

[illegible]

# WAG-F-LAG0-00-069 Specification

## 1. Explanation of part number :

WAG - F - LAG0 - 00 - 069  
(1) (2) (3) (4) (5)

(1) Product Type : Wireless Antenna

(2) Material: FPC

(3) Frequency : 1575.42/2400~2500 MHz

(4) Coaxial Cable Type : 00

(5) Suffix : 069

## 2. Storage Condition:

Temperature -40 to +85°C  
Humidity 20 to 65 %RH

Recommended storage condition :

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

## 3. Operating Condition:

Temperature -40 to +85°C  
Humidity 10 to 85 %RH

## 4. Electrical Specification :

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

### 4-1. Frequency Band:

Frequency Band	MHz
WBG	1575.42/2400~2500 MHz

### 4-2. Impedance

50 hm nominal

### 4-3. Matching circuit

None

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±



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INPAQ TECHNOLOGY CO., LTD.

SCALE :

UNIT : mm

DRAWN BY : Eason

CHECKED BY : 张冬冬

DESIGNED BY : Eason

APPROVED BY : 张冬冬

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#### 4-4. VSWR

Frequency Band	1575.42MHz	2400 MHz	2500 MHz
4-4-1.Typical Value:	$\leq 3.0$	$\leq 3.0$	$\leq 3.0$
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	<p>Legend:</p> <ul style="list-style-type: none"> <li>1 1.5754200 GHZ 1.2411</li> <li>2 2.4000000 GHZ 1.6784</li> <li>&gt;3 2.5000000 GHZ 1.3534</li> </ul>		

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## 4-5. Efficiency and Gain

### 4-5.1 Measuring equipment

#### Measuring instrument:

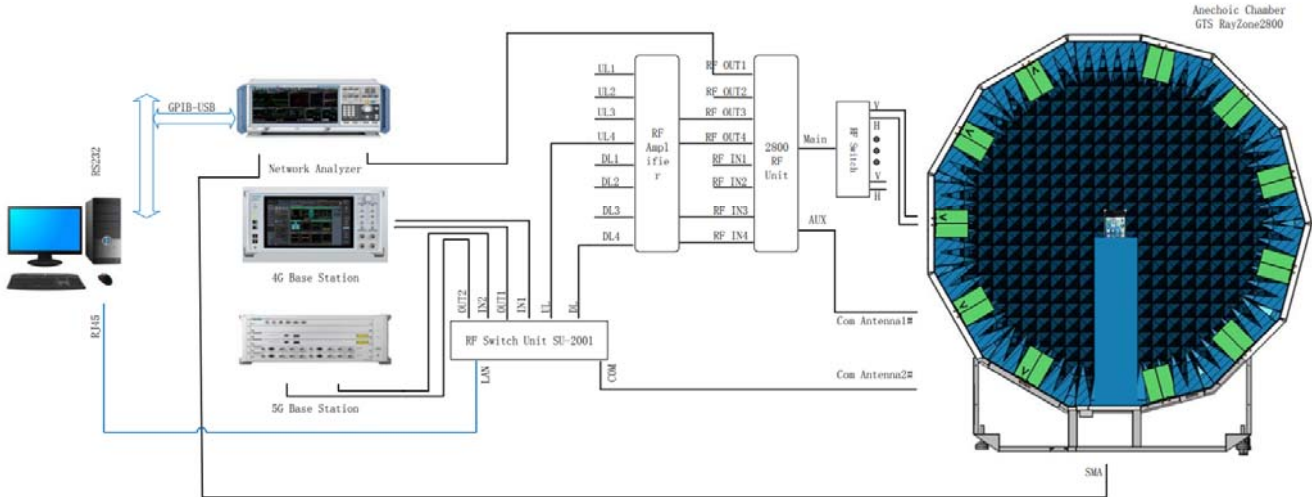
Microwave chamber, Network analyzer, and standard antenna.

#### 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.



RayZone2800 Test Setup



The microwave 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.

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#### 4-5.2 Efficiency and Gain

Fre	Gain(dBi)	Effi(db)	Effi(%)
1560	0.59	-5.87	25.89
1570	0.40	-6.05	24.83
1580	0.42	-5.87	25.86
1590	0.31	-5.77	26.51
1600	0.15	-5.80	26.28
1610	0.35	-5.68	27.06
1620	0.66	-5.49	28.25
2400	2.67	-4.48	35.65
2420	2.49	-4.65	34.27
2440	2.80	-4.55	35.09
2460	2.27	-4.73	33.62
2480	1.86	-5.02	31.46
2500	2.24	-4.94	32.04

#### 4-5.3 OTA And Data 3D

GPS.WIFI-2.4G				
802.11b	6Mbps	TRP	1	12.71
			7	13.08
			13	11.58
	54Mbps	TIS	1	-79.08
			7	-81.09
			13	-79.68
GPS		CNO	TIS	UHS
		38.7	-151.6	-147.8

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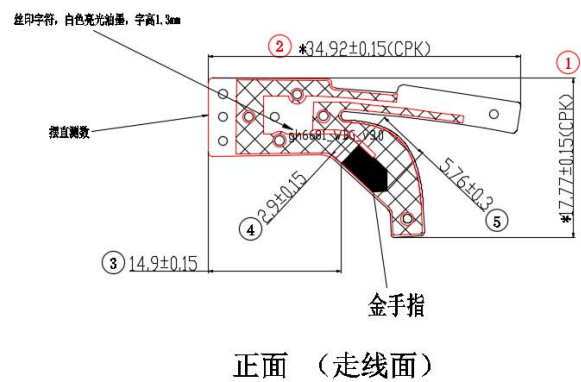
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5.Antenna Dimensions:(unit:mm)



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