

品名:<u>WAG-F-LAG0-00-069 工规</u>

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 编号 ECN NO |
|------------|---------------|--------------|-------------------------|--------------|--------------------|------------------|
| AO | Eason | ALL | 正式发行 | 2024/05/08 | 2024/05/08 | N/A |
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WAG-F-LAG0-00-069 Specification

1. Explanation of part number :

$$\frac{\text{WAG}}{\text{(1)}} - \frac{\text{F}}{\text{(2)}} - \frac{\text{LAG0}}{\text{(3)}} - \frac{00}{\text{(4)}} - \frac{069}{\text{(5)}}$$

- (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 $+85^{\circ}$ 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

4-4. **VSWR**

| | | 1 | | | |
|---|---------------------------------------|---|--------------------------------------|---------|----------|
| UNLESS OTHER SPECIFIED | UNLESS OTHER SPECIFIED TOLERANCES ON: | | / | — | - |
| $X=\pm$ $X.X=\pm0.15$ | $5 X.XX = \pm 0.15$ | | 佳邦科技股份有限 | 公司 |] |
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| Frequency Band | 1575.42MHz | 2400 MHz | 2500 MHz | |
|-------------------------|--|-----------------|----------|--|
| 4-4-1.Typical Value: | ≦ 3.0 | ≦ 3.0 | ≦ 3.0 | |
| 4-4-2.Measuring | A 50Ωcoaxial cable is connected to the pcb antenna. Then this ca connected to a network analyzer to measure the VSWR. Keeping this jig away from metal at least 20 cm. | | | |
| 4-4-3.Picture | 11.00 1 1.5754200 GHz 1.2411 2 2.4000000 GHz 1.6784 >3 2.5000000 GHz 1.3534 10.00 8.000 7.000 5.000 4.000 1.000 | | | |

4-5. Efficiency and Gain

4-5.1 Measuring equipment

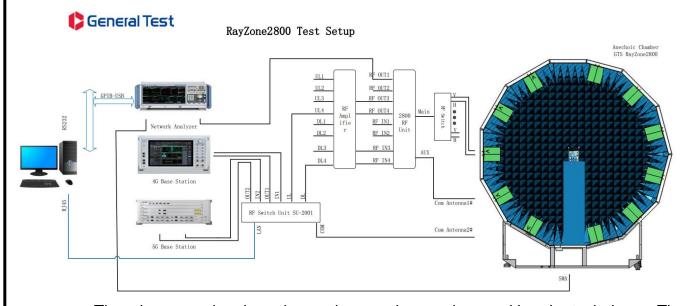
Measuring instrument:

Microwave chamber. Network analyzer, and standard antenna

| Microwave chamber, Network analyzer, and Standard antenna. | | | | | |
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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 \sim 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

| 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 |

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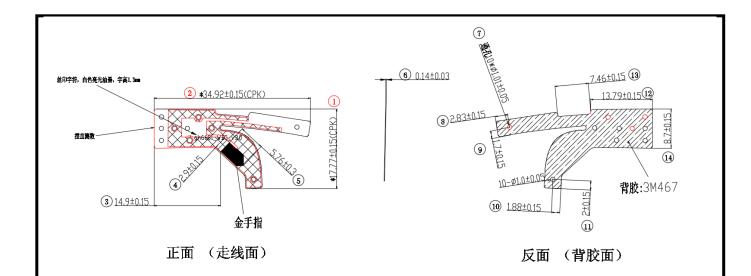
| 1590 | 0.31 | -5. 77 | 26. 51 |
|------|-------|--------|--------|
| 1600 | 0. 15 | -5. 80 | 26. 28 |
| 1610 | 0.35 | -5. 68 | 27. 06 |
| 1620 | 0.66 | -5. 49 | 28. 25 |
| 2400 | 2.67 | -4.48 | 35. 65 |
| 2420 | 2.49 | -4.65 | 34. 27 |
| 2440 | 2.80 | -4.55 | 35. 09 |
| 2460 | 2. 27 | -4.73 | 33. 62 |
| 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 | | | | | | |
|---------------|-----------------|------------|--------|--------|--|--|
| | | | 1 | 12.71 | | |
| | 6Mbps 54Mbps | TRP | 7 | 13.08 | | |
| 902.44h | | | 13 | 11.58 | | |
| 802.11b | | | 1 | -79.08 | | |
| | | 54Mbps TIS | 7 | -81.09 | | |
| | | | 13 | -79.68 | | |
| GPS | | CNO | TIS | UHIS | | |
| | | 38.7 | -151.6 | -147.8 | | |

5.Antenna Dimensions:(unit:mm)

| | HIFIED TOLERANCES ON: | | | | |
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| ANGLES=± | HOLEDIA=± | | | | |
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