Shenzhen Guangyuanfa

Electronic Co., Ltd.

Antenna Test Report

Customer Name	Lingdu	Project Name	G2
time	20 24 / 10/31	Report Version	A1
Debugging Engineer	Luo Yehui	Contact Details	15077703194

Shenzhen Guangyuanfa Electronics Co., Ltd.

History

Version	Report Date	Revision Description	Prepared by
A1	2024.10.18	Antenna Test Report	Luo Yehui

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Project Debugging Introduction

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<tr><td>Antenna Type</td><td colspan="4">FPC</td></tr>
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<tr><td>2G</td><td>/</td><td rowspan="3">/</td></tr>
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<tr><td>Performance requirements</td><td colspan="4">Execute according to customer requirements</td></tr>
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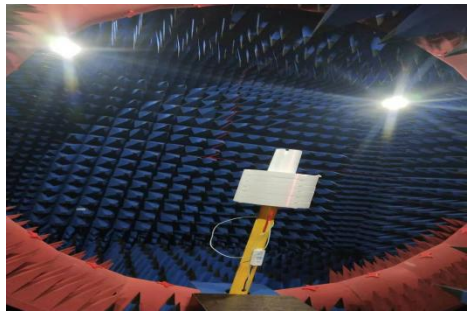
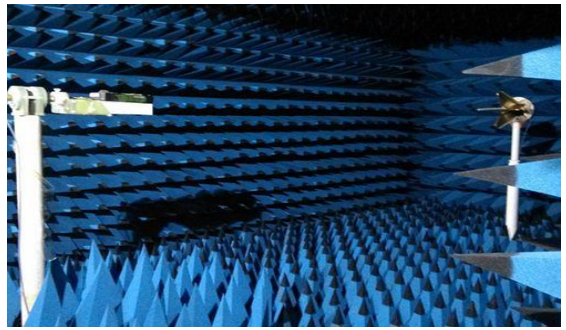
Test Equipment Description



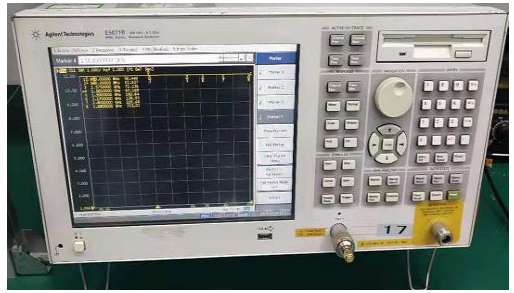
24 probe microwave darkroom

CMW500



7*4*3M ETS microwave darkroom

Agilent 8960



Agilent E5071B

High and low temperature test chamber

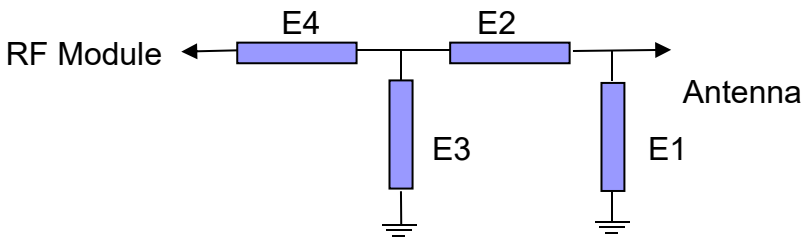
MT8820C

HP8753ES

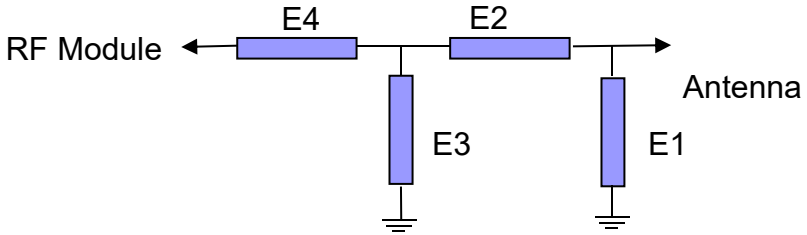
Test system	Test environment	Active test	Passive test
ETS Darkroom 24 probes OTA darkroom	Temperature: 22℃±3℃ Humidity: 50%±15%	Support 2G/3G/4G Support NB-IoT/CAT-M/BT/WIFI	700 MHz —— 6G

Matching Circuit Description

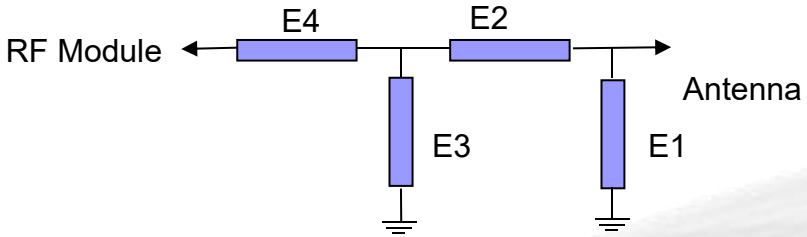
No change to antenna matching



	Element	Value
Main Antenna	E1(0402)	N/A
	E2(0402)	0 Ohm
	E3(0402)	N/A
	E4(0402)	0 Ohm



	Element	Value
GWB Antenna	E1(0402)	N/A
	E2(0402)	0 Ohm
	E3(0402)	N/A
	E4(0402)	0 Ohm



	Element	Value
DIV Antenna	E1(0402)	N/A
	E2(0402)	0 Ohm
	E3(0402)	N/A
	E4(0402)	0 Ohm

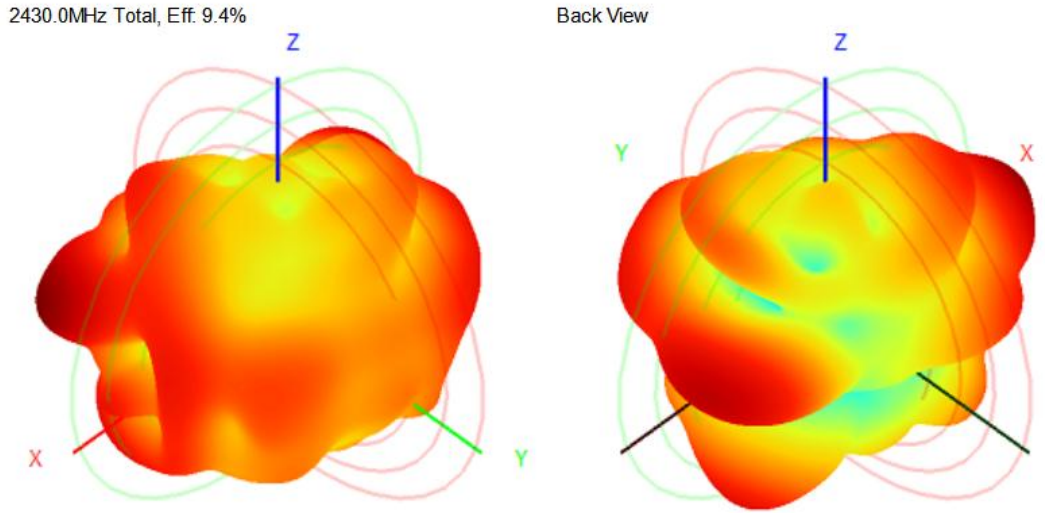
WiFi Standing Wave Diagram

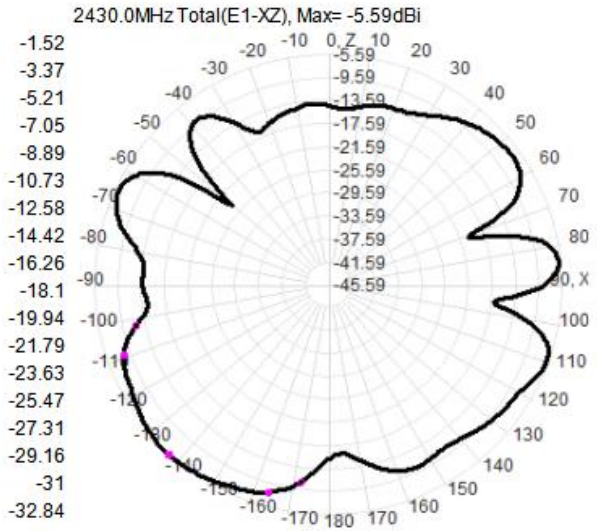
BT standing wave diagram

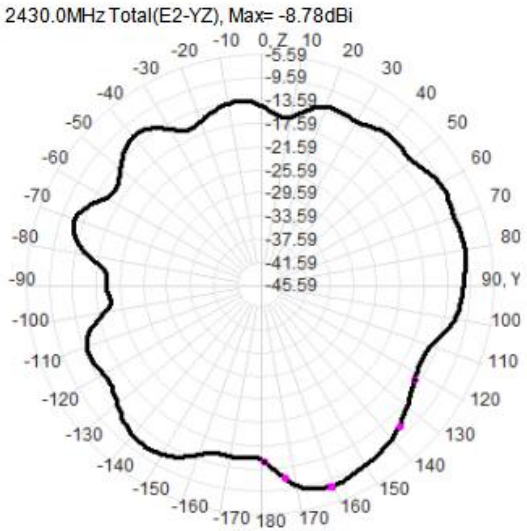
The module comes with a WIFI antenna

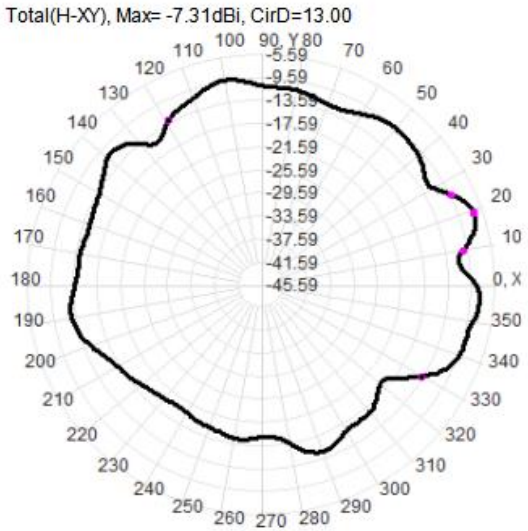
Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-7.07	-3.43	19.63
2410	-7.03	-2.42	19.79
2420	-7.13	-1.87	19.36
2430	-7.12	-1.52	19.41
2440	-7.18	-1.74	19.13
2450	-7.30	-2.29	18.64
2460	-7.26	-2.53	18.81
2470	-7.32	-2.89	18.54
2480	-7.27	-3.01	18.77
2490	-7.43	-3.77	18.08
2500	-7.35	-4.02	18.39

The module comes with WIFI antenna 3D/2D Pattern









WIFI active data

Module onboard antenna			
		TRP	TIS
WIFI B	1	8.31	-79.91
	6	8.77	-79.35
	11	5.84	-77.7
WIFI G	1	7.41	-62.75
	6	7.97	-65.05
	11	4.41	-62.09
WIFI N	1	8.13	-59.42
	6	6.21	-50.33
	11	3.68	-58.1

Notes

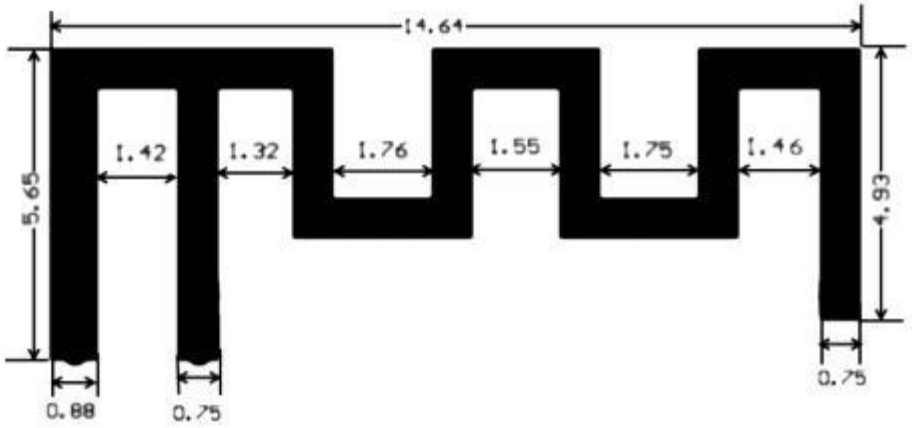
1. Please confirm whether the matching and environmental treatment methods in the report are acceptable to you; this will directly affect the performance of the antenna. If you have any different opinions, please contact us in time;

2. If your company replaces materials, components, updates software, changes environmental processing, etc., please provide the latest status machine to our company to verify the performance in time;

3. If your device needs to be sent to a third party for performance verification, please provide the test machine to our company for testing and verification before sending it for testing ; (because the consistency of the mainboard, environmental treatment, antenna assembly, etc. will affect the antenna performance deviation).

Antenna Dimensions

Unit： mm



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Thanks.