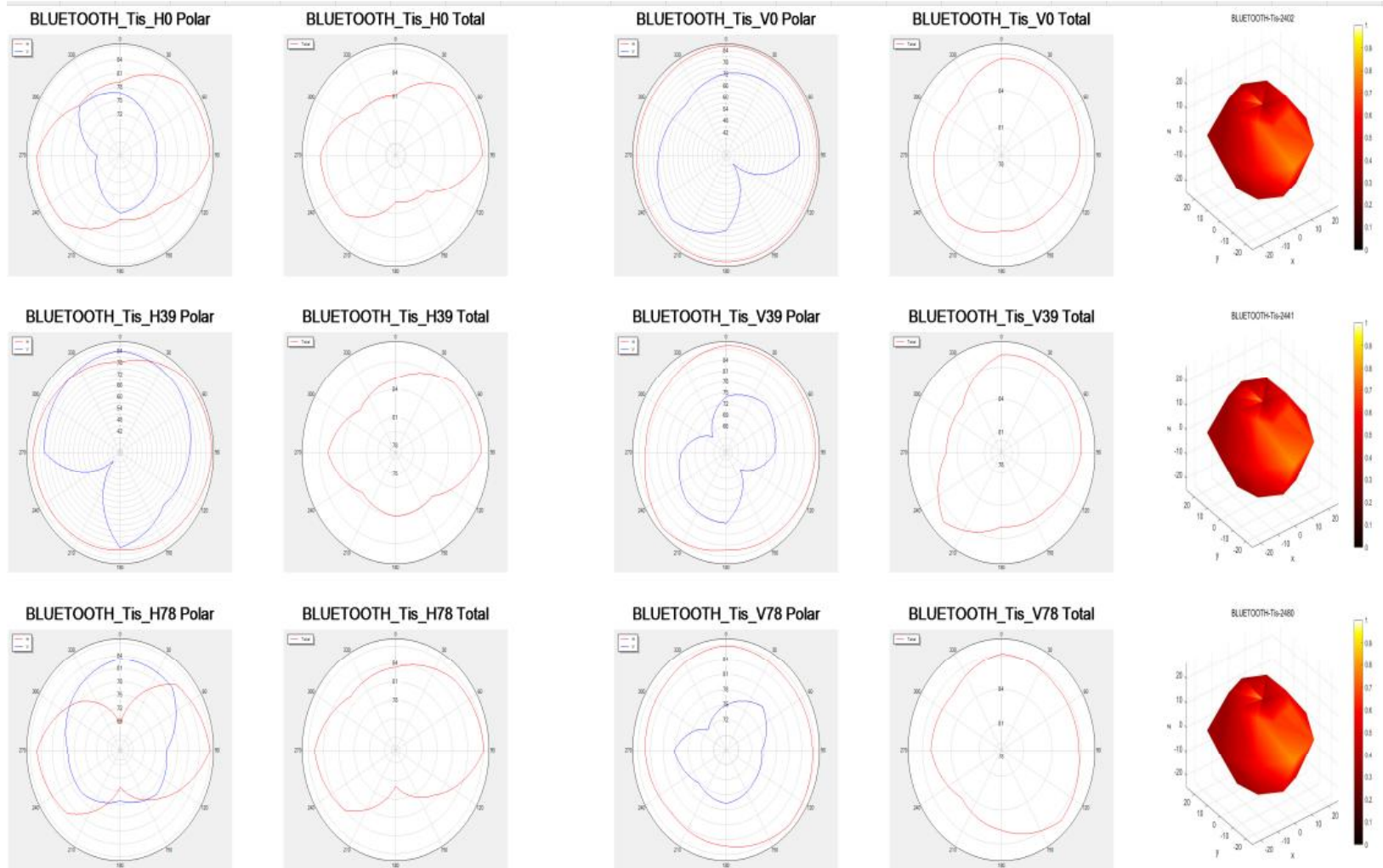


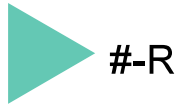
BLUETOOTH_Trp-2480



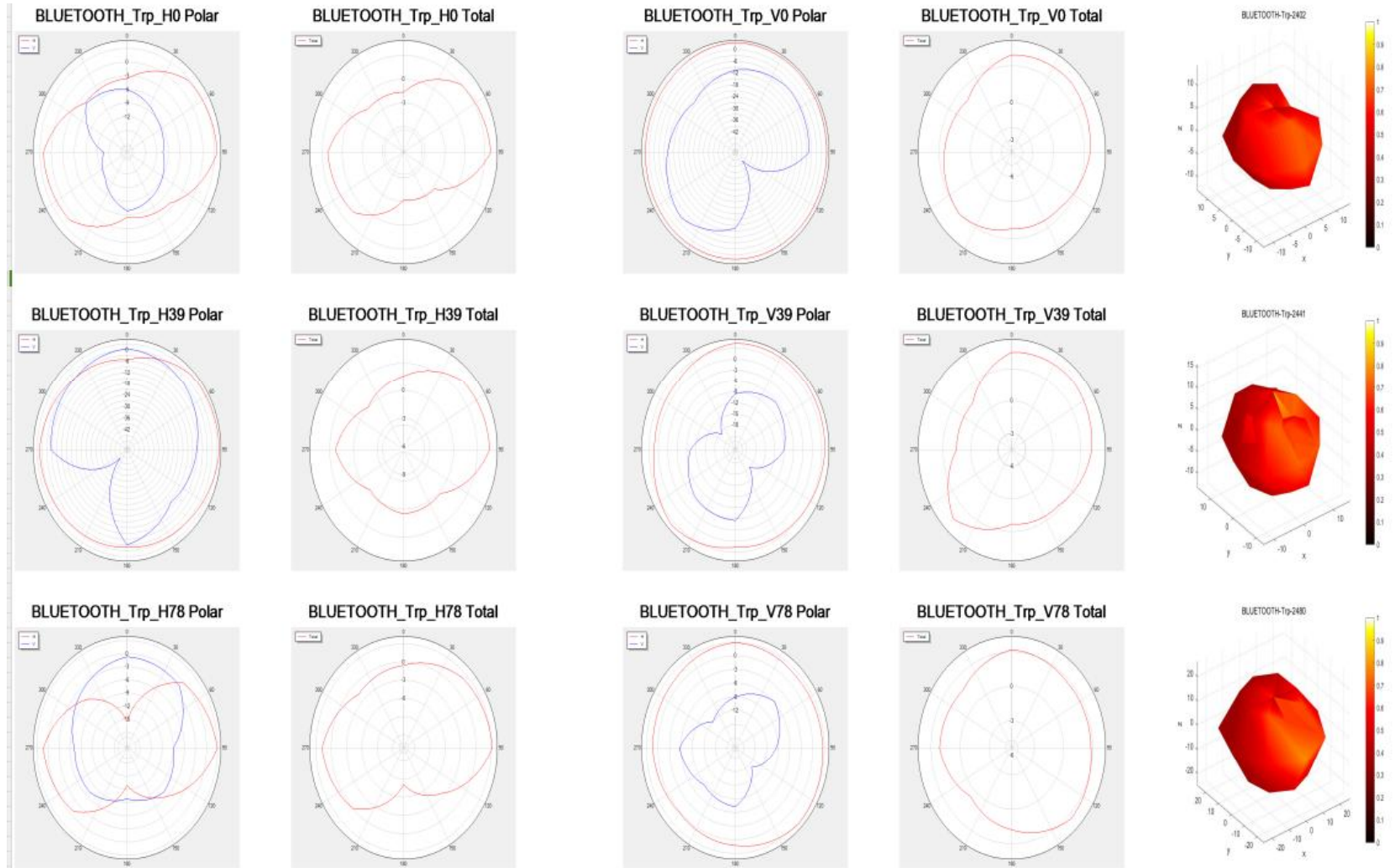


-R-TIS The antenna pattern of the free field



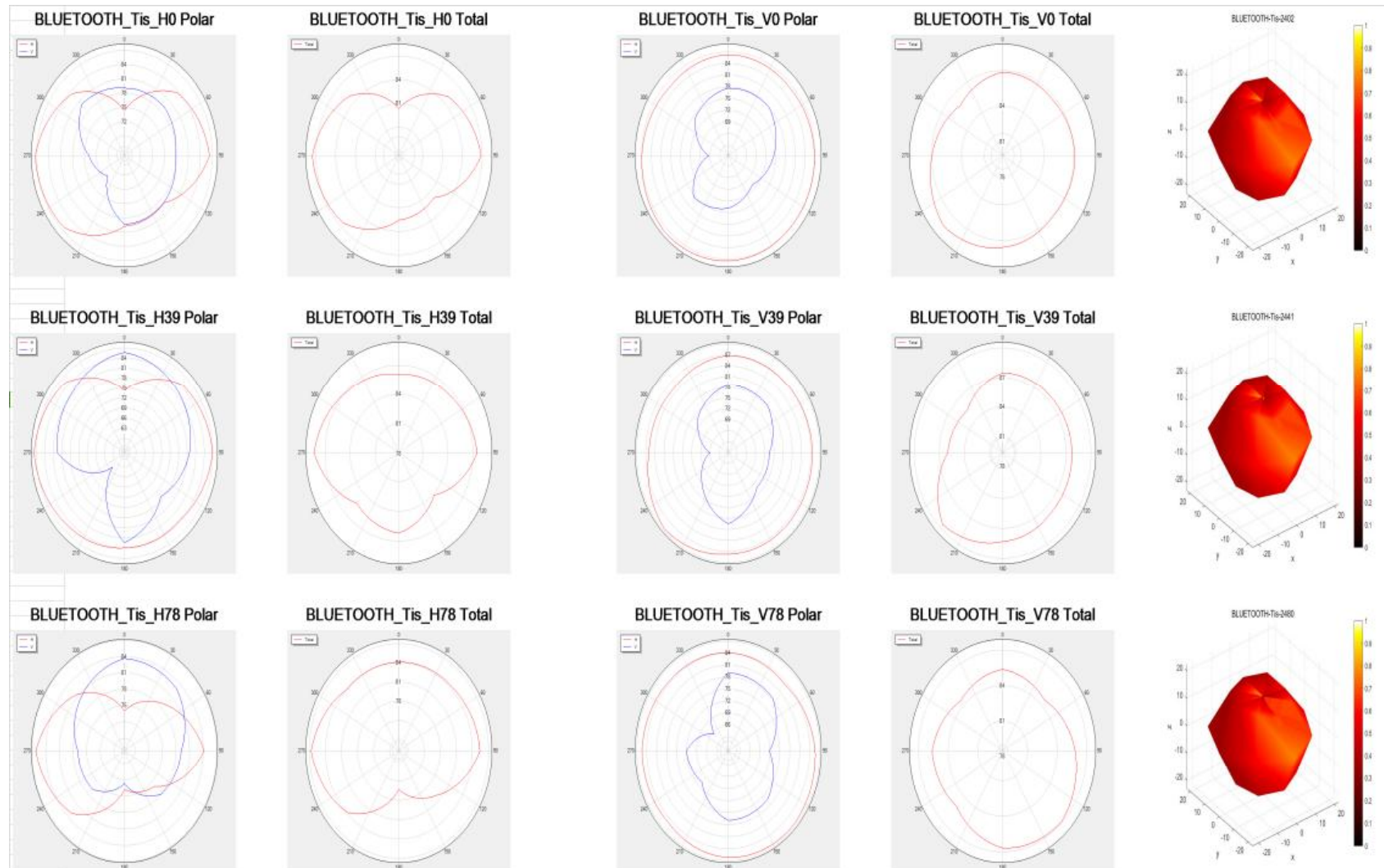


-R-TRP The antenna pattern of the free field



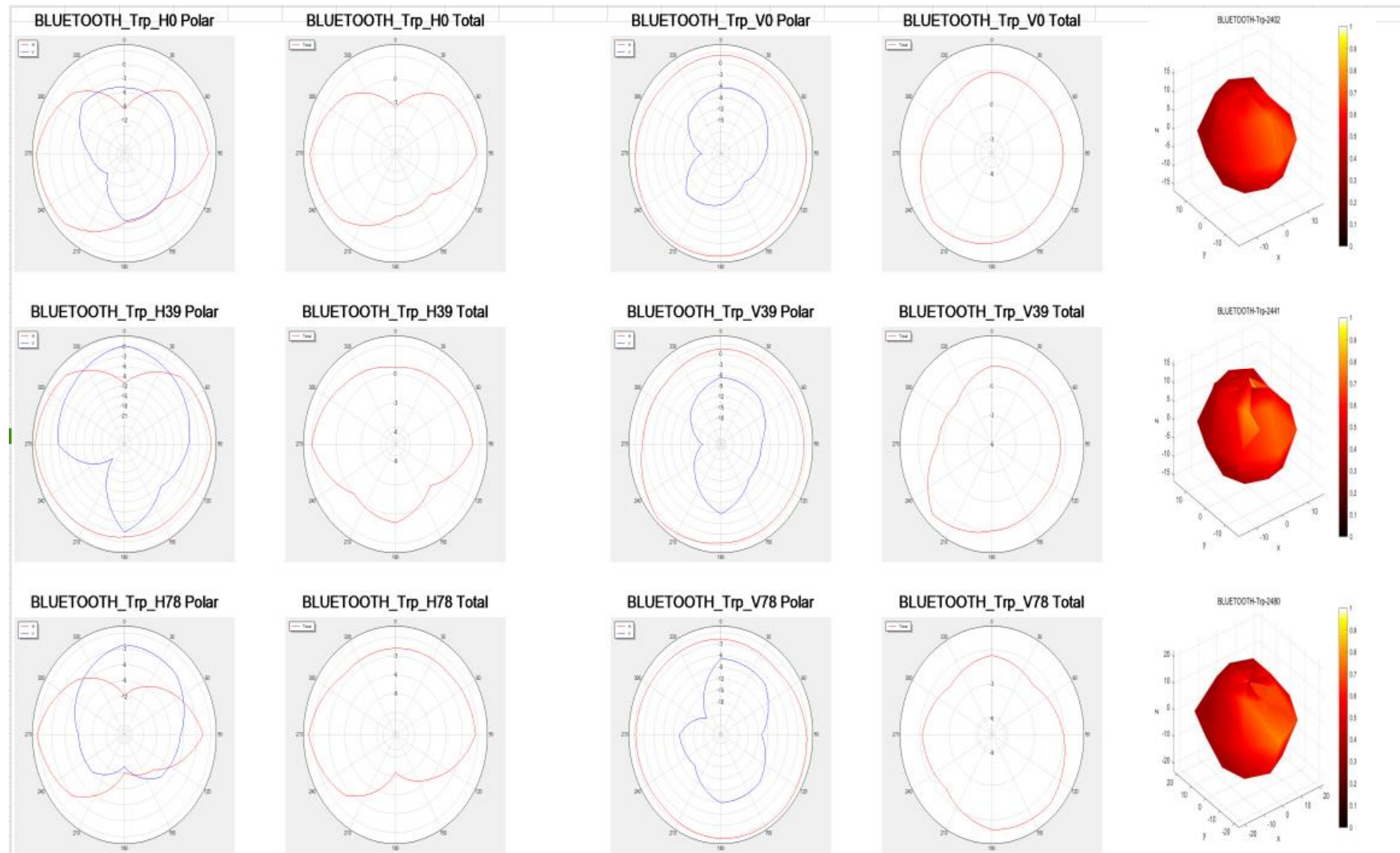
-L-TIS-An antenna pattern simulating a human head

#-L



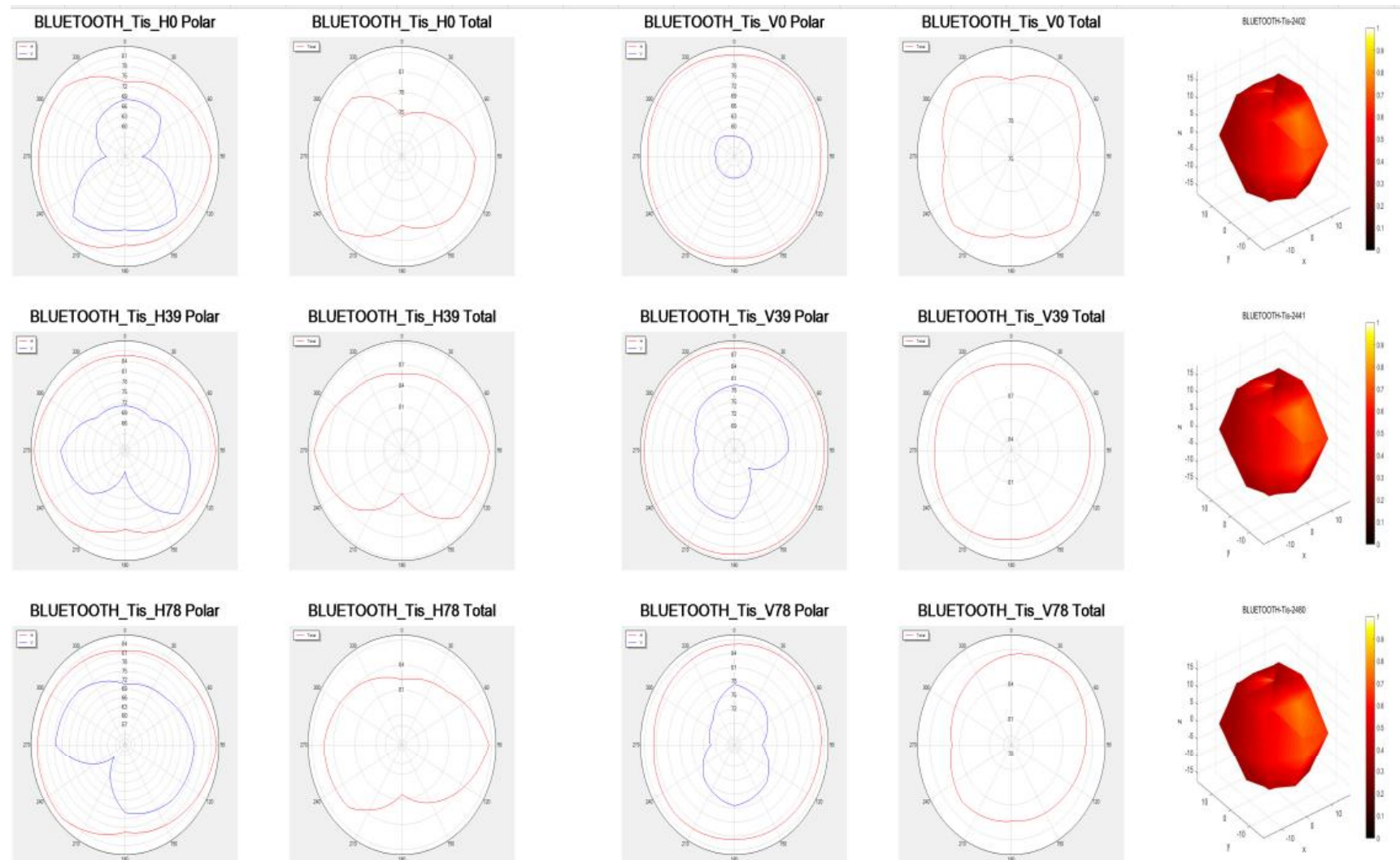
-L-TRP-An antenna pattern simulating a human head

#-L



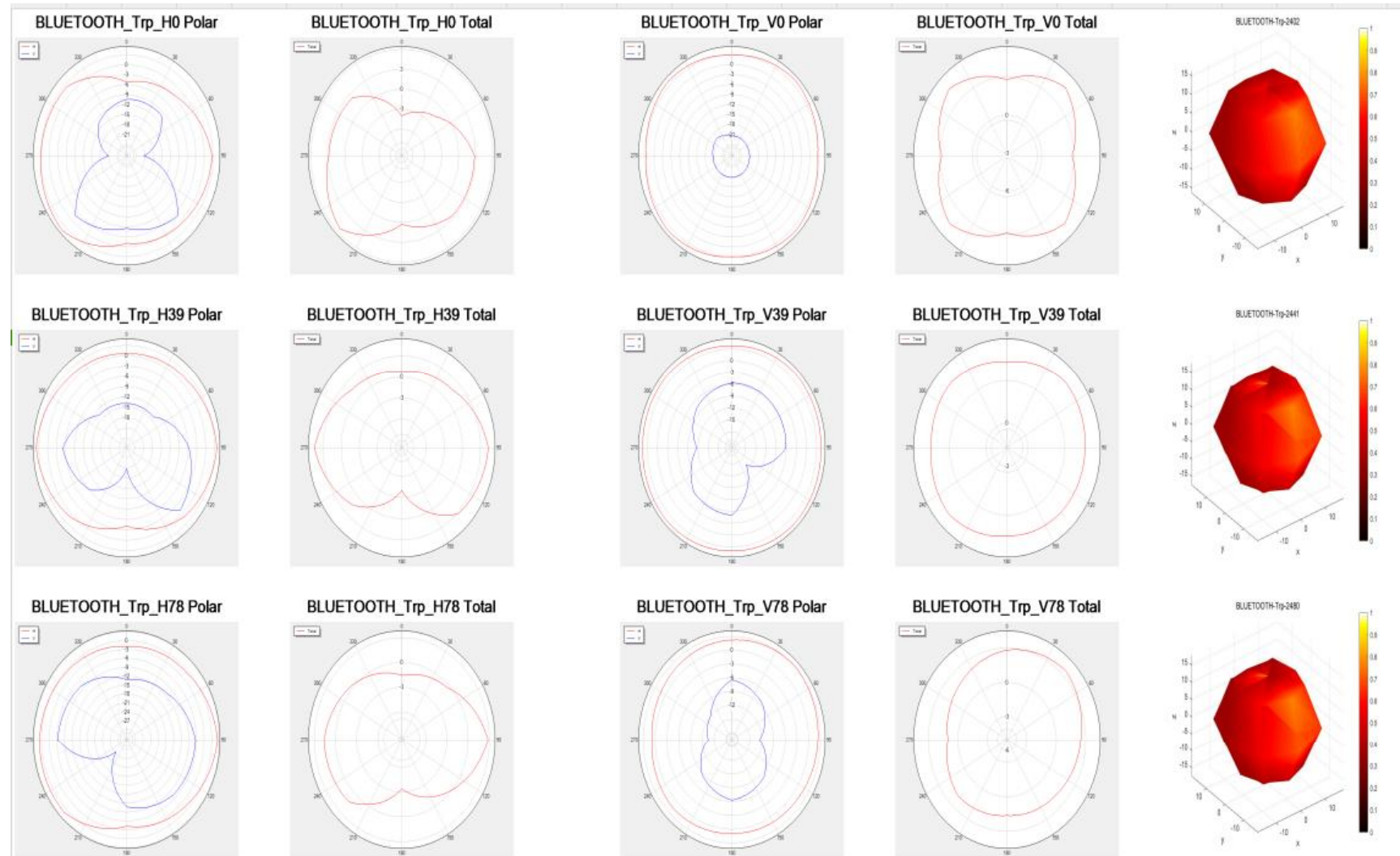
-R-TIS-An antenna pattern simulating a human head

#-R



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

#-R



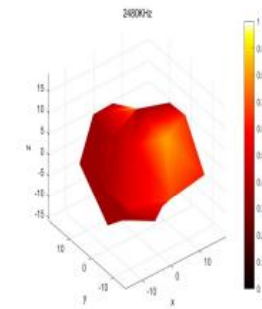
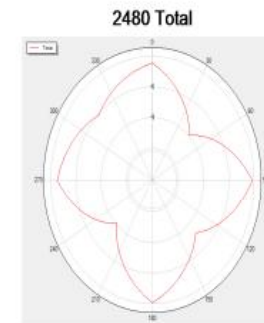
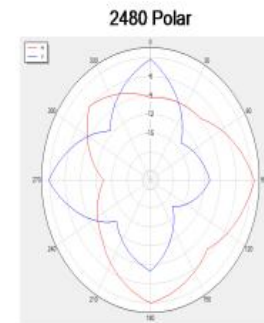
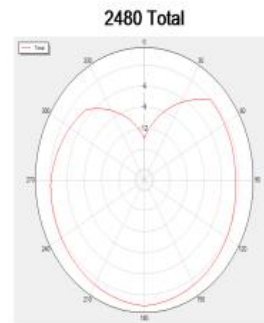
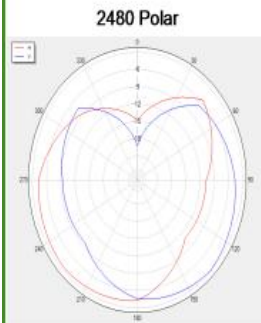
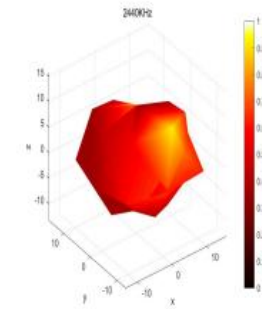
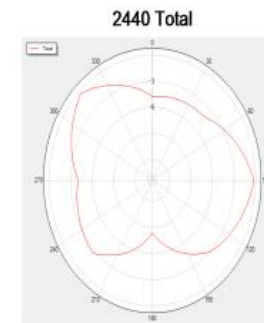
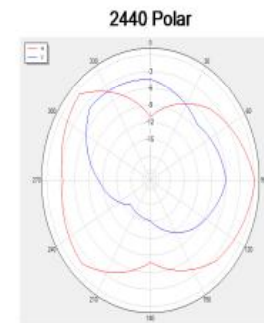
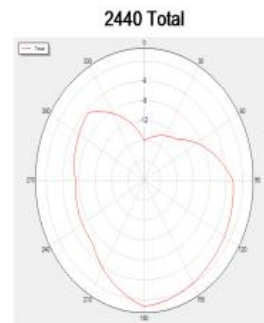
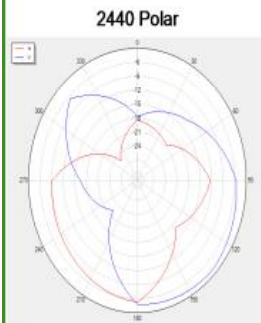
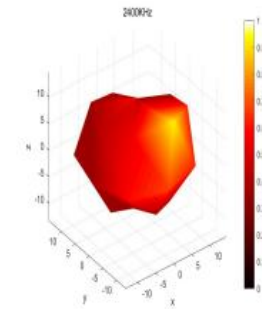
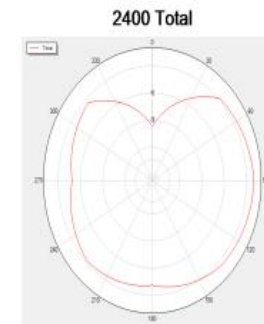
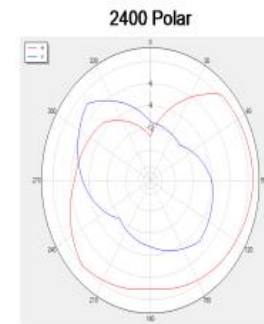
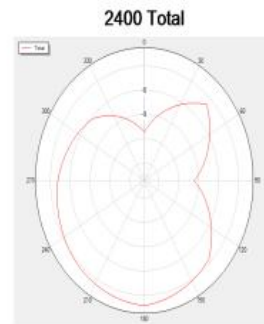
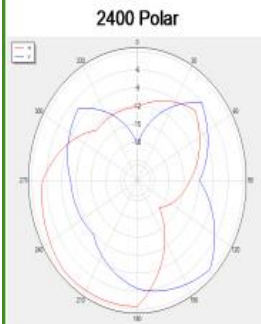
Antenna efficiency gain

天线效率与增益图

L					R			
Frequency	Effic	Percen	Gain		Frequency	Effic	Percen	Gain
2400	-3.83	42.81%	1.84		2400	-3.83	42.81%	1.84
2440	-3.8	42.83%	1.86		2440	-3.8	42.82%	1.86
2480	-3.82	42.82%	1.85		2480	-3.83	42.81%	1.84

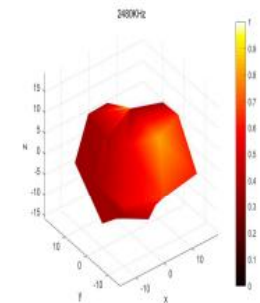
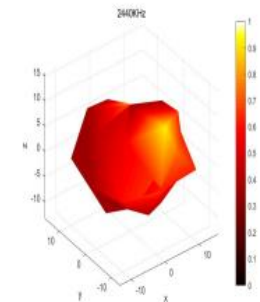
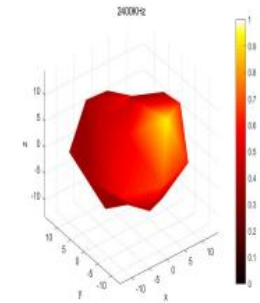
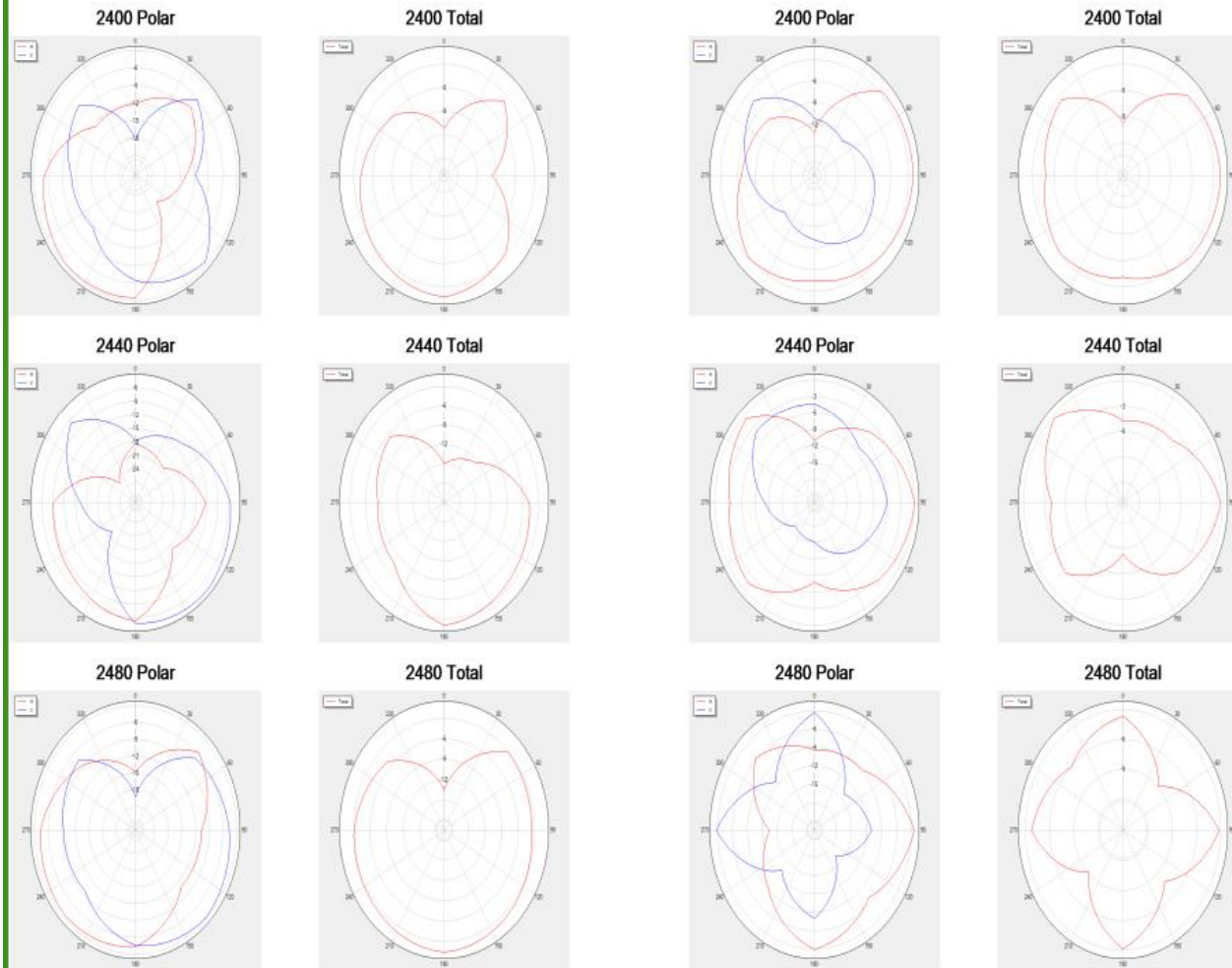
#-R

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
Z12-E8			right front	OK	The iPhone5 was tested over 10+ meters in the park
	OK		front-left	OK	
			right rear	OK	
			left rear	OK	

b. summarize

Z12-E8 machine actual test, OTA data test, basically distance matching, our park grass test effect is excellent

Antenna size

(A)Product Type	Chip Antenna
(B) Size Code	2.0x1.2mm(± 0.1 mm)
(C) Material	High K material
(D) Frequency	2.4 ~ 2.5GHz
(E) Feeding mode	PIFA & Single Feeding
(F) Antenna type	Type=01



Thank you for watching

Wish you enjoy your life



2023-5-12