

客戶名稱：
CUSTOMER

Documnet No.: ENS000176390

Approval Sheet Rev.: A0

Spec. Rev. P1

承認書

APPROVAL SHEET

產品品名/Product Model No. : **WA-P-LB-01-315**

客戶料號/Customer No. : **KXWIFPLB2PA02**

案名/Model Name: **ButterflyMX.M12.1**

發行日期/ Issue Date : **2023/4/27**

承認日期/ Approved Date :

Approved by customer: (signing or stamping here)



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

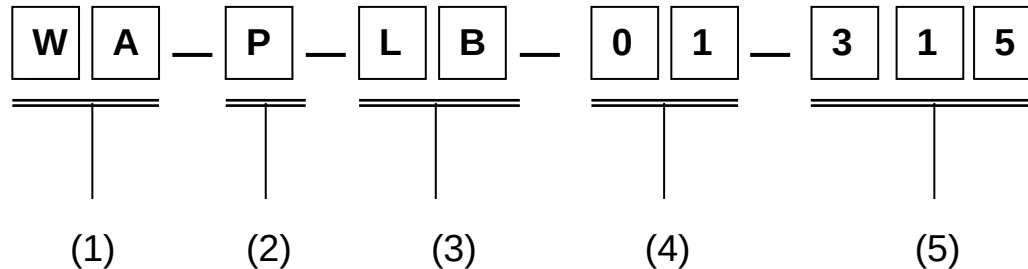
☒ 350 苗栗縣竹南鎮公義里11鄰科義街11號 ☐ 428 台中市大雅區科雅路27號4樓
電話：037-585-555 電話：04-2560-6555
傳真：037-585-511 傳真：04-2560-5151

No. 11, Ke-Yi St., Chunan, Miaoli 350,
Taiwan, R.O.C.
Tel. : +886-37-585-555
Fax : +886-37-585-511

4F, No. 27, Keya Road, Daya Dist., Taichung City
428, Taiwan, R.O.C.
Tel. : +886-4-25606555
Fax : +886-4-25605151

Embedded Dual-Band Antenna for WA-P-LB-01-315

1. Explanation of part number :



- (1) Product Type : Wireless Antenna
- (2) Material : PCB
- (3) Frequency : 2400-2500 、 5150-5850 MHz
- (4) Coaxial Cable Type : White Cable
- (5) Suffix : 315

2. Electrical Specification :

Those specifications were specially defined for **ButterflyMX.M12.1** model **Dual-Band Antenna**, and all characteristics were measured under the model's handset testing jig.

2-1. Frequency Band	MHz
WiFi	2400-2500 、 5150-5850 MHz

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.

SCALE : N/A

UNIT : mm

DRAWN BY : 廖偉廷

CHECKED BY : 鄭榮謀

DESIGNED BY : 黃健育

APPROVED BY : 謝立庭

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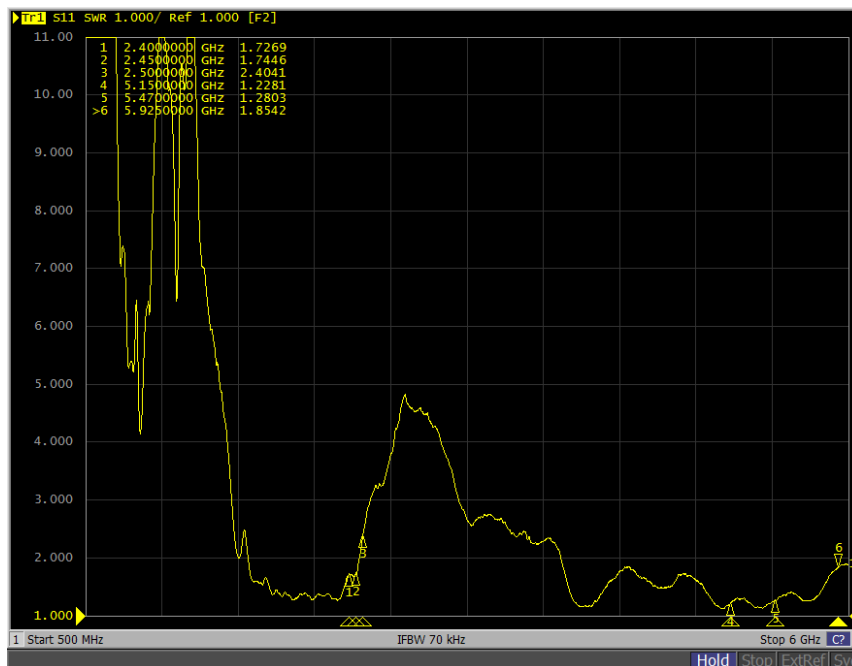
TITLE : Embedded Dual-Band Antenna for
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2-4. VSWR :



2-5. Efficiency :

Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	36.16	4.06
2450	34.44	4.45
2500	32.7	3.7
5150	53.93	7.26
5250	51.21	7.02
5350	49.58	6.92
5450	52.07	6.94
5600	45.07	7.77
5750	48.9	8.26
5850	50.52	8.14

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.

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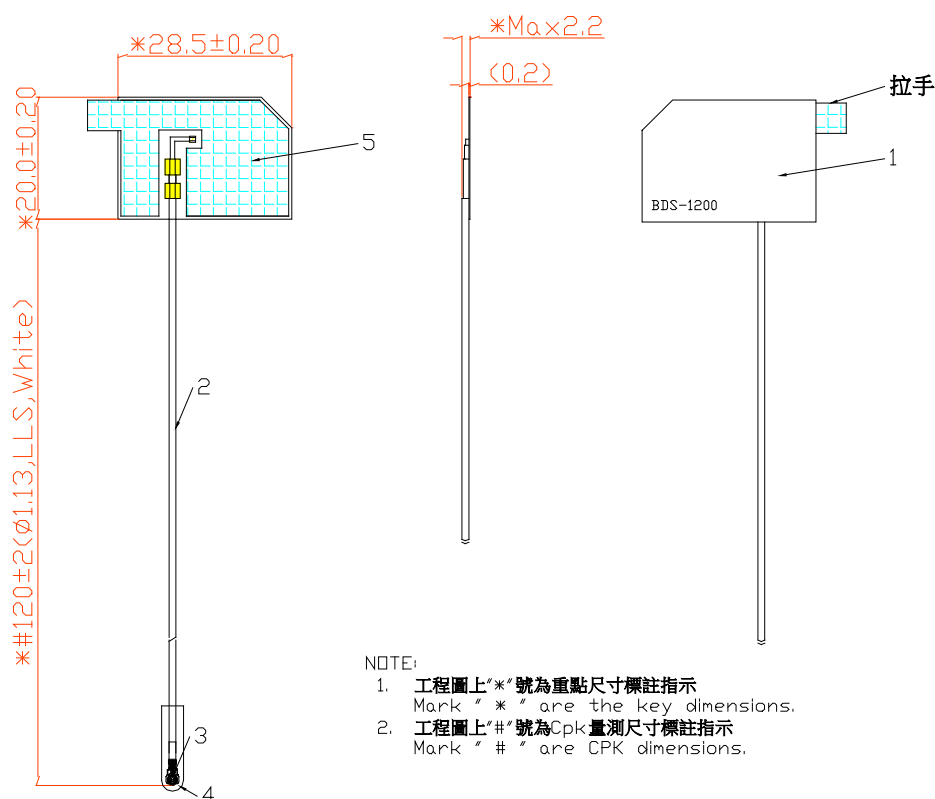
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3. Antenna Drawing :

The appearance of the antenna is according to drawing Figure . 3-1-1



Drawing Rev.P1

Figure 3-1-1.

ITEM	DESCRIPTION	MATERIAL SPECIFICATION	QUANTITY	UNIT
1	PCB	28.5x20x0.2mm	1	PCS
2	Cable	1.13, LLSI, White	1	PCS
3	Connector	I-PEX MHF4L I-PEX Equivalent(compatible)	1	PCS
4	Tube	OD1.9*20mm	1	PCS
5	Adhesive	27.5*19*0.15mm	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.

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Reliability Testing Report

Product Model: Verification DPNA5094 WA-P-LB-01-315 (WA-P-LB-02-996) Reliability test of product



總部/竹南廠：

35059 苗栗縣竹南鎮公義里科義街 11 號
TEL:+886-37-585555 FAX:+886-37-585511

Headquarters/Chunan Plant：

NO.11, Kei-Yi St., Chunan Chen, Miaoli
Hsien 35059, Taiwan, R.O.C.

台中廠：

42878 台中市大雅區科雅路 27 號 4 樓
TEL:+886-4-25606555 FAX:+886-4-25605151

Taichung Plant：

4F, No. 27, Keya Road, Daya Dist.,
Taichung City 42878, Taiwan, R.O.C.

禾邦(中國)電子：

214105 江苏省无锡市锡山区安镇安泰一路 81 号
TEL:+86-0510-88785968 FAX:+86-0510-88789918

Wuxi Plant：

No. 81 Antai 1 Road, Anzheng Town,
Xishan Economic Development Zone,
Wuxi, Jiangsu, China

禾邦电子：

215143 江苏省苏州市相城区黄埭镇潘阳工业园春秋
路 5 号
TEL:+86-0512-65719988 FAX:+86-0512-65716988

Suzhou Plant：

No.5, Chunqiu Road, Panyang Industrial Park,
Huangdai Town, Xiangcheng Zone, Suzhou
City, 215143 Jiangsu Province, China

Test item list

ITEMS	PAGE
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PAD 拉力测试	4

Date: 2023-2-26

高温高湿试验

Product Type :	WA-P-LB-01-315		
Lot No. :	N/A	Sample Size :	5 pcs
Judgment Criteria :	外观无异常; 电性符合规格;		
Test Condition :	85±2℃, 90±2%RH, 24hrs;		
Equipment :	恒温恒湿机		

Result :

编号	Before test				After test			
	2.60GHz	3.40GHz	4.10GHz	6.50GHz	2.60GHz	3.40GHz	4.10GHz	6.50GHz
	<2.5	<2.5	<3.5	<3.5	<2.5	<2.5	<3.5	<3.5
1	1.78	1.73	1.74	1.78	1.69	1.77	1.69	1.77
2	1.77	1.88	1.38	1.52	1.55	1.81	1.77	1.69
3	1.80	1.83	1.45	1.66	1.67	1.63	1.63	1.77
4	1.60	1.78	1.71	1.55	1.88	1.75	1.77	1.61
5	1.73	2.01	1.78	1.73	1.79	1.77	1.69	1.77

Judgment : OK
 Inspector : 王紅麗
 Approver : 吉金娟

冷热冲击试验

Product Type :	WA-P-LB-01-315		
Lot No. :	N/A	Sample Size :	5 pcs
Judgment Criteria :	外观无异常; 电性符合规格;		
Test Condition :	-40℃, 0.5 hrs<- (5mins) -> 85℃, 0.5 hrs; 测试 50 cycles;		
Equipment :	冷热冲击机		

Result :

编号	Before test				After test			
	2.60GHz	3.40GHz	4.10GHz	6.50GHz	2.60GHz	3.40GHz	4.10GHz	6.50GHz
	<2.5	<2.5	<3.5	<3.5	<2.5	<2.5	<3.5	<3.5
6	1.72	1.73	1.52	1.58	1.69	2.11	1.71	1.55
7	1.79	1.81	1.45	1.66	1.59	2.15	1.69	1.67
8	1.75	1.66	1.70	1.58	1.77	1.95	1.83	1.55
9	1.81	1.80	1.73	1.59	1.69	1.66	1.59	1.95
10	1.66	1.76	1.42	1.52	1.81	1.77	1.69	1.75

Judgment : OK

Inspector : 王紅麗

Approver : 吉金娟

PAD 拉力试验

Product Type :	WA-P-LB-01-315		
Lot No. :	N/A	Sample Size :	5pcs
Judgment Criteria :	PAD 点>1.0 kgf ;		
Test Condition :	PAD 点>1.0 kgf ;		
Equipment :	数显拉力器		

Result :

试验前..																	
试验后..	 <table border="1"> <thead> <tr> <th>编号</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr> </thead> <tbody> <tr> <td>PAD拉力$\geq$1.0kg/f</td><td>4.24</td><td>3.98</td><td>4.46</td><td>4.03</td><td>4.15</td></tr> </tbody> </table>					编号	1	2	3	4	5	PAD拉力 $\geq$ 1.0kg/f	4.24	3.98	4.46	4.03	4.15
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PAD拉力 $\geq$ 1.0kg/f	4.24	3.98	4.46	4.03	4.15												

Judgment : OK

Inspector : 王紅麗

Approver : 吉金娟