



客戶名稱：新能达
CUSTOMER

Document No.: ENS000198930
Approval Sheet Rev.: A0
Spec. Rev.: A0

承認書

APPROVAL SHEET

產品品名/Product Model No. : WA-F-LA-03-309

客戶料號/Customer No. : _____

專案名稱/Project Name: PP02

發行日期/ Issue Date : 2024/08/15

承認日期/ Approved Date : 2024/08/15

Approved by customer: (signing or stamping here)



INPAQ WEB

WA-F-LA-03-309 Specification

1. Explanation of part number:

WA - F - LA - 03 - 309
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: FPC+ Cable

(3) Frequency:2400-2500MHz

(4) Coaxial Cable Type:03

(5) Suffix :309

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 新能安 PP02 BT model, and all characteristics were measured under the model's handset testing.

4-1. Frequency Band:

Frequency Band	MHz
BT	2400-2500MHz

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ± X.X = ± X.XX = ±

ANGLES = ± HOLEDIA = ±

SCALE : UNIT : mm

DRAWN BY : 曹云中 CHECKED BY : 赵付辉

DESIGNED BY : 牛永林 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

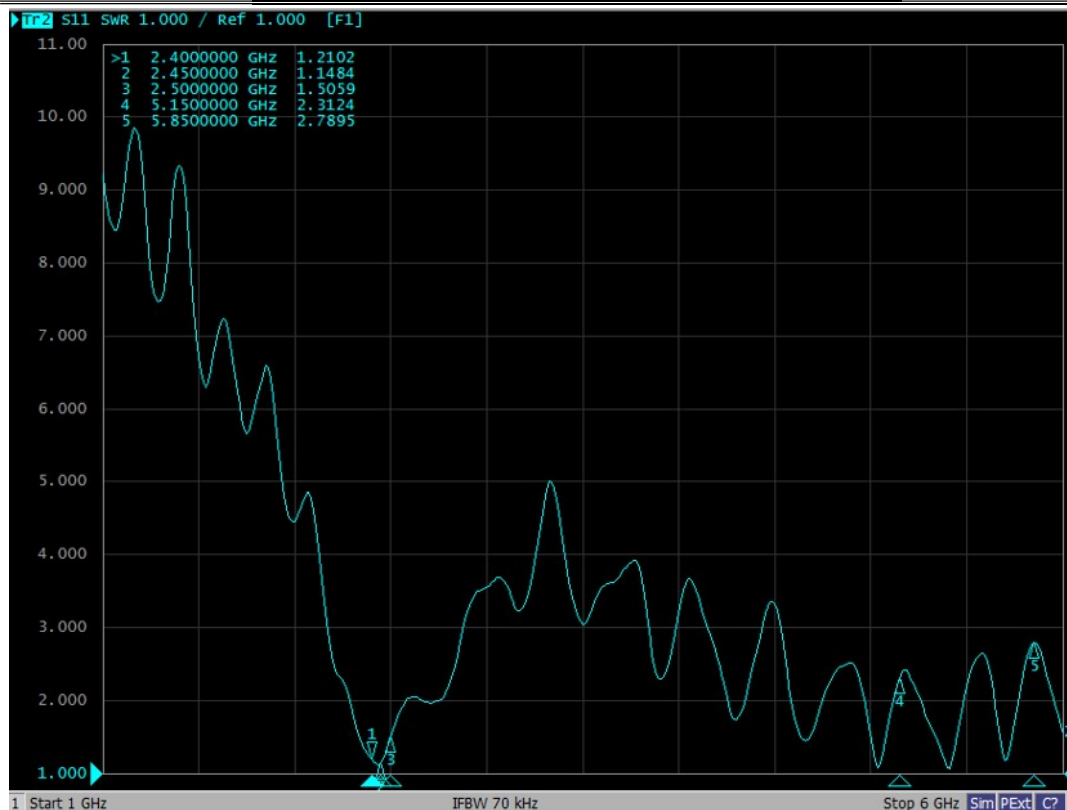
1.A 50Ω coaxial cable is connected to the antenna. Then this cable is connected

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	BT	1.21	1.14	1.50



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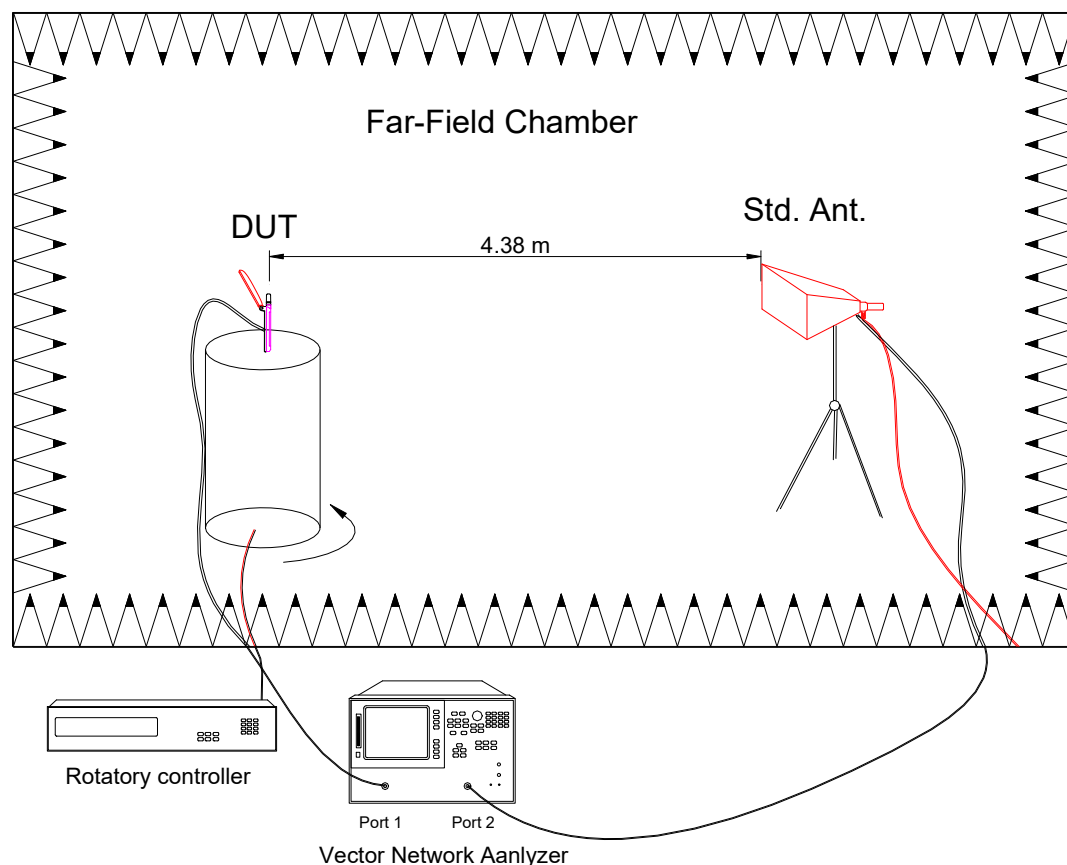
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4-5. Efficiency and Gain

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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SCALE :

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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.

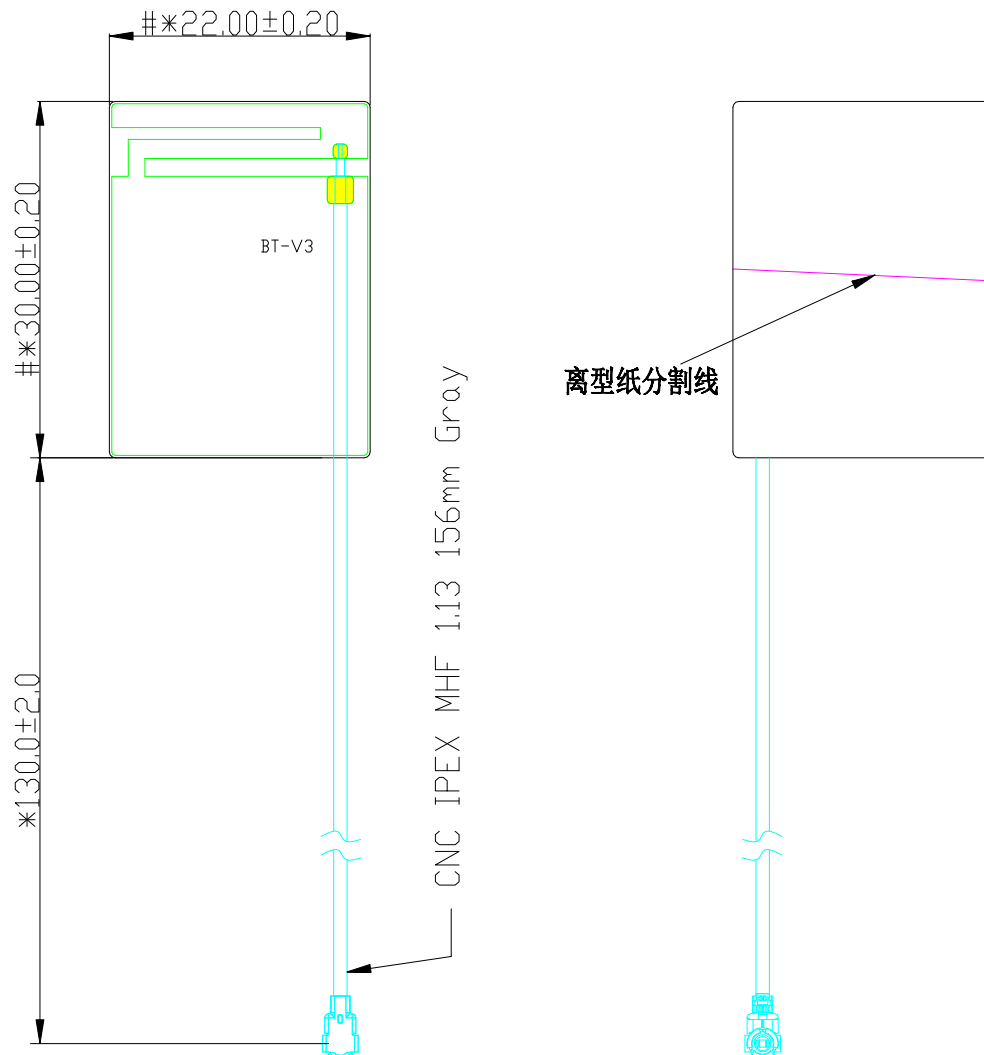
➤ BT

Frequency (MHz)	2400	2450	2500
Efficiency (%)	57.02	60.53	54.45
Peak Gain (dBi)	3.28	3.74	3.11

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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