

WA-P-LA-01-106 Specification

1. Explanation of part number:

WA - P - LA - 01 - 106
(1) (2) (3) (4) (5)

(1) Product Type: PCB Antenna

(2) Material: PCB+ Cable

(3) Frequency:2400-2500MHz

(4) Coaxial Cable Type:01

(5) Suffix :106

(6) Gain (Peak) : 2.98dBi

(7) Company address: INPAQ TECHNOLOGY(SUZHOU) CO, LTD. No. 5, Chunqiu

Road, Huangdai Town, Xiangcheng District, Suzhou City, Jiangsu Province, China

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 迪芬尼 DH200 BT model, and all characteristics were measured under the model's handset testing.

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.	
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DRAWN BY : 骆拓夫	CHECKED BY : 赵付辉		
DESIGNED BY : 陈光芒	APPROVED BY : 赵付辉		
TITLE : WA-P-LA-01-106 Specification		DOCUMENT NO.	PAGE REV. P3

4-1. Frequency Band:

Frequency Band	MHz
BT	2400-2500MHz

4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

4-4. Return Loss

4-4.1 Measuring Method

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

4-4.2 Measurement frequency points and Return Loss value

Frequency (Unit MHz)		2400	2450	2500
Return Loss	BT	-11.97	-12.09	-11.55

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DOCUMENT
NO.

PAGE REV.
P3

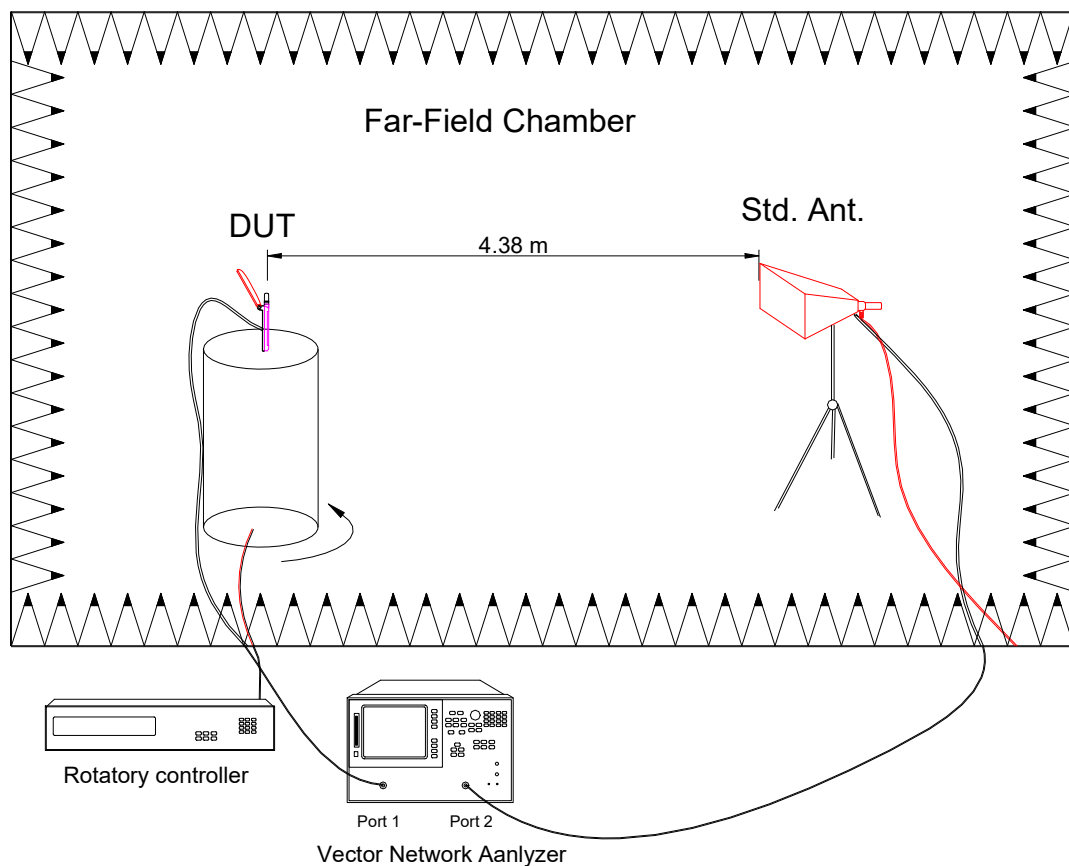


4-5. Efficiency and Gain

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)

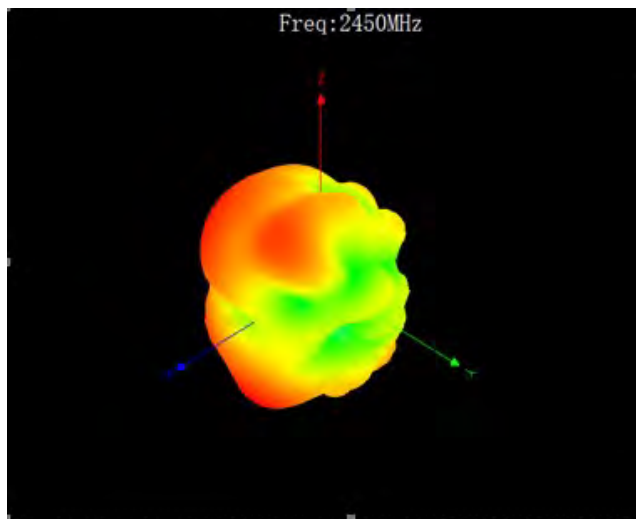
4-5.3 Efficiency and Gain

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

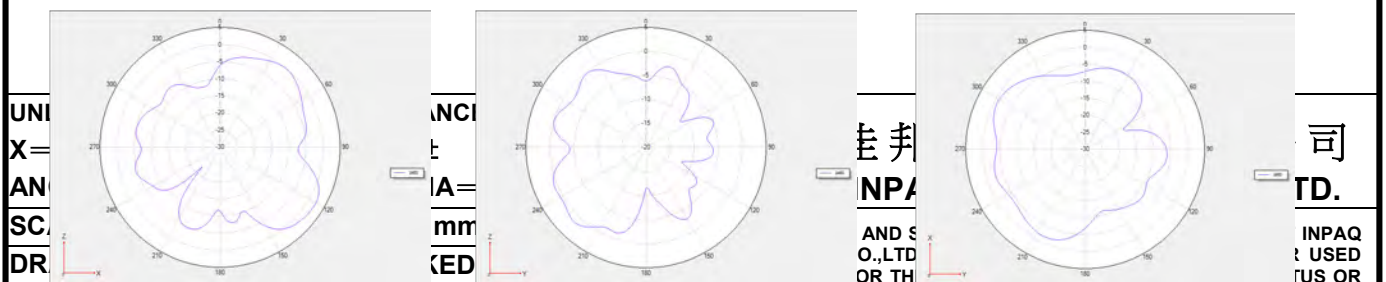
Antenna type	PCB		
Frequency (MHz)	2400	2450	2500
Efficiency (%)	50.82	53.83	49.43
Peak Gain (dBi)	2.93	2.79	1.6
Frequency (MHz)	2400~2500		
Peak Gain (Max)	2.98dBi		

4-6. 3D/2D Radiation Pattern Results

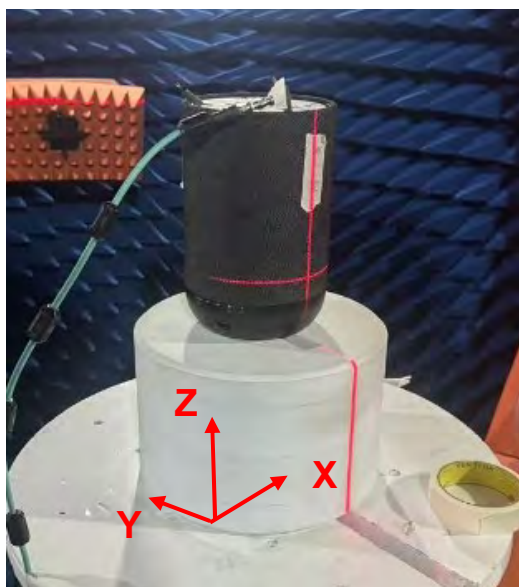
➤ 3D/2D Radiation Pattern Results WIFI



➤ 2D Radiation Pattern Results



➤ Physical coordinate Image



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NO.

PAGE REV.
P3

5-1. Mechanical Configuration (Unit: mm)

The technical drawing illustrates a cable assembly with two views: a front view and a side view. The front view shows a cable with a green outer jacket, a yellow braided shield, and a blue inner insulation. Dimensions include a total length of 160±2.0mm, a jacket thickness of 0.15mm, and a shield thickness of 0.05mm. The side view shows the cable's profile with a diameter of 3.00±0.20mm and a length of 136.0±2.0mm. A callout indicates the cable is made of 3M 9448A+PU B380F, 136x15x1.0mm. A note specifies the cable is made of CNC IPEX MHF 1.13 160mm White. A parts list table is provided below the drawing.

INDEX	Name	DESCRIPTION	MATERIAL	AMOUNT
D	裹线泡棉	黑色	3M 9448A+PUB380F, 136x15x1.0mm	1
C	背胶	本色	HF-DS10 29X19XT0.1	1
B	PCB	单面绿色油墨	FR4,30X20XT0.8	1
A	线材	白色	1.13射频线 L=160mm IPEX一代	1

PAGE 6 F 6