品名: WAG-F-LBG0-00-032 Specification **History List**

版本 REV.	修訂者 EDITOR	修訂頁次 PAGE	修訂內容 ITEMS OF CHANGE	申請日期 DATE	生效日期 VALID DATE	ECN 編號 ECN NO.
P0	王婷	ALL	发行正式	2024/03/05	依 PLM 发行日期	N/A

WAG-F-LBG0-00-032 Specification

1. Explanation of part number :

WAG	_	F	_	LBG0	_	00	_	032
(1)		(2)		(3)		(4)		(5)

(1) Product Type: Wireless Antenna

(2) Material: FPCB

(3) Frequency : 1575.42MHz ,2400-2500MHz, 5150-5850MHz

(4) Coaxial Cable Type : no cable

(5) Suffix :032

2. Storage Condition:

Temperature	-40	to	+85℃
Humidity	20	to	65 %RH

Recommended storage condition：

Store in room condition as listed below: Temperature -20℃~+45ºC, Humidity 80% Max.

3. Operating Condition:

Temperature	-40	to	+85℃
Humidity	10	to	85 %RH

4. Electrical Specification :

Those specifications were specially defined for GH6573 model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

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

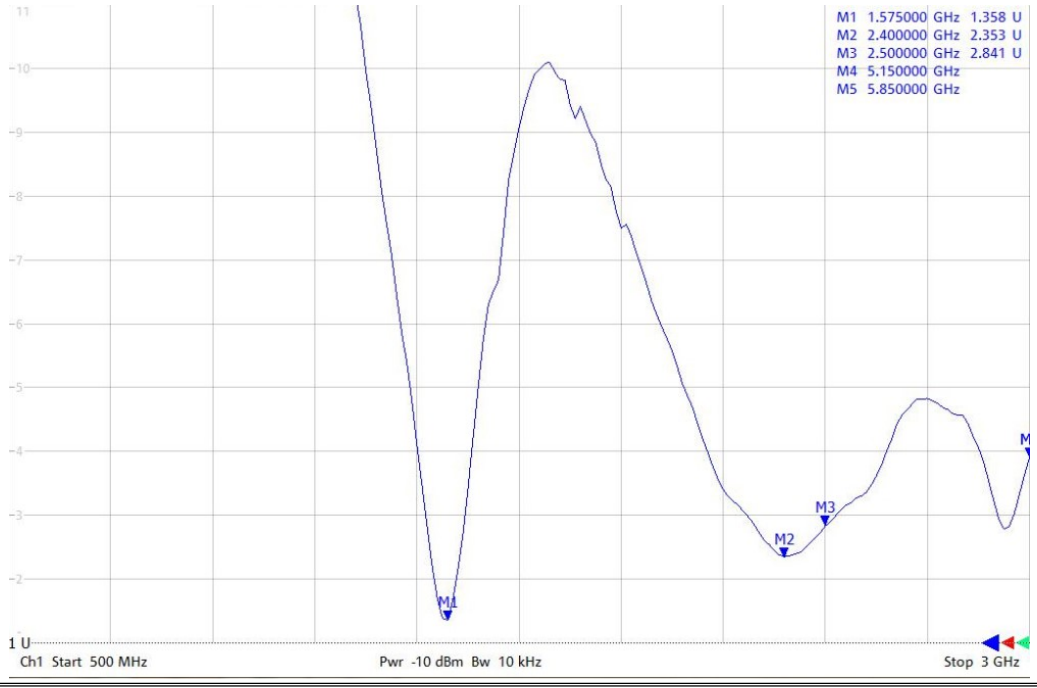
4-2. Impedance

50 ohm nominal

4-3. Matching

四合一天线版本：V1
四合一天线匹配：
GPS/WIFI2.4G:并10nh串0欧姆并0.3pf
WIFI5G:串1.0nh

4-4. VSWR

Frequency Band	1575	2400	2500	5150	5850		
4-4-1.Typical Value:	≦2.0	≦3.0	≦3.5	≦3.0	≦3.0		
4-4-2.Measuring Method	1. A 50Ωcoaxial cable is connected to the pcb 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.						
4-4-3.Picture							

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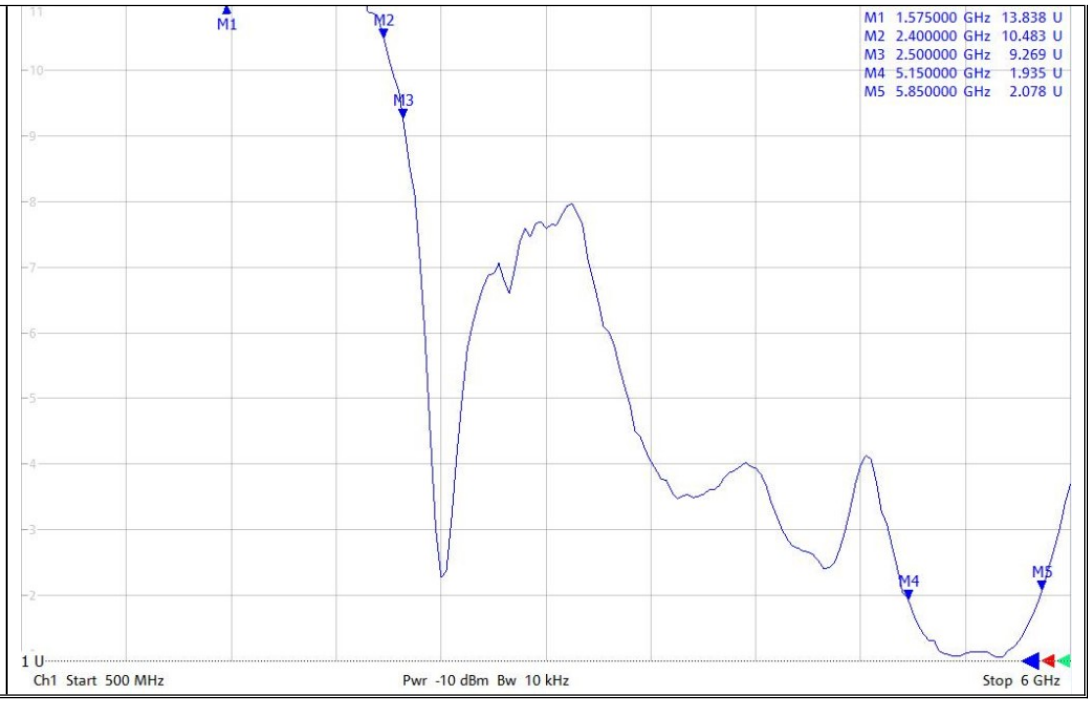

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4-5. Efficiency and Gain

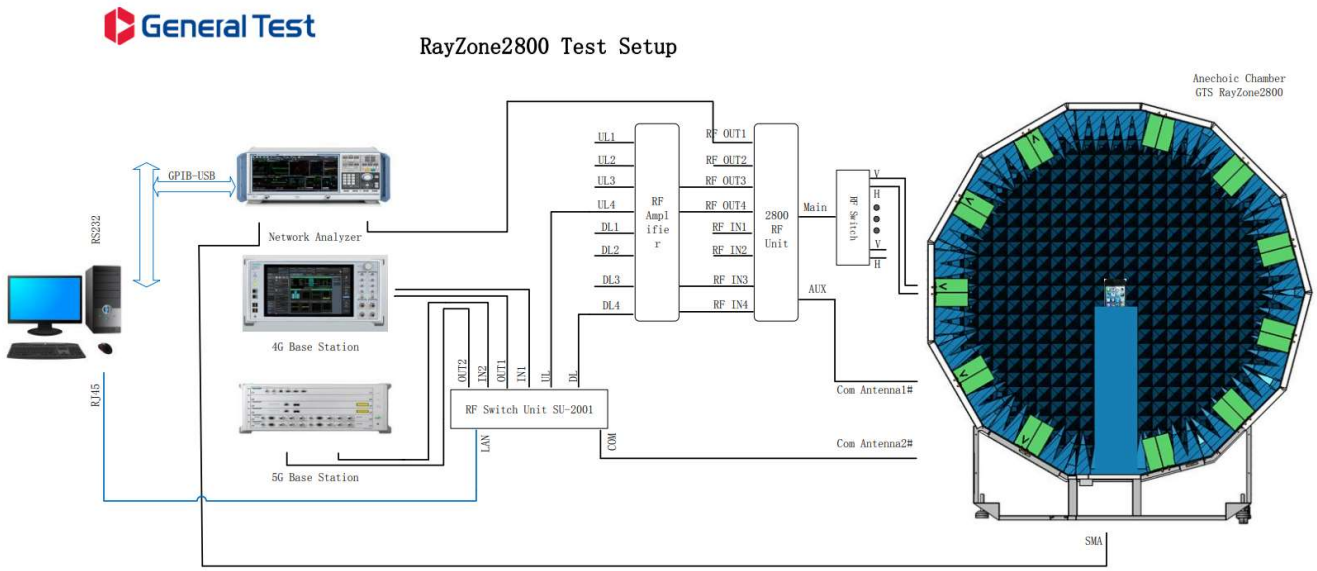
4-5.1 Measuring equipment

Measuring instrument：

Microwave chamber, Network analyzer, and standard antenna.

Instructions for microwave chamber：

This is a microwave chamber set up by our company in Suzhou，This microwave chamber belongs to a set of near-field measurement system. The size of the chamber is 2.95M * 3M * 3M.



The microware chamber, shown above, using a unique multi-probe technique，The aim is to reduce the measurement time of the whole measurement system. The measuring system use multi-probe array instead of single probe to scan the measured surface of the antenna under test, a single probe has the capability of measuring orthogonal polarization amplitude and phase, it also has a wide frequency range, the corresponding multi-probe array is switched quickly by electronic switch, greatly improved the measurement efficiency.

The probe model：MA186960A(400MHz～7.5GHz) . Because of its capability of broadband frequency and the orthogonal polarization function, the number of probes needed to be equipped with the system is reduced; The small size of the probe reduces the coupling between the probes, make it is possible to insert probes of other frequency bands between probes, then a single system can support a wider frequency range.

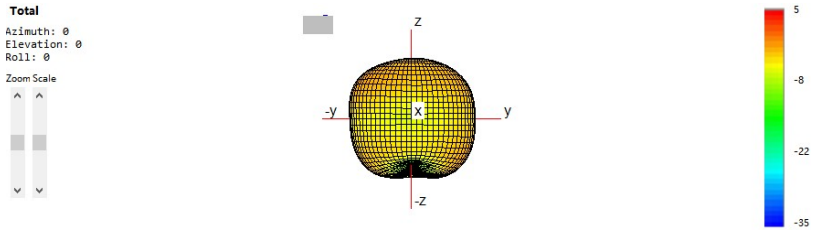
4-5.2 Efficiency and Gain

	GPS/WIFI2.4G		
	FS		
Frequency (MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
1570	-4.6	34.7	-1.6
1571	-4.6	34.7	-1.6
1572	-4.6	34.7	-1.6
1573	-4.6	34.6	-1.6
1574	-4.6	34.6	-1.6
1575	-4.6	34.5	-1.6
1575.42	-4.6	34.5	-1.6
1576	-4.6	34.6	-1.6
1577	-4.6	34.7	-1.6
1578	-4.6	34.7	-1.6
1579	-4.6	34.8	-1.6
1580	-4.6	34.9	-1.6
2400	-4.1	39.2	0.1
2410	-3.9	40.4	0.1
2420	-4.3	36.8	-0.4
2430	-4.5	35.3	-0.7
2440	-4.4	36.2	-0.7
2450	-4.6	34.8	-1.0
2460	-4.6	34.7	-1.0
2470	-4.6	34.3	-1.0
2480	-4.8	32.8	-1.3
2490	-4.9	32.4	-1.3
2500	-5.0	31.9	-1.5

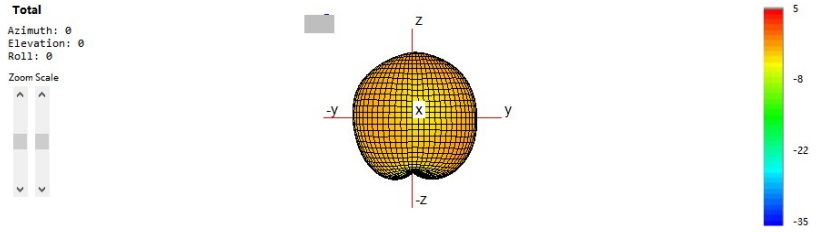
	WIFI5G		
	FS		
Frequency (MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
5150	-5.5	28.5	-1.0
5200	-5.0	31.6	-0.2
5250	-4.8	33.2	0.3
5300	-4.7	33.7	0.4
5350	-4.7	33.8	0.3
5400	-4.9	32.0	-0.8
5450	-5.1	30.6	-0.7
5500	-5.6	27.6	-1.3
5550	-5.2	30.5	-1.0
5600	-5.3	29.4	-0.5
5650	-5.5	28.0	0.0
5700	-5.4	29.0	0.2
5750	-5.2	30.1	0.5
5800	-4.9	32.6	0.7
5850	-5.0	31.9	0.4

5. Antenna 3D Radiation Pattern:

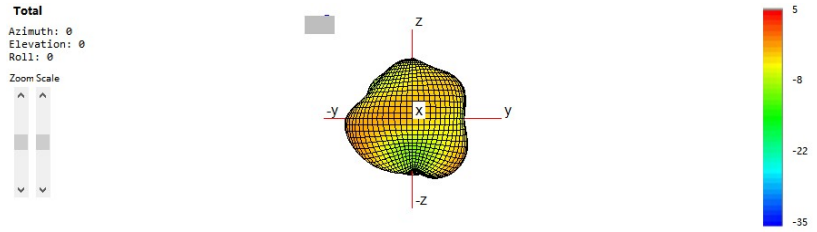
-GPS



-WIFI 2.4G



-WIFI 5G



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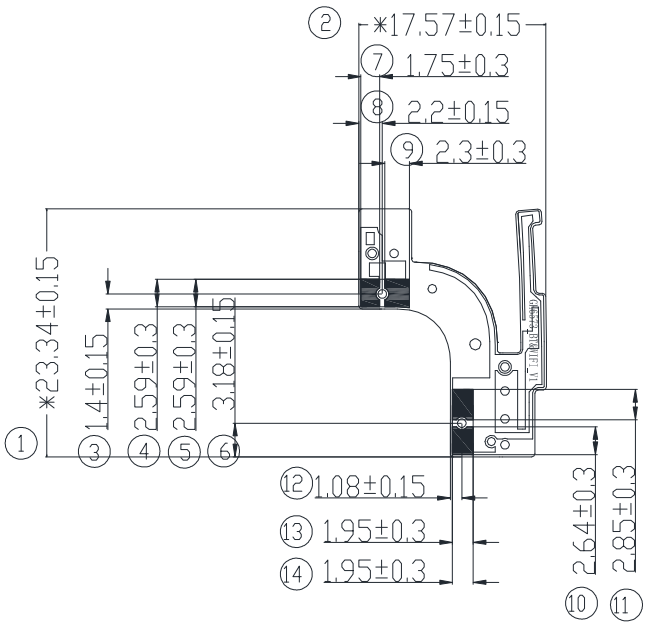
6. Mechanical Specification:

正面



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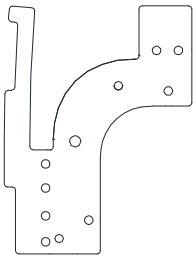

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