WAG-F-LBG0-00-020 Specification

1. Explanation of part number :

WAG	_	F	_	LBG0	_	00	_	020
(1)		(2)		(3)		(4)		(5)

(1) Product Type：Wireless Antenna

(2) Material : FPC

(3) Frequency : 1550-1620Mhz , 2400-2500Mhz,5150-5850 Mhz

(4) Coaxial Cable Type : 00

(5) Suffix : 020

2. Electrical Specification :

2-1. Frequency Band:

Frequency Band	MHz
GBW	1550~162MHz, 2400~2500MHz,5150-5850MHz;

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DESIGNED BY： 吴振江	APPROVED BY： 徐克文		
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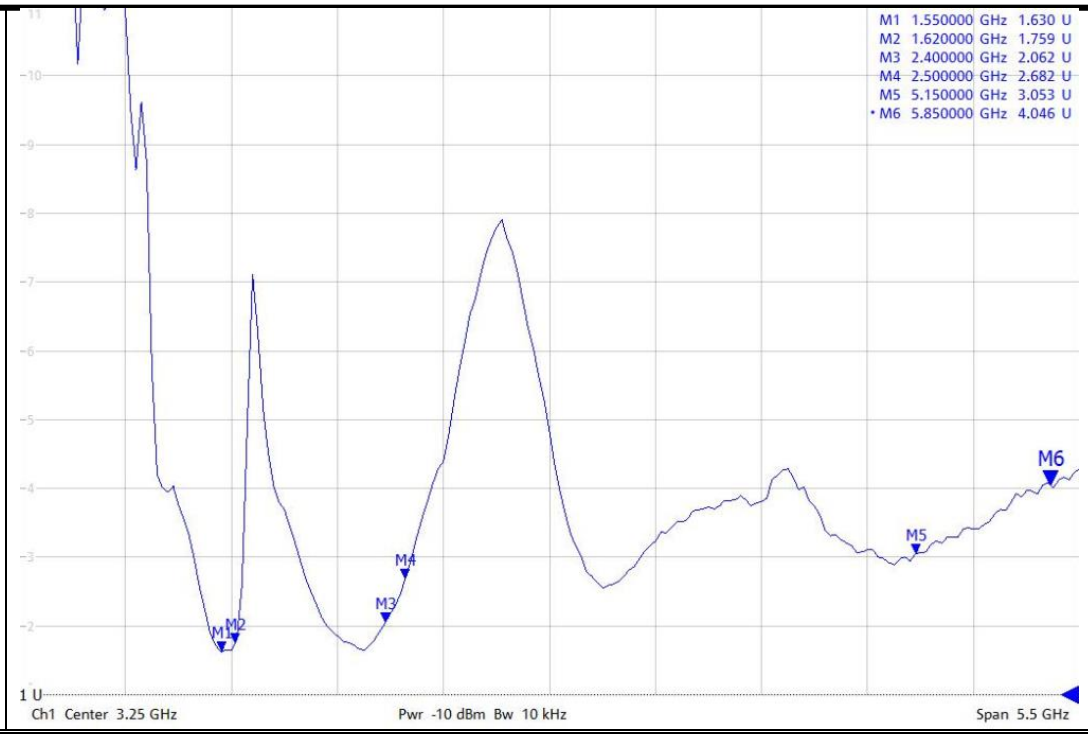
2-2. Impedance

50 ohm nominal

2-3 VSWR:

Frequency Band	1550	1620	2400	2500	5150	5850
2-3-1. Typical Value:	≦2.2	≦2.3	≦2.5	≦3.0	≦3.5	≦4.5
2-3-2Measuring Method	1. A 50Ωcoaxial 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.					

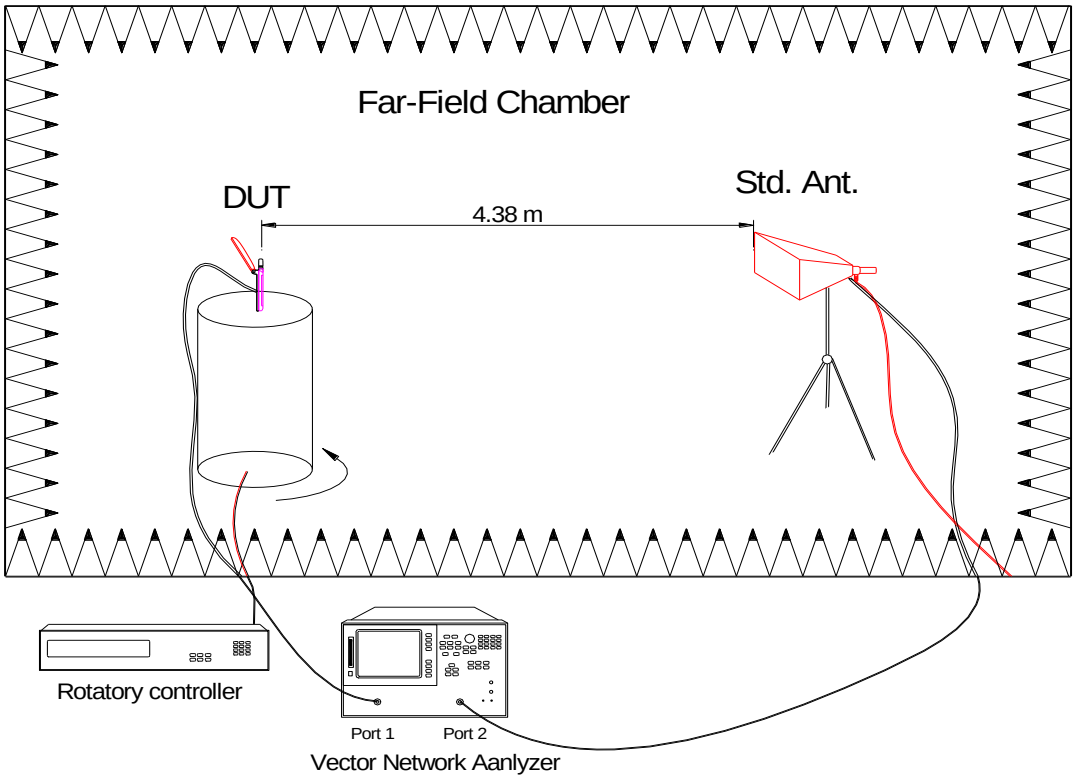
2-3-3Picture	

2-4. Gain and Efficiency

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)

2-4.3 Gain and Efficiency

Frequency (MHz)	Efficiency (dB)	Efficiency (%)
1550	-2.8	52.4
1555	-2.8	52.2
1560	-2.6	54.5
1565	-2.8	52.9
1570	-2.7	53.1
1575	-2.8	52.4
1580	-3.0	50.1
1585	-2.9	51.1
1590	-3.2	48.3
1595	-3.1	49.2
1600	-3.1	49.1
1605	-3.3	46.5
1610	-3.1	48.5
1615	-3.2	47.3
1620	-3.3	46.3
2350	-2.6	54.5
2360	-3.1	49.2
2370	-3.5	44.2
2380	-3.6	43.8
2390	-3.6	43.2
2400	-3.4	45.3
2410	-3.3	46.9
2420	-3.4	46.0
2430	-4.1	39.1
2440	-3.6	43.2
2450	-3.6	43.8
2460	-3.7	42.2
2470	-4.4	36.3
2480	-5.1	30.8
2490	-5.0	31.4
2500	-4.7	34.2
2510	-4.4	36.5
2520	-4.7	34.1
2530	-4.9	32.5
2540	-5.0	31.8
2550	-4.9	32.0

5000	-6.5	22.6
5050	-6.2	24.1
5100	-5.9	25.4
5150	-6.5	22.6
5200	-5.6	27.8
5250	-5.7	26.9
5300	-5.4	28.9
5350	-5.3	29.2
5400	-5.5	28.3
5450	-5.2	30.1
5500	-5.4	29.0
5550	-5.2	30.3
5600	-6.1	24.6
5650	-5.8	26.2
5700	-6.6	22.0
5750	-6.4	22.7
5800	-6.0	25.1
5850	-6.3	23.7
5900	-6.7	21.3
5950	-7.4	18.3

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ANGLES = ±　　HOLEDIA = ±

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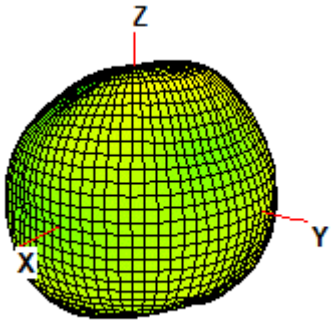
WiFi		GPS	
Band	Gain(dBi)	Band	Gain(dBi)
802.11b	1.7	GPS	1.3
802.11g	1.7		
802.11n	1.7		
802.11a	-0.6		

2-4.4 3D Field

1575MHz



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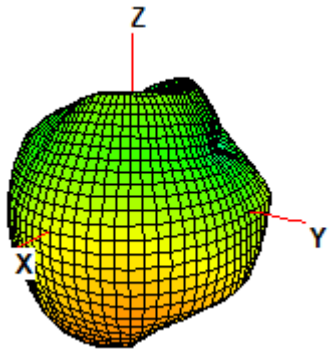
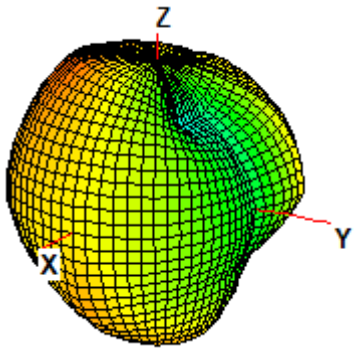
2450MHz



5500MHz



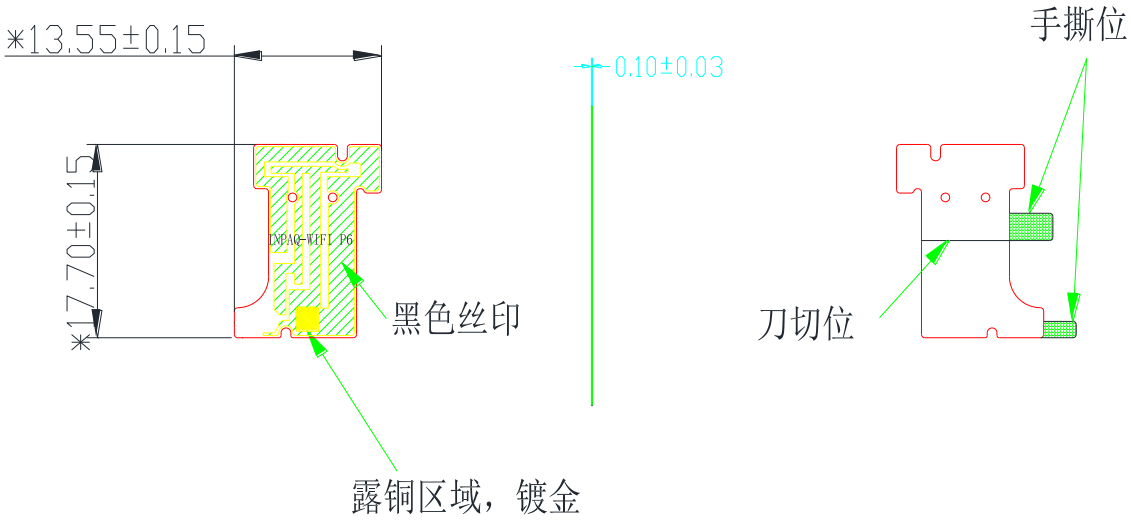
2-4.4 OTA

		SPEC	FS
802.11b	TRP	12	13.5
		12	14.3
		12	13.8
	TIS	-83	-83.2
		-83	-83.5
		-83	-84.0
802.11g	TRP	10	10.7
		10	10.3
		10	10.9

	TIS	-70	-71.2
		-70	-71.2
		-70	-71.5
802.11n	TRP	8	9.7
		8	9.4
		8	9.6
	TIS	-68	-69.6
		-68	-69.3
		-68	-69.8
802.11a	TRP	9	9.1
		9	9.2
		9	9.2
	TIS	-70	-70.7
		-70	-70.4
		-70	-70.1
GPS	TIS	-144	-145.7

PS: The antenna needs to be assembled on the whole machine to test the antenna performance.

3. Antenna Dimensions:(unit:mm)



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