

WA-F-LB-03-113 Specification

1. Explanation of part number :

WA - F - LB - 03 - 113
(1) (2) (3) (4) (5)

(1) Product Type : Wireless Antenna

(2) Material: FPCB+CABLE

(3) Frequency : 2400MHz-2500MHz&5100MHz-5900MHz

(4) Coaxial Cable Type : 03

(5) Suffix :113

2. Storage Condition:

Temperature -40 to +70 °C
Humidity 65±20 % RH

3. Operating Condition:

Temperature -40 to +70 °C
Humidity 65±20 % RH

4. Electrical Specification :

Those specifications were specially defined for 佳德 GC NEXT WiFi model, and all characteristics were measured under the model's handset testing jig .

4-1. Frequency Band:

| Frequency Band | MHz |
|----------------|---------------------------------|
| WiFi | 2400MHz-2500MHz&5100MHz-5900MHz |

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±

SCALE : UNIT : mm

DRAWN BY : 靳静 CHECKED BY : 赵付辉

DESIGNED BY : 余晓晖 APPROVED BY : 赵付辉

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4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

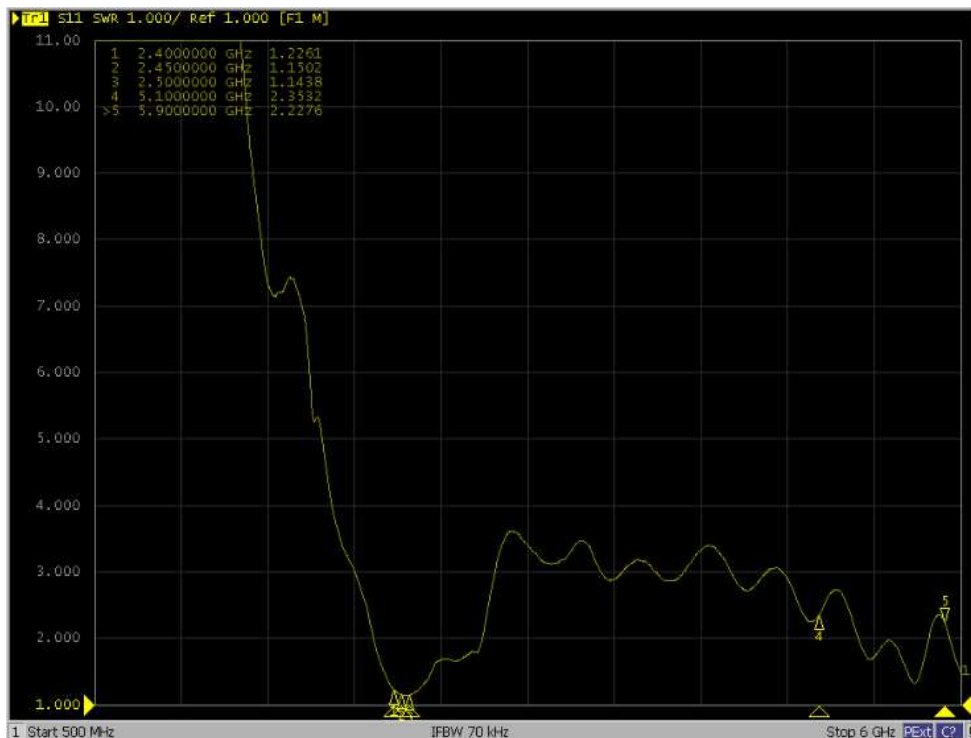
4-4. VSWR

4-4.1 Measuring Method

- 1.A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR
- 2.Keeping this jig away from metal at least 20cm

4-4.2 Measurement frequency points and VSWR value


| Frequency (Unit MHz) | 2400 | 2450 | 2500 | 5100 | 5900 |
|----------------------|------|------|------|------|------|
| VSWR | ≤2.0 | ≤2.0 | ≤2.0 | ≤3.0 | ≤3.0 |
| VSWR | 1.22 | 1.15 | 1.14 | 2.35 | 2.22 |



4-5. Efficiency and Gain

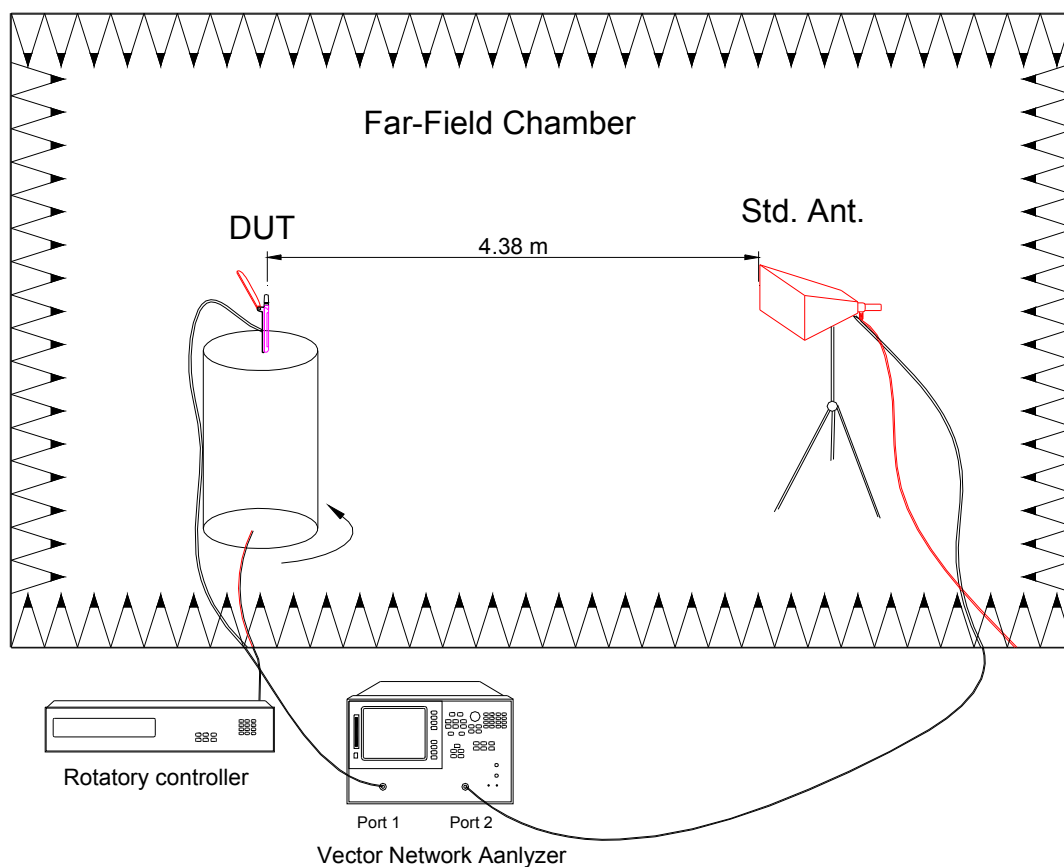
4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig

| | | | |
|--|-------------------|---|-----------------|
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| SCALE : | UNIT : mm | | |
| DRAWN BY : 靳静 | CHECKED BY : 赵付辉 | | |
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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

4-5.2 Chamber definition



1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet 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)

4-5.3 Efficiency and Gain

Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows PeakGain and AverageGain.

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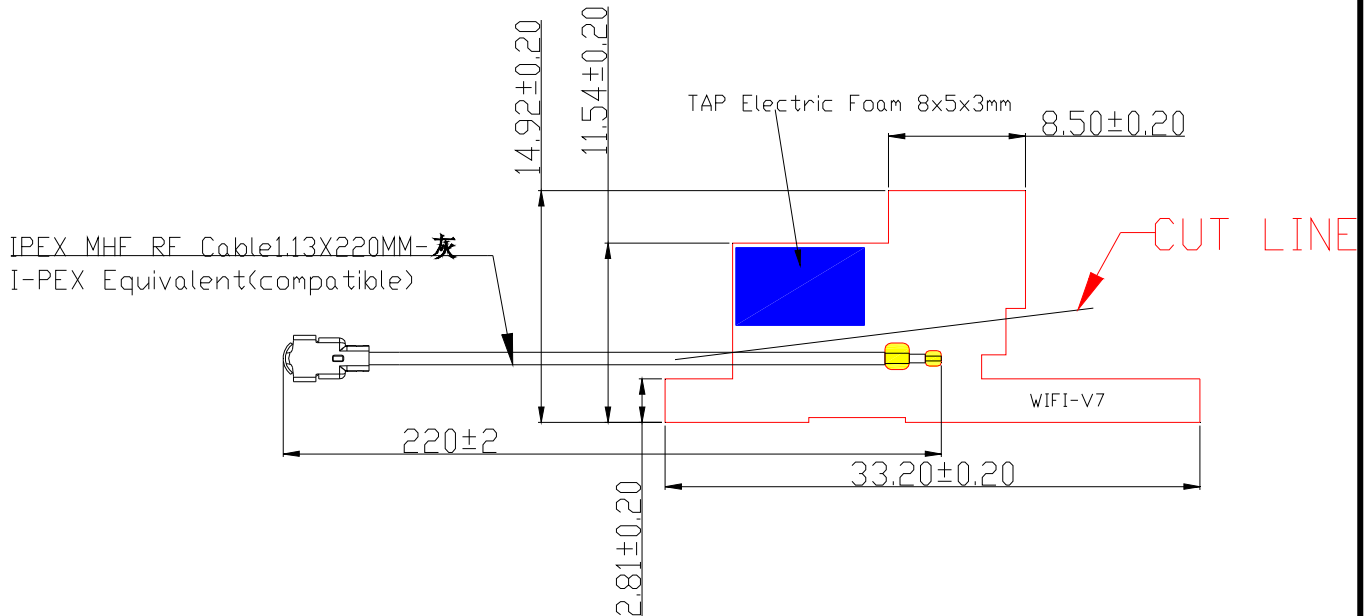
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| | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|
| Frequency (MHz) | 2400 | 2450 | 2500 | 5150 | 5450 | 5850 |
| Efficiency (%) | 44.87 | 47.64 | 43.55 | 32.12 | 27.49 | 26.53 |
| Gain (dBi) | 2.87 | 3.13 | 0.03 | 0.75 | 0.93 | 0.32 |

5. Mechanical Specification:

5-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 5-1-1



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ANGLES=± HOLEDIA=±

SCALE :

UNIT : mm

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