



佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

No. 11, Keyi St., Zhunan Township, Miaoli County 350402, Taiwan

客戶名稱
CUSTOMER

Document No.: ENS000199190

Approval Sheet Rev.: A0

Spec. Rev. : P0

承認書

APPROVAL SHEET

產品品名/Product Model No. : **WA-P-LB-02-1095**

客戶料號/Customer No. : **2E.96DG0.001**

專案名稱/Project Name: **ATS**

發行日期/ Issue Date : **2024/10/29**

承認日期/ Approved Date :

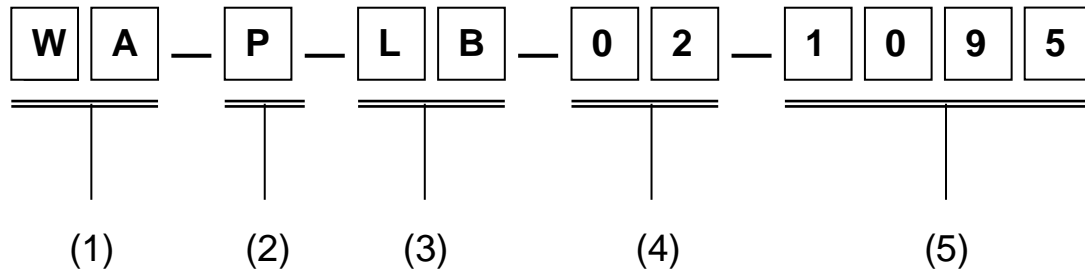
Approved by customer: (signing or stamping here)



INPAQ WEB

Embedded Dual-Band Antenna for WA-P-LB-02-1095

1. Explanation of part number :



- (1) Product type : Wireless Antenna
- (2) Material : PCB
- (3) Frequency : 2400~2500MHz / 5150~5850MHz
- (4) Coaxial Cable Type : Black Cable
- (5) Suffix : 1095

2. Electrical Specification :

Those specifications were specially defined for model ATS and all characteristics were measured under the model's handset testing jig.

2-1. Frequency Band :


Band	Frequency
Wi-Fi	2400-2500MHz / 5150-5850MHz

2-2. Impedance :

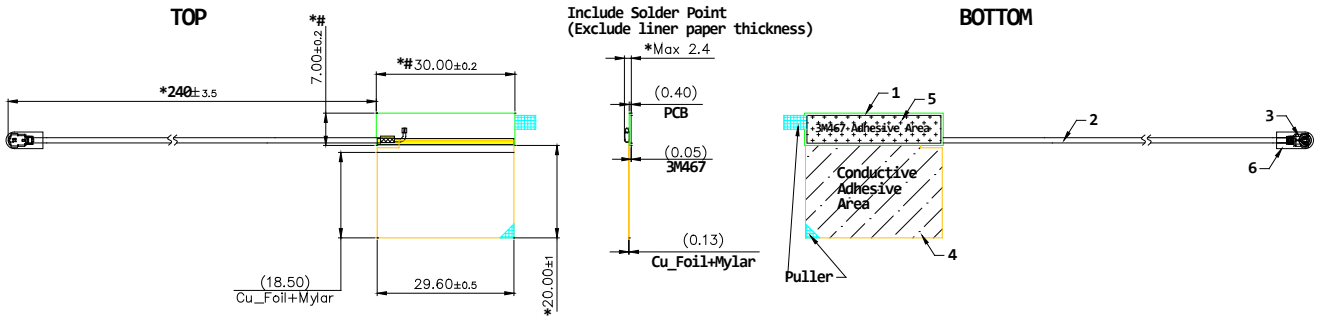
50 ohm nominal

2-3. Matching circuit :

None

UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A X.X=N/A X.XX=N/A ANGLES=N/A HOLEDIA=N/A		 INPAQ TECHNOLOGY CO., LTD.	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
SCALE : N/A	UNIT : mm		
DRAWN BY : 黃建棠	CHECKED BY : 鄭榮謀	DOCUMENT NO. ENS000199190	SPEC REV. P0
DESIGNED BY : 劉昌治	APPROVED BY : 謝立庭		
TITLE : Embedded Dual-Band Antenna for WA-P-LB-02-1095			

3. Antenna Drawing



- NOTE:
- 外觀標準：需完整無破損，不可有變形、髒污、毛邊、翹曲、裂縫、褶疊等情形。
Appearance standard : They must be complete.
It means those must not have the deformations, dirt, burrs, warps, cracks, folds, etc.
 - 工程圖上"*"號為重點尺寸標註指示
Mark "*" are the key dimensions.
 - 工程圖上"#"號為Cpk量測尺寸標註指示
Mark "#" are CPK dimensions.
 - IQC & OQC & FQC只需量測重點尺寸
KEY dimensions for IQC & OQC & FQC.

Drawing Rev P2

ITEM	DESCRIPTION	MATERIAL SPECIFICATION	QUANTITY	UNIT
1	PCB	L30xW7x0.4Tmm	1	PCS
2	Cable	OD1.13, LLS, Black	1	PCS
3	Connector	I-PEX MHF I-PEX Equivalent(compatible)	1	PCS
4	CU_Foil+Mylar	L29.6xW21x0.13Tmm	1	PCS
5	Adhesive 3M467	L29 xW6x0.05Tmm	1	PCS
6	Tube/transparent	OD2.5x8mm	1	PCS

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X = N/A X.X = N/A X.XX = N/A
 ANGLES = N/A HOLEDIA = N/A



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A UNIT : mm
 DRAWN BY : 黃建棠 CHECKED BY : 鄭榮謀
 DESIGNED BY : 劉昌治 APPROVED BY : 謝立庭

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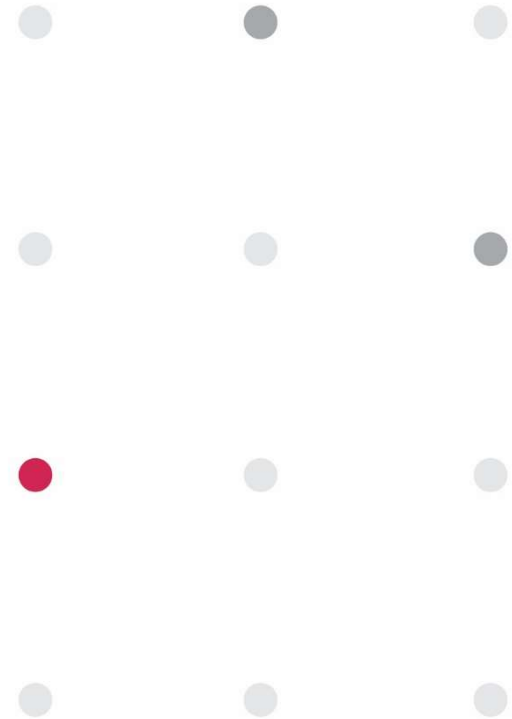
TEL : +886-37-585-555 # 17113 (Marco Yeh)

FAX : +886-37-585-511

Customer P/N	INPAQ P/N
2E.96DG0.001	WA-P-LB-02-1095
2E.96DG0.011	WA-P-LB-01-335

PSA

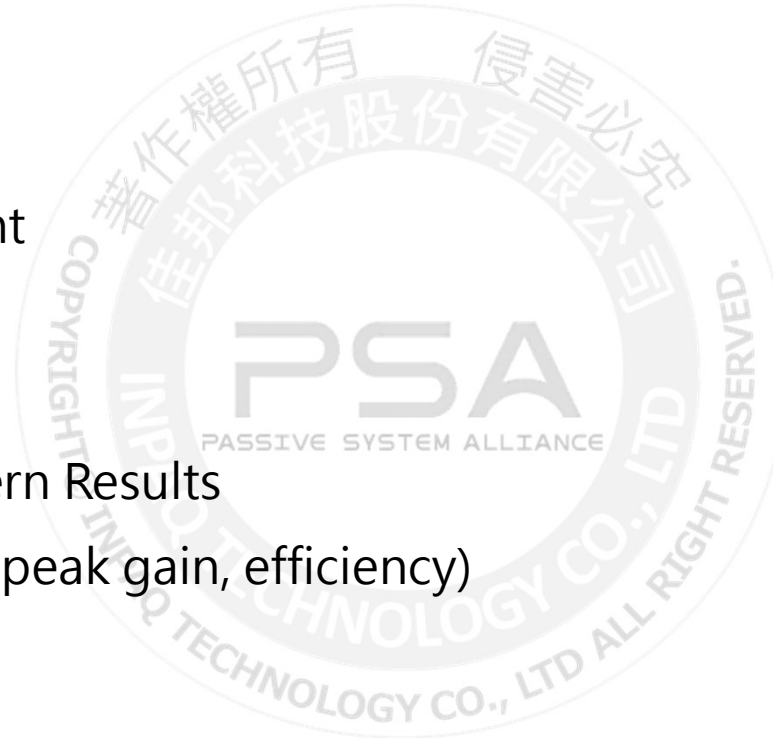
PASSIVE SYSTEM ALLIANCE
INPAQ TECHNOLOGY CO., LTD.



Contents

Content Details

- Revised History
- Antenna Placement
- Return Loss
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- Conclusion



Revision History

Released Date	Version	Record
June 12, 2024	0.0	Initial Release
Aug 14, 2024	0.1	Fine tune the pattern and change antenna position
Sep 24, 2024	0.2	Fine tune the pattern



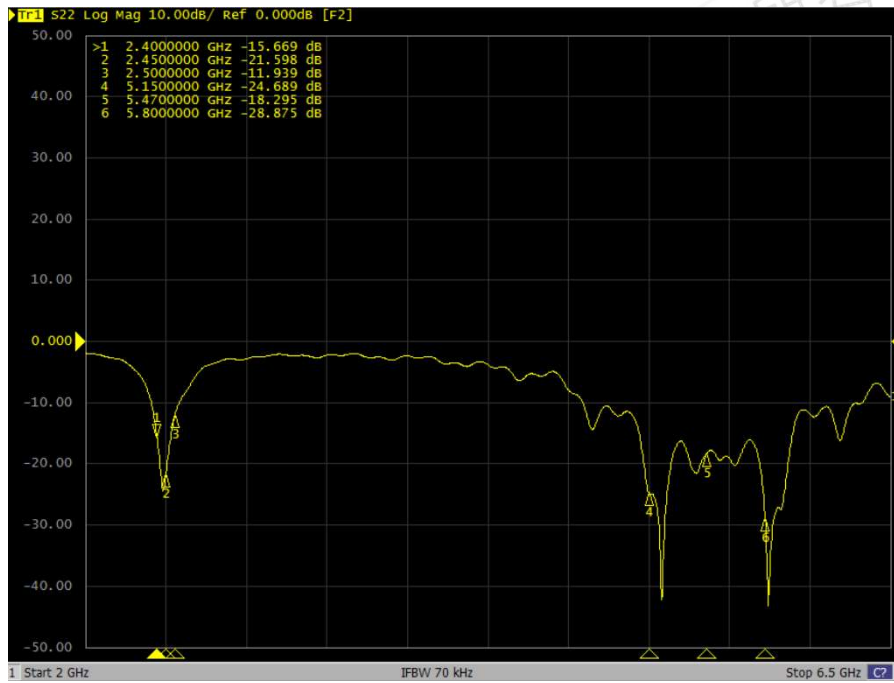
Antenna Placement



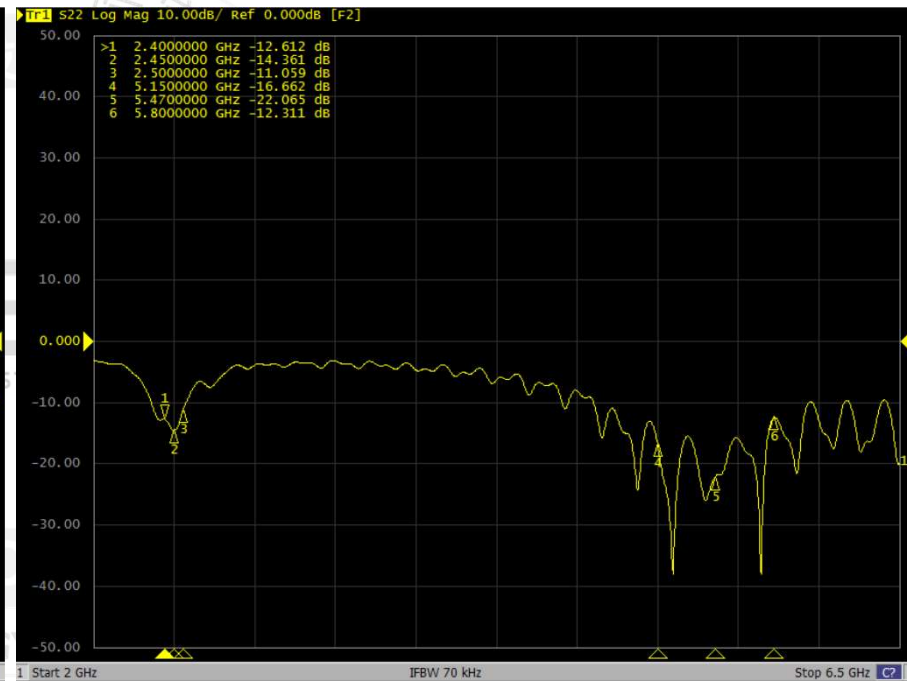
Antenna	ANT Type	Size (L * W)	Cable Type
Main	PCB	30*7mm	240mm/1.13LLS
Aux	PCB	30*7mm	470mm/1.13LLS

Return Loss

Main

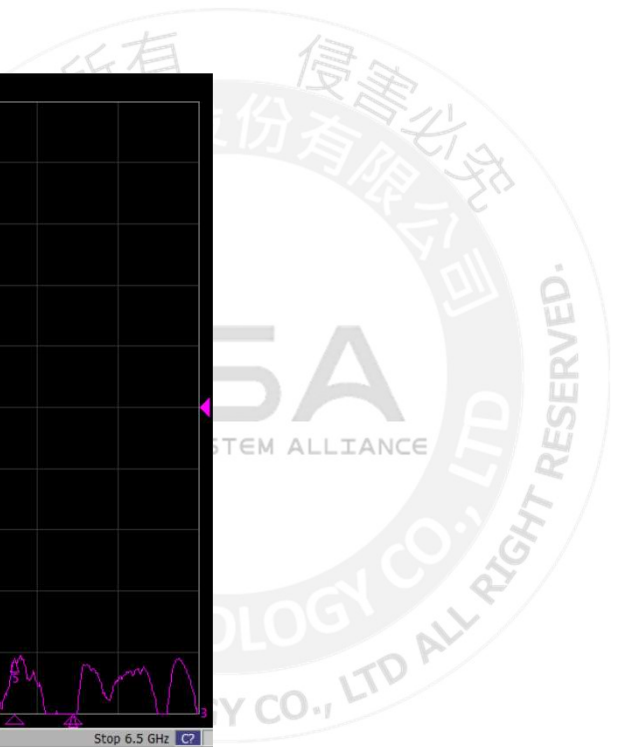
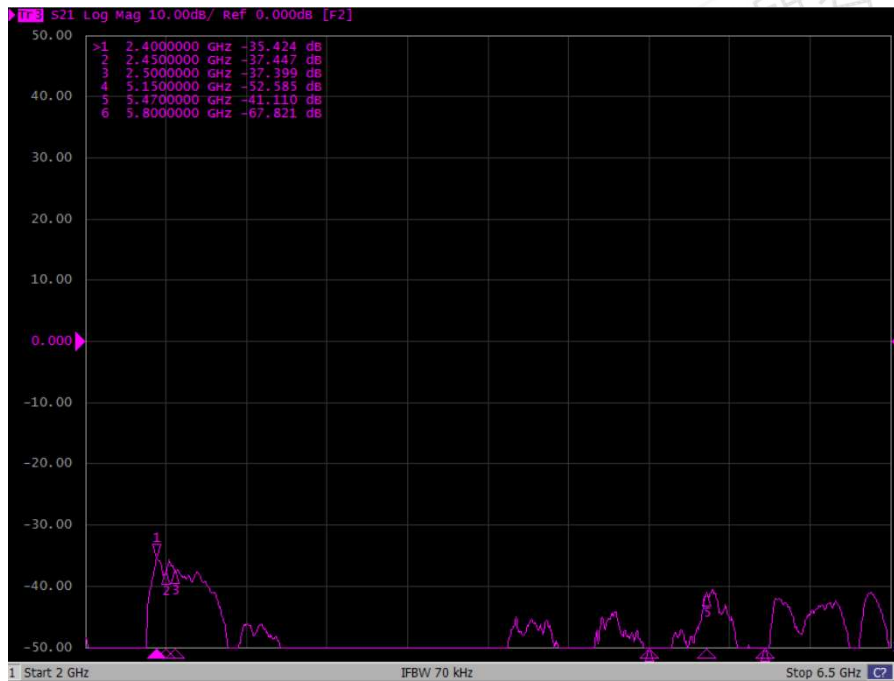


Aux



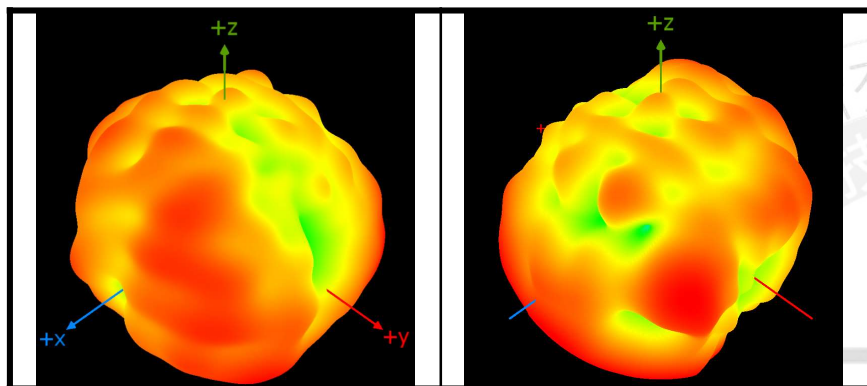
Isolation

Main & Aux

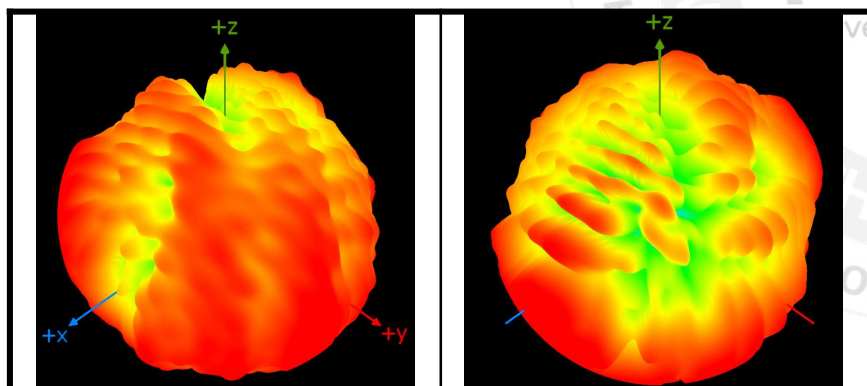


3D Radiation Pattern Results

Main-2450MHz



Main-5470MHz

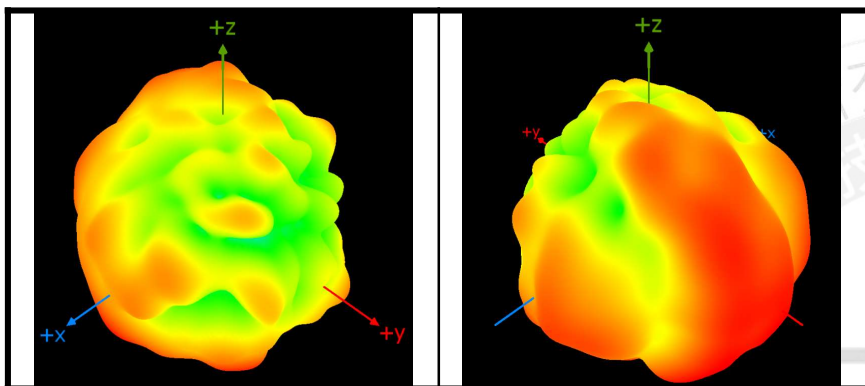


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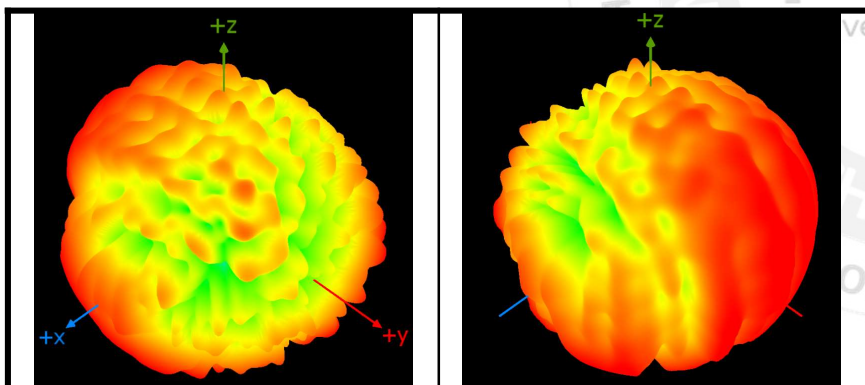


3D Radiation Pattern Results

Aux-2450MHz



Aux-5470MHz



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Results Summary

Peak gain & Efficiency – Main

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Efficiency (dB)
2400	2.82	35.16	-4.54
2450	2.92	38.79	-4.11
2500	2.85	36.35	-4.39
5150	3.21	50.55	-2.96
5300	3.24	50.33	-2.98
5470	3.27	50.96	-2.93
5650	3.25	52.84	-2.77
5850	3.20	51.95	-2.84

Peak gain & Efficiency – Aux

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)	Efficiency (dB)
2400	2.76	33.54	-4.74
2450	2.90	35.47	-4.50
2500	2.88	33.64	-4.73
5150	3.14	41.29	-3.84
5300	3.21	42.88	-3.68
5470	3.28	44.56	-3.51
5650	3.23	45.84	-3.39
5850	3.12	43.92	-3.57