

Material Acknowledgement

Suppliers: Shenzhen Maya Communication Equipment Co., Ltd

Model: P08

Product Name: On the antenna assembly

Specifications / Models: _____

Antenna trademark: 

Color: black

Address: _____

Contact / Phone: _____

Supplier (with official seal)

Structural Department	R&D Department	Quality Department	Project Department	

Customer review

ID Department	Structural Department /	Hardware Department	Packaging engineering	Quality Department
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	Special Project			

Specifications

The report mainly provides P08 GSM +LTE,performance parameter test, antenna for built-in antenna:

2、Electrical performance

2-1Specification Standard

The P08 antenna operates in the LTE700/850/900 1800/1900/2100/2300/2700Mhz band, which generates resonances in this ;The following table shows the mass production performance test indicators for the P08 design antenna:

EGSM+WCDMA+LTEAntenna Indicator				
	Frequency (MHz)	VSWR	Frequency (MHz)	VSWR
Band	Transmitter		Receiver side	
GSM850/W5/LTE B5/18/19/20	824-849	≤ 2.86	869-894	≤ 2.02
GSM900/W8/LTE B8	880-915	≤ 2.1	925-960	≤ 3.1
DCS1800/WCDMA B3 /4	1710-1785	≤ 3.3	1805-1880	≤ 3.7
PCS1900/WCDMA B2	1850-1910	≤ 2.01	1930-1990	≤ 2.12
WCDMA B2	1880-1980	≤ 2.0	2110-2170	≤ 2.74
TDSCDMA 2100	1920-1980	≤ 2.10	2110-2025	≤ 2.74
WCDMA 2100	1920-1980	≤ 2.10	2110-2090	≤ 2.97
LTE TDD, B38	2570-2620	≤ 1.07	2570-2620	≤ 2.07
LTE TDD, B39	1880-1920	≤ 3.2	1880-1920	≤ 3.7
LTE TDD, B40	2300-2400	≤ 2.17	2300-2400	≤ 1.43
LTE TDD, B41	2496-2690	≤ 2.36	2496-2690	≤ 2.67
LTE FDD, B1/2	1920-1980	≤ 2.10	2110-2170	≤ 2.74
LTE FDD, B3/4/66	1710-1785	≤ 2.01	1805-1880	≤ 2.12
LTE B12/13/17/28	791-845	≤ 2.51		

Main antenna

3.Standing Wave Ratio(VSWR)test

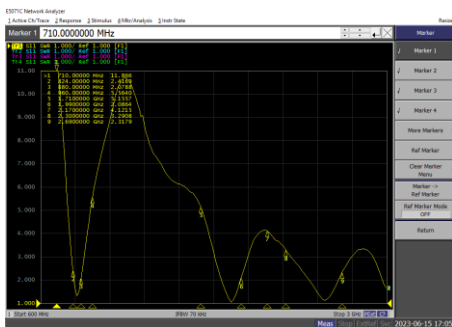
3-1 Test settings

The VSWR test units are connected in turn: E5071B Network Analyzer → 50 ohm coaxial

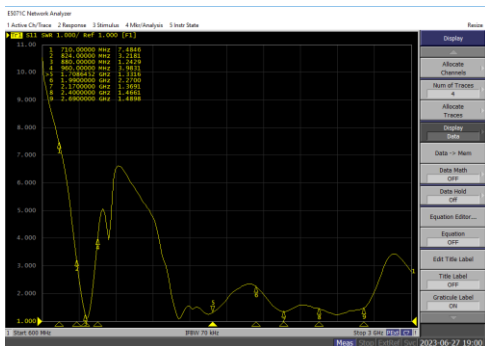
Cable → 156mm long copper tube /b110> → Test fixtures. Processing of the test fixture: A hard cable is used from the antenna 50 ohm test point on the pcb of the mobile phone to lead out the SMA-J connector, connect it to the copper tube with a choke, and then connect the other devices in turn.

3-2 VSWR test

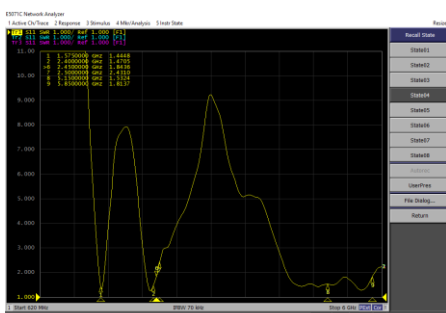
The following table shows the value of the standing wave ratio of the edge frequency point of the GSM+LTE antenna operating band, the return loss, VSWR, and the relevant waveform plot is shown in the annex:



P08 MAIN ANT VSWR/Return Loss



P08 DIV ANT



P08 WIFI 1VSWR/Return Loss

3-3 gain test

MAIN ANT Gain

700	-2.8	1400	-4.2	2120	-2.8
710	-2.7	1420	-4.1	2140	-2.7
720	-2.5	1440	-3.9	2160	-2.8
730	-2.5	1460	-3.7	2180	-2.9
740	-2.6	1480	-3.8	2300	-3.6
750	-2.7	1500	-3.9	2320	-3.5
760	-2.8	1700	-3.5	2340	-3.4
770	-2.8	1720	-3.4	2360	-3.3
780	-2.9	1740	-3.4	2380	-3.5
790	-3.1	1760	-3.3	2400	-3.5
800	-2.8	1780	-3.3	2420	-3.6
810	-2.6	1800	-3.2	2440	-3.7
820	-2.4	1820	-3.2	2460	-3.8
830	-2.3	1840	-3.1	2480	-3.9
840	-2.2	1860	-2.9	2500	-4.1
850	-2.1	1880	-2.9	2520	-4.2
860	-2.2	1900	-2.8	2540	-4.1
870	-2.3	1920	-2.8	2560	-3.9
880	-2.5	1940	-2.7	2580	-3.8
890	-2.5	1960	-2.7	2600	-3.6
900	-2.4	1980	-2.9	2620	-3.7
910	-2.4	2000	-2.8	2640	-3.8
920	-2.3	2020	-2.9	2660	-3.9
930	-2.3	2040	-3.1	2680	-3.9
940	-2.4	2060	-3.1	2700	-4.1
950	-2.4	2080	-2.9		
960	-2.5	2100	-2.9		

DIV ANT Gain

Freq	Gain	Freq	Gain	Freq	Gain
700	-3.8	950	-4.2	2160	-1.7
710	-3.7	960	-4.2	2180	-1.9
720	-3.6	1700	-2.1	2300	-2.5
730	-3.6	1720	-2.1	2320	-2.3
740	-3.7	1740	-1.9	2340	-2.2

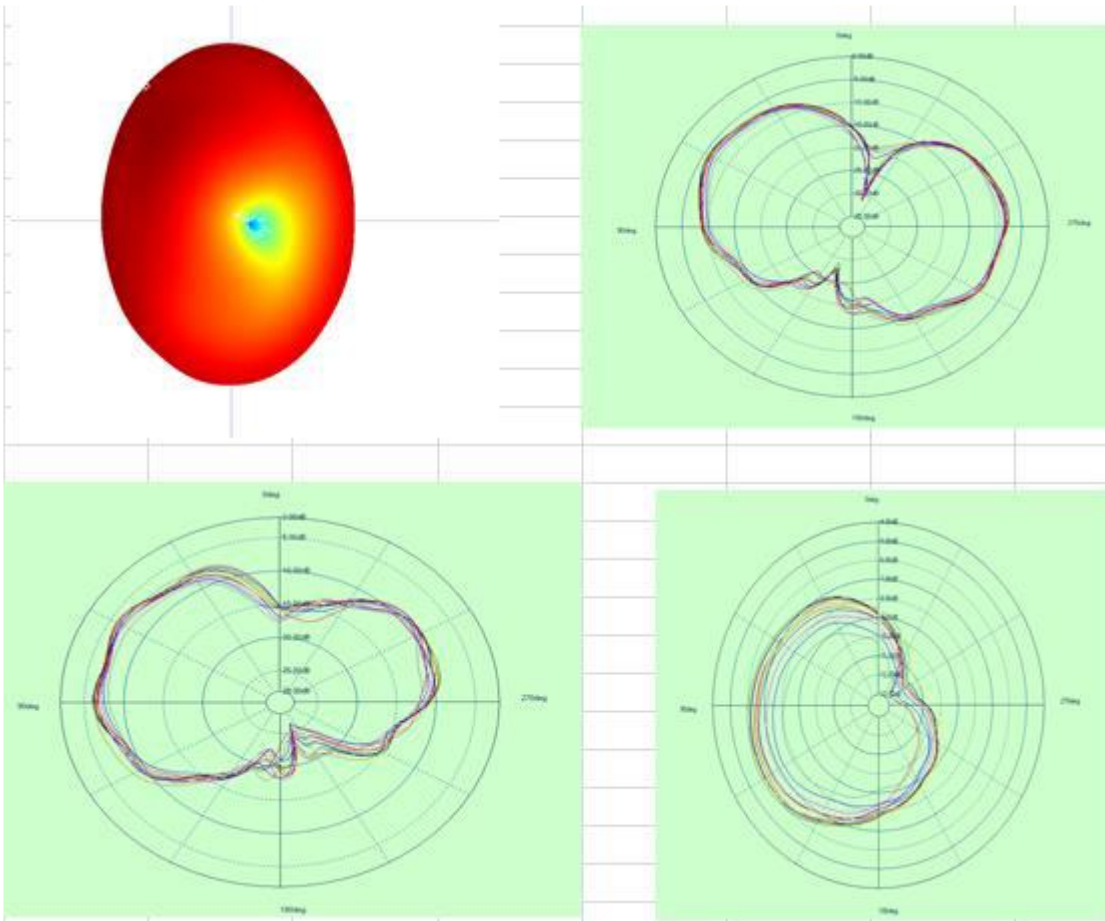
Confidential Information

750	-3.8	1760	-1.9	2360	-2.3
760	-3.9	1780	-2.2	2380	-2.4
770	-3.9	1800	-2.1	2400	-2.5
780	-4.1	1820	-1.9	2420	-2.6
790	-4.1	1840	-1.8	2440	-2.6
800	-4.2	1860	-1.9	2460	-2.7
810	-4.2	1880	-1.8	2480	-2.6
820	-4.1	1900	-1.8	2500	-2.6
830	-3.9	1920	-1.8	2520	-2.5
840	-3.9	1940	-1.9	2540	-2.5
850	-4.1	1960	-1.9	2560	-2.4
860	-4.1	1980	-1.8	2580	-2.4
870	-4.2	2000	-1.8	2600	-2.3
880	-4.1	2020	-1.7	2620	-2.3
890	-3.9	2040	-1.7	2640	-2.5
900	-3.9	2060	-1.6	2660	-2.5
910	-3.8	2080	-1.6	2680	-2.6
920	-3.8	2100	-1.5	2700	-2.6
930	-3.9	2120	-1.5		
940	-4.1	2140	-1.5		

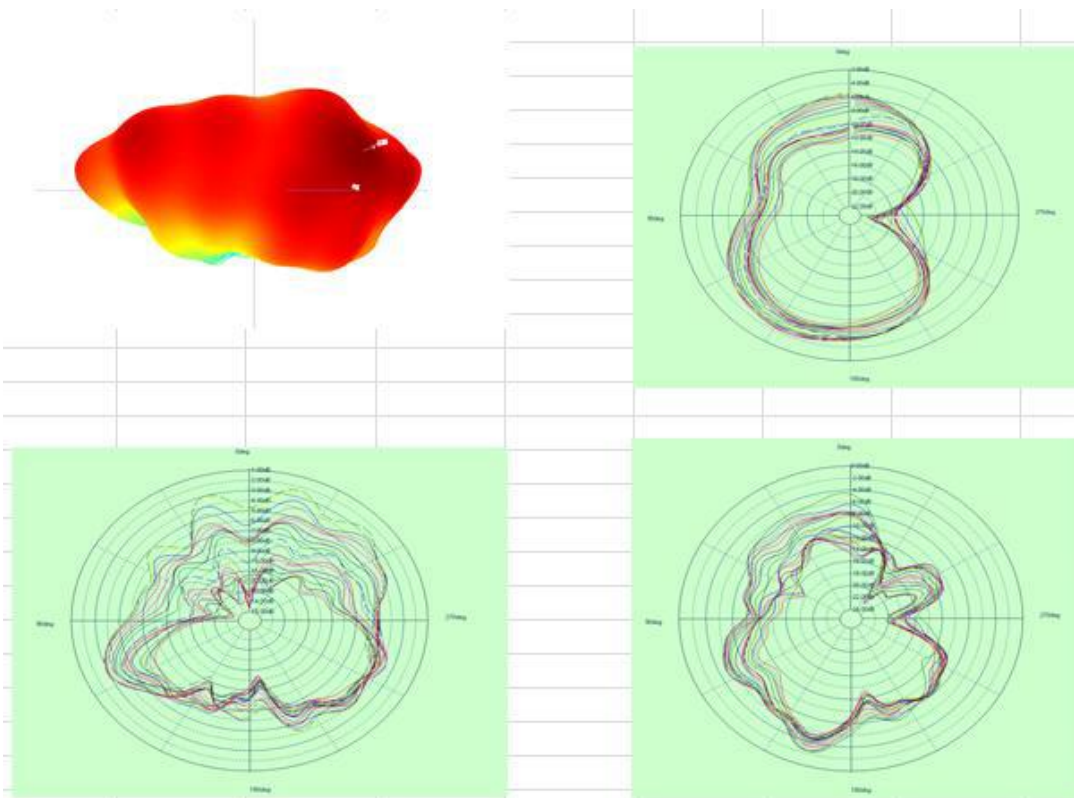
GPS/WIFI/BT L1

Freq	Gain	Freq	Gain	Freq	Gain
1560	-1.3	2400	-1.4	5100	1.1
1570	-1.2	2420	-1.3	5200	1.2
1580	-1.2	2440	-1.2	5300	1.0
1590	-1.3	2460	-1.2	5400	1.2
		2480	-1.2	5500	1.2
		2500	-1.3	5600	1.1
				5700	1.0
				5800	1.1

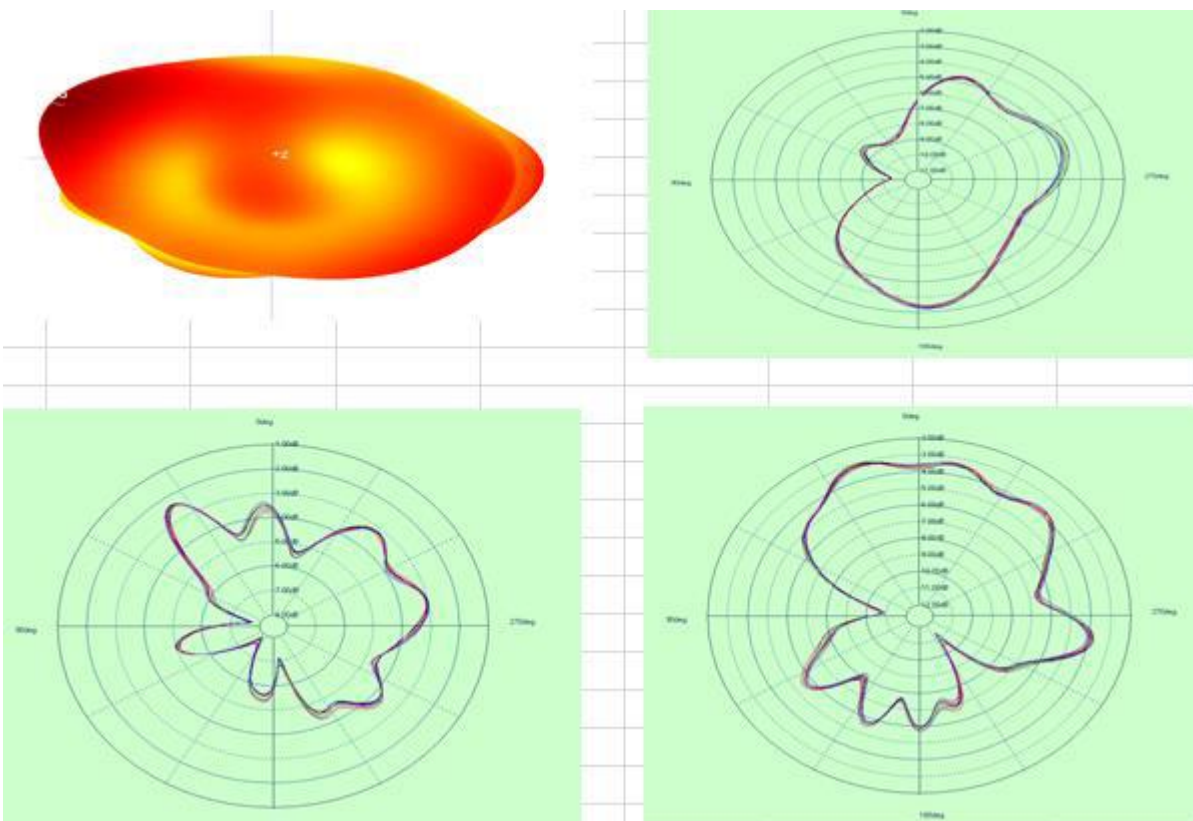
880-960MHz



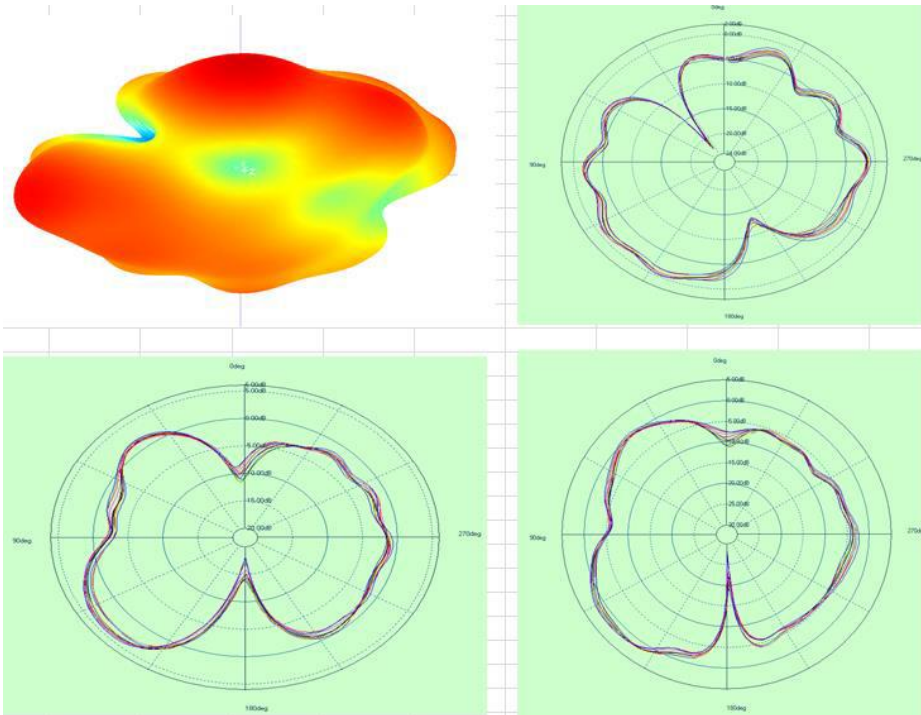
1710-2690MHz



GPS



2.4G wifi



5G wifi

