



Shenzhen Yingfeng Antenna Technology Co., Ltd.

FM2107PRO Test Report

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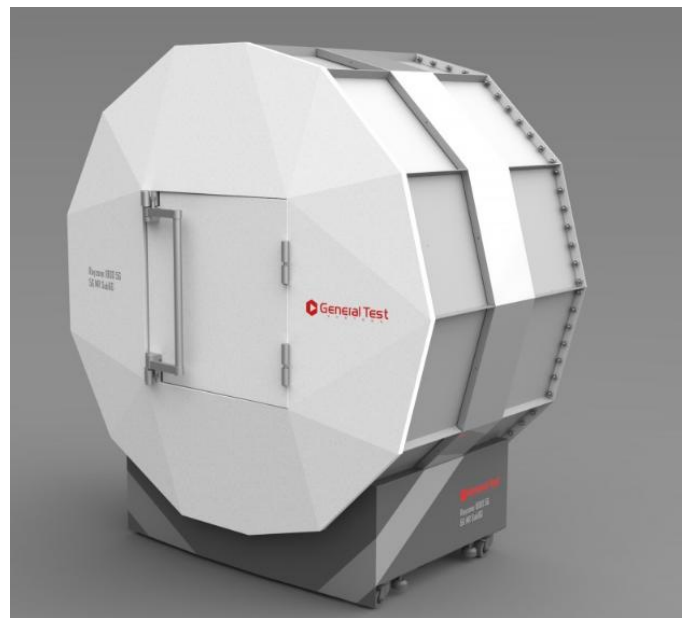
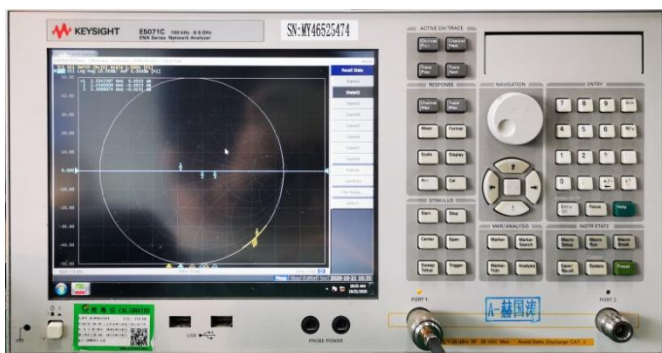
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Test Condition

- 1. S-parameter measurement
- 2. Equipment: Network analyzer (Agilent E5062A), microwave anechoic chamber, MT 8852B
- 3. Parameters: Impedance, Return Loss, VSWR, Efficiency, Gain, Radiation Pattern, Sensitivity, Power, Frequency Deviation – Active Data: TRP, TIS





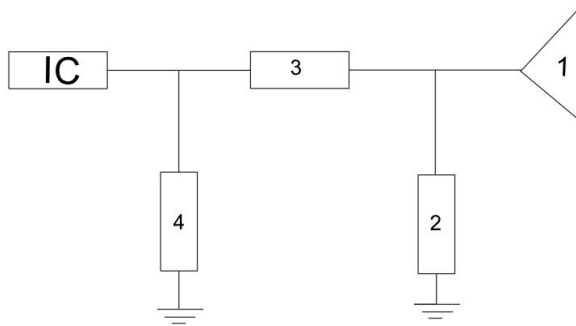
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Prototype Appearance





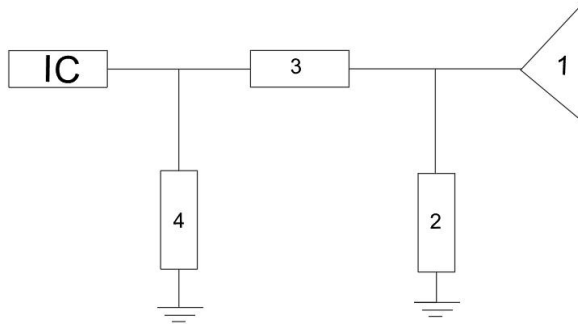
Matching Parameter 1



Number	Model	Specifications	Manufacturer	P / N	Common difference	
1	PCBantenna					
2	Electric capacity	1. 0pf/0402	Murata		$\pm 0. 1\text{pf}$	
3	Electric capacity	1. 8pf/0402	Murata		$\pm 0. 1\text{pf}$	
4	NC					



Matching Parameter 2



Number	Model	Specifications	Manufacturer	P / N	Common difference	
1	PCBantenna					
2	NC					
3	Electric capacity	0.5pf/0402	Murata		$\pm 0.1\text{pf}$	
4	Inductance	2.0NH/0402	Murata		$\pm 0.1\text{NH}$	



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Network-Based Antenna Debugging – S-Parameter 1





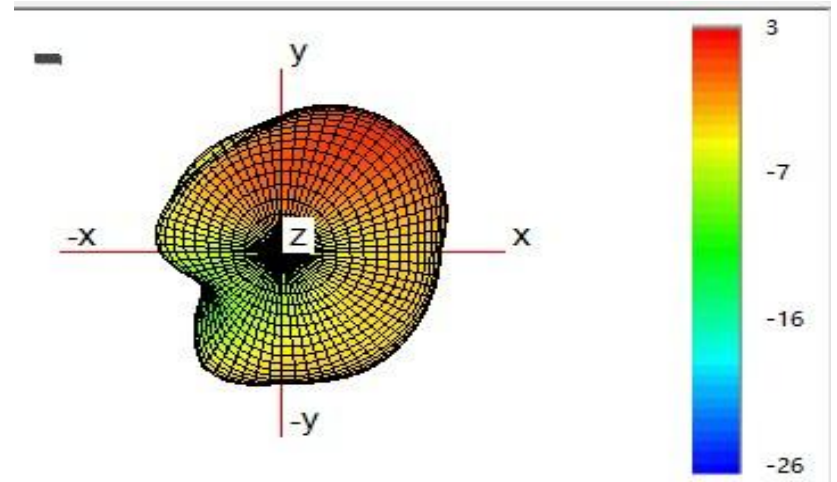
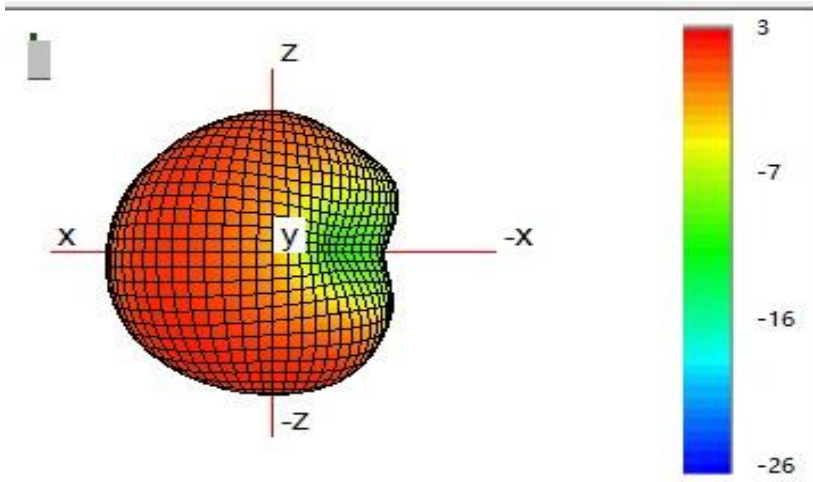
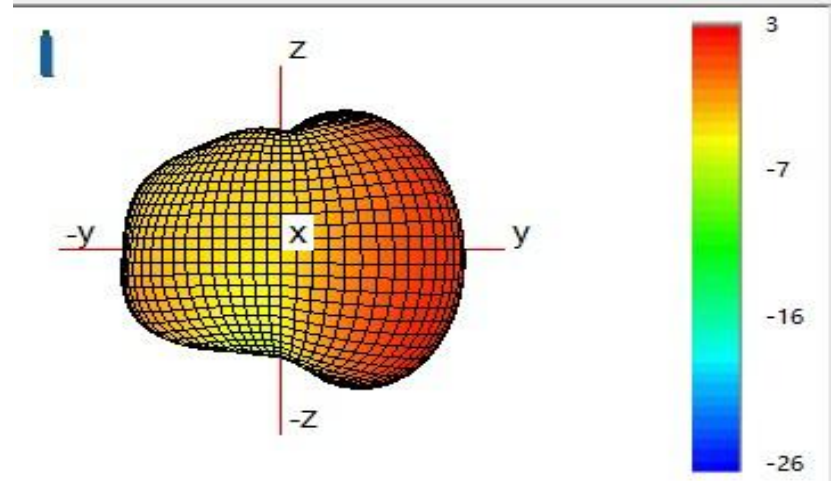
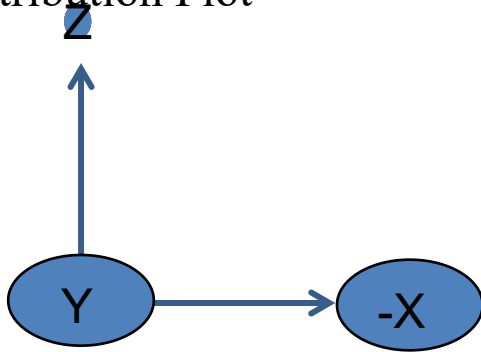
Whole-System Free-Field Passive Data 1

Freq (MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	2.590141916	-2.381791156	57.7857673
2410	2.525375399	-2.421162199	57.26427678
2420	2.369355042	-2.558521782	55.48145243
2430	2.330471444	-2.664421767	54.14493333
2440	2.30982025	-2.658870475	54.21418739
2450	2.240576624	-2.786177647	52.64804335
2460	1.883649546	-3.107649058	48.89169504
2470	1.810596311	-3.162847193	48.27422171
2480	1.794739847	-3.162078798	48.2827636
2490	1.555846987	-3.341508904	46.32859287
2500	1.468652651	-3.404141333	45.66525285



Whole-Device Free-Field Passive Field Configuration 1

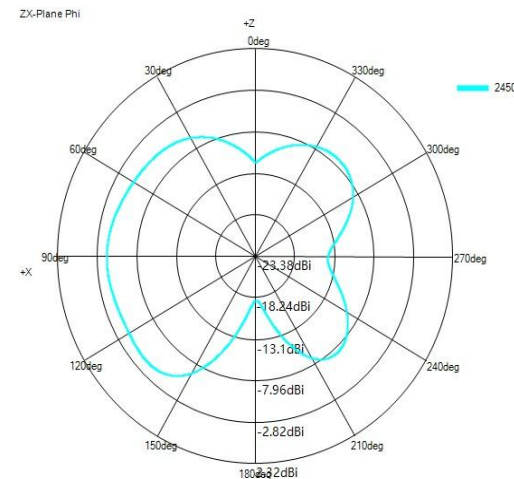
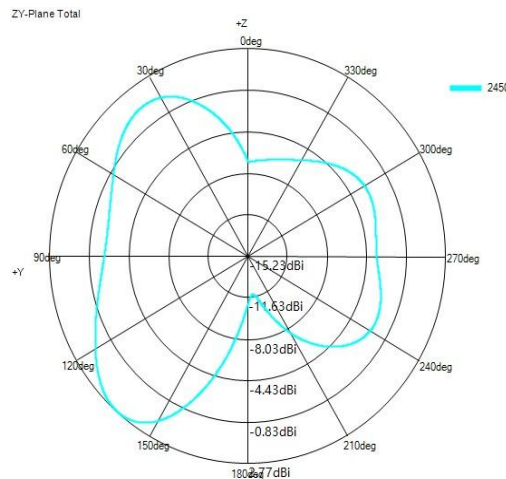
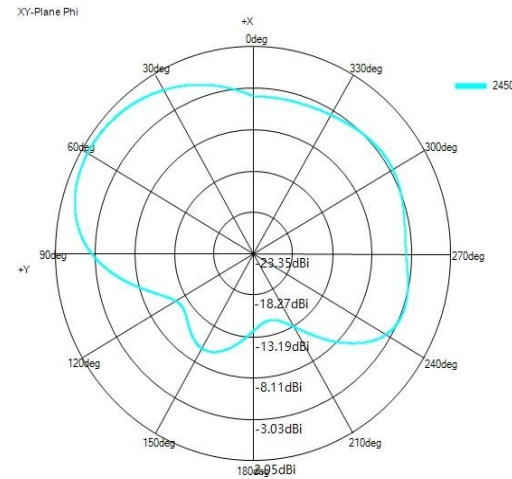
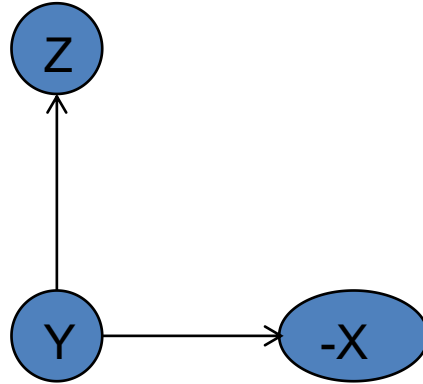
3D Field Distribution Plot





Full-Device OTA Free Field Configuration Type 1

2D field distribution diagram





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Network-Based Antenna Debugging – S-Parameter 2





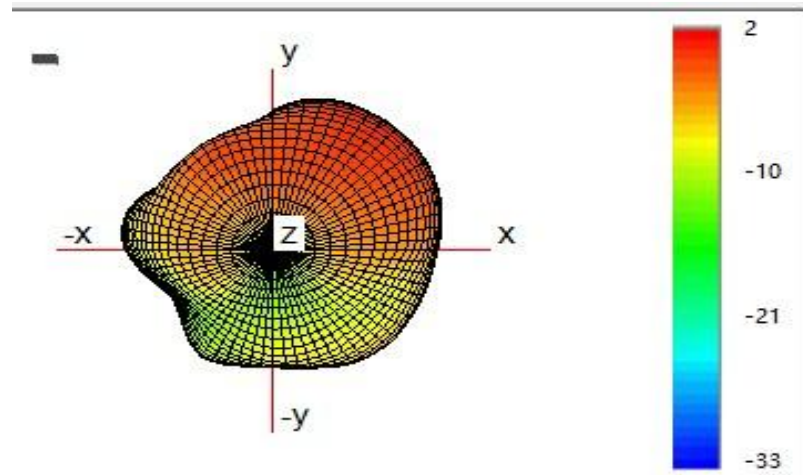
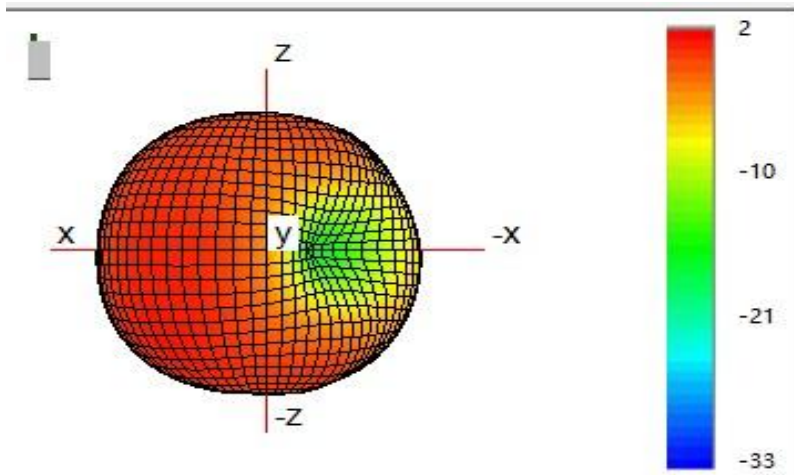
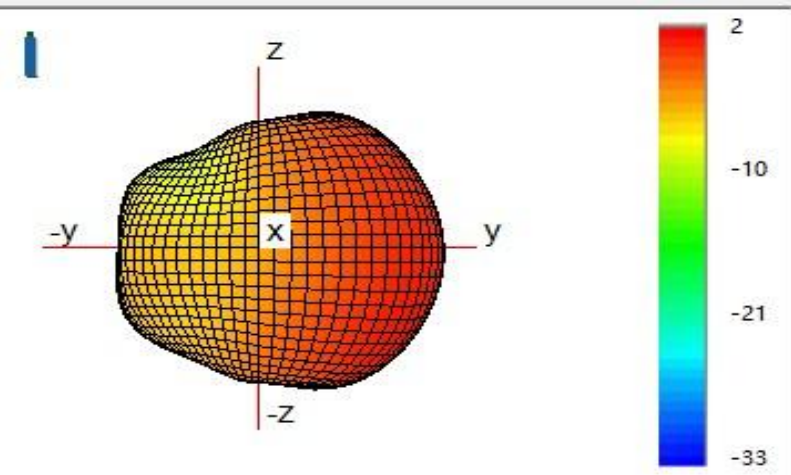
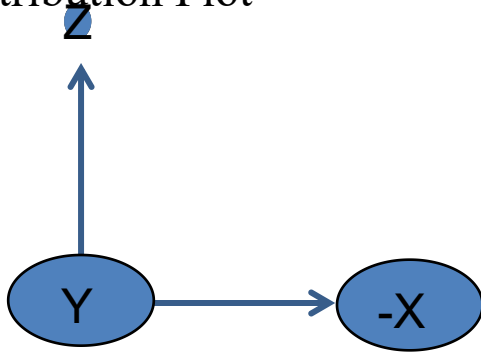
Whole-System Free-Field Passive Data 2

Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	0.867138089	-3.949714732	40.27434879
2410	1.082643922	-3.773481727	41.94225992
2420	1.14374567	-3.760854757	42.06438312
2430	1.19468866	-3.747427892	42.19463271
2440	1.348499009	-3.629507381	43.35600542
2450	1.327779063	-3.719490289	42.46694025
2460	1.050989586	-4.004217548	39.77207459
2470	1.052423643	-4.026131415	39.57189595
2480	1.092801333	-4.077417122	39.10734096
2490	0.891455804	-4.371068799	36.55048298
2500	0.651182595	-4.650168026	34.27545253



Full-System Free-Field Passive Field Configuration 2

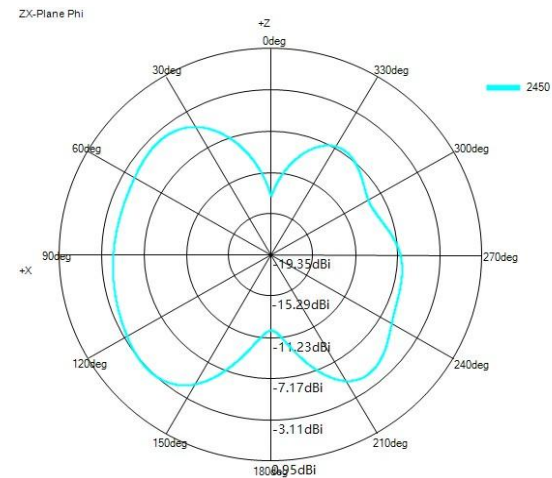
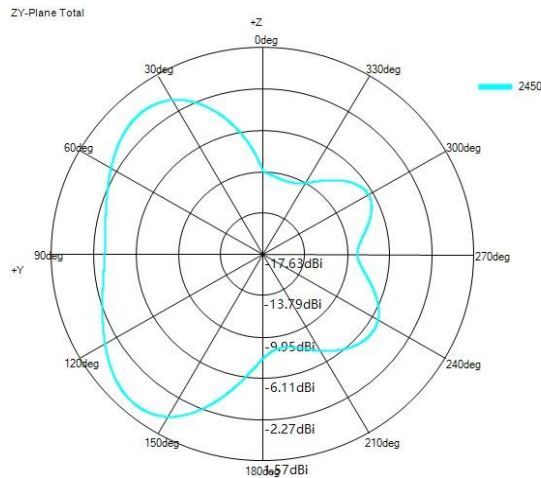
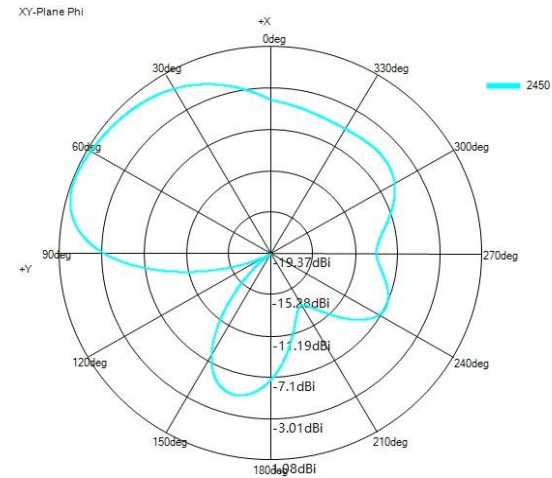
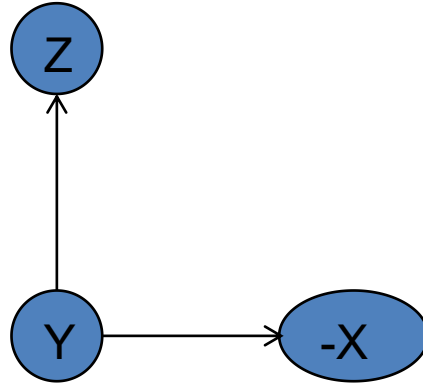
3D Field Distribution Plot





Full-Device OTA Free Field Configuration Type 2

2D field distribution diagram





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Thanks for Your Attention