

# WA-P-LA-03-297 Specification

## 1. Explanation of part number :

WA    -    P    -    LA    -    03    -    297  
 (1)        (2)        (3)        (4)        (5)

(1) Product Type : Wireless Antenna

(2) Material: PCB+CABLE

(3) Frequency : 2400MHz-2500MHz

(4) Coaxial Cable Type : 03

(5) Suffix :297

## 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 通力 Partybox model, and all characteristics were measured under the model's handset testing.*

### 4-1. Frequency Band:

Frequency Band	MHz
BT	2400MHz-2500MHz

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ±                      X.X = ±                      X.XX = ±

ANGLES = ±                      HOLEDIA = ±

SCALE :                      UNIT : mm

DRAWN BY : 骆拓夫                      CHECKED BY : 赵付辉

DESIGNED BY : 熊勇                      APPROVED BY : 赵付辉

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## 4-2. Impedance

50 ohm nominal

## 4-3. Matching circuit

None

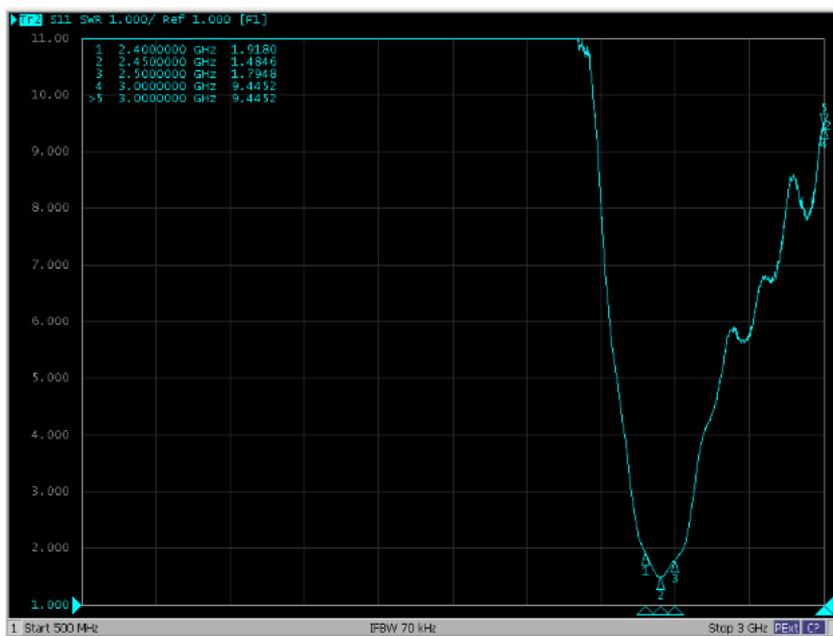
## 4-4. VSWR

### 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
VSWR	≤2.5	≤2.5	≤2.5
VSWR	1.91	1.48	1.79



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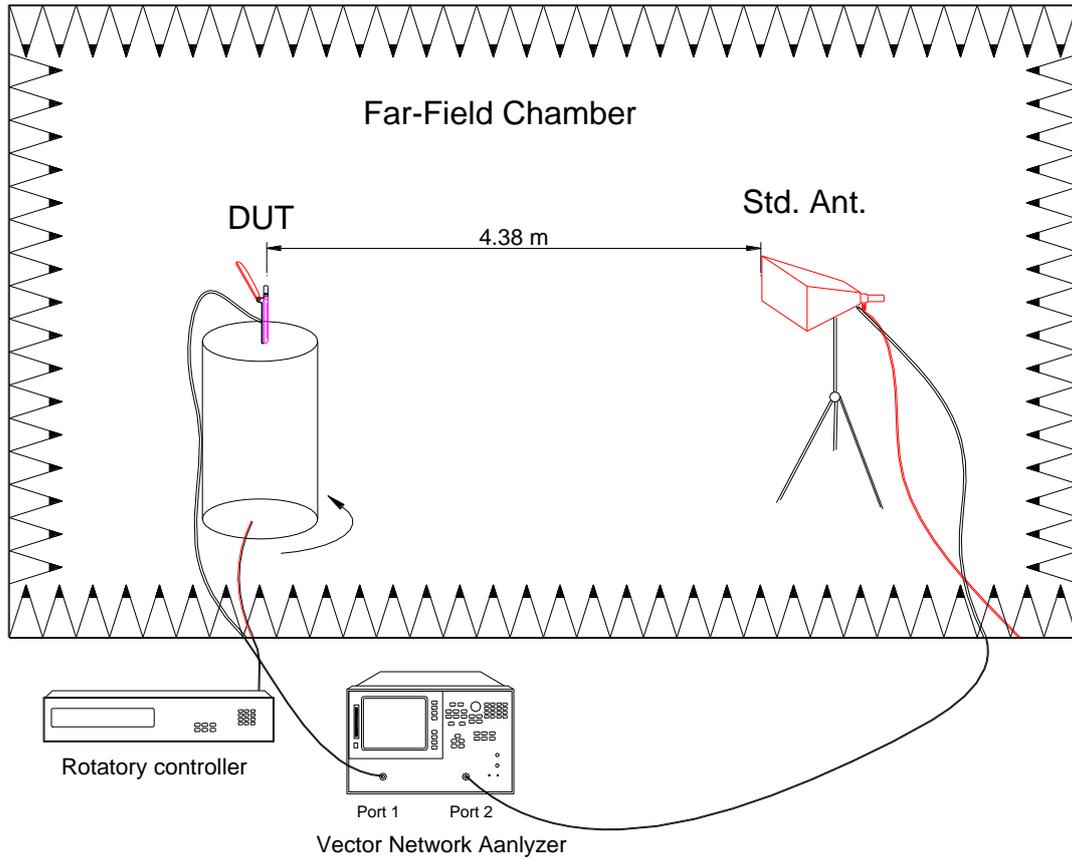
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## 4-5. Efficiency and Gain

### 4-5.1 Measure method

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

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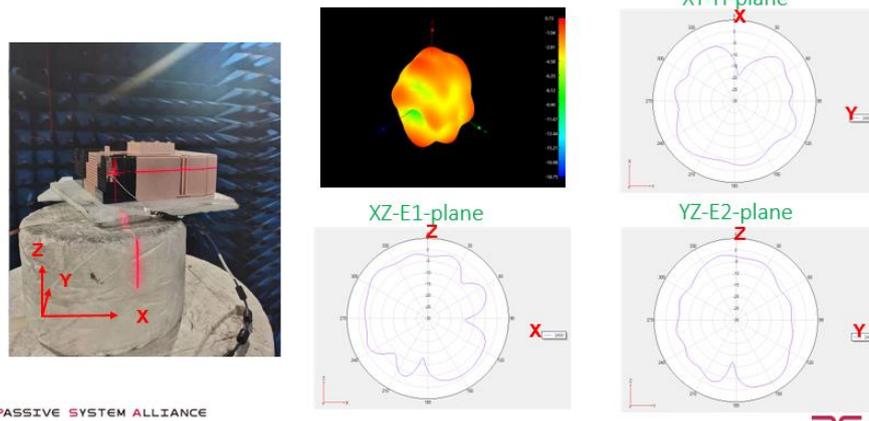
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### 4-5.3 Efficiency and Gain

Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows Peak Gain and Average Gain.

Frequency (MHz)	2400	2450	2500
Efficiency (%)	43.59	50.7	46.99
Peak Gain (dBi)	-0.05	0.73	-0.63

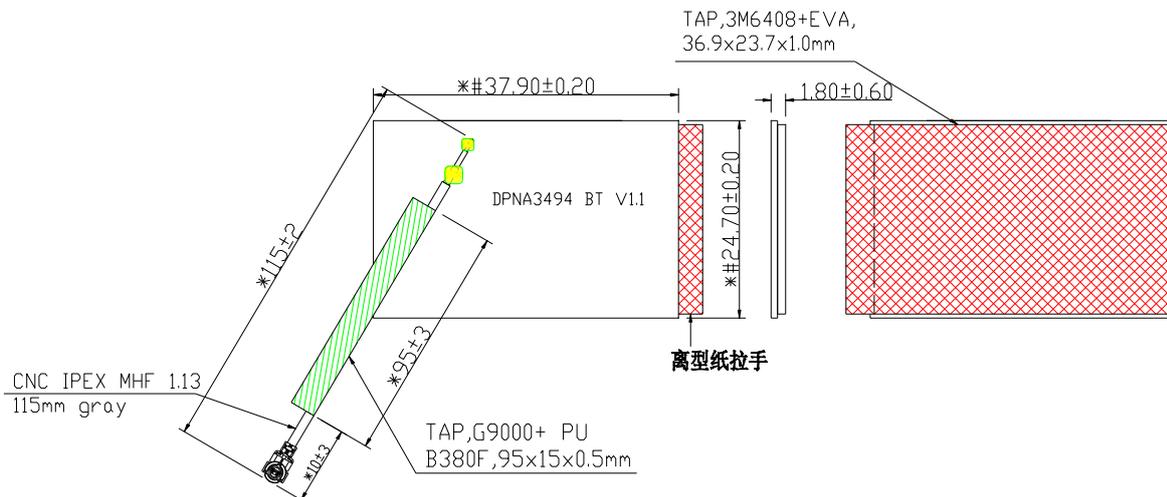
### 2/3D Radiation Pattern Results-2450MHz



## 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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