



Shenzhen Yingfeng antenna technology Co., LTD

S5178

Test Report

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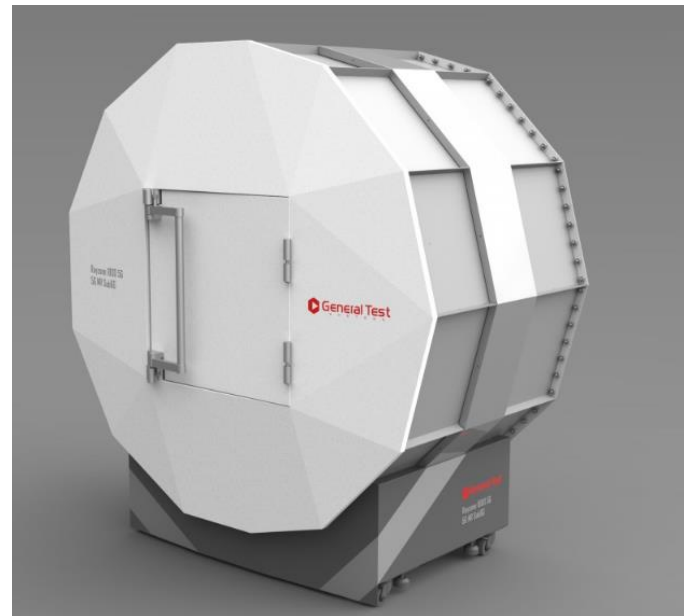
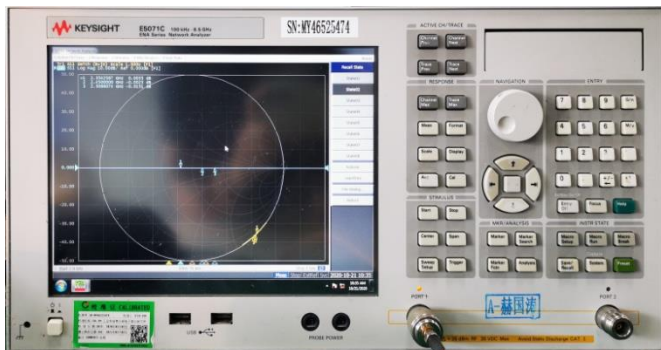
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Test condition

- 1. Measurement of S parameters
- 2. Equipment: Network Analyzer (Agilent E5062A), microwave darkroom, MT8852B
- 3. Items: Impedance, return loss, VSWR, Efficiency, gain, radiation field pattern, Sensitivity, Power, frequency offset active data TRP TIS





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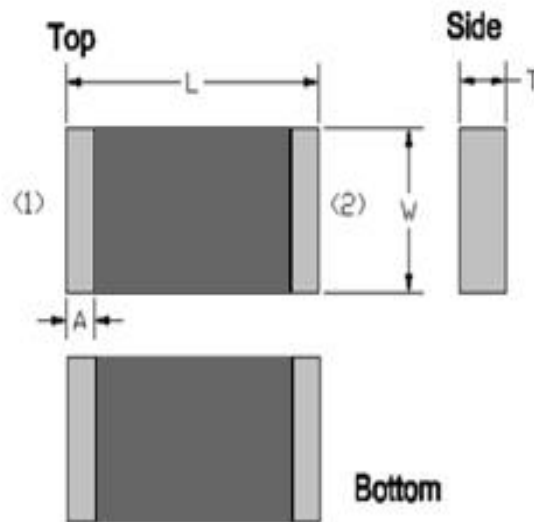
Prototype appearance





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Antenna size diagram



Dimension (mm)	
L	2.05 $\pm$ 0.15
W	1.20 $\pm$ 0.15
T	0.65 $\pm$ 0.10
A	0.20 $\pm$ 0.10

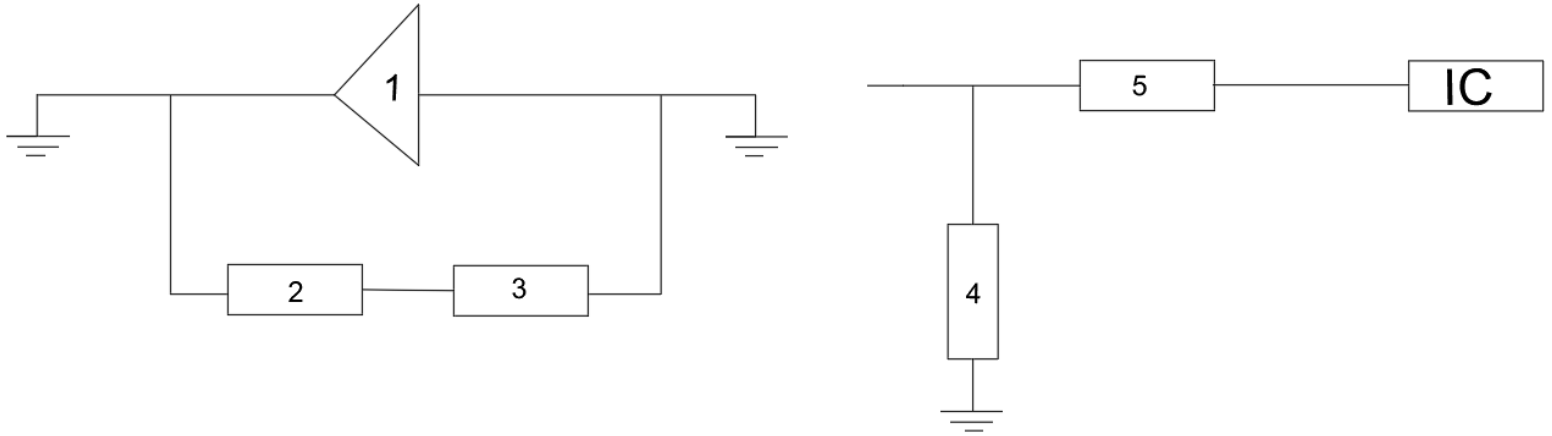
No.	Terminal Name
1	Feeding/GNG
2	GND/Feeding

P.S : Top & down and left & right side are symmetrical, No direction



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matching parameter L

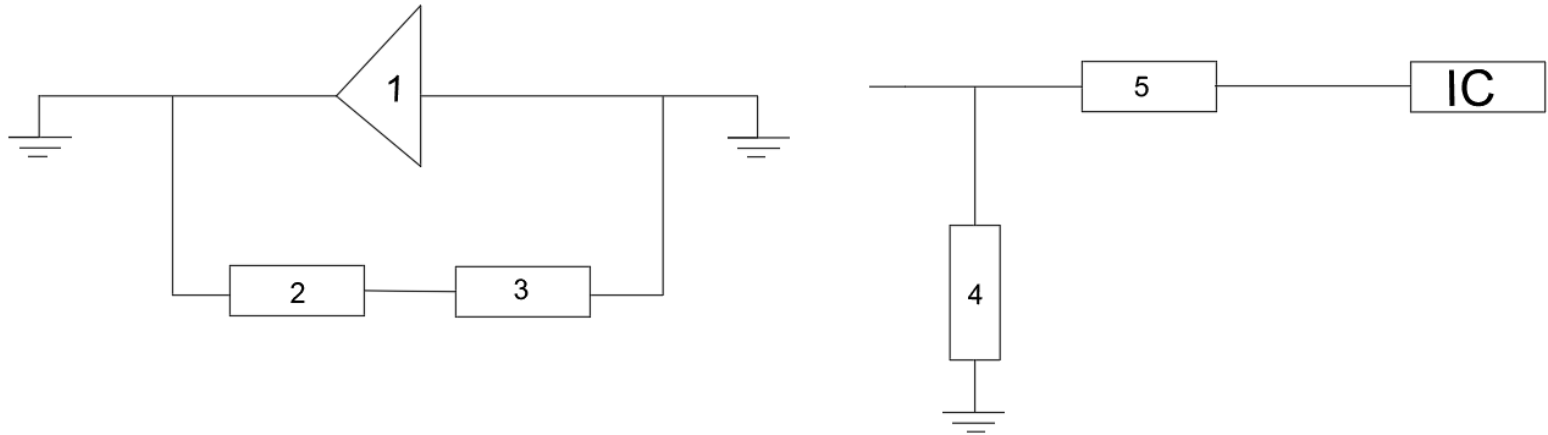


serial number	model	specification	manufacturer	object ID	tolerance	
1	YF2012C1	2012	Yingfeng	YF2012C1P2G45		
2	capacitance	1.2PF/0201	microvolume		$\pm 0.1\text{PF}$	
3	capacitance	1.0PF/0201	microvolume		$\pm 0.1\text{PF}$	充电柱
4	capacitance	0.5PF/0201	microvolume		$\pm 0.1\text{PF}$	
5	resistance	0 Ω	microvolume			



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matching parameter R



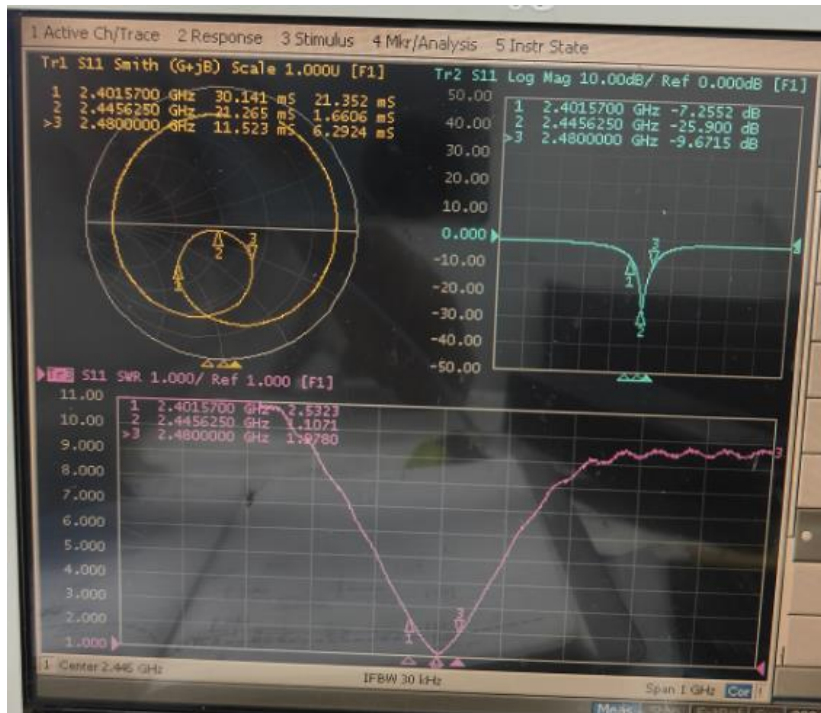
serial number	model	specification	manufacturer	object ID	tolerance	
1	YF2012C1	2012	Yingfeng	YF2012C1P2G45		
2	capacitance	0.75PF/0201	microvolume		$\pm 0.1\text{PF}$	
3	capacitance	0.7PF/0201	microvolume		$\pm 0.1\text{PF}$	充电柱
4	capacitance	0.5PF/0201	microvolume		$\pm 0.1\text{PF}$	
5	resistance	0 Ω	microvolume			



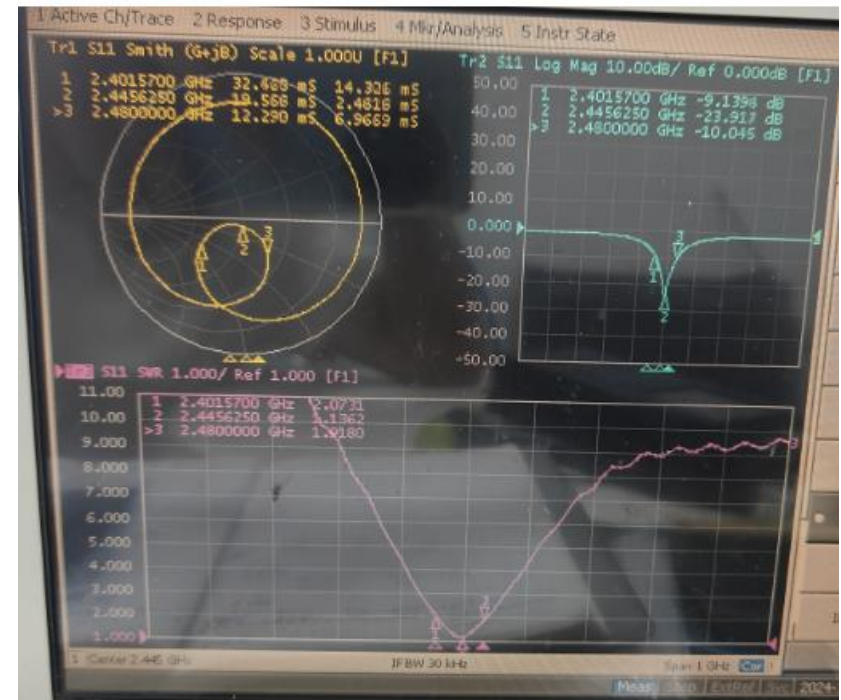
Network debugging antenna S parameter

Debug waveform

L



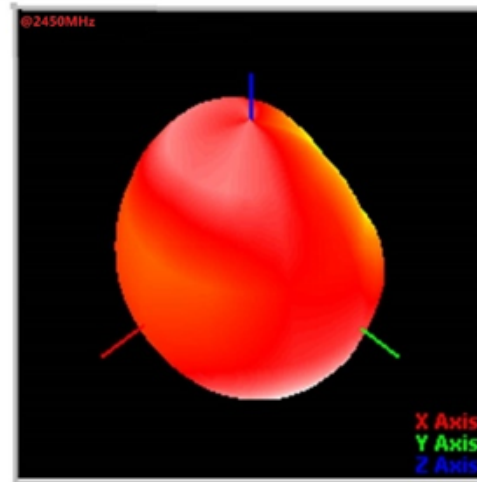
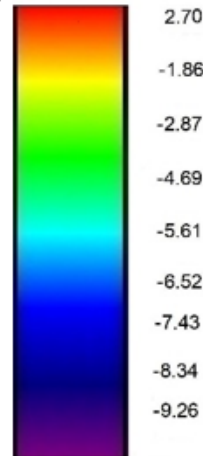
R





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Radiation ↵



↵	2400MHz ↵	2450MHz ↵	2500MHz ↵	↵
Efficiency ↵	70.56% ↵	75.25% ↵	71.01% ↵	↵
Gain(<u>dB</u> i) ↵	1.86 ↵	2.50 ↵	1.33 ↵	↵



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Complete machine free field OTA data

	Channel	TRP (dBm)	TIS (dBm)
L	CH0	7.01089193	-86.73871492
	CH39	8.669394511	-85.16749163
	CH78	7.231225452	-86.29973295

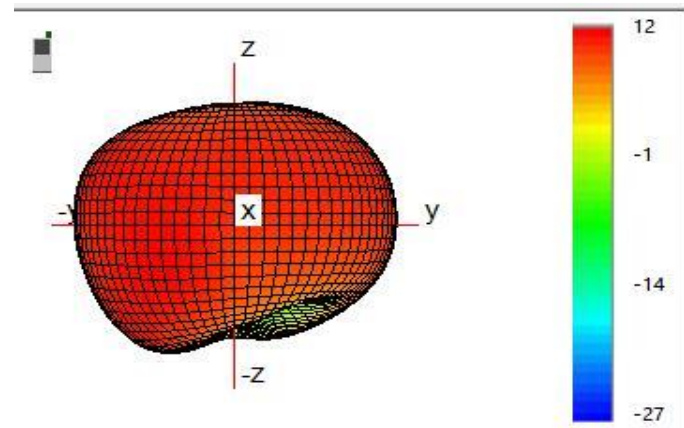
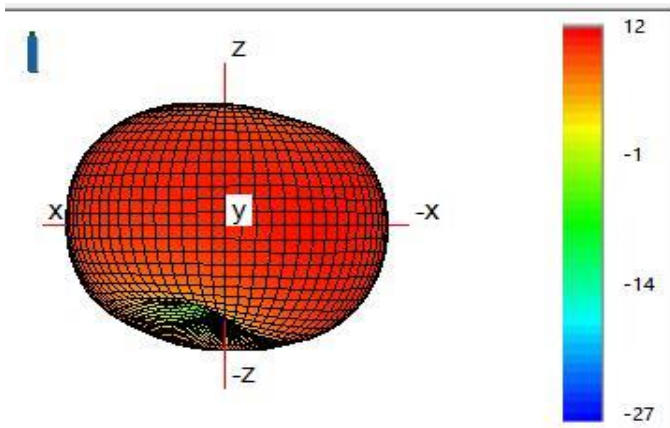
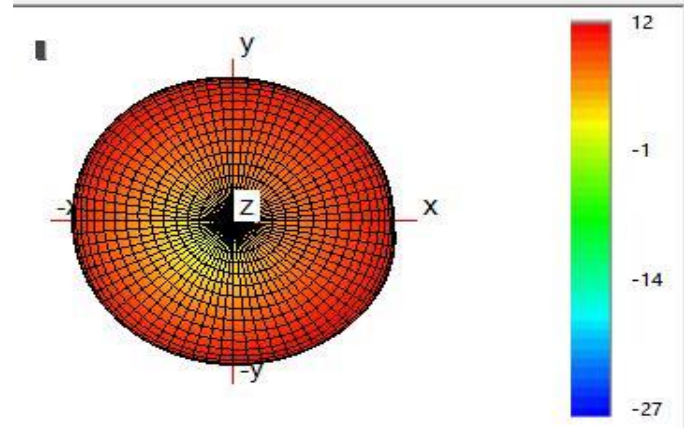
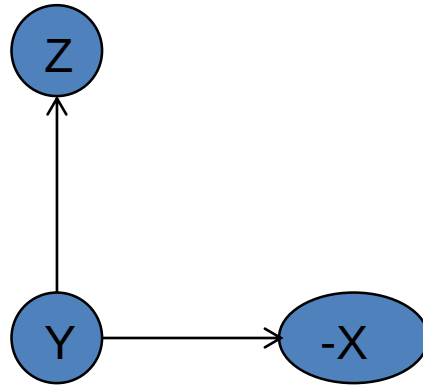
	Channel	TRP (dBm)	TIS (dBm)
R	CH0	7.008617848	-84.36872184
	CH39	8.6394477	-85.61894432
	CH78	7.687183073	-85.47024907



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Complete free field OTA field type

L.

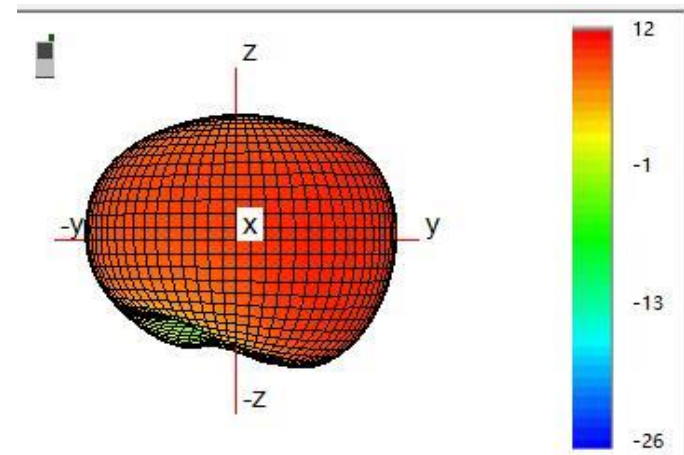
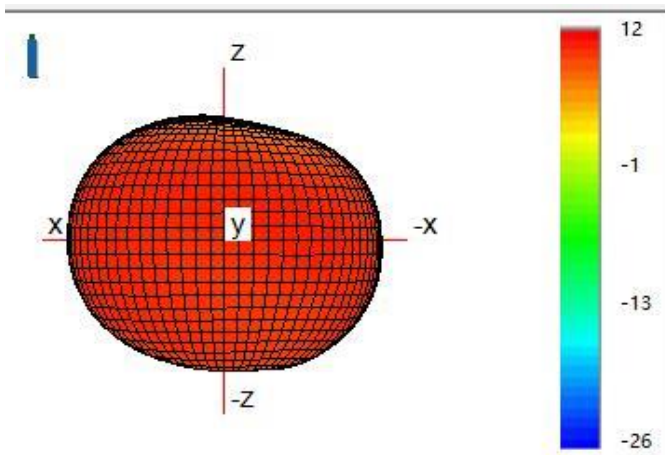
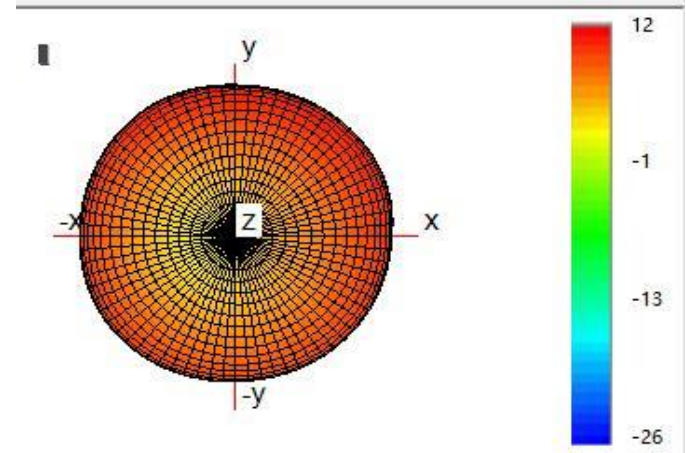
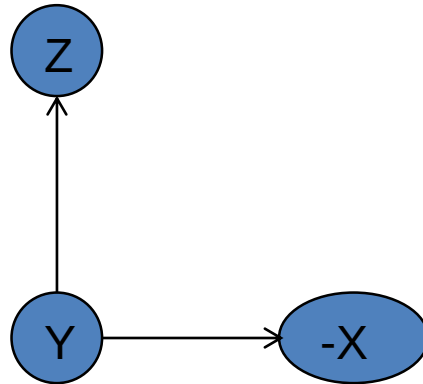




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Complete free field OTA field type

R.





Stretch test

a. Environment/Mobile Phone

test item	measuring distance		Pocket test requirements (please state the following item test distance)		remark
Apple 6	10 meters	low	Right front	OK	Roof test line 30 meters, ear cover 3 meters
	20 meters	In the	Left front	OK	
	30 meters	high	Right rear	OK	
			Left rear	OK	



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Thanks for Your Attention