

SPECIFICATION FOR APPROVAL

CUSTOMER: 虹堡

CUSTOMER P/N : 311600203000

MODEL NAME: S1U2 WLAN ANT

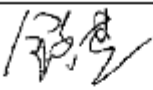
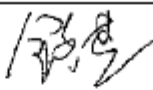
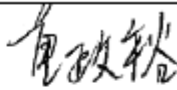
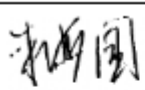
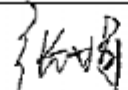
AWAN P/N: ALF6P-100007

Date: 2022-11-23

Customer Approval

R&D Manager

AWAN Approved

					王四美
&D Manager / Dongyan.Jin	Mechanical Manager / Dongyan.Jin	Q&R Manager / Fish Tong	Project Engineer / Jake.Zhu	Product Manager/ Ally.zhang	Authorized Strength/ Simei.Wang



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Kun -Shan City, Jiang -Su Prov.,P.R.C.
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Http : //www.awan-ant.com

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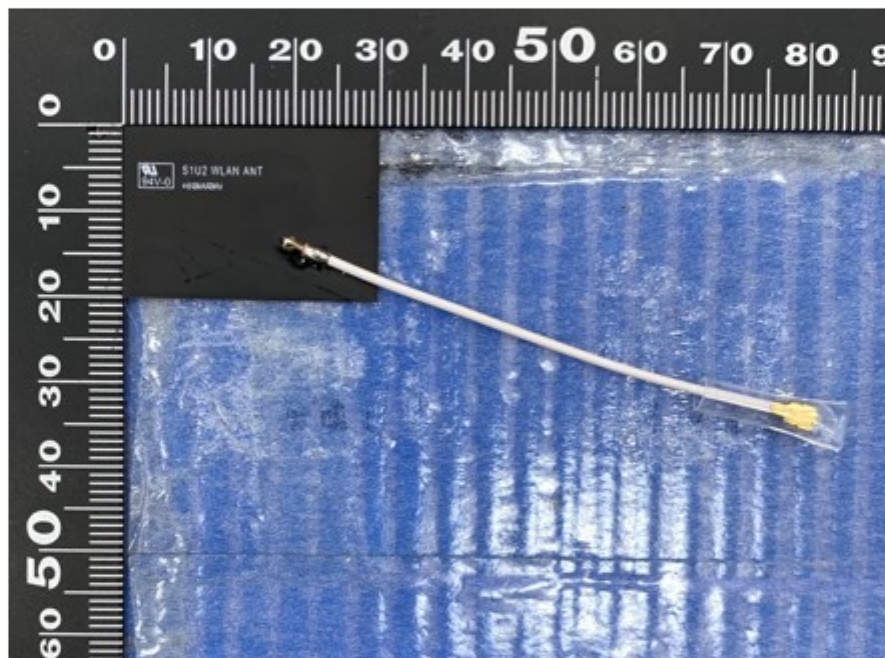
1. Description

1.1 Specifications

Antennas Type	PIFA Antenna for WIFI application	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WIFI	2.40~2.50 GHz, 5.15~5.85 GHz
VSWR	WIFI	2.40~2.50 GHz 3.0 Max 5.15~5.85 GHz 4.0 Max

1.2 Antenna Picture

WIFI P/N: ALF6P-100007



2. Electrical Specification

2.1 Test Equipment

Equipment Description	Manufacturer	Identification no.	Current Calibration date	Next calibration date
Universal Radio Communication tester	Anritsu	MT8820C	2022/07/29	2022/12/29
Network Analyzer	Agilent	E5071C	2022/07/29	2022/12/29
Sleeve Dipole	MVG	SD740	2022/07/12	2022/12/12
Dual Ridge Horn	MVG	SH800	2022/07/12	2022/12/12
Dipole antenna	MVG	3126-700	2022/07/12	2022/12/12
Stargate-16-L probe array	MVG	Stargate-16-L	2022/07/12	2022/12/12
Measurement software	MVG	Wave Studio 22.1	N/A	N/A
Wireless protocol tester	R&S	CMW500	2022/07/29	2022/12/29

2.1.2 General Information

Description	Tester	Measured Date
Measured	Stanley. Sin	2022/10/19

2.2 Test Setup

2.2.1 Frequency Range

A.LTE: 2400~2500 MHz
 5150~5850 MHz

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



Figure.1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 699MHz to 3GHz and a 45cm diameter spherical quiet zone. The measurement results are calibrated using Stargate-16-L probe array (see figure. 2).
- B. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 3).
- C. The measured photo is shown in figure. 4

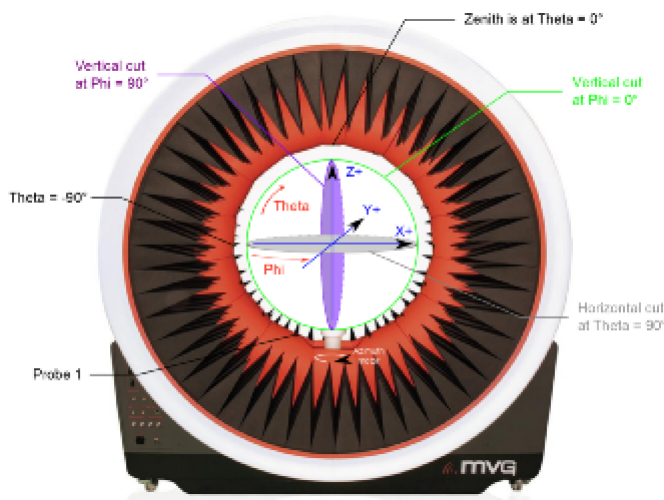


Figure.2

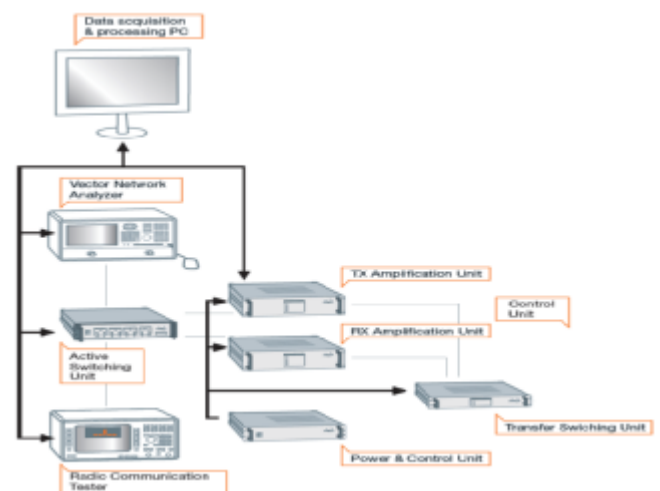


Figure.3

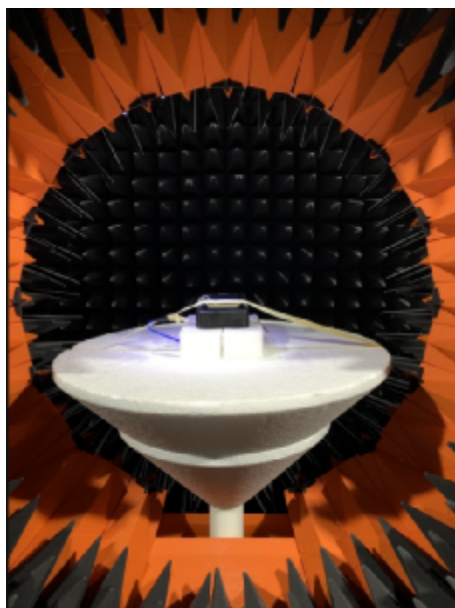
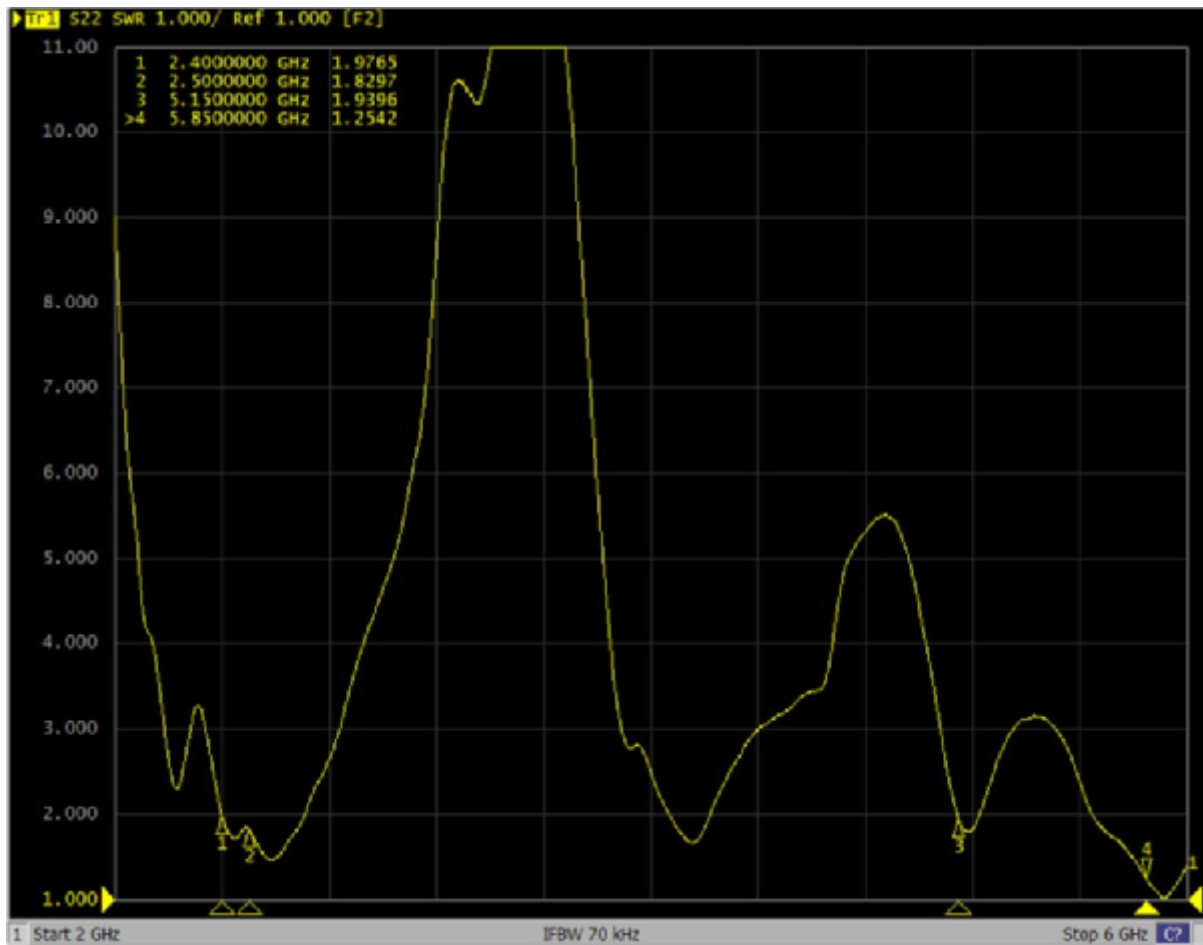


Figure.4

3. Performance Data

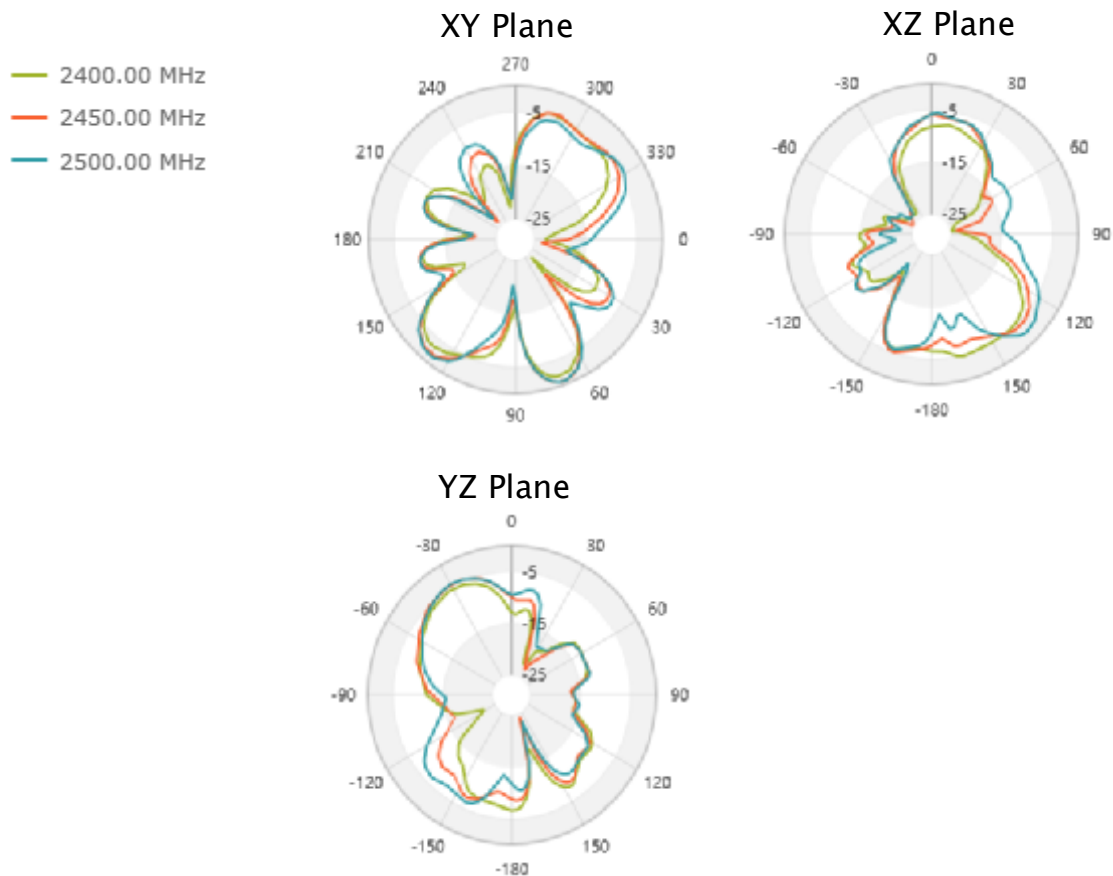
3.1 VSWR



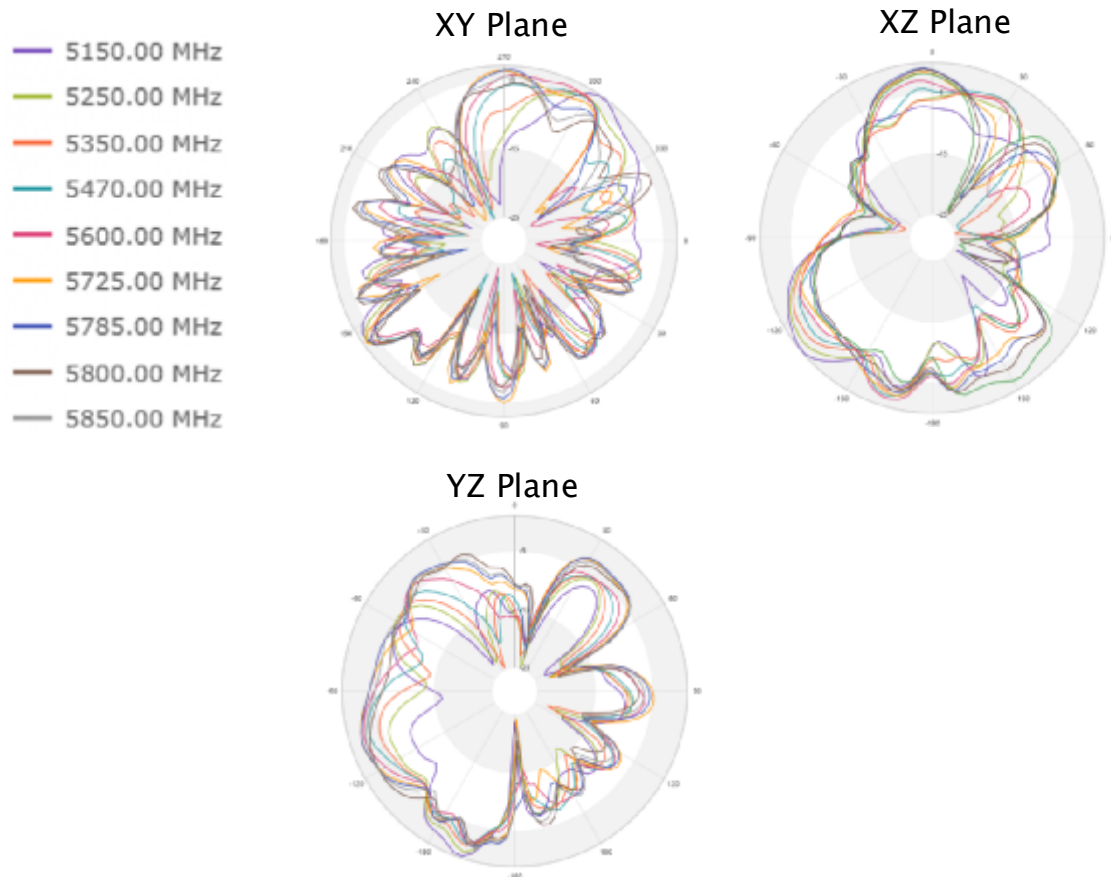
3.2 Radiation pattern & Gain (WIFI Antenna)

3.2.1 Antenna pattern

2400-2450MH



5150-5850MH

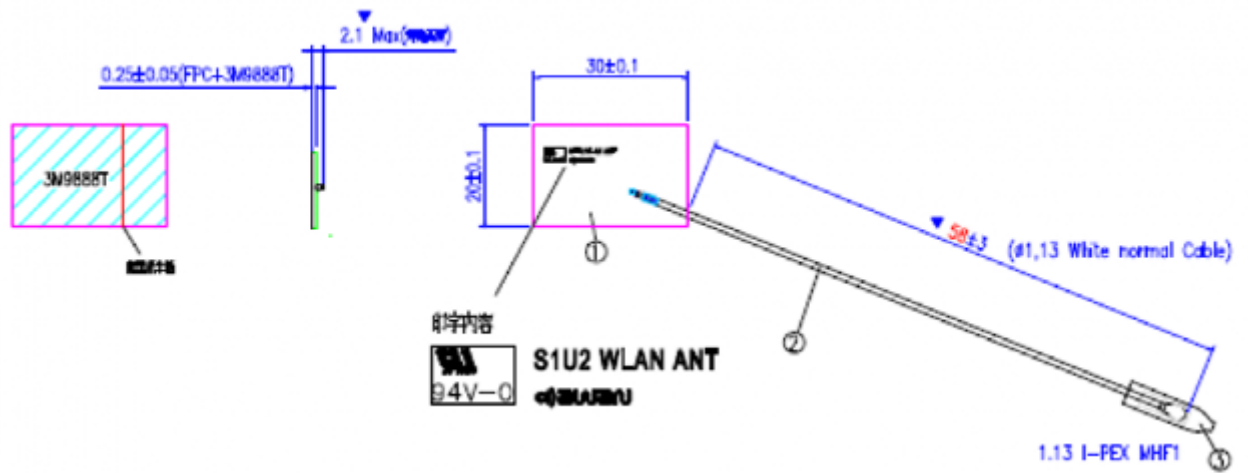


Antenna Gain/Efficiency (WiFi Antenna)

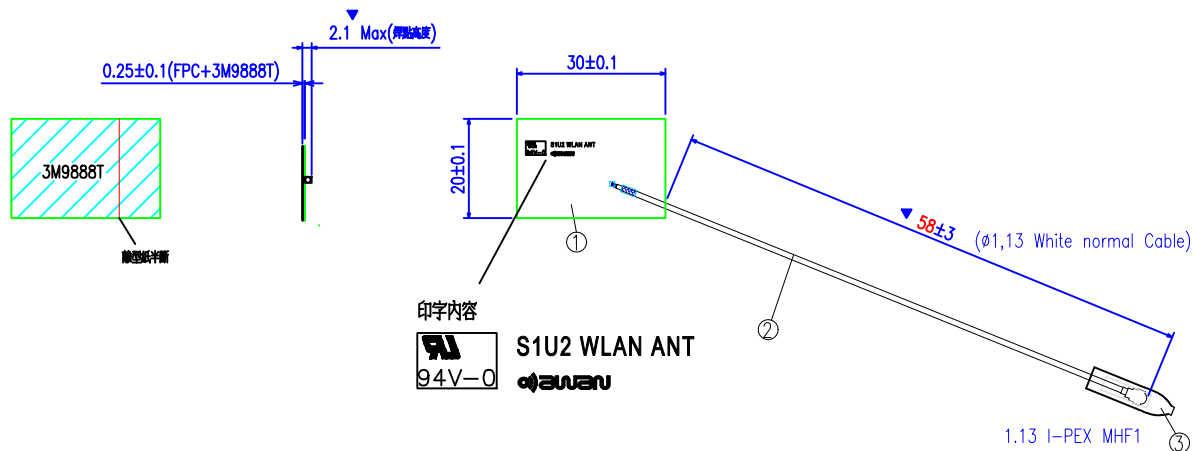
Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400	37.93	-4.21	1.87
2450	48.08	-3.18	2.92
2500	54.70	-2.62	4.18
5150	52.60	-2.79	4.57
5250	50.12	-3.00	2.93
5350	44.77	-3.49	2.83
5470	42.66	-3.70	2.61
5600	44.57	-3.51	3.22
5725	52.00	-2.84	4.51
5785	53.33	-2.73	5.04
5800	49.55	-3.05	4.78
5850	51.52	-2.88	5.15

4. Mechanical Specification

4.1 Assembly Drawing (WIFI Antenna)



1		2		3		4		5		6		7		8	
AWAN P/N	ALF6P-100007									Rev.	EC#	Description	Drawn/Date	Checked/Date	Approved/Date
虹堡 P/N	311600203000									X1		NEW RELEASE	Jerry 11/03/22'	Sam 11/03/22'	Sam 11/03/22'



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HSF相關均質拆分及測試點選擇參照
<HSF均質物質拆分作業圖示表>

3	防塵蓋	1	I-U0036-1801603	tube
2	ø1.13 normal White cable(料#)	1	CP7006-0070003	Cable
1	S1U2_FPC_HF	1	D-ALF6P-RPC200	FPC
Item	Name	Q'ty	Part #	Material / Finish
Tolerances Unless Otherwise Specified		Drawn	Date	 S1U2 WLAN ANT <Customer Drawing>
General	Jerry	11/03/22'		
X _{XX} ±0.5	Design	Date		
XX ±0.2	Jerry	11/03/22'		
XX ±0.1	Checked	Date		
X _{XX} ±3.0*	Sam	11/03/22'		
XX ±2.0	Approved	Date		
XX ±1.0	Sam	11/03/22'		
Scale	1 : 1	Series	ALF6P	Size A3
Sheet	1 of 1	Dwg No.	C-ALF6P-00-00	Rev. X1
Unit	mm	Customer Drawing		
				

符合AWAN環境管理物質技術標準

All materials meet the AWAN's spec. Environment - related substances management technical standard.

1

2

3

4

5

6

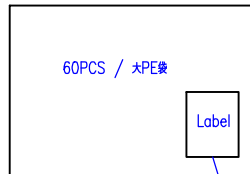
7

8

Rev.	EC#	Description	Drawn/Date	Checked/Date	Approved/Date
X1		NEW RELEASE	Jerry 11/03/22'	Sam 11/03/22'	Sam 11/03/22'

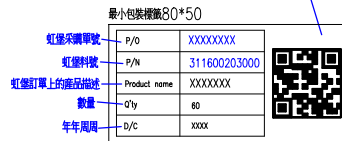


10PCS/PE bag



60PCS / 大PE袋

Label



最小包裝標籤80*50

虹堡採購單號
虹堡料號
虹堡訂單上的產品描述
數量
年年周周

P/O XXXXXXXX
P/N 311600203000
Product name XXXXXXXX
QTY 80
D/C XXXX



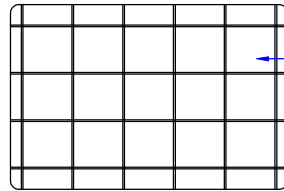
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號, 數量, 生產周周



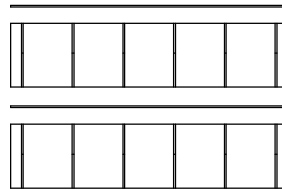
標碼顯示
XXXXXXXXXXXXXXXXXXXXYYWW

① ② ③ ④

- ① .P/O:虹堡採購單號 (注意碼數)
② .P/N:表示虹堡料號
③ .QTY:表示數量
④ .D/C:YYWW(例2022年第一周為2201) (共四碼)



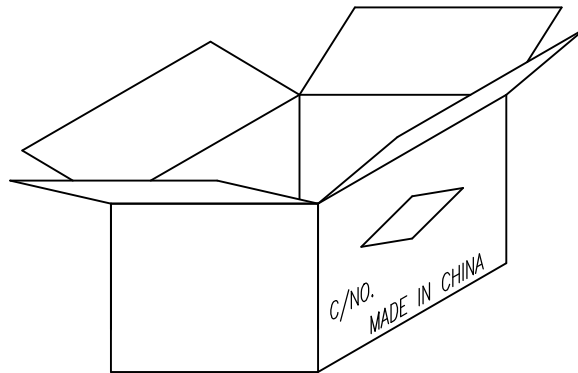
60 PCS/Square



900 PCS/Layer



1800 PCS/Cartron



NOTES

1. PACKAGING P/N SEE TABLE A
2. PACKAGING QUANTITY & N.W & G.W REFER TABLE B
3. THERE ARE 2 LAYER IN A BOX

P-SE-CF300 :5層版,4插槽x6插槽_隔板組(327x491)

TABLE A :

PART NAME	P/N	PCS
OUTER BOX	P-B0-0895000	1
隔板 6插槽	P-B-060057516	8
隔板 4插槽	P-B-061057511	12
隔板	P-B-045053100	3
PE袋	P-PE-B0250090000	180
大PE袋	P-PE-B0140400000	30
Label	P-LA-W109	30

Table B :

Part Number	Pcs/Layer	Layer/Cartron	Pcs/Cartron	N.W(kgs)	G.W(kgs)
ALF6P-100007	900	2	1800		

Tolerances Unless Otherwise Specified		Drawn	Date	 ADVANCED WIRELESS & ANTENNA INC.				
General		Jerry	11/03/22'					
Angles		Jerry	11/03/22'					
Scale		Sam	11/03/22'					
Sheet	1 of 1	Approved	Date	Title STU2 Wlan PACKAGE DRAWING				
Unit	mm	Sam	11/03/22'					
		3D File		Series	ALF6P	Series	Rev	A3
				Draw No.	P-ALF6P-00-00			X1

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HSF相關均質拆分及測試點選擇參照
<HSF均質物質拆分作業圖示表>

符合AWAN環境管理物質技術標準

All materials meet the AWAN's spec. Environment - related substances management technical standard.

Revision

Revision	Date	Change Notification	Notes
Rev.1	2022-11-04		

昆山展腾电子科技有限公司
样品检验记录

品名规格:S1U2 WLAN ANT				图号（版本）：X1				第 次送样		□供货商:			
料 号：311600203000				/						■客户:虹堡			
量具	A. 游标卡尺 B. 投影机 C. 显微镜 D. 钢尺 E.量具 F.X-RA						检验项目	■ 外观 ■ 尺寸 □ 功能 □ 电镀					
	G.目视 H.益和测试机/8681/8687 I.工具显微镜							□ □ □ □					
	J 高度规 K. 网络分析仪 L.												
序号	检验项目			检验记录					工 具	檢驗結果	可否允收	备注	
		样品1	样品2	样品3	样品4	样品5							
1	功能检验			OK	OK	OK	OK	OK	K	OK			
2	电镀检验												
3	外观			OK	OK	OK	OK	OK	G	OK			
HSF检验（记录报告编号）													
其他													
序号	尺寸			检验记录						工 具	檢驗結果	可否允收	
	Nominal	+Tol	-Tol	样品1	样品2	样品3	样品4	样品5					
1	53.00	3.00	3.00	53.000	53.000	53.000	53.000	53.000	D	OK			
2	30.00	0.10	0.10	30.040	30.020	30.030	30.030	30.040	A	OK			
3	20.00	0.10	0.10	19.980	19.980	19.970	19.960	19.970	A	OK			
4	2.1(MAX)	/	/	1.470	1.520	1.550	1.620	1.570	A	OK			
5	0.25	0.05	0.05	0.230	0.230	0.220	0.220	0.230	A	OK			
备注说明:(或略图说明)													
检验者		刘婉婉		日期	2022.8.9		意见		OK				
品管主管		童政裕		日期	2022.8.9		意见		OK				
研发单位		丁小玲		日期	2022.8.9		意见		OK				

塑膠材料保證書
CERTIFICATE OF COMPLIANCE OF PLASTIC MATERIAL

供應商

VENDER DAI-ICHI SEIKO CO.,LTD

料號

PART NUMBER 20278-112R-13

品名

PART DESCRIPTION MHF PLUG ASSY

數量/訂單號碼

QUANTITY/P.O. NO. _____

出貨日期

SHIPPING DATE _____

原料製造商

MATERIAL SUPPLIER WINTECH POLYMER LTD

原料品名/規格

MATERIAL DESCRIPTION/SPEC XFR 4840 GF10 (w)(f1), 310NF (w)(f1)

原料 UL 號碼

MATERIAL UL FILE NUMBER

原料防火等級

MATERIAL FLAMMABILITY CLASS

E213445

V-0

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M. Tsulayashu



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Issued : 09-05-02
Revised : 02-03-05
Page : 1 of 1

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Taiwan Branch





AVLV2.E318898
Appliance Wiring Material - Component

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Appliance Wiring Material - Component

[See General Information for Appliance Wiring Material - Component](#)

JIANGYIN SHENYU COMMUNICATION

E318898

NO 1-1 OF CHENGJIANG

XINYUAN RD

JIANGYIN, JIANGSU 214400 CHINA

Table of Recognized Styles	
Single-conductor, thermoplastic insulation.	
1354	11149

Marking: Company name, voltage rating, temperature rating, conductor size, conductor material if other than copper, and use.
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CERTIFICATE OF COMPLIANCE

Certificate Number E523295
Report Reference E523295-20210810
Date 2021-August-11

Issued to: Dongguan Boyongkai Electronic Technology Co., Ltd
Fenghuang East Road, Shajiao Community, Humen Town
Dongguan Guangdong 523936 CN

This is to certify that
representative samples of

WIRING, PRINTED - FLEXIBLE MATERIAL
CONSTRUCTIONS - COMPONENT

See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL 796F - Standard for Safety for Flexible Materials Interconnect

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Bruce Mahesholtz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number E523295
Report Reference E523295-20210810
Date 2021-August-11

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Product Designation:

Single layer Flexible Materials Interconnect Constructions with Flammability Classification Only.

Type - BYK-D.



Bruce Mahrenholz, Director North American Certification Program

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