佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

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**

4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

4-4. VSWR

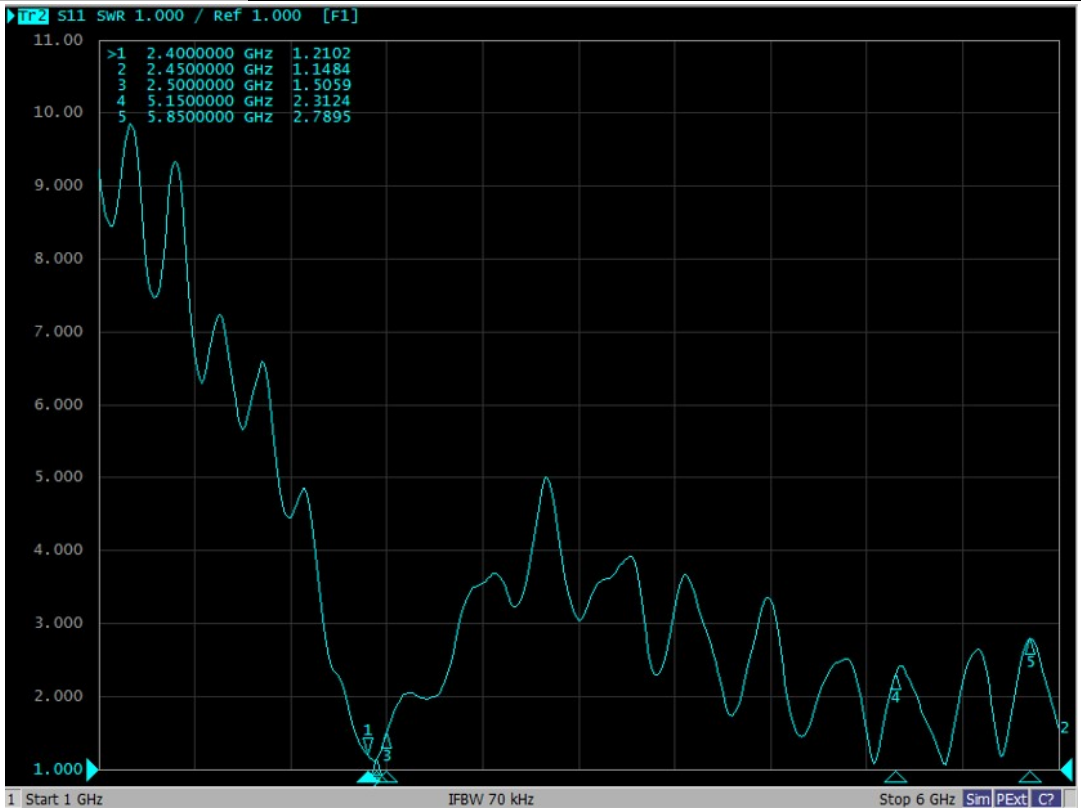
4-4.1 Measuring Method

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**

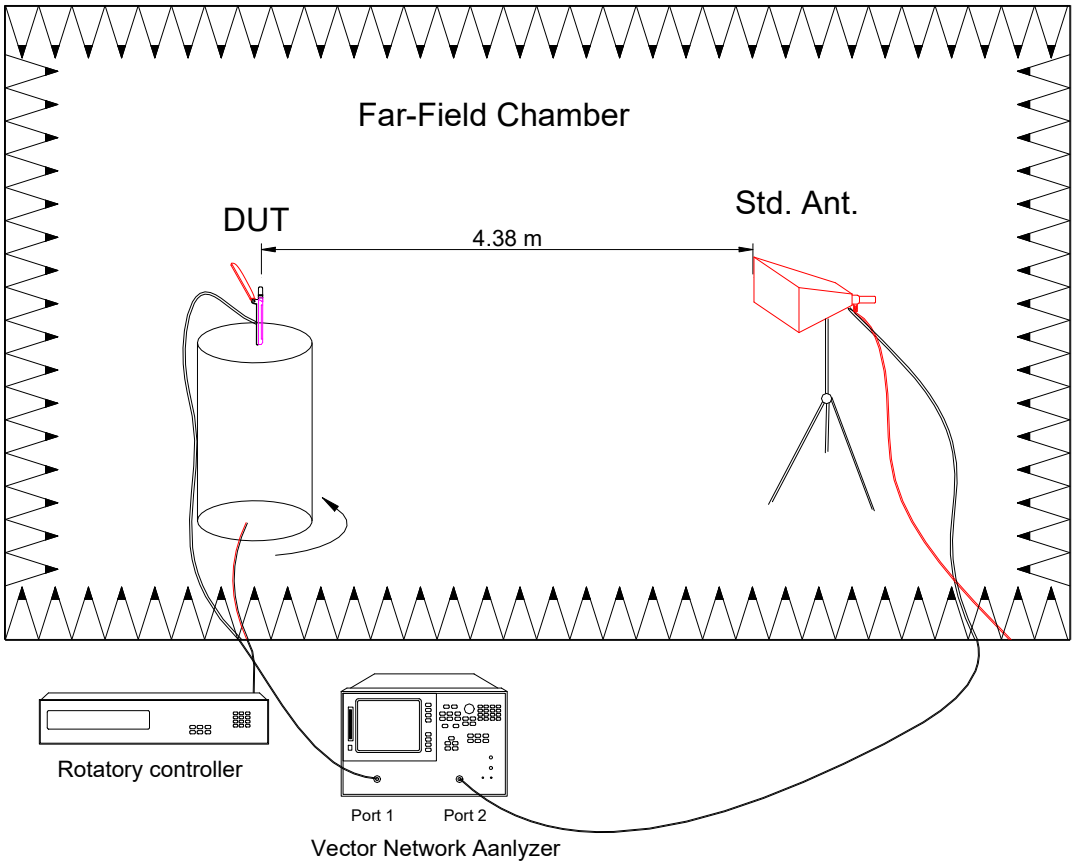


UNLESS OTHER SPECIFIED TOLERANCES ON： X = ± X.X = ± X.XX = ± ANGLES = ± HOLEDIA = ±		佳邦科技股份有限公司 INPAQ TECHNOLOGY CO., LTD.	
SCALE：	UNIT：mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY：曹云中	CHECKED BY：赵付辉		
DESIGNED BY：牛永林	APPROVED BY：赵付辉		
TITLE：WA-F-LA-03-309 Specification		DOCUMENT NO. ENS000198930	PAGE REV. A0

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
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 Peak Gain and Average Gain.

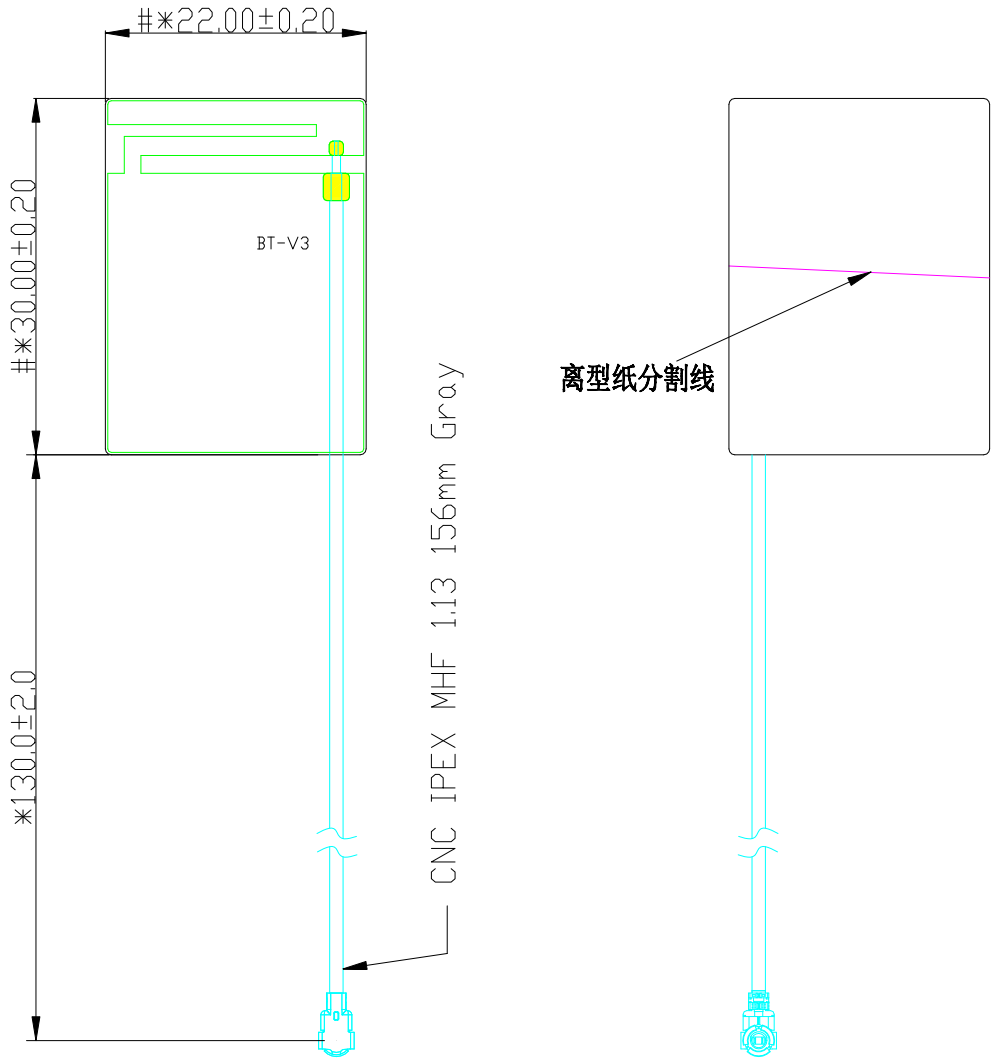
- BT

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**



UNLESS OTHER SPECIFIED TOLERANCES ON： X = ± X.X = ± X.XX = ± ANGLES = ± HOLEDIA = ±		佳邦科技股份有限公司 INPAQ TECHNOLOGY CO., LTD.	
SCALE：	UNIT：mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY：曹云中	CHECKED BY：赵付辉		
DESIGNED BY：牛永林	APPROVED BY：赵付辉		
TITLE：WA-F-LA-03-309 Specification		DOCUMENT NO. ENS000198930	PAGE REV. A0