

Antenna specification

Manufacturer: 70mai Co.,Ltd.

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No. 588, Zixing road, MinHang Dis-
trict, Shanghai, CHINA.

Model: DR1800

Person in charge: zhangmingming

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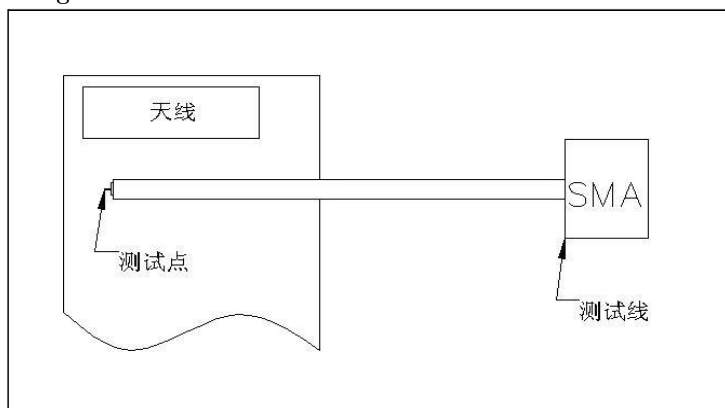
5.2.2 WiFi antenna active test data

1. Project information



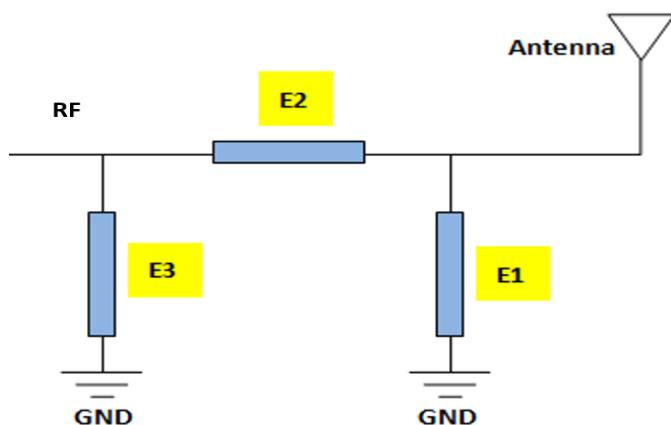
2. Test tool

Objective: To test the passive parameters of antenna as accurately as possible. Production method: The sample mechanism is a 50 ohm coaxial cable, one end is connected to the prototype motherboard matching circuit back end (RF test hole front end) test point, the other end is connected to the SMA connector. The diagram is as follows:



3. Matching circuit

WiFi antenna

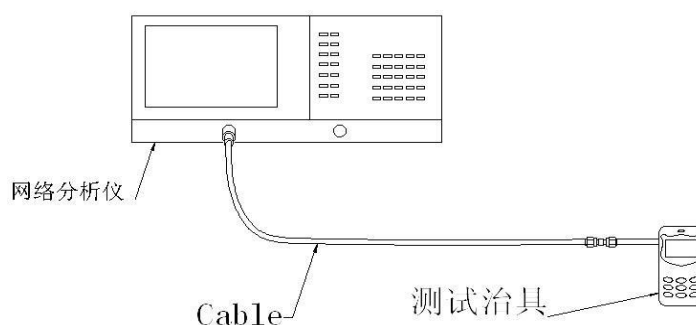


Main road	
E01	NC
E02	0Ω
E03	NC

4. S11 Test

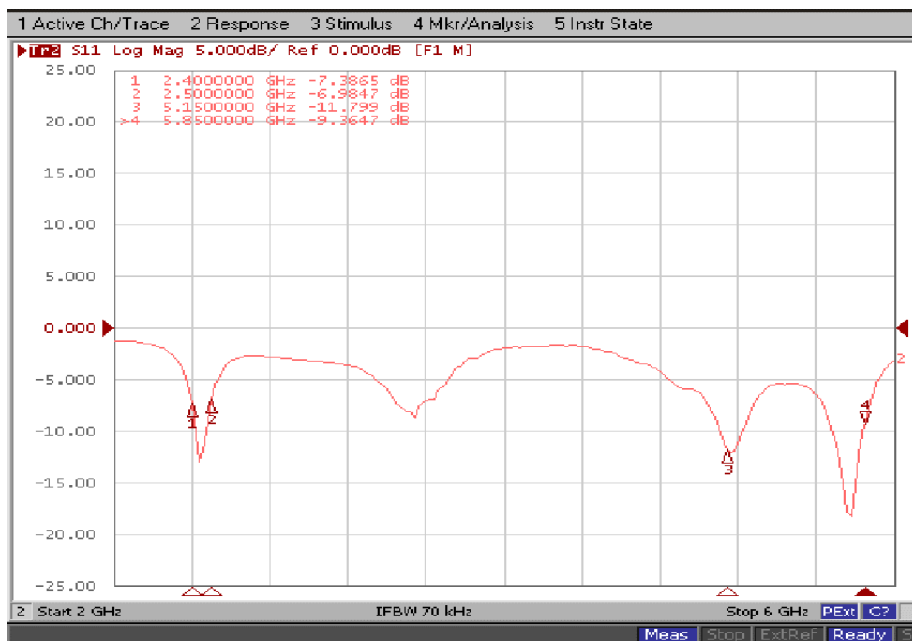
S11 Test method description Test equipment:

Network Analyzer (E5071C) Test method: A 50 ohm CABLE is exported from the instrument test port, and the SMA connector of the connected sample mechanism after calibration is used to record the return loss and standing wave ratio corresponding to the relevant frequency points. The test diagram is as follows:



S11 Parameters

WiFi antenna



S11	
frequency (MHz)	Return loss
2400	-7.39
2500	-6.98
5150	-11.8
5850	-9.36

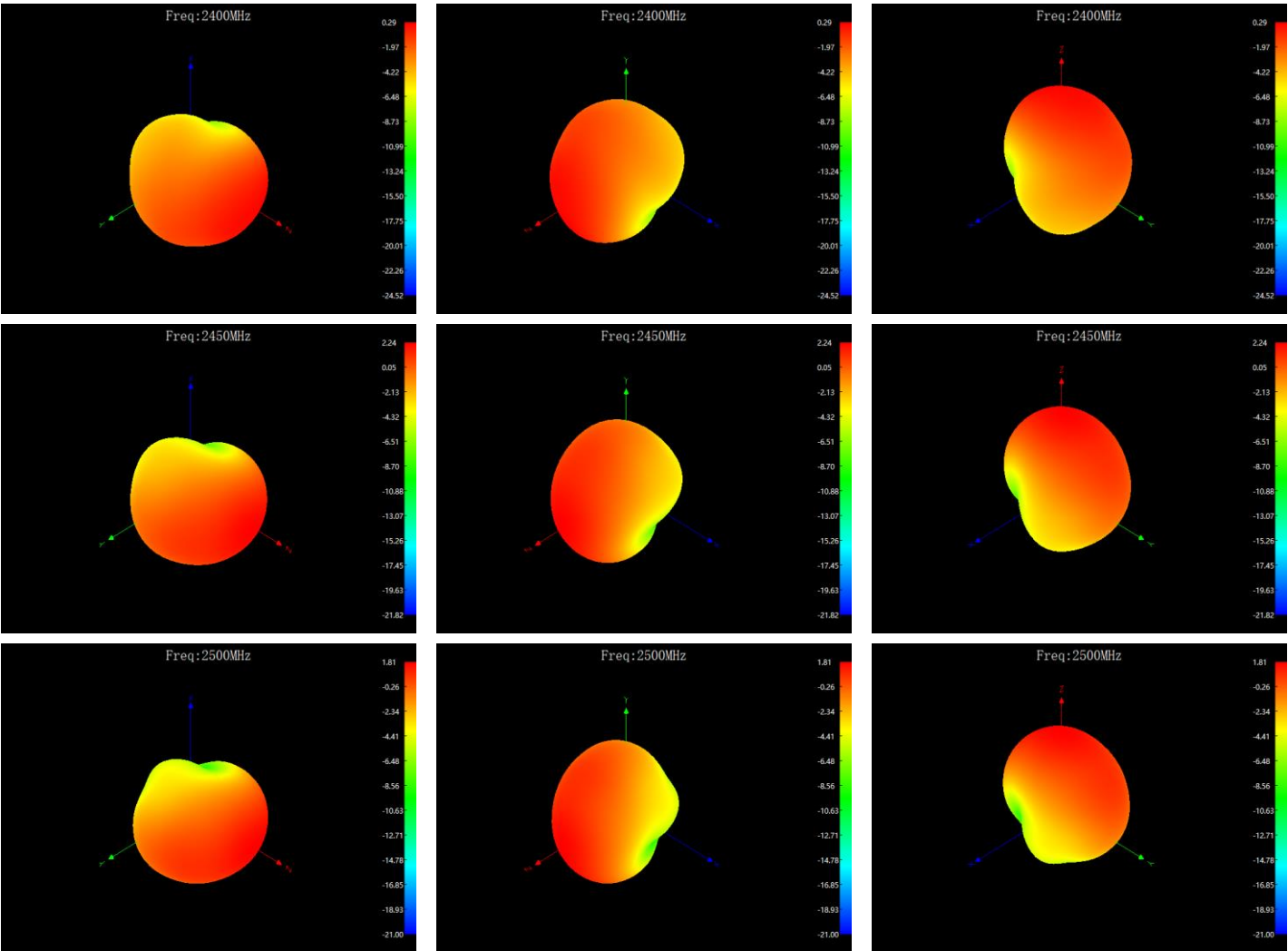
5.1 Passive test data

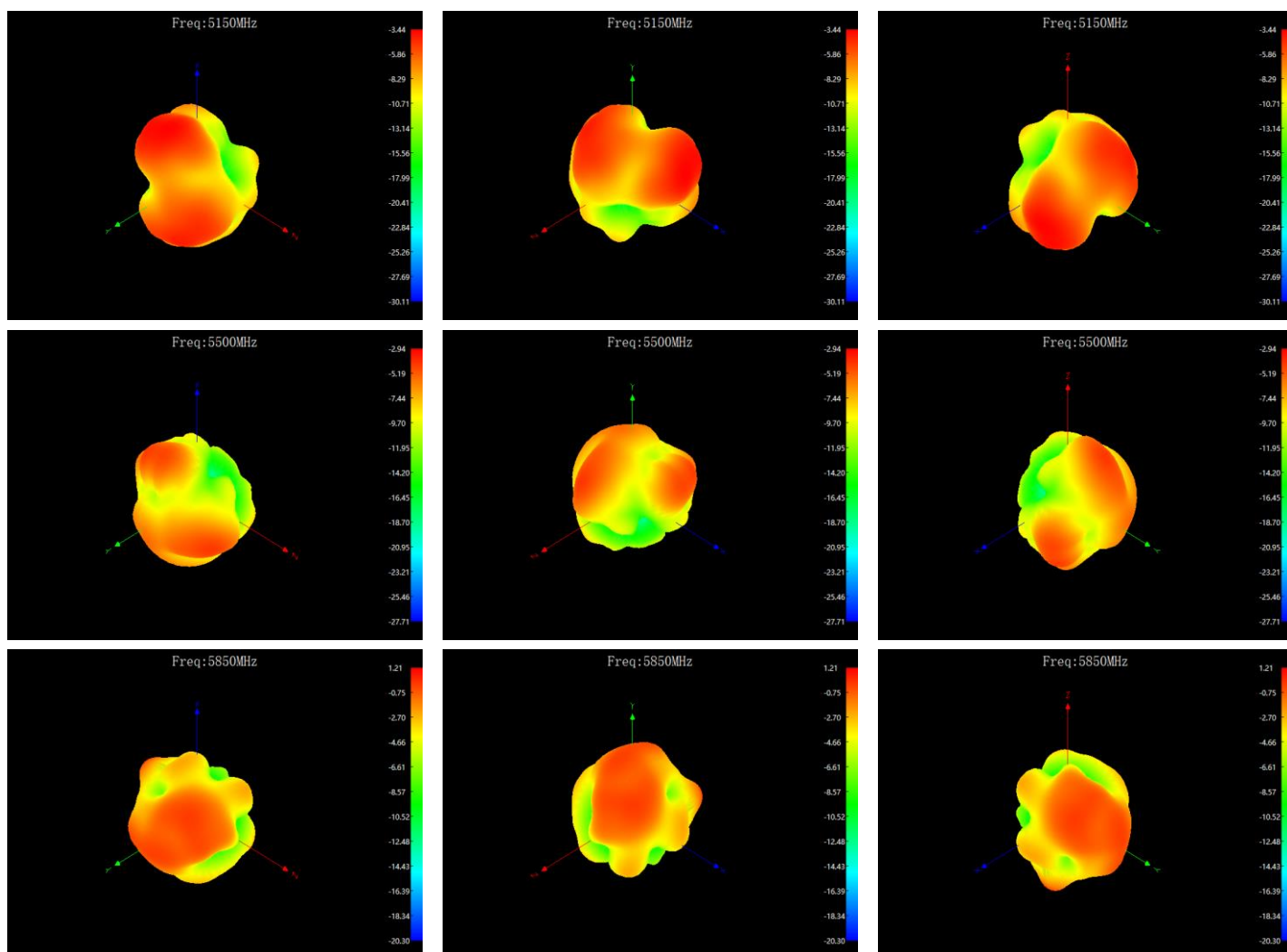
Passive efficiency of WiFi antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	41.49	-3.82	1.1
2410	42.5	-3.72	1.3
2420	43.27	-3.64	1.35
2430	44.9	-3.48	1.44
2440	46.68	-3.31	1.29
2450	47.72	-3.21	1.58
2460	46.26	-3.35	1.66
2470	46.37	-3.34	1.56
2480	44.28	-3.54	1.31
2490	43.24	-3.64	1.42
2500	42.57	-3.71	1.2

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	25.07	-6.01	0.44
5200	25.9	-5.87	0.74
5250	25.07	-6.01	0.47
5300	25.36	-5.96	0.84
5350	23.4	-6.31	0.36
5400	22.79	-6.42	0.81
5450	21.96	-6.58	0.24
5500	23.51	-6.29	0.94
5550	25.2	-5.99	0.69
5600	27.06	-5.68	0.16
5650	27.05	-5.68	0.26
5700	27.55	-5.6	0.17
5750	29.66	-5.28	0.78
5800	27.55	-5.6	0.4
5850	26.12	-5.83	0.21

Directional diagram





5.2 Active Test Data

	(A31401160046)		(A41401160069)	
	TRP	TIS	TRP	TIS
WiFi B	16.8	-82.26	16.96	-77.32
	17.2	-79.58	17.48	-79.78
	16.94	-81.92	16.19	-82.34
WiFi G	14.14	-70.93	14.4	-66.18
	14.49	-68.65	14.64	-67.5
	13.16	-69.54	13.47	-69.37
WiFi N	14.1	-68.7	13.6	-64.01
	13.36	-63.91	13.65	-64.9
	13.95	-68.74	14.3	-66.8