



Product specification recognition letter

DeVermantenna Laboratory

Shenzhen R&D Center

Mobile communication terminal
antenna

Customer name: Huifan_____

Product Name: FP08 _____

material code :

Date of contractor: 23 June 2025			
radio frequency	structure	examine and verify	characte r

Client date: Year Month Day		
conclusion	Confirmed person	auditor



Shenzhen Dewei Ma Communication Equipment Co., LTD

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Tel: 0755-27885739 0755-27885839-800





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1. purpose

The specifications and test methods of mobile communication terminal antennas produced by Shenzhen Dewei Ma Communication Equipment Co., Ltd. are standardized to avoid errors caused by different test conditions and methods.

2.Overview of product category and product model

2.1 class

The antenna of this mobile communication terminal is: monopole antenna;_____

2.2 Product model overview

This report primarily summarizes the electrical results of the antenna designed for the 700M-2690M FPC project. _

The antenna is designed for the frequency band of 700M-2690M.

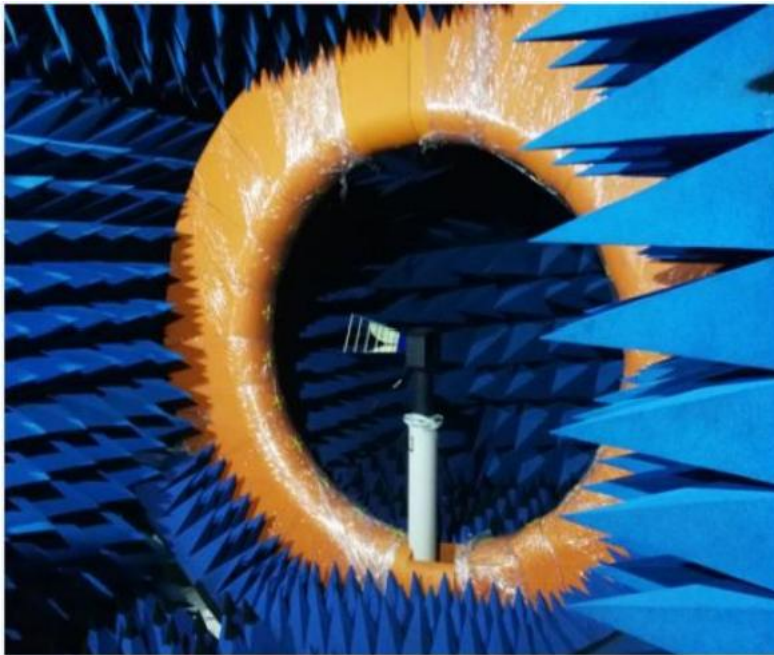
3.Technical indicators and equipment

3.1 Technical indicators

Electrical performance index of products	
Working frequency range	700MHZ-2690MHZ
standing-wave ratio	700MHz~960MHz<3.0 1719-2690<2.0
antenna gain	700MHz~960MHz:2dBi±1 d Bi1710MHz~2690MHz:2dBi±1d Bi
radiation efficiency	700MHz~960MHz>30%1 710MHz~2170MHz>35%
impedance	50 ohm
Product material description	
Product environment description	
working temperature	- 30°C~+ 85°C
Storage temperature	- 30°C~+ 85°C



3.2 Instruments and equipment



24-probe microwave chamber



R&S CMW500



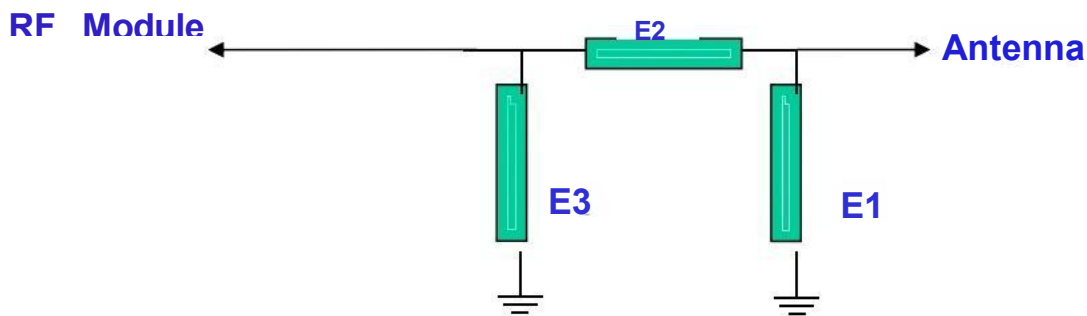
Agilent E4405B spectrum analyzer



Agilent Technologies E5071B

4. Description of matching circuit:

Our company has not modified the original matching circuit of 900M-5G FPC antenna



Element	Value	Vender
E1(0201)		
E2(0201)		
E3(0201)		



5. (4G passive efficiency test):

2	Gain, Efficiency and Phase Center gain, efficiency and phase center			Gain & Efficiency increase	Efficiency & Phase center benefit, efficiency and phase center	
3	Frequency (MHz)	Gain (dBi)	Efficiency of Efficiency (%)	Frequency (MHz)	Gain (dBi)	Efficiency (%)
4	700.00	2.24	20.69	2170.00 2200.59 2231.18 2261.76 2292.35 2322.94 2353.53 2384.12 2414.71 2445.29 2475.88 2506.47 2537.06 2567.65 2598.24 2628.82 2659.41 2690.00	3.85	61.55
5	710.00	1.77	21.38		4.87	67.11
6	720.00	2.18	22.13		3.72	67.92
7	730.00	1.45	24.63		4.01	65.46
8	740.00	1.40	23.83		3.47	67.36
9	750.00	2.00	21.78		2.91	59.68
10	760.00	1.26	24.40		2.46	51.66
11	770.00	1.09	24.92		1.57	41.31
12	780.00	1.69	30.86		3.46	62.40
13	790.00	0.85	36.33		4.14	64.11
14	800.00	1.22	41.21		4.61	69.07
15	810.00	1.70	35.80		4.89	65.42
16	820.00	2.13	36.52		4.98	66.77
17	830.00	2.86	39.00		3.78	65.05
18	840.00	3.90	39.58		3.79	69.01
19	850.00	3.49	35.74		3.76	67.26
20	860.00	4.26	31.26		3.20	65.42
21	870.00	4.60	33.42		3.99	69.32
22	880.00	4.40	35.38			
23	890.00	4.39	36.08			
24	900.00	3.95	36.82			
Frequency (MHz)			Gain (dBi)	Efficiency of Efficiency (%)		
1710.00			4.74	56.18		
1761.11			5.03	54.50		
1812.22			4.95	53.36		
1863.33			5.10	52.00		
1914.44			4.87	52.93		
1965.56			4.39	54.77		
2016.67			3.49	54.40		
2067.78			4.73	53.91		
2118.89			4.83	55.27		
2170.00			3.81	50.97		



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6. Antenna Apple diagram:

700M-960M	I. oUDI
Apple illustration	Neighbouring countries 2 recall 36 neighbour 3



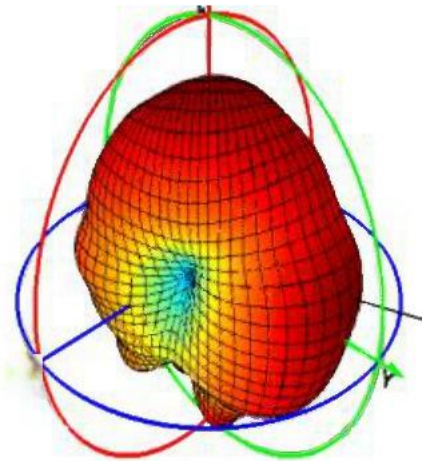
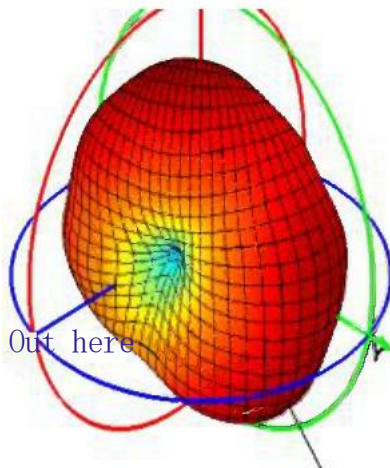
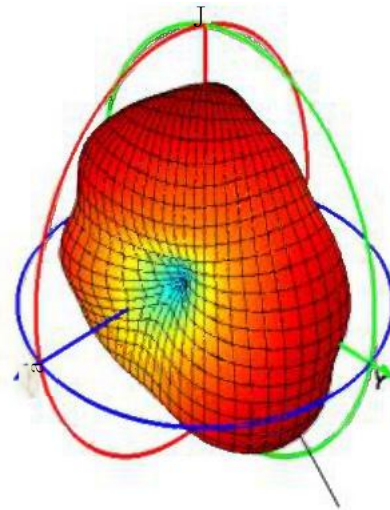
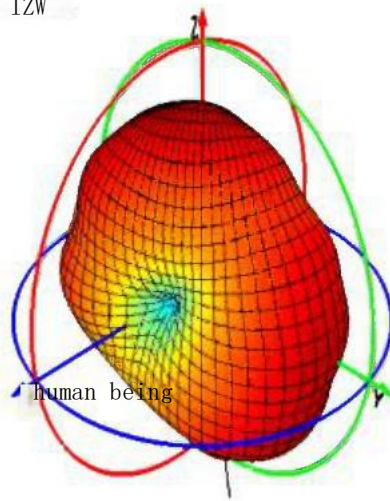
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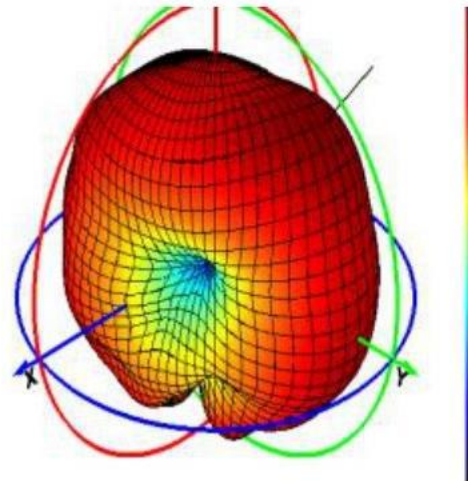
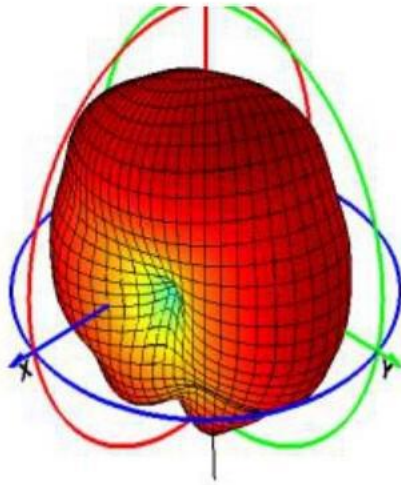
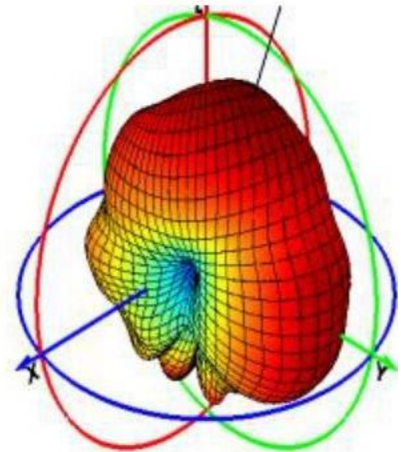
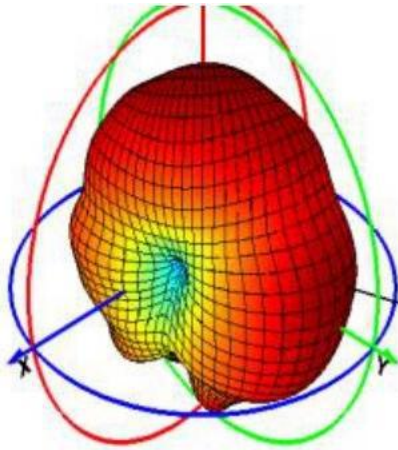




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2200M-2690

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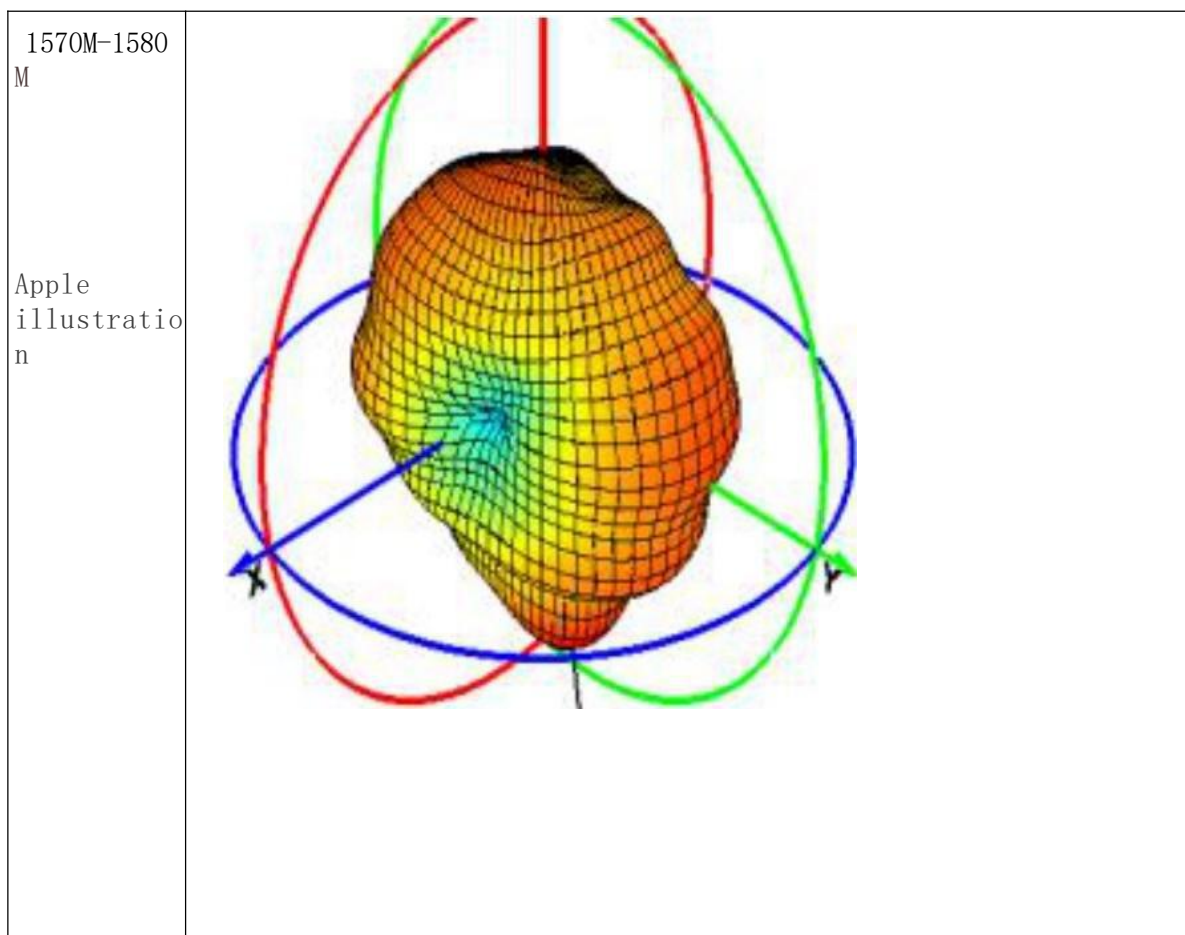


7: Passive GPS test

Frequency Frequency y (MHz)	Gain Gain (dBi)	Efficiency of Efficiency (%)
1570.00	3.68	58.21
1571.00	3.63	56.99
1572.00	3.57	55.77
1573.00	3.51	54.00
1574.00	3.44	53.48
1575.00	3.39	53.29
1576.00	3.53	52.91
1577.00	3.36	52.89
1578.00	2.37	53.05
1579.00	2.38	53.29
1580.00	2.39	53.59

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8: GPS Apple map



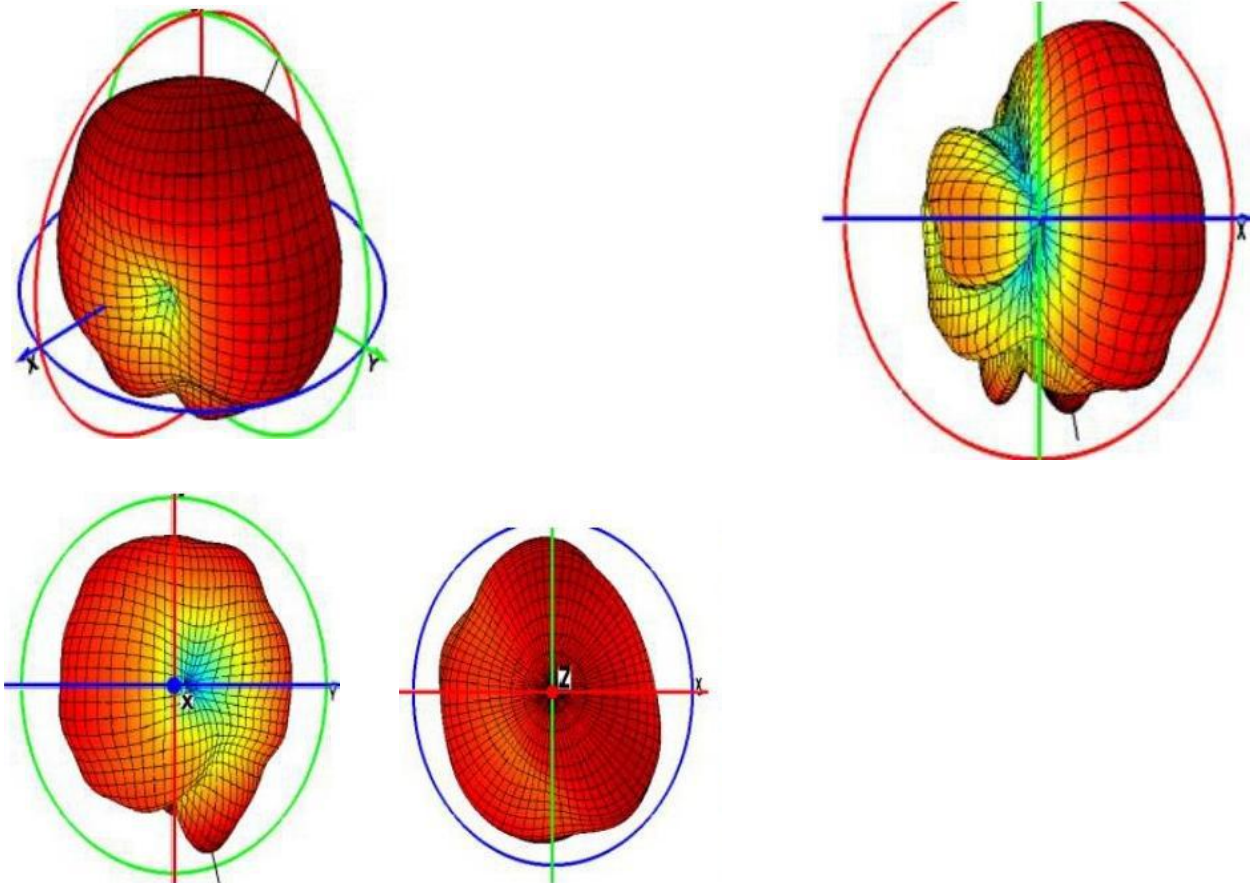


9: WIFI passive test

Frequency (MHz)	Gain Gain (dBi)	Efficiency efficiency (%)	
2400.00	2.62	51.08	
2410.00	3.28	61.30	
2420.00	3.56	64.36	
2430.00	3.90	67.60	
2440.00	3.68	60.85	
2450.00	3.92	62.69	
2460.00	3.34	66.57	
2470.00	3.61	69.00	
2480.00	3.61	69.78	
2490.00	3.93	62.75	
2500.00	3.88	62.43	

VATIIra1

10: A WIFI Apple diagram

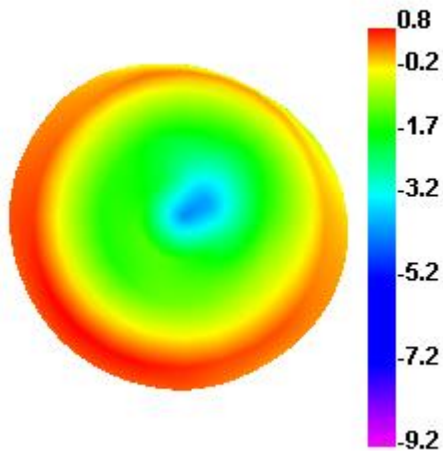




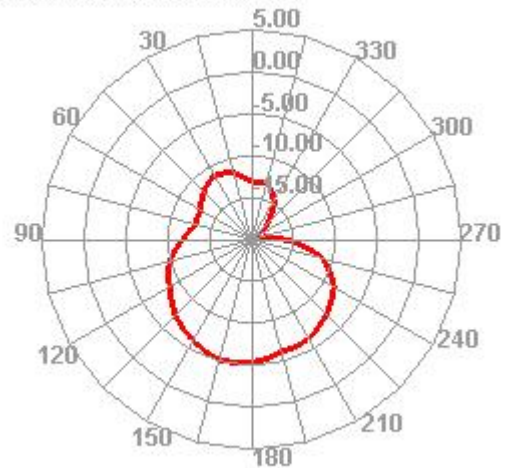
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Frequency (MHz)	Gain Gain (dBi)	Efficiency efficien cy (%)	
5720.00	4.76	50.48	
5730.00	4.92	50.31	
5740.00	4.84	50.42	
5750.00	4.41	50.52	
5760.00	5.02	50.62	
5770.00	4.92	50.68	
5780.00	4.73	50.75	
5790.00	4.95	50.36	
5800.00	4.88	50.48	
5810.00	4.88	50.34	
5820.00	5.29	50.44	
5830.00	4.52	50.4	
5840.00	4.66	50.94	
5850.00	4.55	50.65	

5850.000MHz



5850.000MHz H



5850.000MHz E1



5850.000MHz E2

