

customer name		CCA	project name	2212A
NO	catalogue		specification	
1	frequency band		2.4G	
2	project type		bluetooth headset	
3	Feed point type		shrapnel	
4	Antenna type		PIFA	
5	Antenna material		FPC	

catalogue

I. Introduction to the test darkroom

Two. Machine pictures

Iii. Passive standing wave diagram

4. Passive 3D&2D field pattern

V. Passive efficiency & Gain

6. Active 3D&2D field patterns

7. OTA active

Viii. Summary

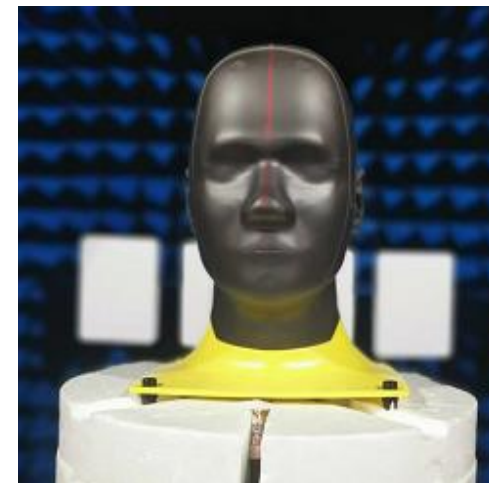
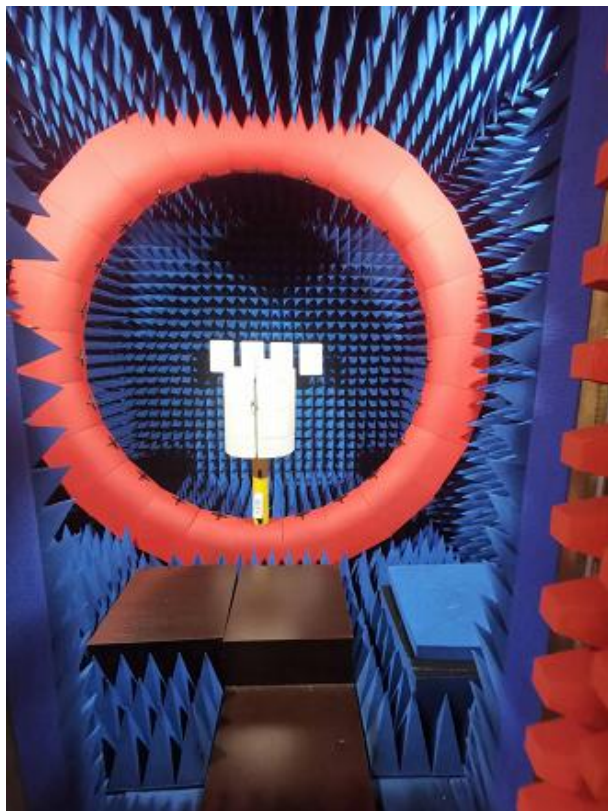
Nine. Pull distance test

Ten. Anti-interference test

Xi. Summary

I. Introduction to the test darkroom

1. Active test: Support 2.3.4.5G standard multi-mode measurement NB-IoT, eMTC, CAT-1, Bluetooth1-5, WIFI802.11abgn, measurable TRP TIS
2. Passive test: can test gain, efficiency
3. TWS headset test head model full head hand

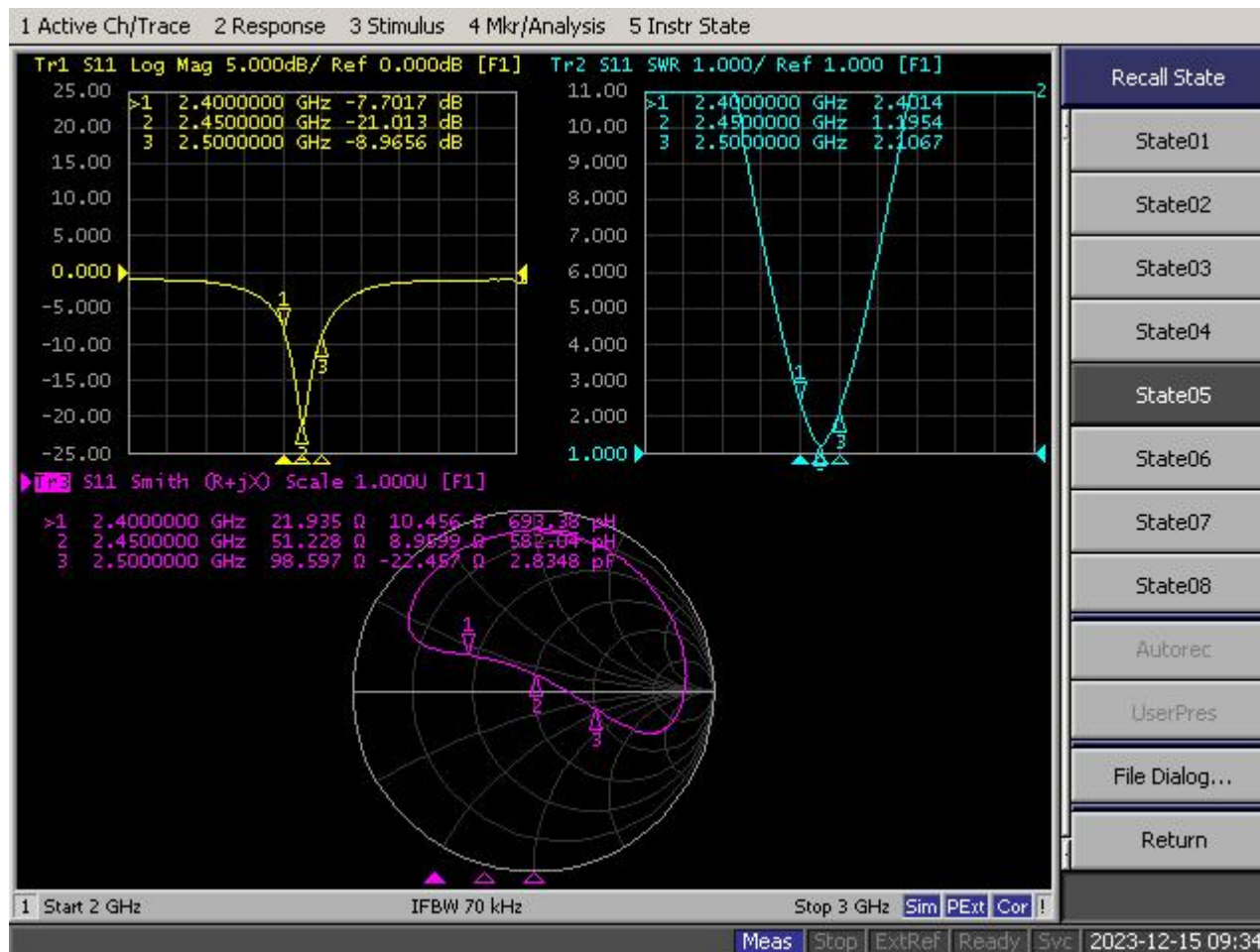


Two. Machine pictures



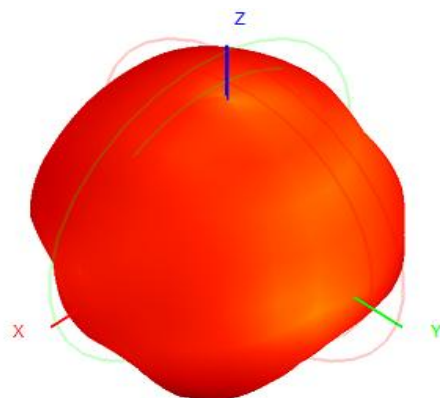
lii. Passive standing wave diagram

1. Return Loss&VSWR

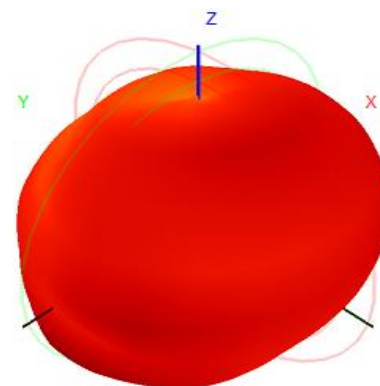


4. Passive 3D&2D field pattern

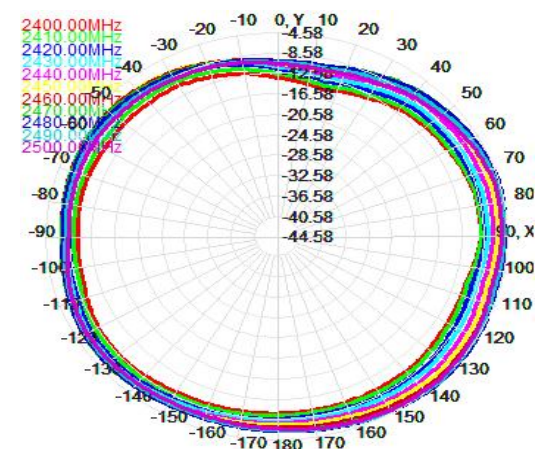
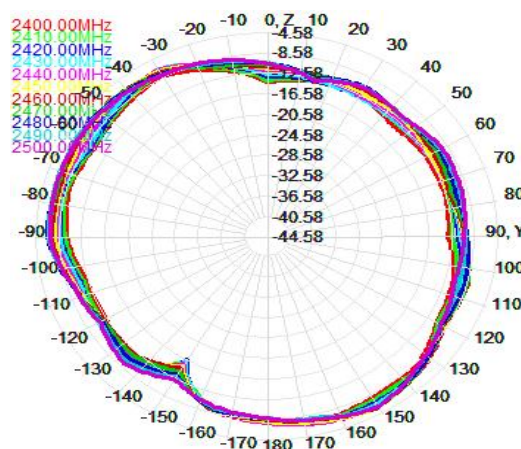
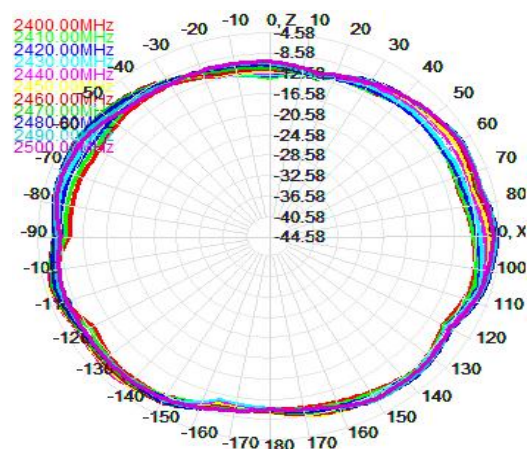
free space



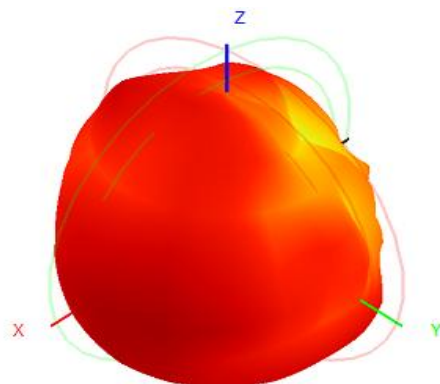
E1 (xz)



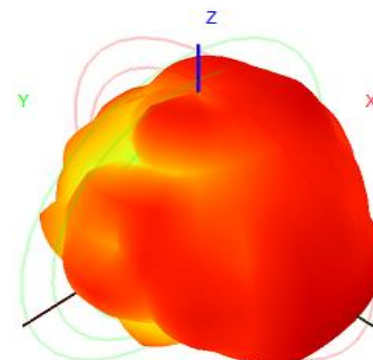
E2 (yz)



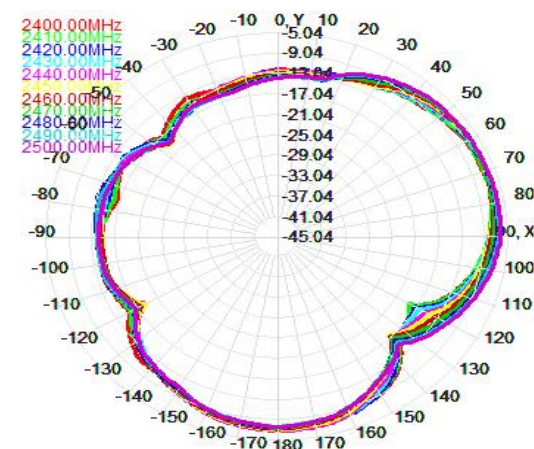
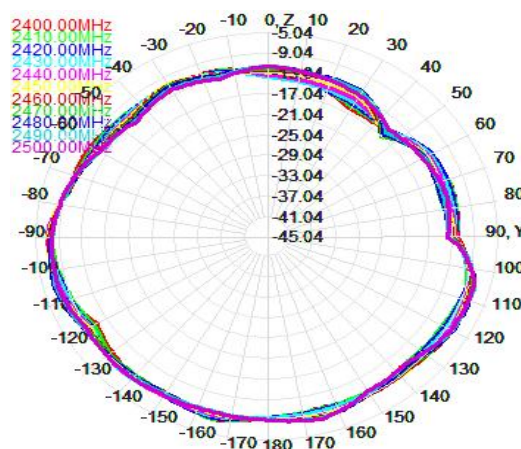
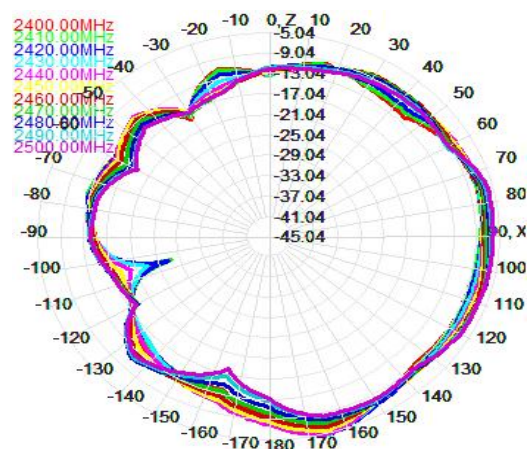
4. Passive 3D&2D field pattern headform



E1 (xz)



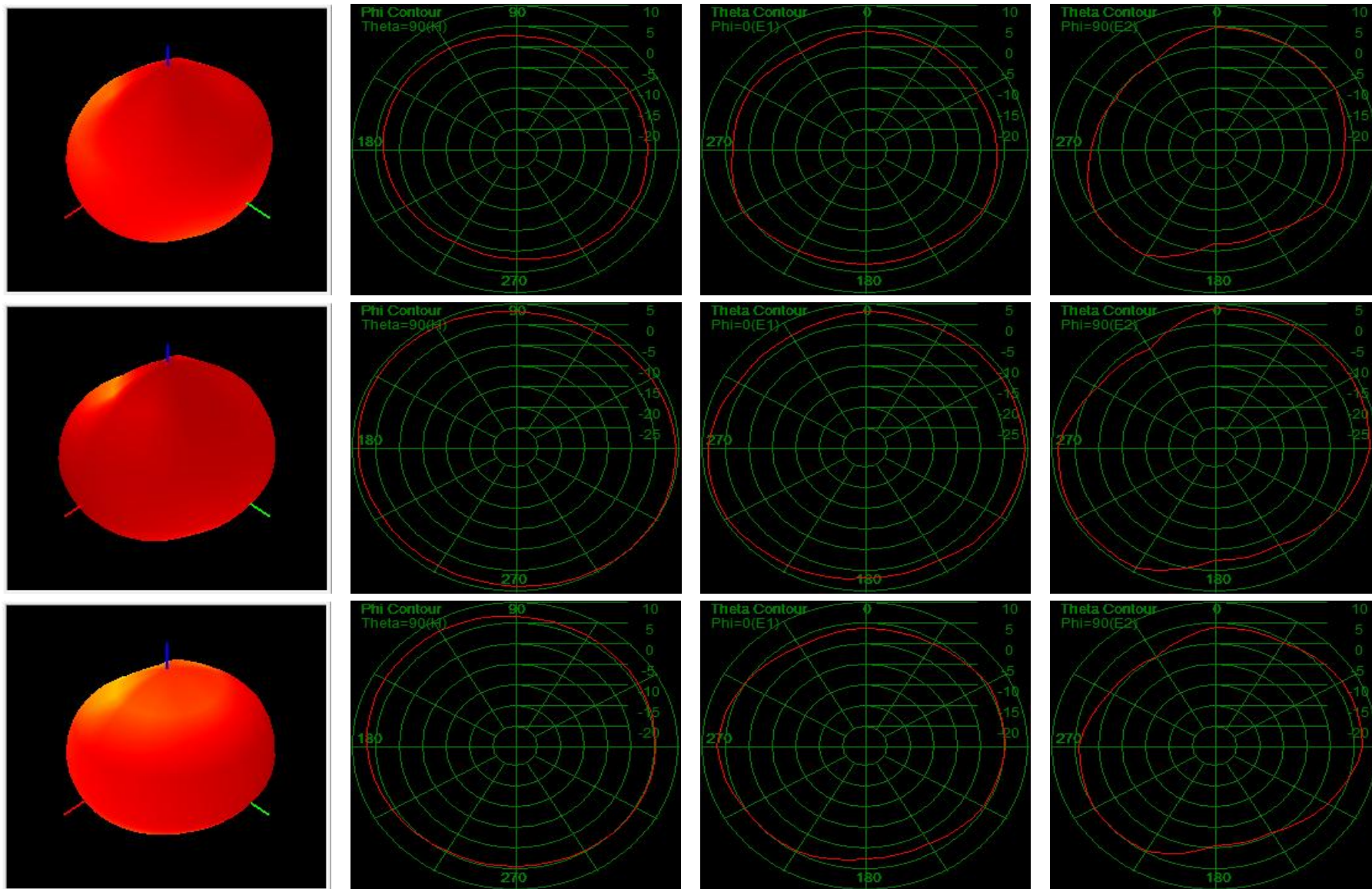
E2 (yz)



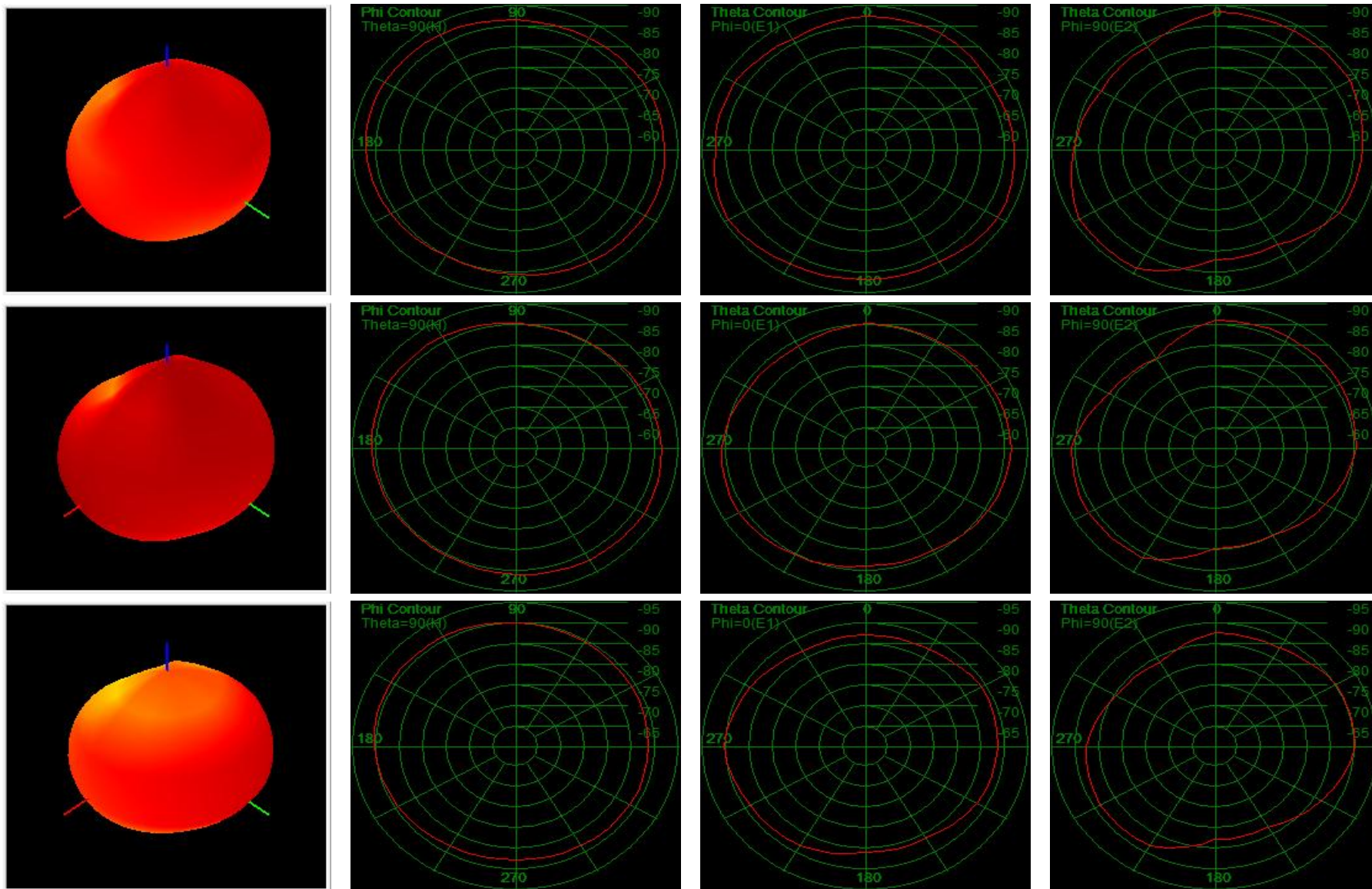
V. Passive efficiency & Gain

free space		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	16.53	-2.11
2410	17.37	-2.93
2420	17.53	-2.63
2430	17.39	-2.41
2440	17.81	-2.82
2450	18.32	-2.20
2460	18.01	-1.63
2470	19.44	-1.32
2480	18.45	-1.15
2490	17.51	-0.68
2500	16.77	-1.27

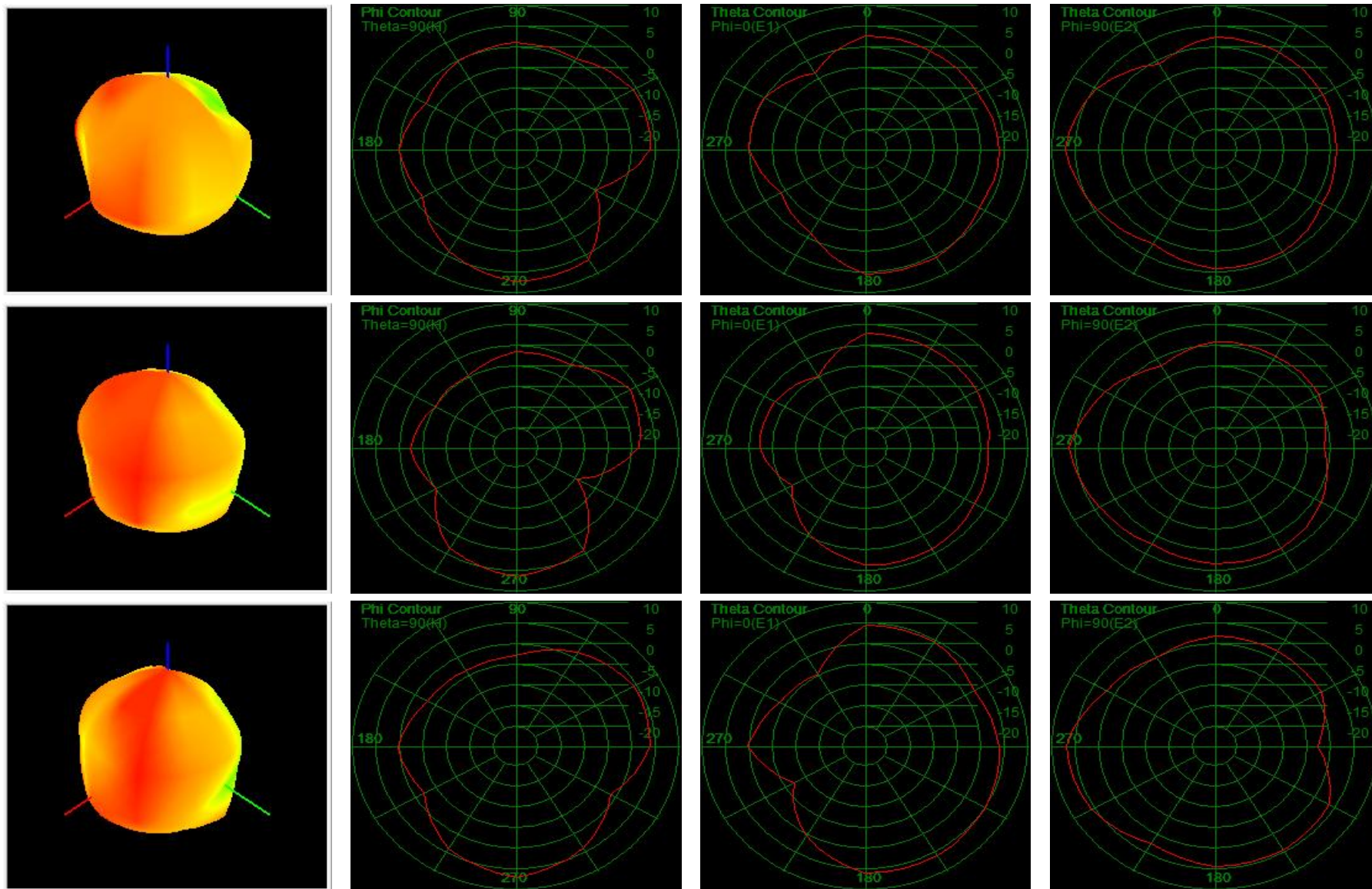
6. Active 3D&2D Field Pattern Diagram -TRP(Free Space)



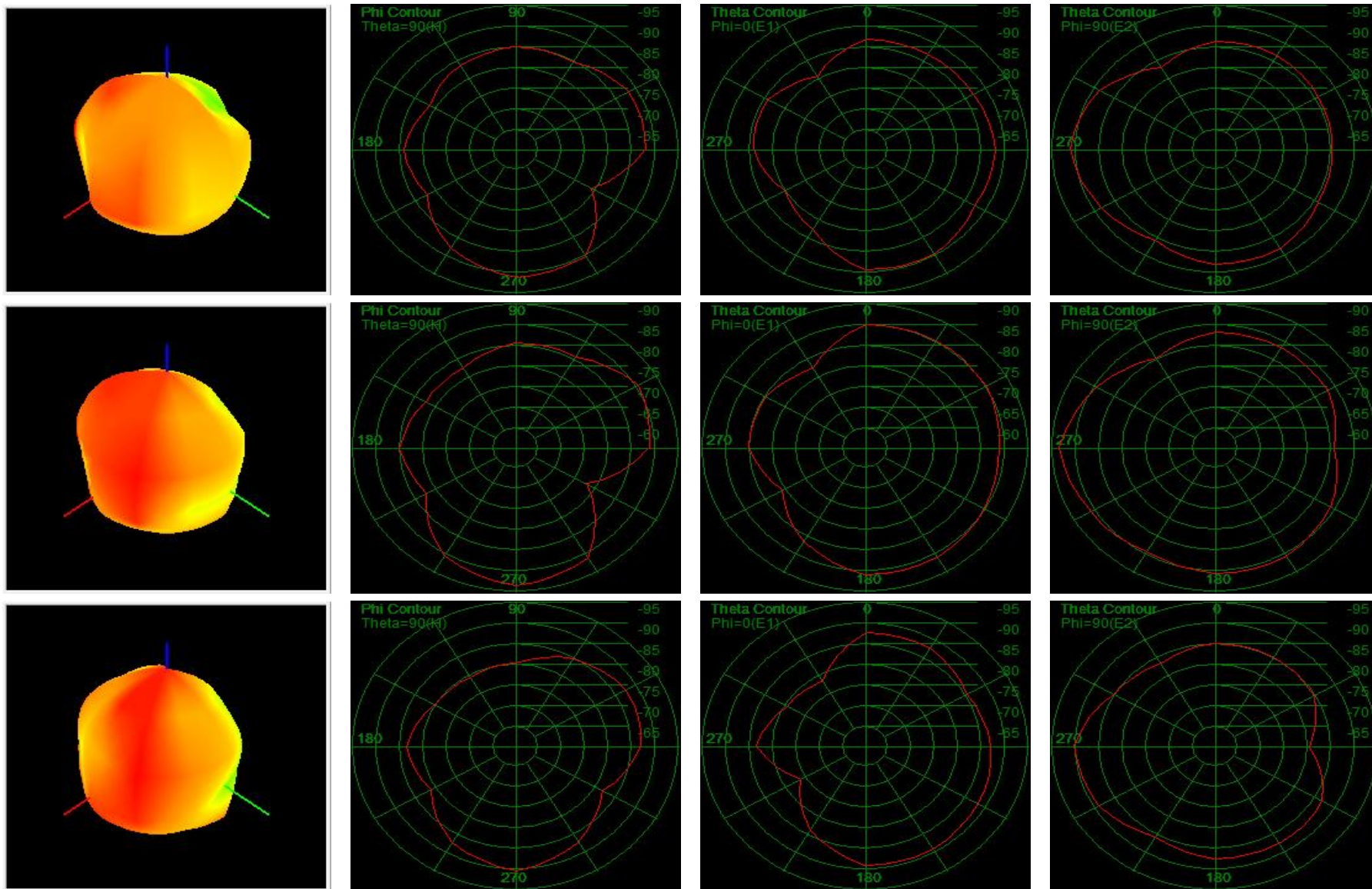
6. Active 3D&2D Field Pattern Diagram -TIS(Free Space)



6. Active 3D&2D Field Pattern Diagram -TRP(Head mode)



6. Active 3D&2D Field Pattern diagram -TIS(Head mode)



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headform		
BAND	TRP (dBm)	TIS (dBm)
0	2.16	-83.16
39	1.17	-83.36
78	2.24	-85.47

Conclusion: 1. The pull distance test is 1-2 meters farther than the comparison TW500, the anti-interference test is a little better than the comparison gold sample, and the ear covering test is more than 5 meters. Judge OK