



# YONG CHENG INTERNATIONAL(OTA)



W3 survey

report

Antenna Test Report



Test item	
1	Matching parameter
2	Network debugging antenna S parameters
three	Microwave darkroom test OIA active data
four	
five	measuring distance
six	<b>Assembly item</b>
seven	summary of commissioning test

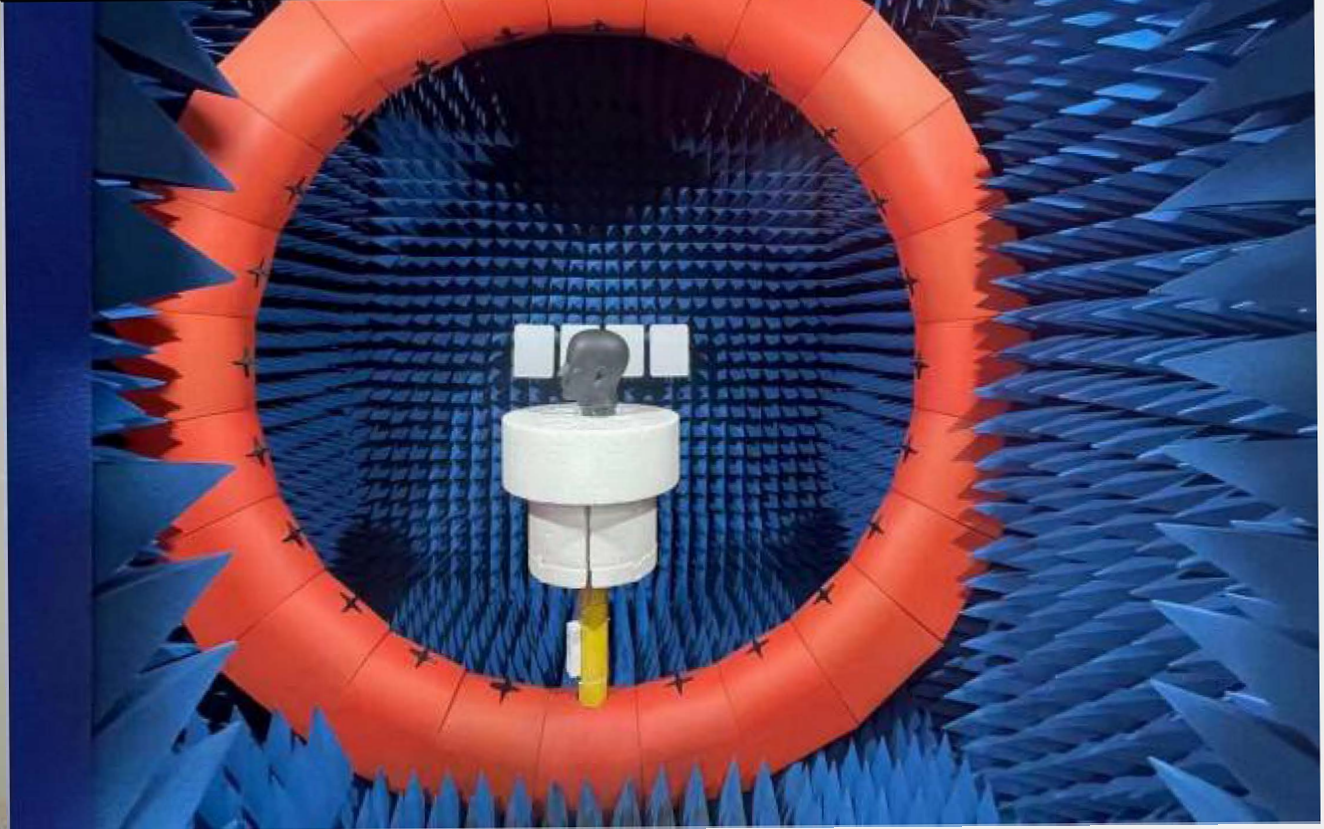


<b>Customer</b>	<b>JYX</b>	<b>Project name</b>	<b>W3</b>
frequency band	2400MHZ-2500MHZ	<b>engineer</b> :	<b>C</b> <b>K</b>
<b>Date</b>	2024/05/08	<b>phone</b> :	<b>13530576606</b>

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# testing tool

Vector network analyzer & comprehensive measuring instrument	Ageient technologies E5071B & R&S CMW500
darkroom	Aten lab M3
Test engineer	CK
temperature	25℃
humidity	65%(RH)





## Antenna Placement Ant: 2012f245x5 Antenna (Yongcheng International)



### Application:

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

### Features

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

### Part number Information

RANT 2012 F 245 X 5  
(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=5





# S11, SWR, smith chart:



Fre. (MHz)	2400	2440	2480
R-S11 (dB)	-12.13	-30.68	-12.16

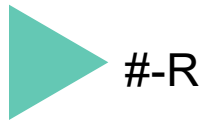
# Antenna active test data

ANT EIRP&EIS parameterSummary(free field)

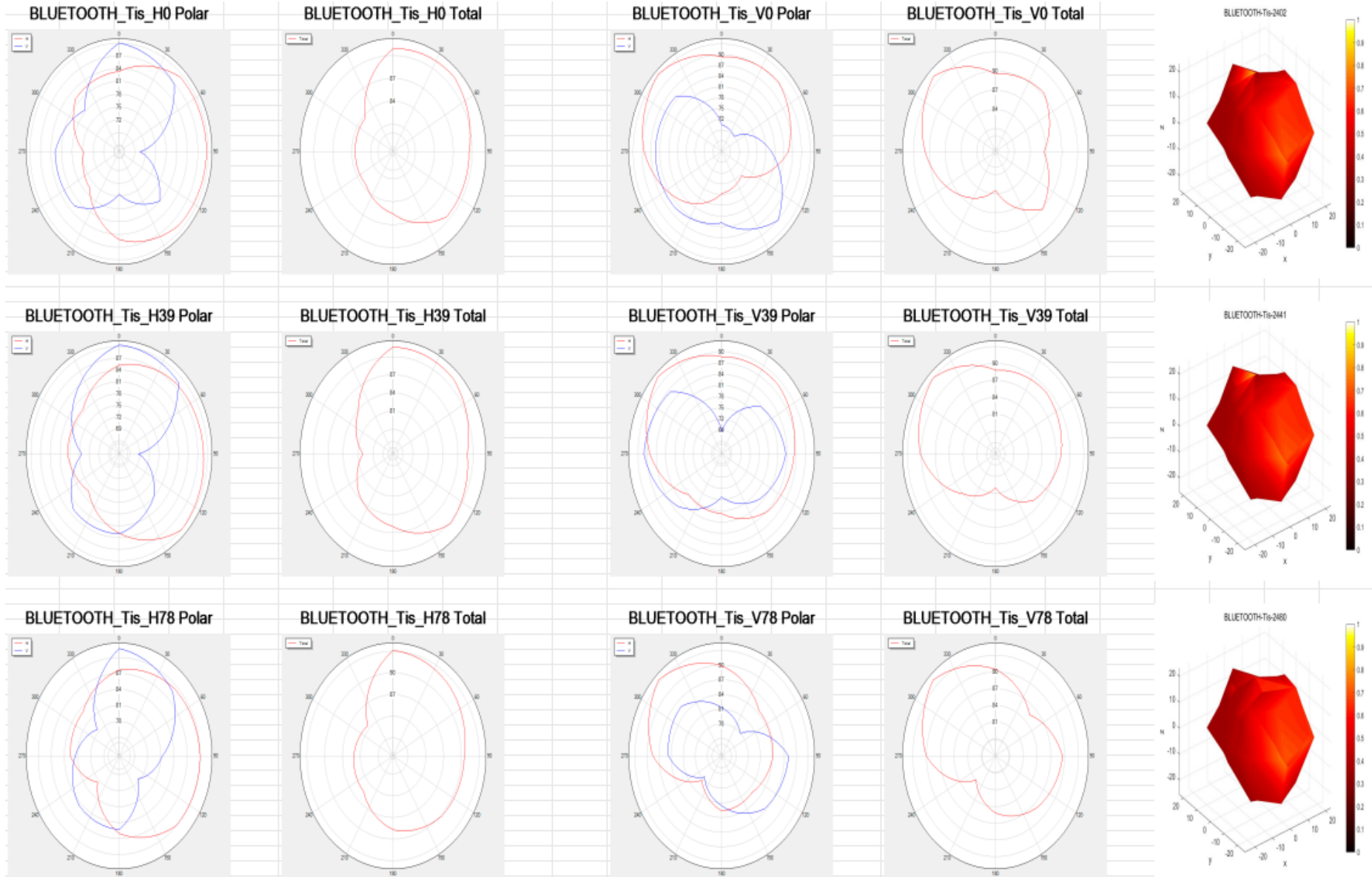
频段frequency band	BT 2.4G (R)		
信道route	0	39	78
# TRP (dBm)	5.41	5.58	5.29
# TIS (dBm)	-87.74	87.44	-87.3

ANT EIRP&EIS parameter Summary(phantom head)

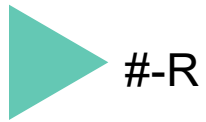
频段frequency band	BT 2.4G (R)		
信道route	0	39	78
# TRP (dBm)	2.22	2.28	2.25
# TIS (dBm)	-83.21	-83.32	-83.25



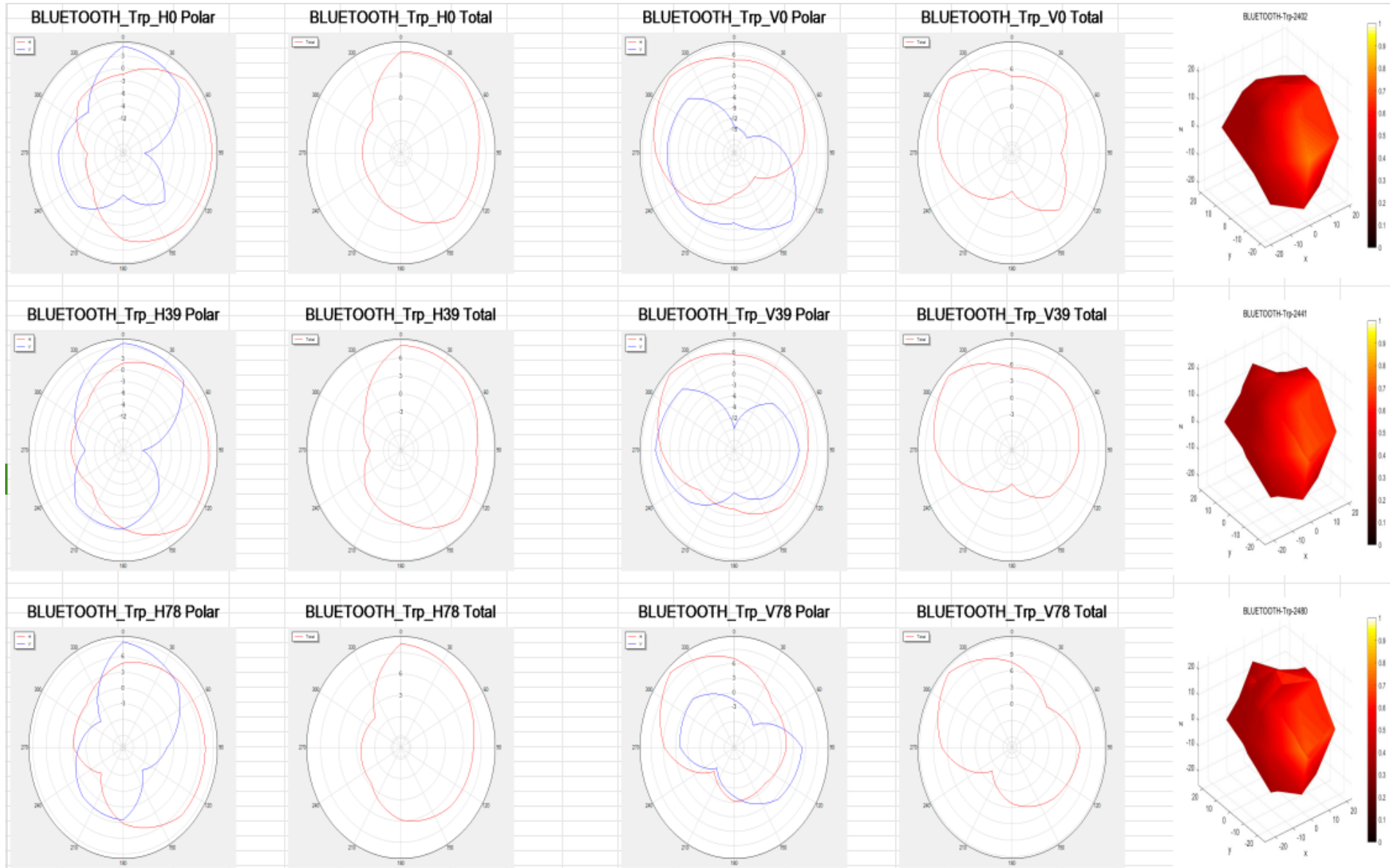
# -R-TIS The antenna pattern of the free field





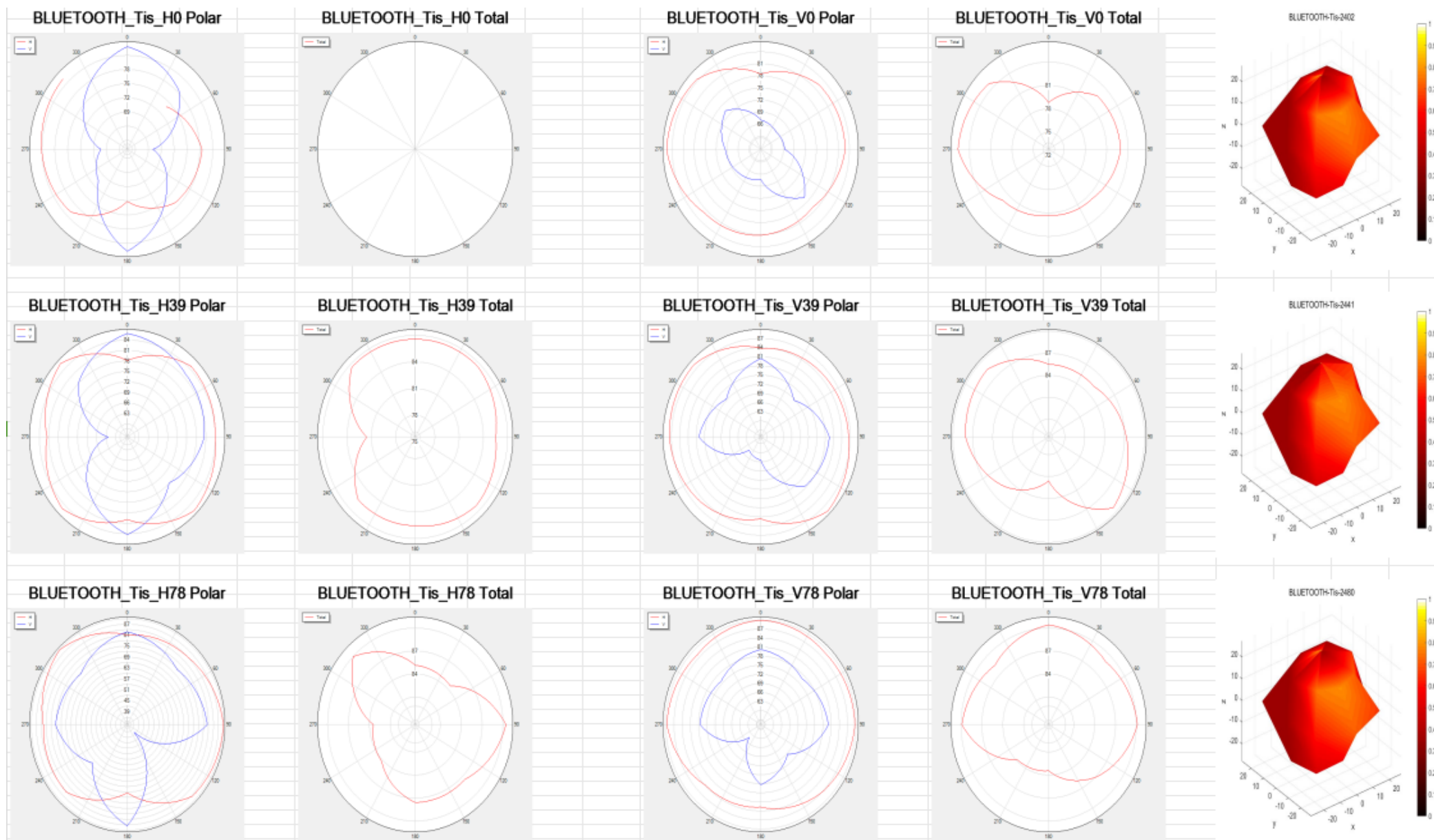


# -R-TRP The antenna pattern of the free field



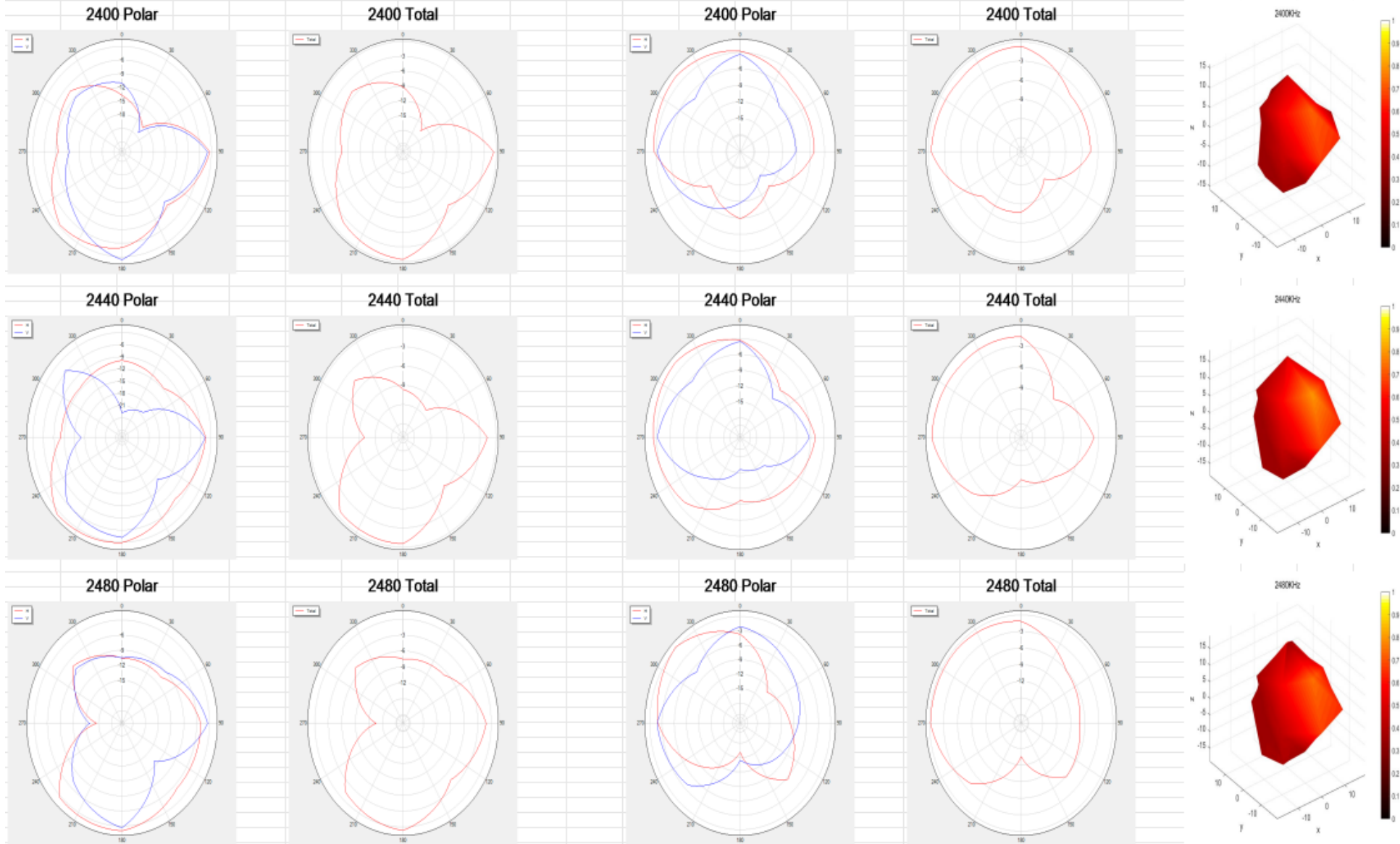
# -R-TIS-An antenna pattern simulating a human head



#-R



#-R

Antenna radiation pattern 2400.00MHz/2440.00MHz/2480.00MHz





# Antenna efficiency gain **Antenna efficiency and gain diagram**

R			
Frequency	Effic	Percen	Gain
2400	-3.55	44.76%	1.99
2440	-3.46	44.88%	2.02
2480	-3.54	44.73%	1.94

# measuring distance

## a. Environme

test project	Trying hard not to hear		Pocket test requirement		descr
W3			right front	O	The iPhone5 was tested over 15+ meters in the park
		O	front-left	O	
		K	right rear	O	
			left rear	O	

## b.summar

W3 machine actual test, OTA data test, basically distance matching, our park grass test effect is excellent

An aerial photograph of a city skyline, likely New York City, featuring numerous skyscrapers and a river. The image is partially obscured by a large, semi-transparent yellow triangle that points towards the bottom right. The text 'Thank you for watching' is overlaid on the top right of the image.

# Thank you for watching

Wish you enjoy your life

2023-5-12