

Antenner report

COMPANY NAME:DONGGUAN LANYI
COMMUNICATION TECHNOLOGY CO.,LTD.

ADRESS:7F, Area A, Hengguang Industrial Park,
No.88 Dongsheng Road, Huangcaolang Village
Dalang Town, Dongguan, Guangdong, China

RF Antenna Cable Assembly

Product Name	4G antennae
Sample Model	LY-SC30C-140
Test Date	2021-03-11
Antenna type	monopole

Specification

1. Electrical Properties

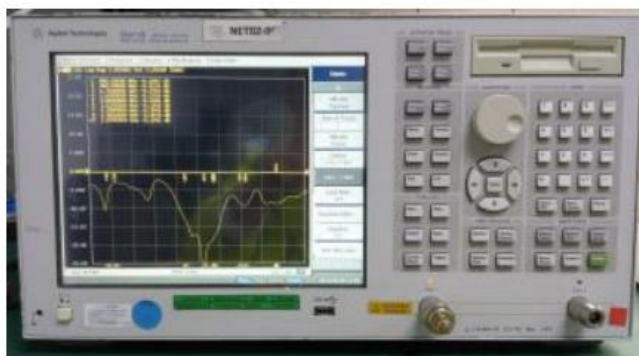
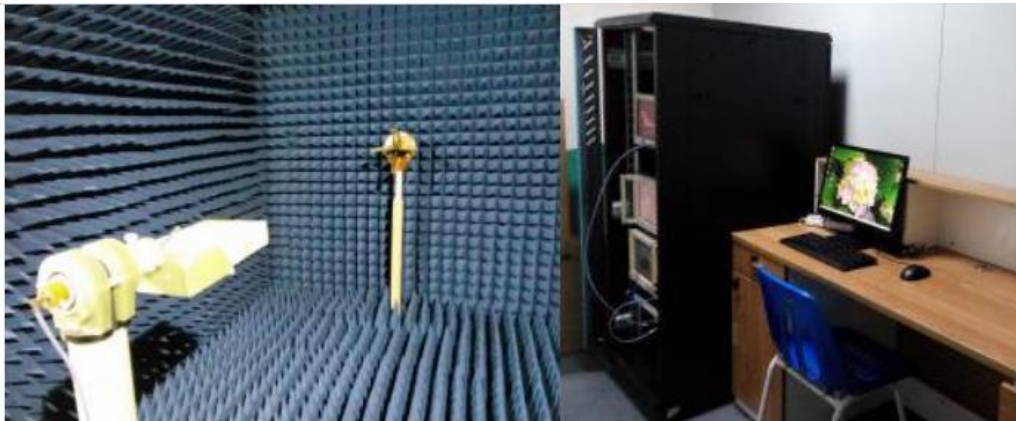
Frequency Range	700-890Mhz&1710-2700Mhz
Impedance	50 Ω Nominal
VSWR	<3.5
Gain(peak)	3dBi
Cable loss	0.3dBi Max
Polarization	Linear Vertical
Admitted Power	5W
Cable	1.13MM (Black)

2. Physical Properties:

Antenna Material	FPC
Operating Temp	-30℃- +75℃
Storage Temp	-35℃- +75℃
Color	Black

一、 TEST INSTRUMENTATION

	Test Item	equipment
1. S parameter	1. Return Loss(RL) 2. standing-wave ratio (VSWR)	network analyzer: Agilent E5071B
2. Coupling Testing	1. transmitted power (MAX Power)	1. 2G/3G test equipment: Agilent 8960 2. darkroom: ETS3D microwave darkroom (5*3*3)
3.3D Passive Testing	1. efficiency (η)	1. darkroom: ETS3D microwave darkroom (5*3*3) 2. network analyzer: Agilent E5071B
4. 3D active Testing	1. 3D total radiated power (TRP) 2. 3D (total isotropic sensitivity (TIS)	1. darkroom: ETS3D microwave darkroom (5*3*3) 2. 2G/3G test equipment: Agilent 8960 3.4G test equipment: Anritsu MT8820C



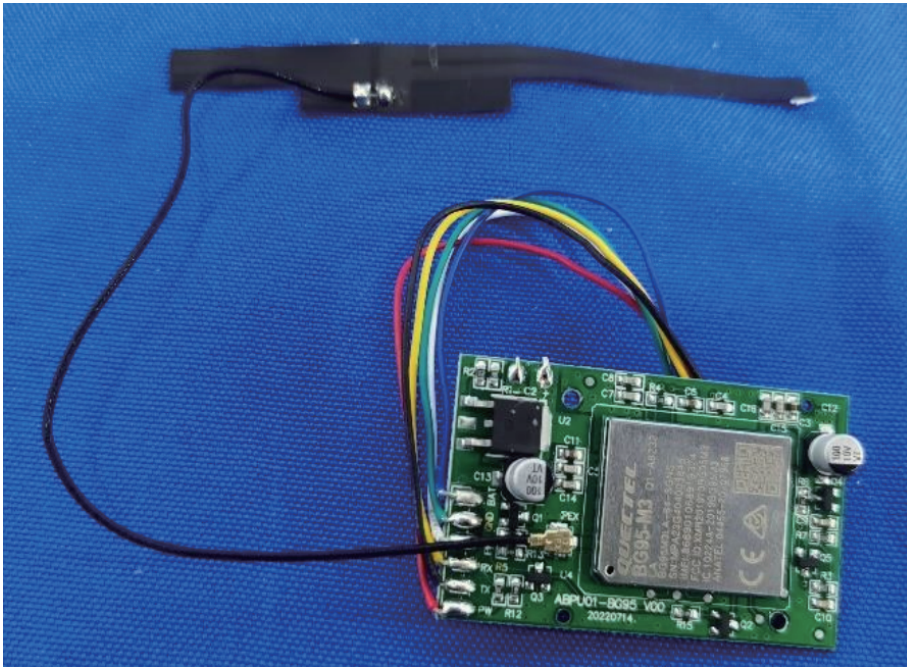
二、 Definitions

VSWR: Voltage Standing Wave Rate

TRP: total radiated power

TIS: total isotropic sensitivity

三、 CellPhone Photo and Dealing Methord

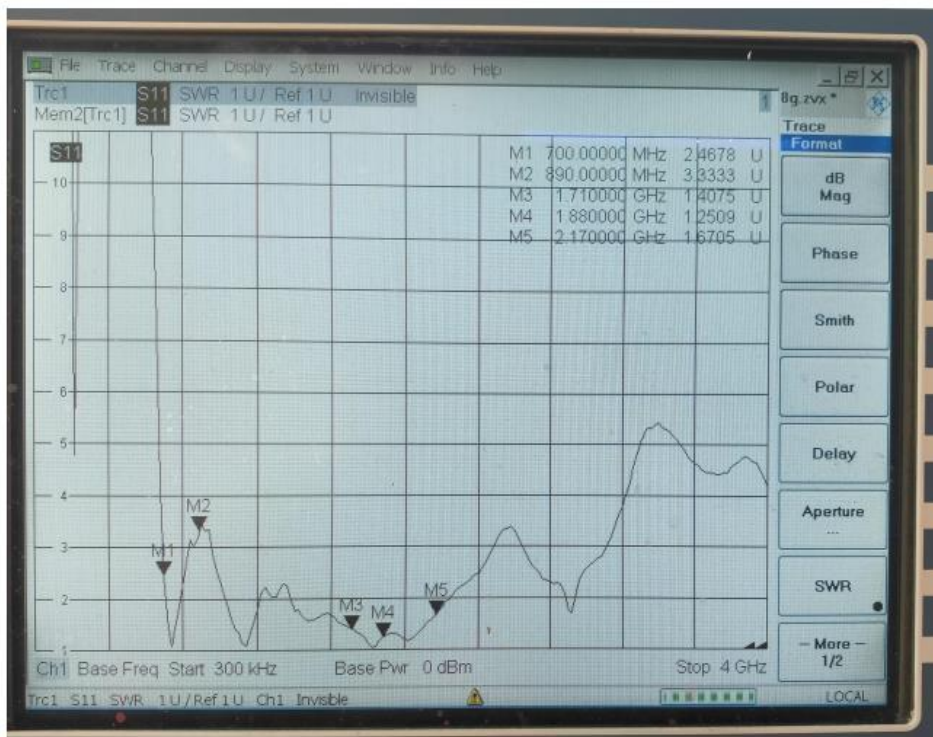


四、 Matching Circuit Description

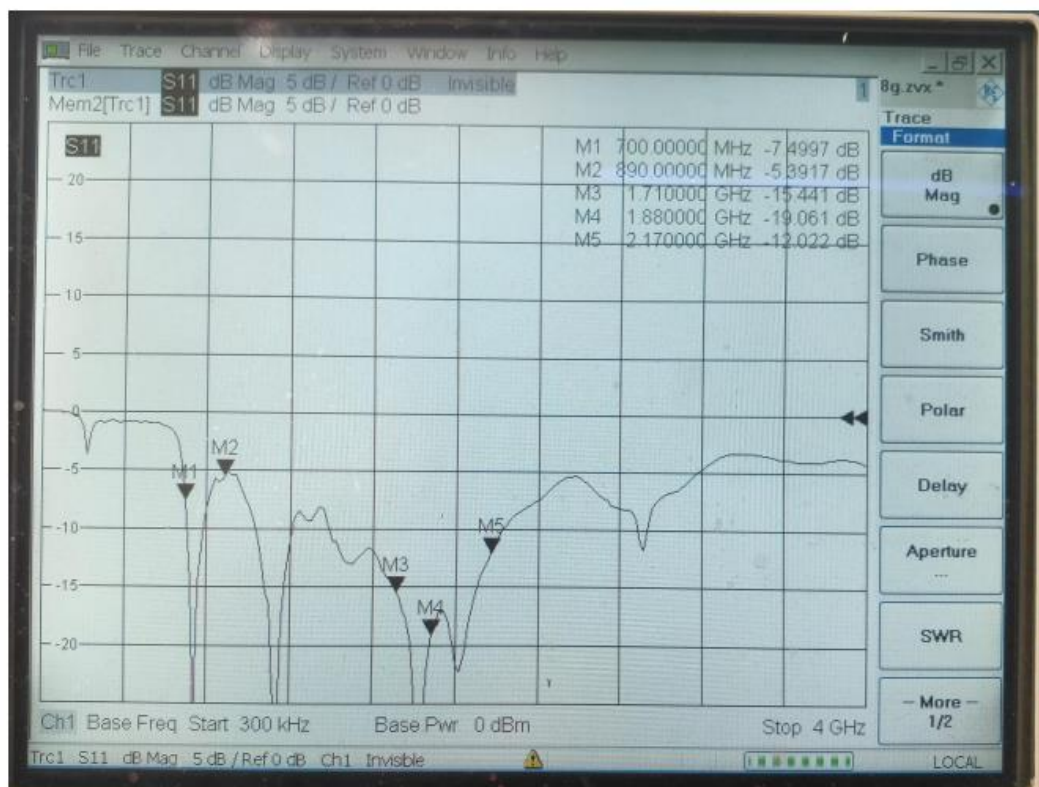
Original match

五、 Passive pointer

5.1 VSWR



5.2 RL



5.3 Gain&Efficiency

Passive Test For 700M								
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
700	16.52	-5.62	980	21.03	-2.74	2180	39.12	2.73
710	16.96	-5.3	990	22.23	-2.31	2200	38.08	2.33
720	21.59	-3.73	1000	29.65	-0.92	2220	33.45	1.3
730	31.87	-1.81	1700	47.21	1.92	2240	39.01	1.56
740	30.8	-1.95	1720	41.88	1.47	2260	41.42	1.57
750	25.88	-2.68	1740	49.5	2.35	2280	36.48	0.97
760	19.36	-3.72	1760	44.28	1.99	2300	47.65	2.16
770	19.85	-3.43	1780	54.81	2.9	2320	51.97	2.91
780	21.65	-2.93	1800	47.93	2.37	2340	63.24	4.24
790	23.59	-2.51	1820	43.88	2.04	2360	66.52	4.61
800	17.56	-3.66	1840	49.34	2.6	2380	59.09	4.1
810	29.93	-1.16	1860	44.75	2.42	2400	67.61	4.64
820	24.32	-2	1880	51.94	3.26	2420	57.99	4.04
830	20.45	-2.91	1900	46.05	2.75	2440	55.99	3.77
840	11.99	-5.66	1920	48.64	3.07	2460	48.66	2.92
850	14.72	-4.26	1940	50.87	3.39	2480	48.78	3.14
860	17.05	-3.54	1960	49.56	3.43	2500	53.56	3.86
870	22.64	-2.39	1980	55	3.93	2520	48.83	3.59
880	22.89	-2.63	2000	45.21	3.03	2540	47.24	3.32
890	20.3	-3.44	2020	49.44	3.37	2560	40.1	2.46
900	18.67	-3.04	2040	51.17	3.59	2580	40.36	2.57
910	19.45	-2.18	2060	45.66	3.26	2600	37.94	2.51
920	20.25	-2.48	2080	44.99	3.3	2620	38.38	2.54
930	21.58	-2.75	2100	44.58	3.18	2640	40.26	2.45
940	26.41	-2.2	2120	49.88	3.61	2660	32.57	1.04
950	24.66	-2.86	2140	53.15	3.98	2680	36.26	1.28
960	23.22	-3.06	2160	40.61	2.91	2700	34.09	1.27
970	20.55	-3.12						