## WA-M-LA-03-045 Specification

## 1. Explanation of part number:

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  $\frac{M}{(2)}$   $\frac{LA}{(3)}$   $\frac{03}{(4)}$   $\frac{045}{(5)}$ 

- (1) Product Type: Wire Antenna
- (2) Material: Metal + Cable
- (3) Frequency:2400-2500MHz
- (4) Coaxial Cable Type:03
- (5) Gain (Peak) :2.85dBi
- (6) Suffix:045

### 2. Storage Condition:

Temperature -40 to +70 °C Humidity  $65\pm20$  % RH

## 3. Operating Condition:

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

### 4. Electrical Specification:

Those specifications were specially defined for 迪芬尼 SVS PB-17 model, and all characteristics were measured under the model's handset testing.

### 4-1. Frequency Band:

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Frequency Band	MHz							
ВТ	2400-2500MHz							
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## 4-2. Impedance

50 ohm nominal

### 4-3. Matching circuit

None

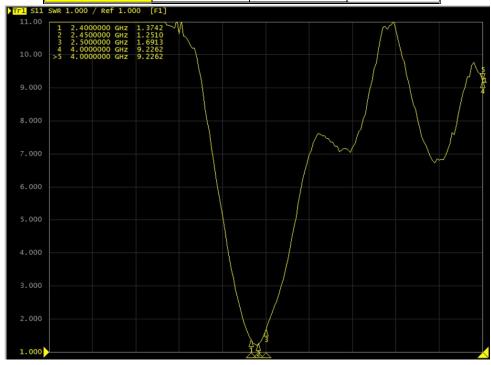
## 4-4. VSWR

#### 4-4.1 Measuring Method

- 1.A  $50\,\Omega$  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	1.37	1.25	1.69



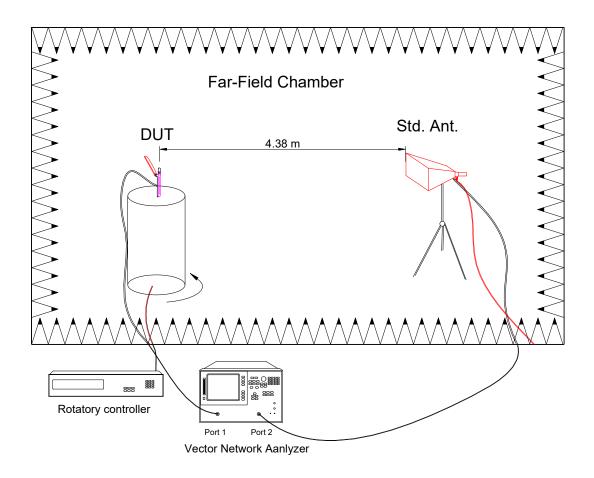
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### 4-5. Efficiency and Gain

#### 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 quite room region is 40cmx40cmx40cm at the center of rotator
- 3. The distance between DUT and standard antenna is 4.38 m
- Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

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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.

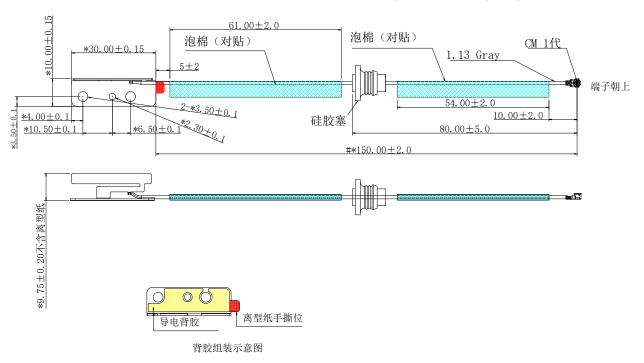
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Frequency (MHz)	2400	2450	2470	2500
Efficiency (%)	54.98	61.02	59.12	52.94
Peak Gain (dBi)	2.44	2.67	2.85	2.35

## 5. Mechanical Specification:

### 5-1. Mechanical Configuration (Unit: mm)

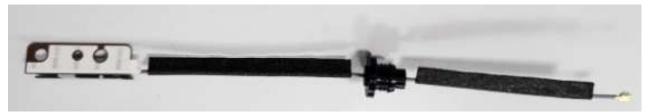
The appearance of the antenna is according to drawing Figure 5-1-1



# 6. Physical illustration

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