

Specification Acknowledgement

(Customer Name) Shenzhen JIA SHI XIN Technology Co., Ltd

(Specification) JL43 antenna

(Customer P/N) _____

(Date) 2024-12-11

Band	2G:850/900/1800/1900, 3G:2/5, 4G:2/4/5/7/28AB		
Ver sion	A		
RF	Liu XingQuan	Confirm	
Structure	YangXuezhong		
Customer confirmation			
date			

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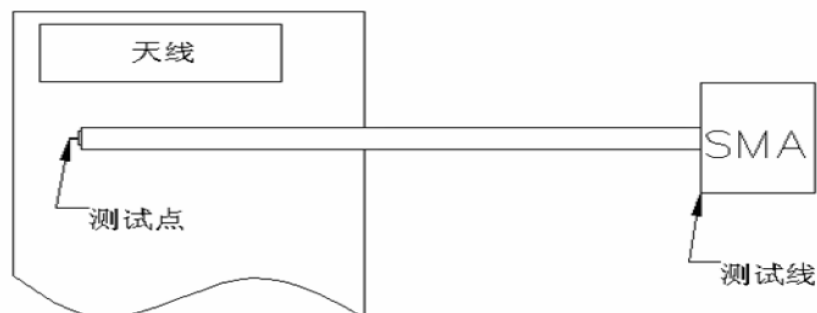


4G antenna

2. Passive testing

Purpose: To test the passive parameters of the antenna as accurately as possible.

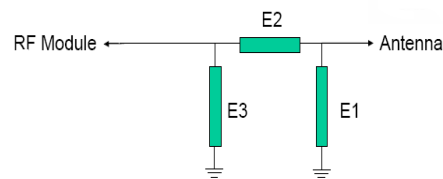
Method: This fixture is connected to the test point at the back end of the matching circuit of the mobile phone motherboard (the front section of the RF test hole) with a 50 ohm coaxial cable, and the other section is connected to the SMA connector. The details are as



follows:

4G antenna				
	频率 (MHz)	LOSS	频率 (MHz)	LOSS
频段	发射端		接收端	
GSM850	824-849	≤3.5	869-894	≤3.0
GSM900	880-915	≤3.5	915-935	≤3.5
DCS1800	1710-1785	≤3.5	1805-1880	≤3.5
PCS1900	1850-1910	≤2.8	1930-1990	≤3.2
WCDMA-850	824-849	≤3.5	869-894	≤3.5
WCDMA-1900	1880-1990	≤3.5	1980-2170	≤3.5
LTE-FDD-B7	2570-2620	≤3.5	2570-2680	≤2
LTE-FDD--B2	1880-1920	≤3.5	1880-1920	≤3.5
LTE-FDD-B4	1710-1785	≤3.5	1805-1880	≤3.5
LTE-FDD-B5	824-849	≤3.5	869-894	≤3.0
LTE-FDD-B28	703-748	≤3.5	758-803	≤3.5

3. Matching circuits



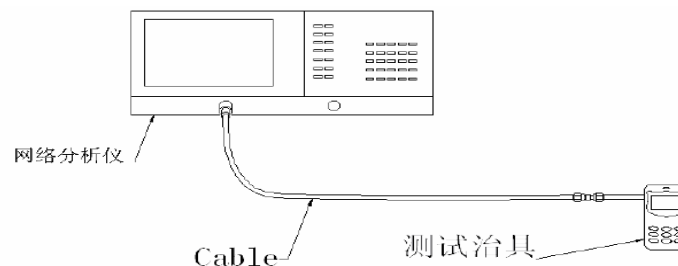
Element	Match value
E1 (0402)	
E2 (0402)	2.7nH
E3 (0402)	18nH

Concentrate:

5. S11 test

6.4.1 S11 Test Method Specification Standard VSWR The test devices are connected in turn as follows: HXB10F753E Network Analyzer → 50 ohm coaxial Cable → 120mm Long copper tubes → Test fixtures.

Processing of the test fixture: A hard cable is used from the antenna 50 ohm test point on the PCB of the mobile phone to lead out the SMA-J connector, connect it with a copper tube with a choke, and then connect other devices in turn.



Test the schematic

4.2 S11 parameters

The following table shows the vsWR values at the edge of the operating band of the Lollipop 3 antenna. The tested Return Loss, VSWR related waveform diagram is shown in the annex.

	4G generation antenna					
Frequency (MHz)	703	824	960	1710	2200	2685
Free space	3.5	2.7	2.4	2.6	2.2	2.1

4.3 S11



Shenzhen Deshiqin Technology Co., Ltd. – Letter of Recognition

OTA 测试

Model: JL43-1#				天线实现方式： PIFA						单位: dBm		
信道	GSM850			GSM900			DCS1800			PCS1900		
	CH128	CH192	CH251	CH1	CH62	CH124	CH512	CH698	CH885	CH512	CH661	CH810
TRP	28.41	28.39	29.28	29.51	29.14	28.84	24.24	25.49	26.27	26.27	25.87	25.59
TIS			-102.77			-103.56			-103.56			-103.77
信道	WCDMA-850			WCDMA-900			WCDMA-1900			WCDMA-2100		
	CH4357	CH4408	CH4458	CH2937	CH3013	CH3083	CH9662	CH9800	CH9938	CH10562	CH10700	CH10838
TRP	18.67	18.95	19.27				19.53	18.79	18.29			
TIS			-103.28						-104.01			

信道	LTE-FDD-B2			LTE-FDD-B4			LTE-FDD-B5			LTE-FDD-B7		
	CH18650	CH18900	CH19150	CH20000	CH20175	CH20350	CH20450	CH20525	CH20600	CH20800	CH21100	CH21400
TRP	19.07	19.24	18.86	18.34	19.25	19.52	18.63	19.05	19.62	18.42	17.68	17.46
TIS			-91.15			-90.42			-90.48			-89.55
信道	LTE-FDD-B28A			LTE-FDD-B28B								
	CH27260	CH27360	CH27460	CH27410	CH27510	CH27610						
TRP	17.42	18.29	18.86	17.75	18.58	18.95						
TIS			-89.27			-89.3						

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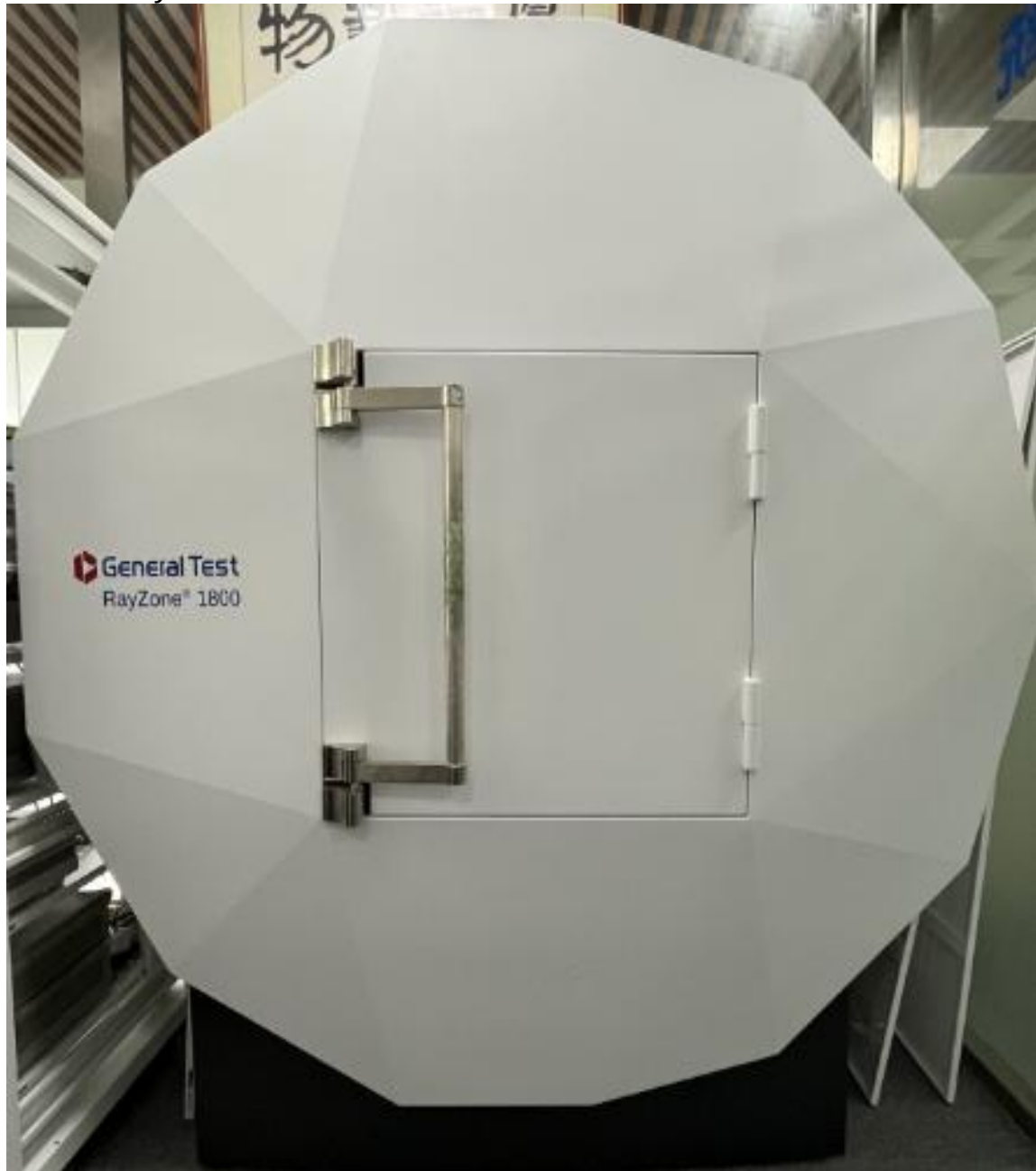
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Antenna passive data

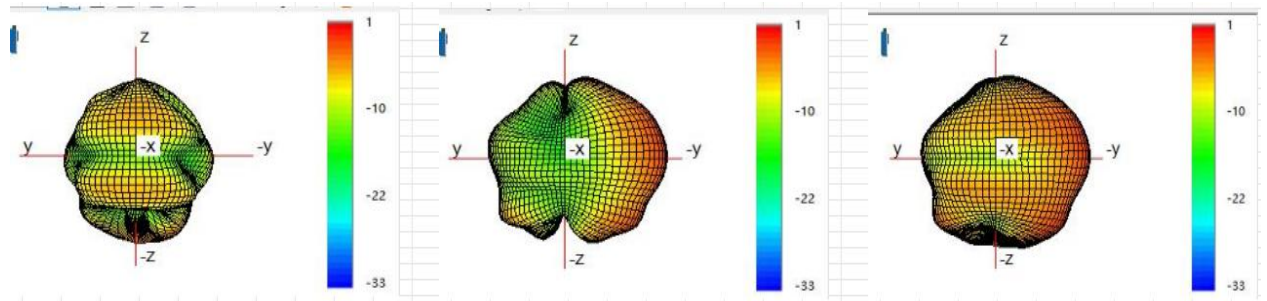
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
700	10.72	-6.49	1700	42.32	0.63	2300	33.47	-0.83
710	13.03	-5.69	1720	43.91	0.93	2320	34.93	-0.92
720	14.96	-5.12	1740	47.16	1.33	2340	36.97	0.72
730	17.06	-4.54	1760	49.13	1.57	2360	37.76	1.42
740	18.28	-4.31	1780	49.55	1.62	2380	35.25	1.38
750	16.79	-3.67	1800	49.85	1.66	2400	34.81	1.44
760	18.45	-3.26	1820	48.58	1.64	2500	23.16	-0.91
770	20.42	-2.78	1840	46.5	1.49	2520	22.76	-1.16
780	23.23	-2.17	1860	43.49	1.23	2540	22.71	-1.61
790	24.77	-1.86	1880	39.38	0.87	2560	23.6	-1.65
800	21.63	-1.4	1900	37.31	0.63	2580	25.18	-1.45
810	22.49	-1.24	1920	33.91	0.16	2600	27.97	-1.05
820	24.43	-0.89	1940	31.64	-0.48	2620	31.38	-0.75
830	21.18	-0.52	1960	32.31	-0.97	2640	33.19	-0.54
840	22.08	-0.37	1980	34.52	-1.03	2660	34.32	-0.36
850	23.93	-0.04	2000	37.95	-0.46	2680	35.89	-0.21
860	24.77	0.04	2020	43.96	0.88	2700	37.36	0.15
870	20.42	0.16	2040	49.38	1.59			
880	21.18	0.26	2060	53.4	2.06			
890	21.83	0.27	2080	54.52	2.28			
900	22.86	0.42	2100	53.55	2.17			
910	23.50	0.55	2120	53.12	2.15			
920	23.66	0.56	2140	48.51	2			
930	23.77	0.54	2160	45.51	1.72			
940	23.82	0.52	2180	44.62	1.75			
950	23.01	0.34						
960	22.18	0.15						

5、3DDirectional pattern
3D test system

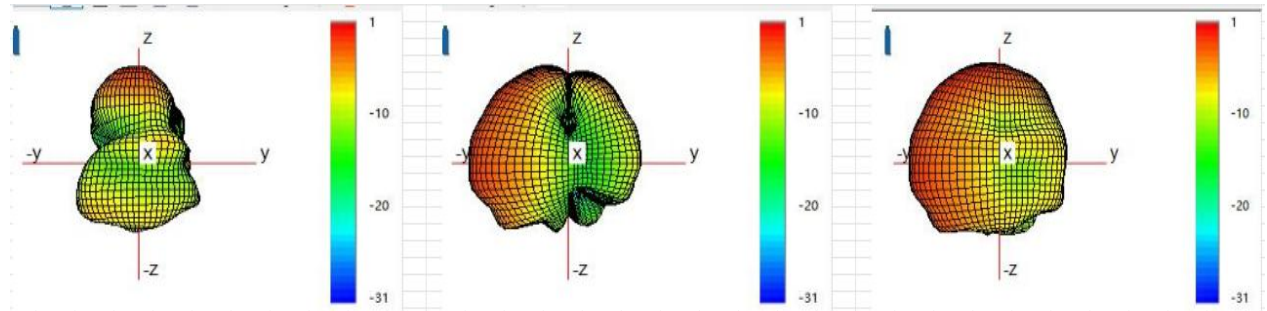


5、3DDirectional pattern

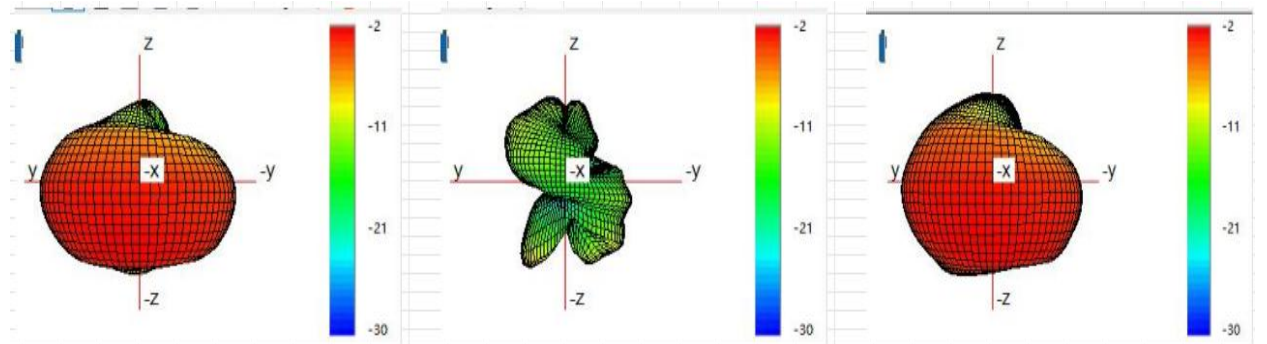
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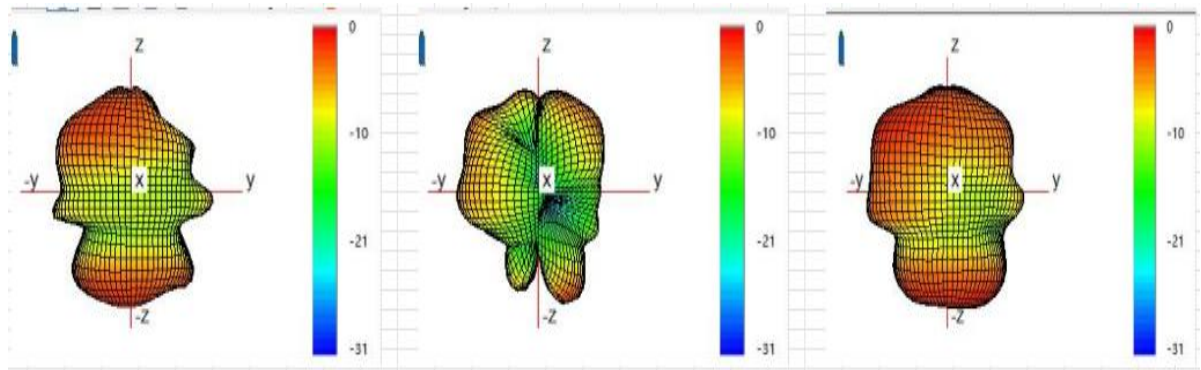
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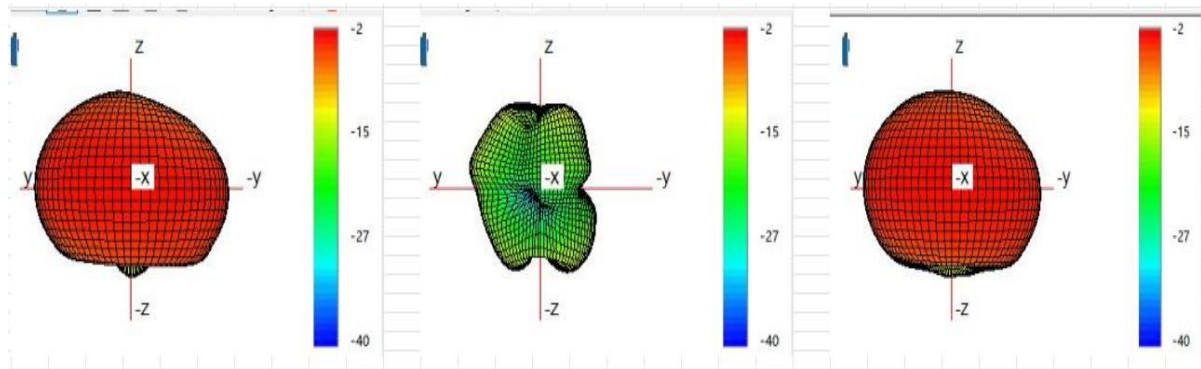
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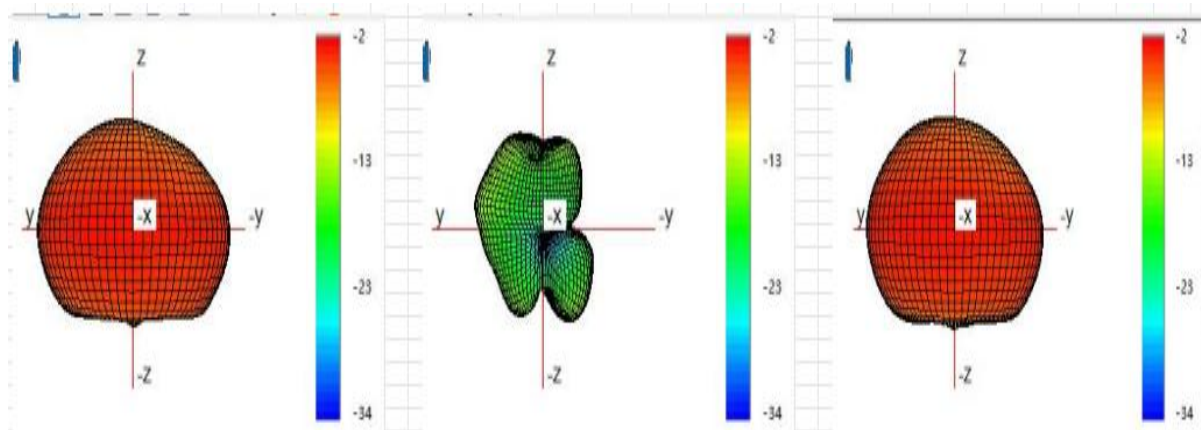
B7



B28A



B28B



6Dimensional drawings:

