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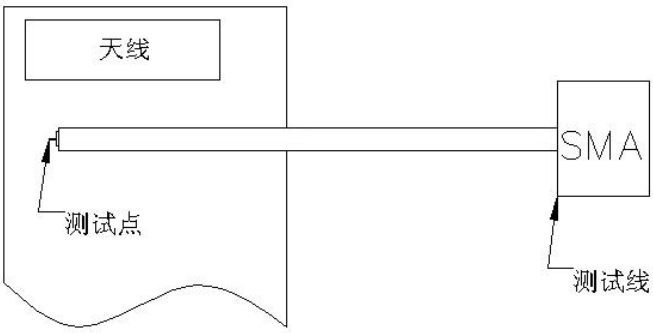
1.Project Image

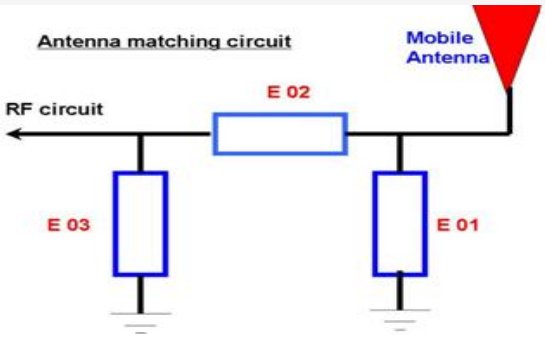
The final verification antenna performance prototype in our company for at least one year, easy to analyze and solve the problem of antenna mass production, to ensure the quality of antenna shipment

2.Test Fixture

Objective: to test the passive parameters of antenna as accurately as possible. Making Method: the handset is made of a 50 ohm coaxial cable, one end of which is connected to the test point of the back end of the matching circuit of the handset motherboard (front end of the RF test hole) , and the other end is connected to the SMA joint. The diagram is as follows:



3、Antenna matching circuit



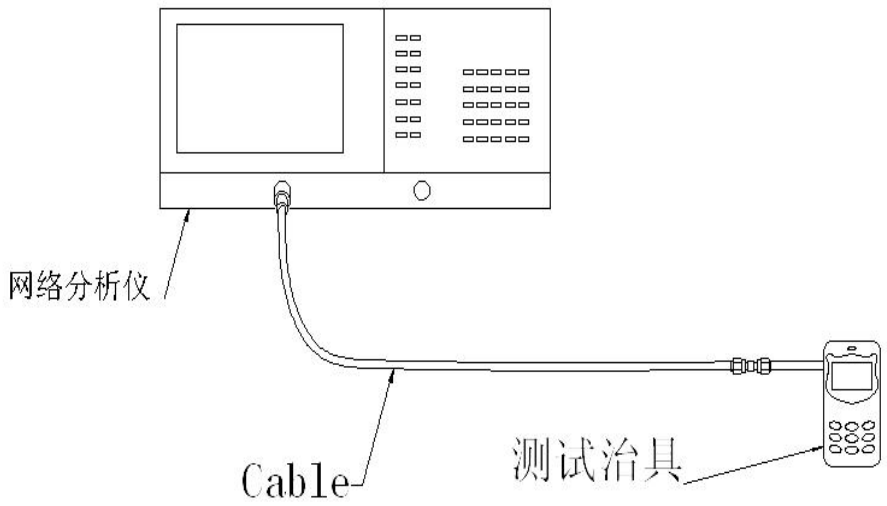
Modify

E01	E02	E03
No	No	No

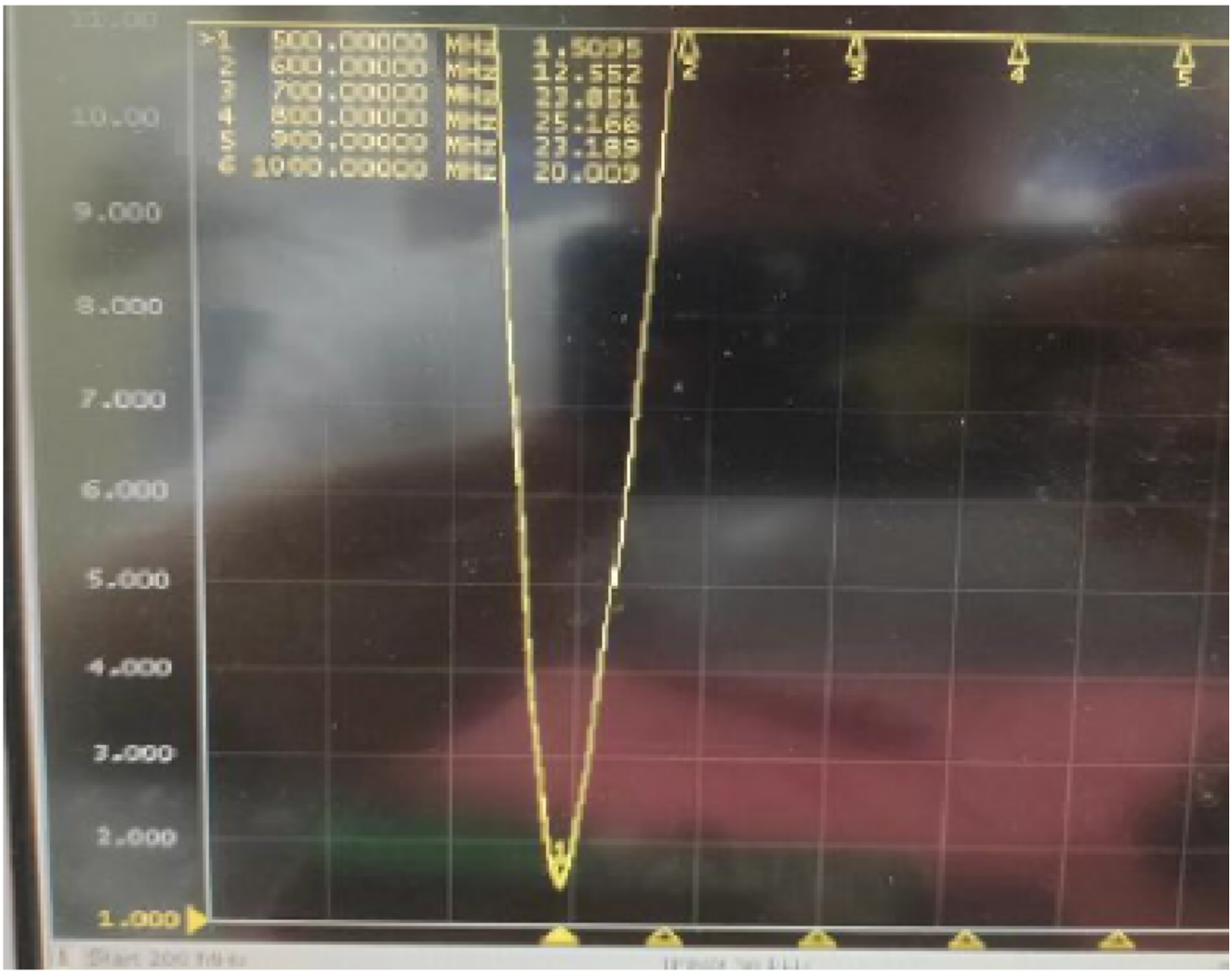
Note: The match is unmodified.

4.S11 test

4.0 4.0s11 test method description of test equipment: Network Analyzer (E5071C) test method: a 50 ohm CABLE is used to export from the instrument test port. The SMA connector for connecting the handset is calibrated using a calibration piece, record the echo loss and standing wave ratio corresponding to the relevant frequency points. The test schematic is as follows:



4.1 SWR


1 500.00000 MHz 1.5095
2 600.00000 MHz 12.552
3 700.00000 MHz 23.831
4 800.00000 MHz 25.166
5 900.00000 MHz 23.189
6 1000.00000 MHz 20.009
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000

5.Darkroom test equipment and data

6.Test Equipment

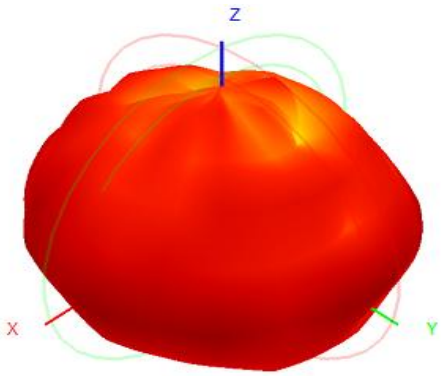
Test system: shielded darkroom

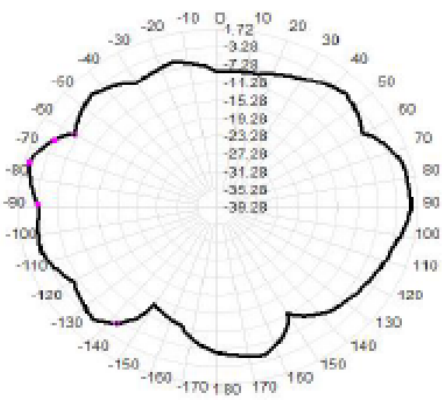
The temperature was 22 ° C ± 3 ° C and the humidity was 50% ± 15%

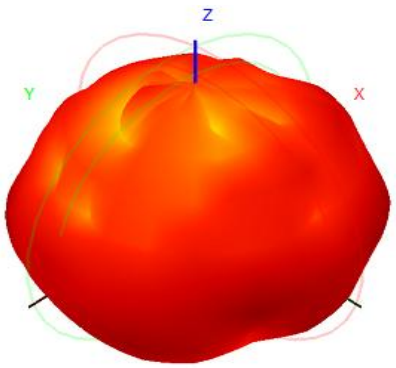
Test equipment: when testing passive data, use the Network analyzer AGILENTE5071C to test active data, use the omnibus CMW500

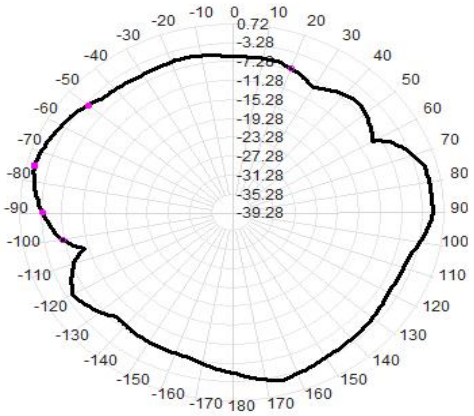
7.Active antenna test data

测试数据：		
Freq(MHz)	Efficiency (%)	Gain (dBi)
510	30.5	0.65
520	31.4	0.66
530	32.5	0.61
540	33.6	0.82
550	34.5	1.21
560	31.6	0.97









8.Schematic diagram of antenna assembly

9.Antenna environment handling

10.Antenna mass production index

When the antenna is mass-produced, the standing wave ratio is taken as the mass-produced test standard. Based on the differences of the project itself, the following criteria are given:	Standard for volume production
	VSWR (Mass Production performance) & LT;