

R02 Antenna Test Report

Shenzhen Huachuang Zhilian Technology Co., Ltd.

Customer	华创智联
Project	R02
Antenna Revision	板载天线
Product Description	PIFA
Product No	V1.0
DATE	2025. 03. 02

Purpose

This report is to measure the performance of BT antenna for R02. The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

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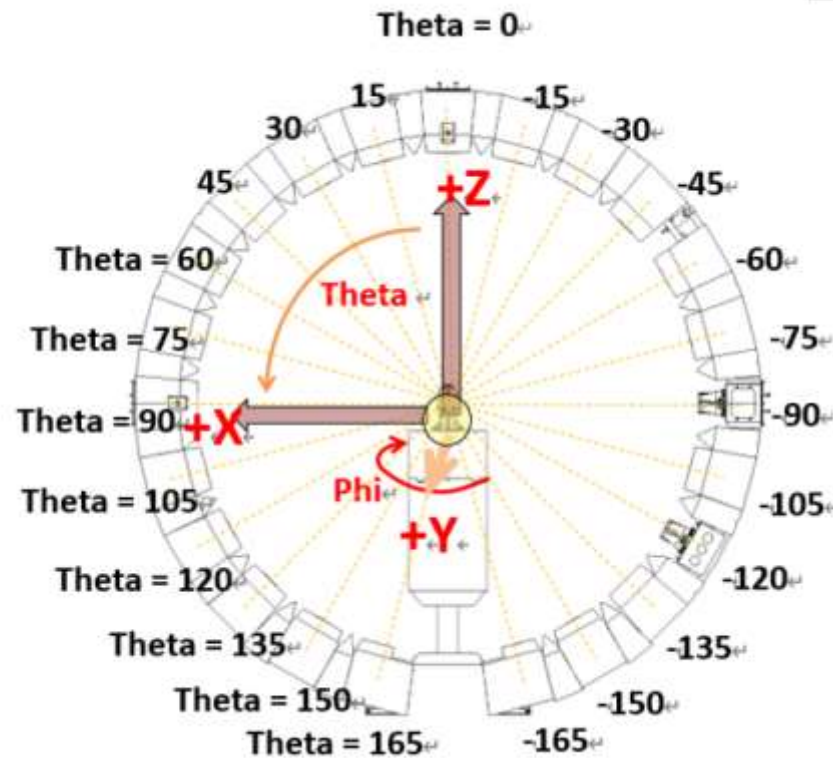
2. Test System

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



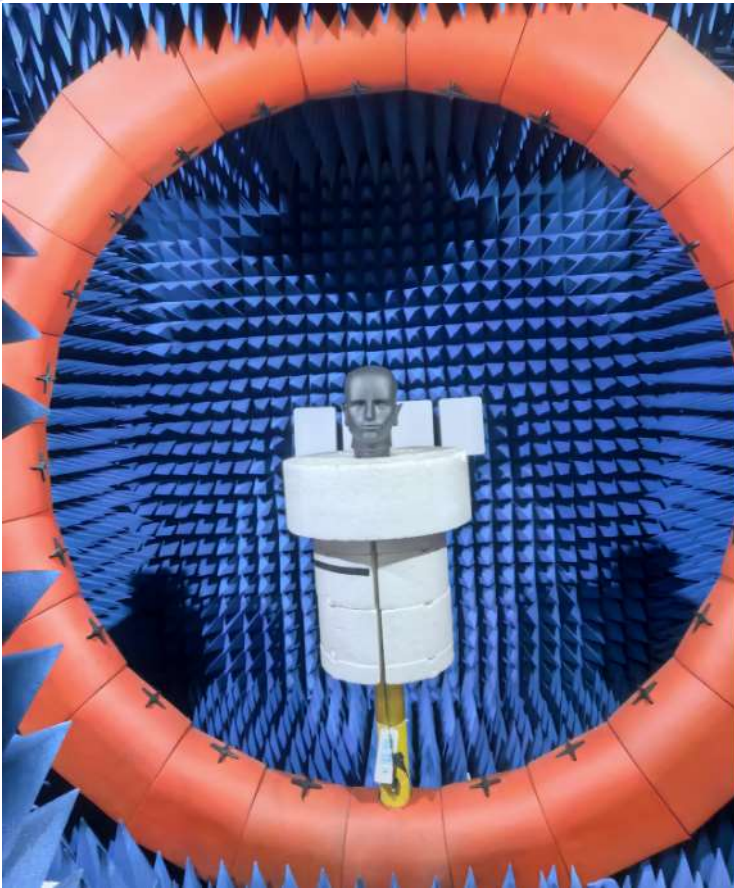
Test Result

Sample status & coordinates



Test Result

OTA-BH



匹配参数

R02



无源S11—(BT ANT)

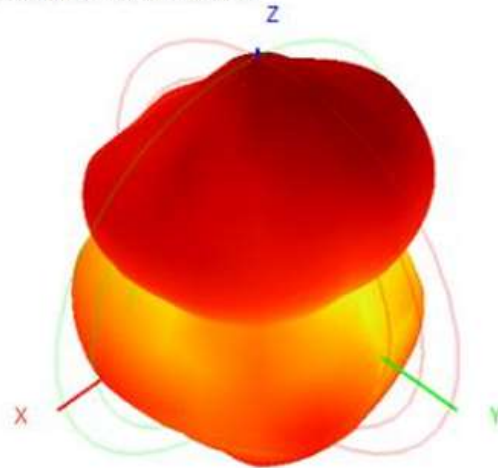


无源效率&增益

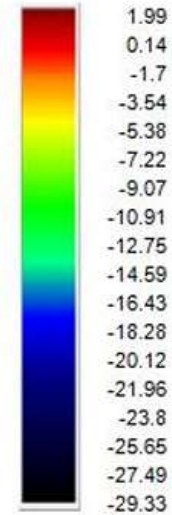
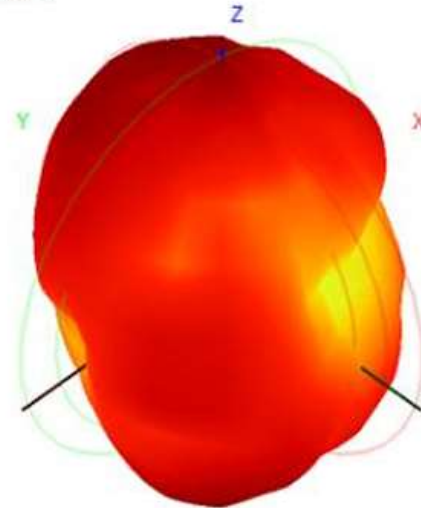
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-3.93	-3.92	-4.01	-3.86	-3.94	-3.87	-3.72	-3.62	-3.56	-3.68	-3.89
Gain (dBi)	2.56	2.72	2.50	2.53	2.63	1.99	2.09	1.38	1.86	1.54	1.13
Efficiency (%)	40.47	40.52	39.73	41.16	40.35	41.04	42.47	43.42	44.04	42.86	40.82
Directivity (dB)	6.49	6.64	6.51	6.38	6.58	5.85	5.81	5.01	5.42	5.22	5.02
Peak Gain Position (Theta)	0.00	0.00	0.00	0.00	0.00	15.00	15.00	15.00	15.00	15.00	120.00
Peak Gain Position (Phi)	120.00	120.00	90.00	135.00	90.00	90.00	105.00	150.00	270.00	300.00	225.00
Efficiency ThetaPol (%)	16.15	15.52	14.64	15.15	15.08	16.17	18.08	19.27	20.11	19.45	17.94
Efficiency PhiPol (%)	24.32	25.00	25.09	26.01	25.27	24.87	24.39	24.15	23.93	23.41	22.88
Upper Hem. Efficiency (%)	23.59	23.04	22.20	22.48	21.76	22.04	23.57	24.51	25.69	24.06	22.16
Lower Hem. Efficiency (%)	16.88	17.47	17.53	18.68	18.59	19.00	18.89	18.91	18.34	18.80	18.66

无源场型图

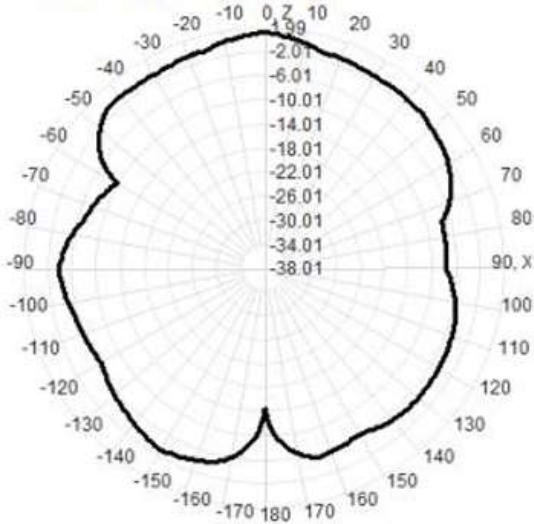
2450.0MHz H+V, Eff: 41.0%



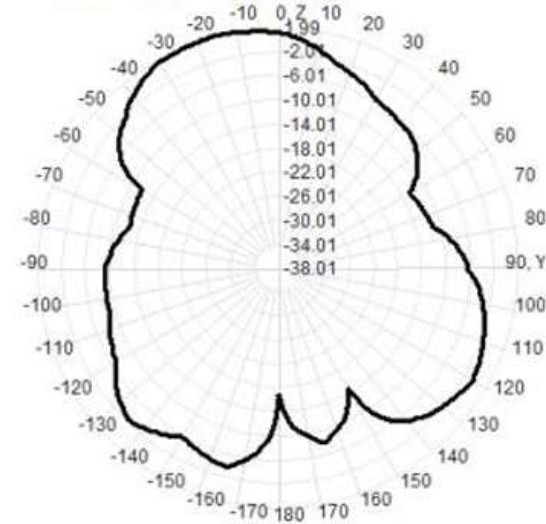
Back View



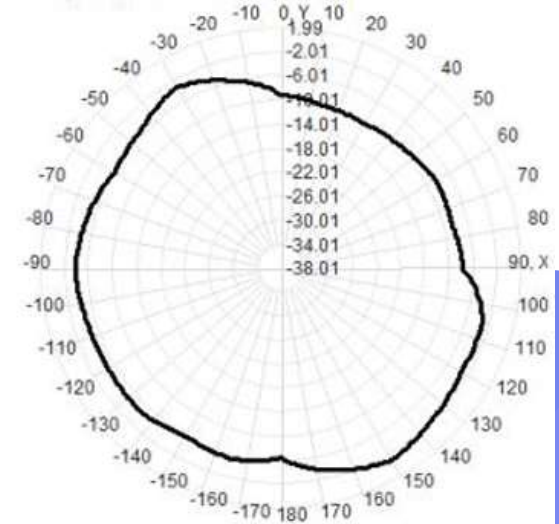
2450.0MHz Total(E1-XZ), Max= 1.25dBi



2450.0MHz Total(E2-YZ), Max= 1.99dBi



Total(H-XY), Max= -1.32dBi, CirD=8.98



有源测试

FS 自由空间				BH 头模测试		
BT Test						
CH	TRP	TIS		CH	TRP	TIS
0	11.04	-94.66		0	9.89	-93.32
39	11	-91.25		39	9.78	-90.53
78	10.98	-91.94		78	9.69	-90.38

Thanks for your comment!

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