



品名：B.1.01.L.1543 工规

History List

[illegible]

B.1.01.L.1543 Specification

1. Explanation of part number :

B.1 : 01 : L : 1543
(1) (2) (3) (4)

(1) Product Type : Wireless Antenna

(2) Material : FPC

(3) State : DVT

(4) Serial number:1543

2. Electrical Specification :

2-1. Frequency Band:

Frequency Band	MHz
GPS,WIFI	1575.42Mhz , 2400-2500Mhz,5150-5850Mhz

2-2. Impedance

50 ohm nominal

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=±2 X.X=±0.1 X.XX=±0.05

ANGLES=± HOLEDIA=±



浙江海通通讯电子股份有限公司

SCALE :

UNIT : mm

DRAWN BY : 张有远

CHECKED BY : 郑由强

DESIGNED BY : 郑由强

APPROVED BY: 周振邦

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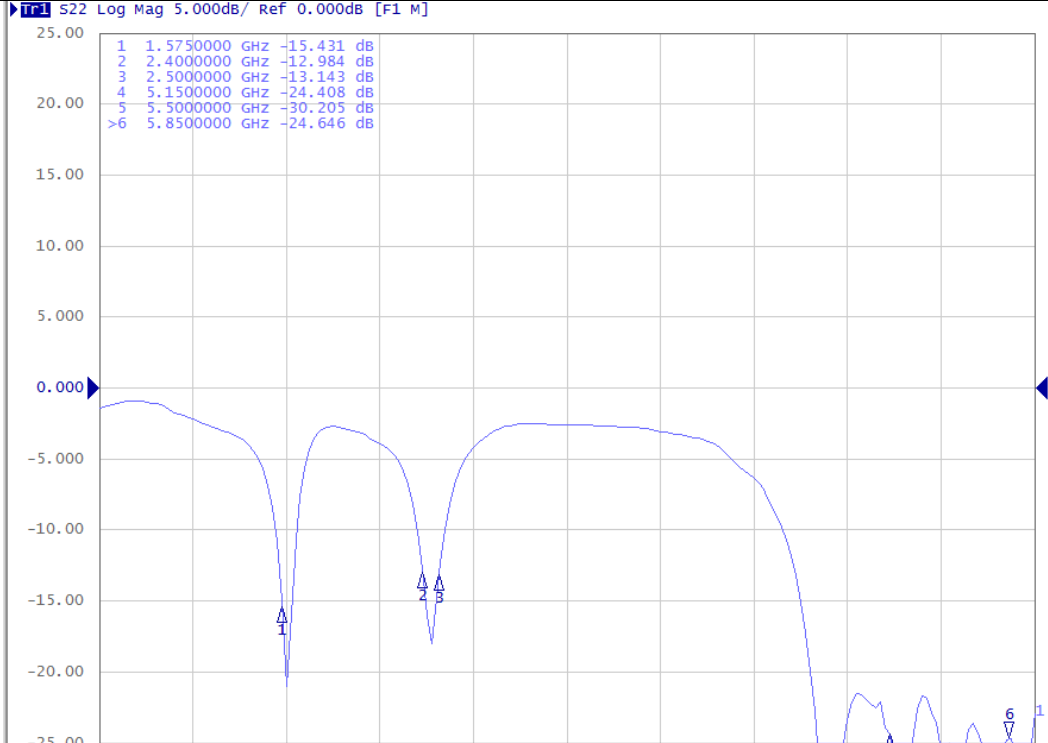
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2-3. S11 ,Efficiency , and Active Data :

2-3.1 S11:

Frequency Band	1575.42	2400	2500	5150	5850																														
2-3-1. Typical Value:	-15.46	-12.9	-13.1	-24.4	-24.6																														
2-3-2Measuring Method	1. A 50Ω coaxial cable is connected to the fpcb antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm.																																		
2-3-3Picture	Tr1 S22 Log Mag 5.000dB/ Ref 0.000dB [F1 M] <table><tr><td>1</td><td>1.5750000</td><td>GHZ</td><td>-15.431</td><td>dB</td></tr><tr><td>2</td><td>2.4000000</td><td>GHZ</td><td>-12.984</td><td>dB</td></tr><tr><td>3</td><td>2.5000000</td><td>GHZ</td><td>-13.143</td><td>dB</td></tr><tr><td>4</td><td>5.1500000</td><td>GHZ</td><td>-24.408</td><td>dB</td></tr><tr><td>5</td><td>5.5000000</td><td>GHZ</td><td>-30.205</td><td>dB</td></tr><tr><td>>6</td><td>5.8500000</td><td>GHZ</td><td>-24.646</td><td>dB</td></tr></table> 					1	1.5750000	GHZ	-15.431	dB	2	2.4000000	GHZ	-12.984	dB	3	2.5000000	GHZ	-13.143	dB	4	5.1500000	GHZ	-24.408	dB	5	5.5000000	GHZ	-30.205	dB	>6	5.8500000	GHZ	-24.646	dB
1	1.5750000	GHZ	-15.431	dB																															
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5	5.5000000	GHZ	-30.205	dB																															
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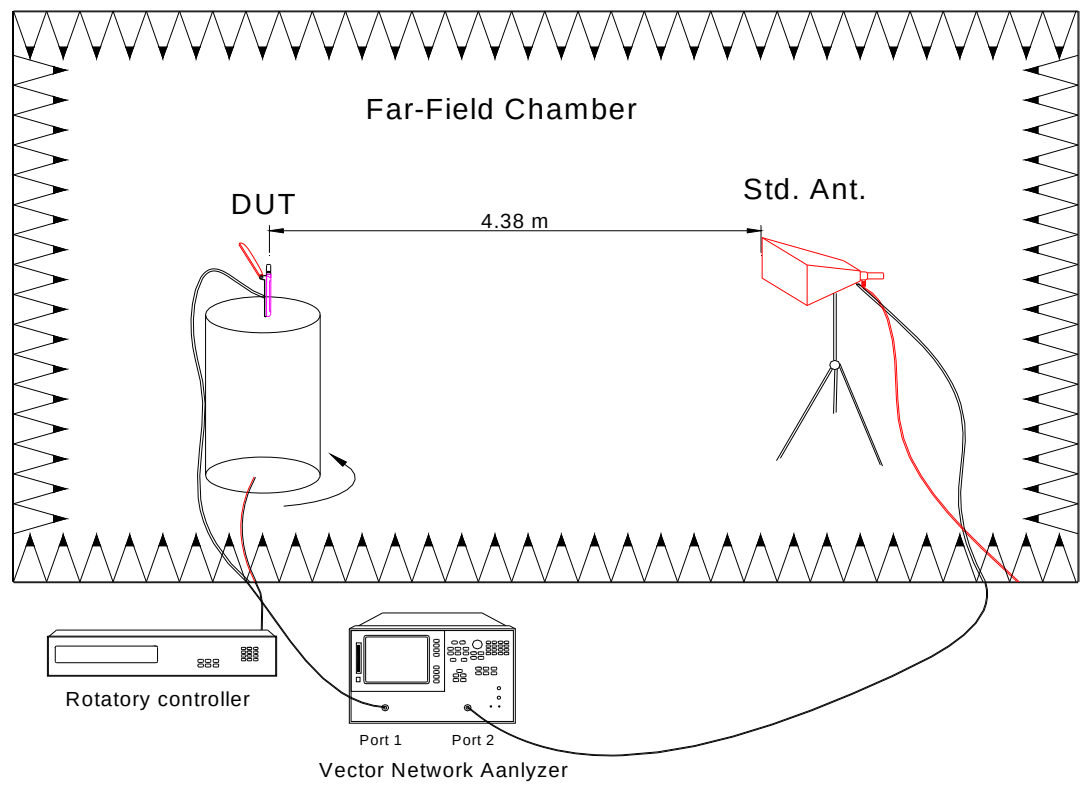
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2-4. Measure and Chamber

2-4-1 Measure method

- 1. Using a low loss coaxial cable to link a standard handset jig
- 2. Fixed this handset jig on chamber's rotator plane
- 3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
- 4. Using another standard gain horn antenna to calibrated those data

2-4-2 Chamber definition



- 1. An anechoic chamber (8mx4mx3.5m) which satisfied far-field condition was applied to avoid multi-path effect
- 2. The quite room region is 40cmx40cmx40cm at the center of rotator
- 3. The distance between DUT and standard antenna is 4.38 m
- 4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

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2-4-3 Antenna Efficiency

Frequency	Efficiency	Efficiency (dB)	Gain (dBi)	Frequency	Efficiency	Efficiency (dB)	Gain (dBi)
1550	29%	-5.39	-0.81	5150	29%	-5.44	-1.62
1555	30%	-5.24	-0.66	5170	28%	-5.58	-1.8
1560	29%	-5.40	-0.71	5190	28%	-5.46	-1.37
1565	29%	-5.31	-0.65	5210	28%	-5.54	-1.63
1570	30%	-5.28	-0.73	5230	27%	-5.62	-1.02
1575	31%	-5.14	-0.7	5250	27%	-5.76	-1.28
1580	30%	-5.30	-0.6	5270	27%	-5.75	-1.58
1585	30%	-5.29	-0.52	5290	27%	-5.76	-1.9
1590	30%	-5.18	-0.64	5310	26%	-5.78	-1.21
1595	31%	-5.13	-0.51	5330	27%	-5.62	-1.57
1600	30%	-5.17	-0.49	5350	28%	-5.51	-1.78
2400	30%	-5.27	-0.56	5370	30%	-5.21	-2.2
2410	30%	-5.19	-0.67	5390	29%	-5.36	-2.04
2420	32%	-5.00	-0.35	5410	32%	-5.00	-2.18
2430	34%	-4.70	-0.26	5430	33%	-4.86	-2.13
2440	33%	-4.80	-0.29	5450	34%	-4.72	-1.96
2450	33%	-4.84	-0.18	5470	34%	-4.70	-1.74
2460	34%	-4.70	-0.1	5490	34%	-4.65	-1.56
2470	32%	-4.99	-0.46	5510	35%	-4.54	-1.43
2480	33%	-4.88	-0.43	5530	34%	-4.67	-1.03
2490	32%	-4.94	-0.47	5550	34%	-4.72	-1
2500	30%	-5.22	-0.87	5570	34%	-4.65	-0.78
				5590	36%	-4.48	-0.69
				5610	34%	-4.64	-0.61
				5630	34%	-4.71	-0.43
				5650	32%	-4.96	-1.03
				5670	33%	-4.77	-1.25
				5690	34%	-4.62	-1.24
				5710	34%	-4.68	-1.39
				5730	33%	-4.80	-1.7
				5750	33%	-4.85	-1.63
				5770	32%	-4.94	-1.77
				5790	30%	-5.27	-2.56
				5810	30%	-5.27	-2.55
				5830	28%	-5.58	-2.95
				5850	27%	-5.68	-3.18

UNLESS OTHER SPECIFIED TOLERANCES ON :

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ANGLES=±

HOLEDIA=±



浙江海通通讯电子股份有限公司

SCALE :

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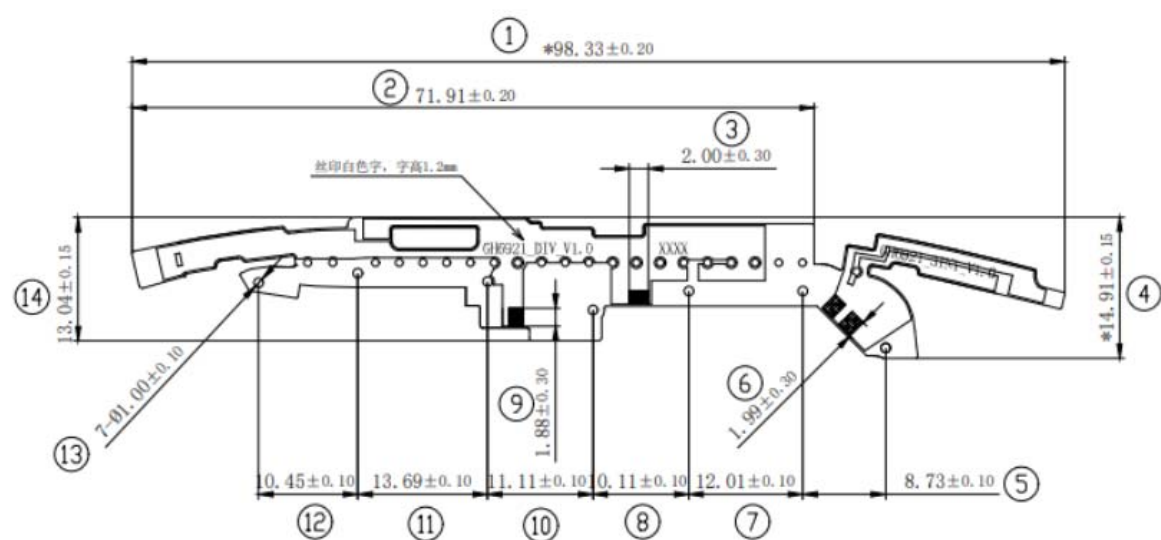
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3. Antenna Dimensions:



4. Testing Environment

Passive Test



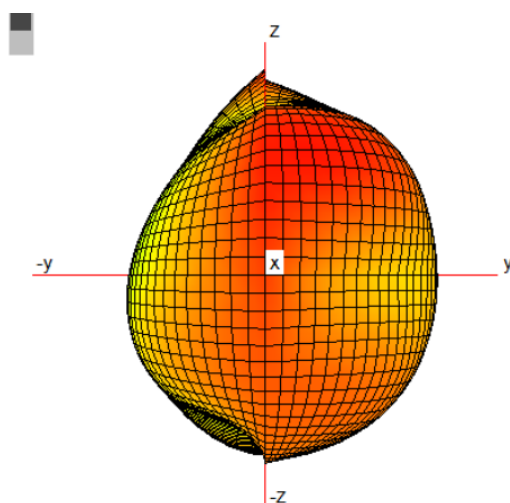
Active Test

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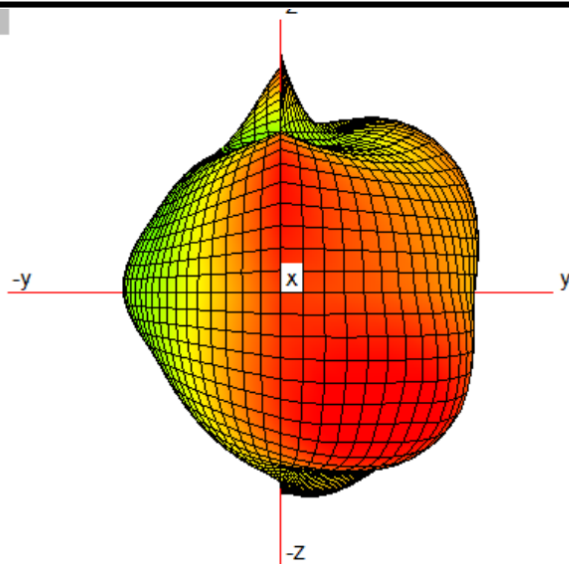
5. 3D Radiation Pattern

GPS [1575MHz]

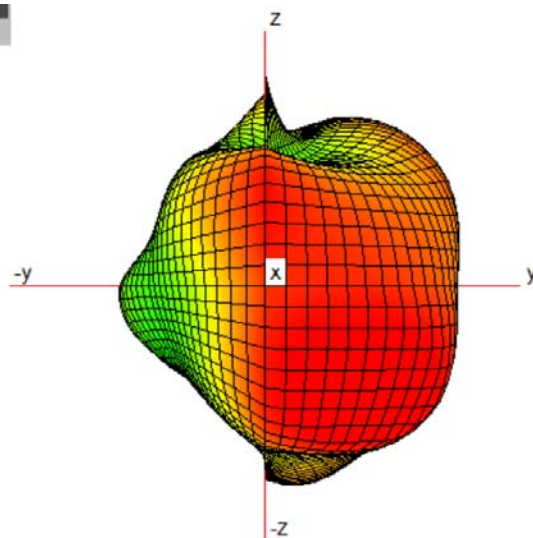


BT/WiFi 2.4GHz [2400MHz]

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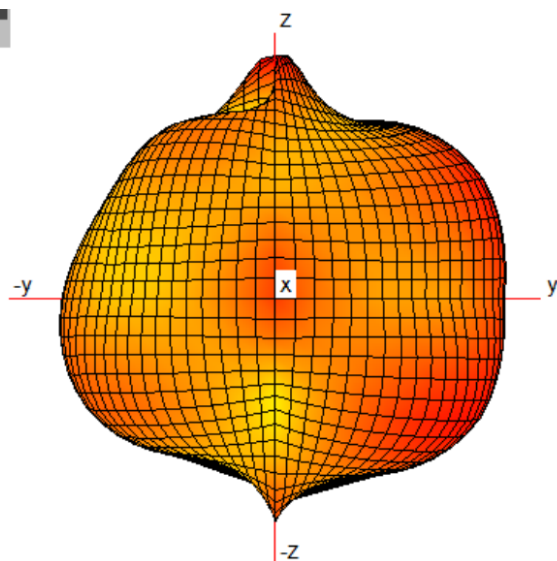


BT/WiFi 2.4GHz [2500MHz]

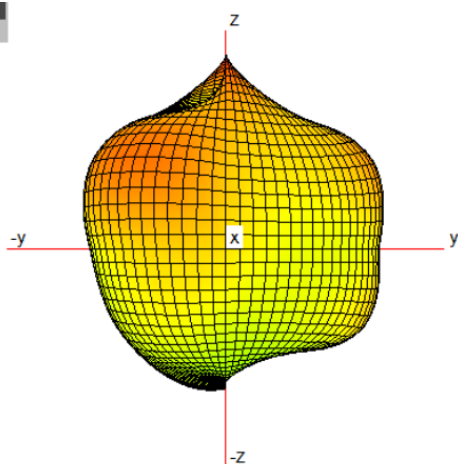


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X=±2 X.X=±0.1 X.XX=±0.05			
ANGLES=±			

WiFi 5GHz [5150MHz]

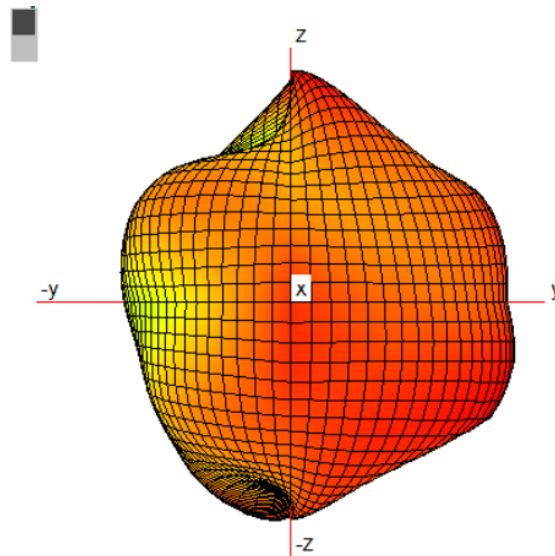


WiFi 5GHz [5500MHz]



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WiFi 5GHz [5850MHz]



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