

WA-P-LB-02-1084-B Specification

1. Explanation of part number :

WA _ P _ LB _ 02 _ 1084 _ B
(1) (2) (3) (4) (5) (6)

(1) Product Type : WIFI Antenna

(2) Material: PCB+Cable

(3) Frequency : 2400MHz-2500MHz, 5100MHz-5900MHz

(4) Coaxial Cable Type : 02

(5) Suffix :1084

(6) B:車用前裝

2. Storage Condition:

Temperature -40 to +90°C
Humidity 85±20 % RH

3. Operating Condition:

Temperature -40 to +85°C
Humidity 85±20 % RH

4. Electrical Specification:

Those specifications were specially defined for 华阳-HMA225A WIFI model, and all characteristics were measured under the model's handset testing.

4-1. Frequency Band:

Frequency Band	MHz
WIFI	2400MHz-2500MHz, 5100MHz-5900MHz

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±



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INPAQ TECHNOLOGY CO., LTD.

SCALE : UNIT : mm

DRAWN BY : 骆拓夫 CHECKED BY : 赵付辉

DESIGNED BY : ZIV APPROVED BY : 赵付辉

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4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

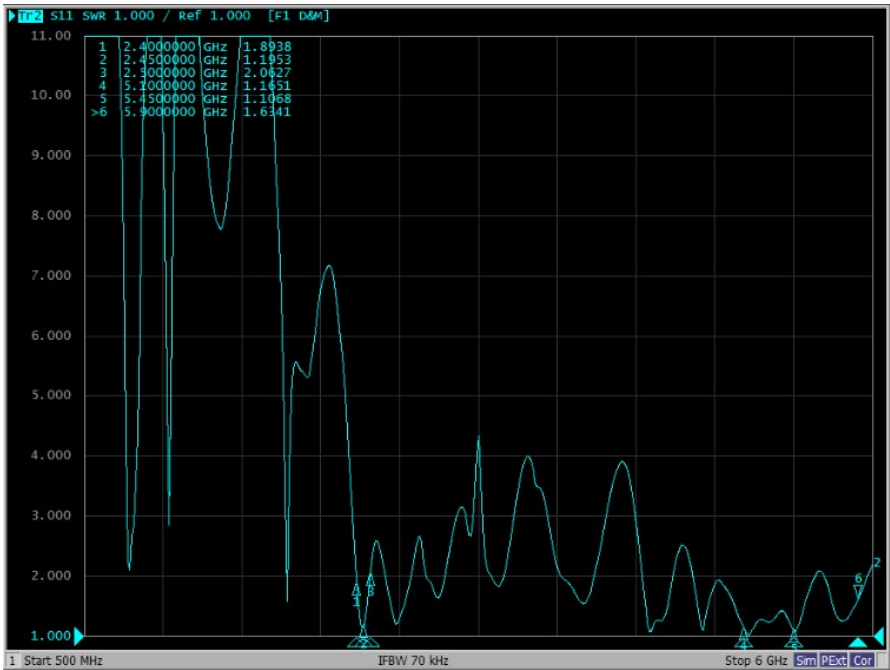
4-4. VSWR

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	5100	5450	5900
VSWR	1.89	1.19	2.06	1.16	1.10	1.63



4-5. Efficiency and Gain

4-5.1 Measure method

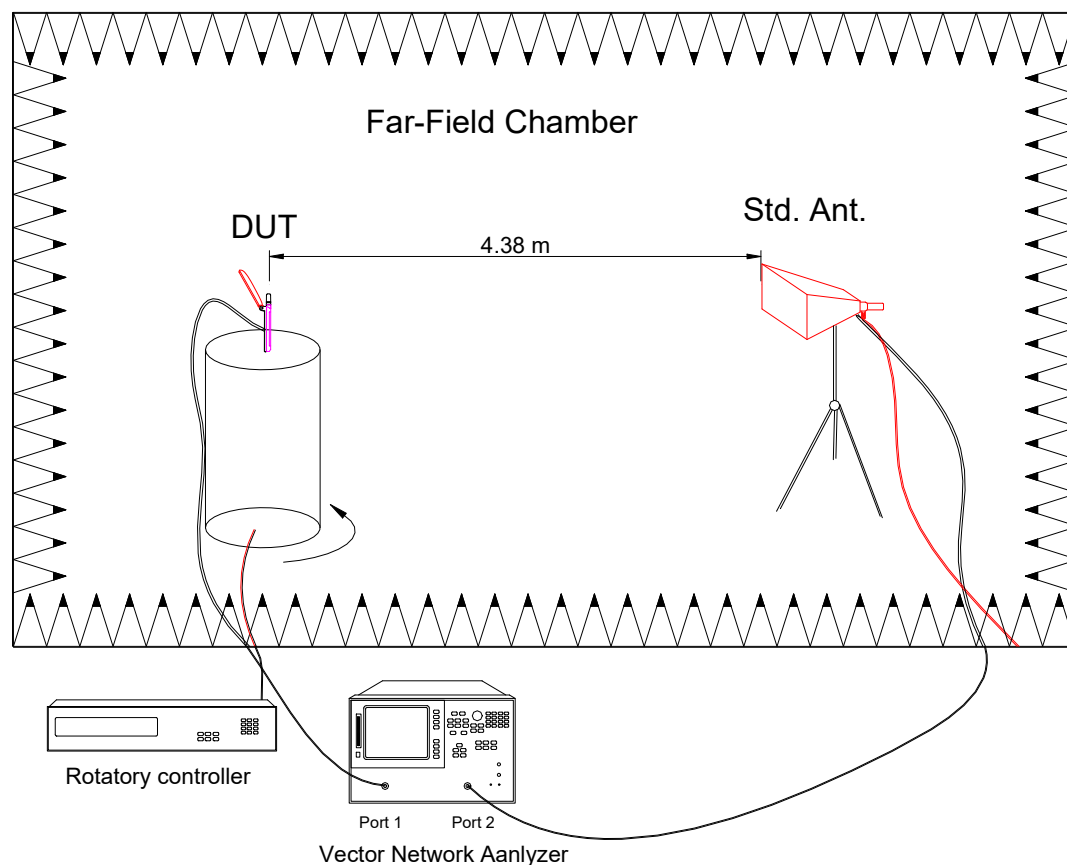
- 1. Using a low loss coaxial cable to link a standard handset
- 2. Fixed this handset jig on chamber’s rotator plane

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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.

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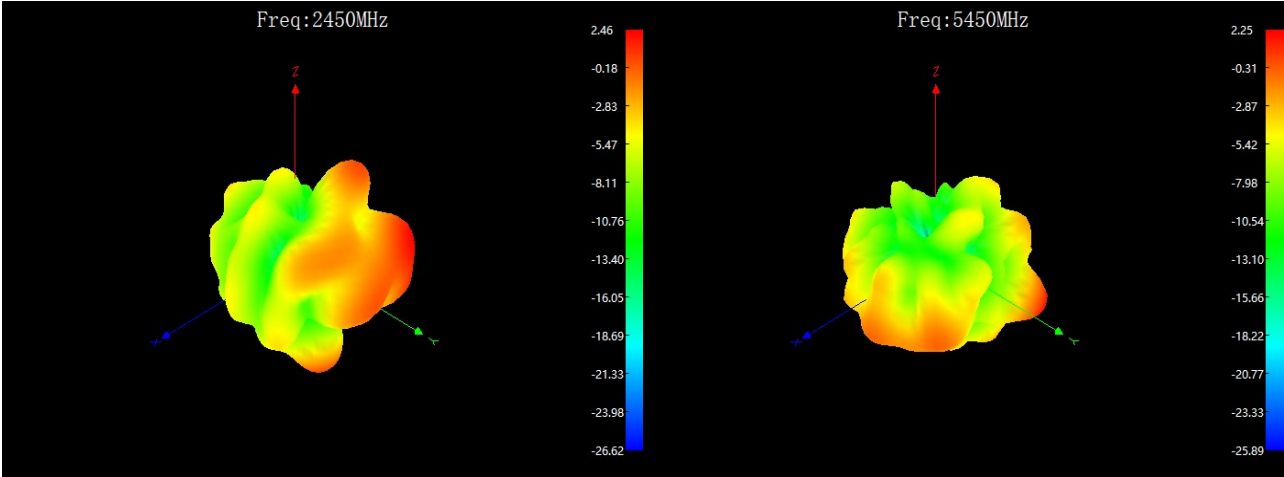
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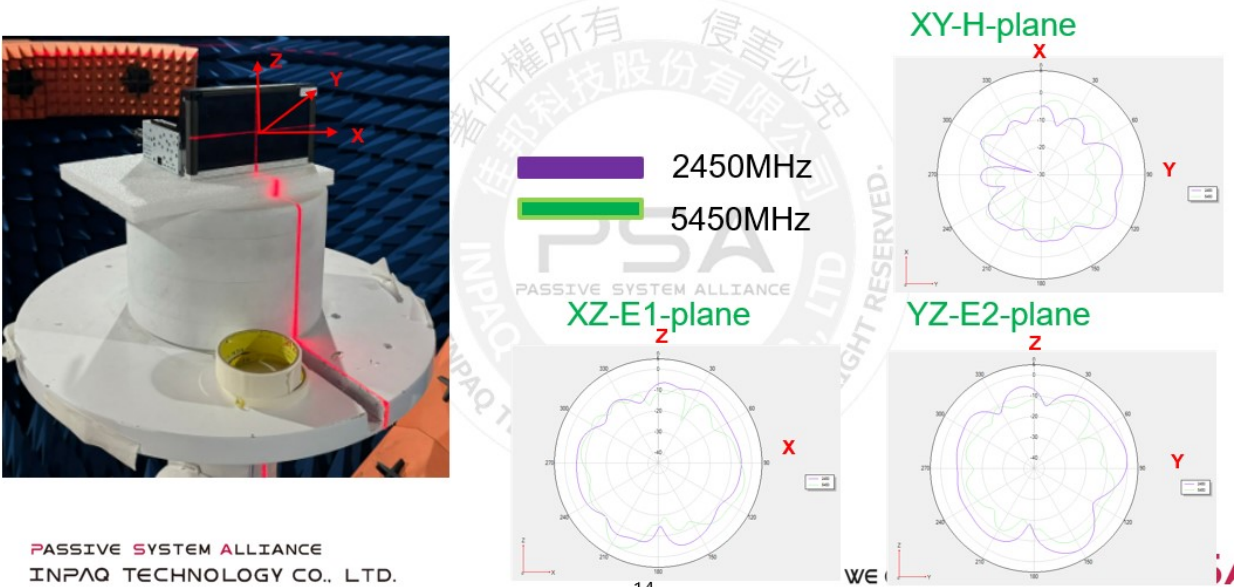
Frequency (MHz)	2400	2450	2500	5100	5450	5900
Efficiency (%)	23.76	30.28	22.99	24.77	24.55	17.78
Peak Gain (dBi)	1.07	2.46	1.27	1.3	2.25	-0.82

4-5.4 3D Radiation Pattern



4-5.5 2D Radiation Pattern

2D Radiation Pattern Results-WIFI



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5-1. Mechanical Configuration (Unit: mm)

Revision	Engineering Change Description	Date	Owner
P0	首次	2024-05-31	廖拓夫
P1	PCB修改双面板	2024-07-02	廖拓夫
P2	总线长修改为80.2mm	2024-11-04	廖拓夫
P3	取消UL号码	2028-01-05	廖拓夫

漏铜

背胶区域

技术要求:

- 所有外表面不允许有划痕、碰伤及毛边;
- 要求焊点光滑无凸刺,无虚焊,堆锡,短路等现象;
- 产品已注公差按实际控制,标有*的尺寸作为重点尺寸;
- 产品包装必须干净、整洁,包装过程不允许对产品造成脏污;
- 打“#”为CPK管控尺寸
- 满足RoHS和REACH要求

INDEX	Name	DESCRIPTION	MATERIAL	AMOUNT
C	背胶	本色	3M 6408 34.3X11.2XT0.13	1
B	PCB	双面绿色油墨	FR4,35.3X12.2XT1.0	1
A	线材	黑色	1.13射频线 L=80.2mm	1

Tolerance					CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE	
SPEC.	CLASS	A	B	C	D	APPROVALS
<8mm	0.05	0.1	0.1	0.2		DRAWN 廖拓夫
8-25mm	0.05	0.15	0.15	0.3		
25-50mm	0.12	0.2	0.25	0.4		
50-250mm	0.25	0.3	0.4	0.5		CHECKED 林梦安
ANGLE	0.5					RESP ENG

MATERIAL	As mentioned	QUAL ENG
FINISH	--	

Scale: 1:1

SIZE	DWG. NO.	DATE	REV.
A4		2026.01.05	Ax

CAD FILE	SHEET
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