

CASTLENET TECHNOLOGY INC.

APPROVAL SHEET

Parts No.: 2AN-C901BK00RFR

Material Description: DUAL BAND ANTENNA PCB(ALX21P-221AA4-00)

IPEX ϕ 1.13/108mm BLACK 2.4G+5G/3.5/4.6dBi RoHS


Manufacturer/Agency: LYNWAVE TECH

Mfg. Parts No.: ALX21P-221AA4-00

Original Vendor Name: _____

Sample Arrival Date: 2021.12.02

Comment:

Approval Dept. : <input type="checkbox"/> H/W		<input checked="" type="checkbox"/> MD	<input type="checkbox"/> PM	<input type="checkbox"/> ME
D.C.C.	ISSUE	ISSUE	To	
		<input checked="" type="checkbox"/> CTI (IQC)	<input type="checkbox"/> Vendor	
		<input type="checkbox"/> THAILAND (IQC)	<input type="checkbox"/> Other : _____	
		ISSUE	From	
		<input checked="" type="checkbox"/> Headquarter :	5F., No. 10, Daye Rd., Beitou Dist., City Taipei 112, Taiwan Tel:+886-2-7705-8001	
		<input type="checkbox"/> Thailand Factory :	38 M.4 Petchkasem Road, Sapang, Khaoyoi, Petchburi 76140 Thailand Tel:+66-32-447-767	
File No.	AM121C0001	http://www.castlnet.com.tw		

☑ [表單] 零件承認申請單(RD_011D) 顯示流程

Component Approval Sheet

申請人員: a11491 張廷宇 WF1100 硬體課 申請日期: 2021/11/25

Approve Type 零件類別: A.電子料 / 機構料 / 包材 B.機電料 C.Adaptor G.CTI代工(CS)

Parts Number 料號: 2AN-C901BK00RFR

Specifications 品名規格: DUAL BAND ANTENNA PCB (ALX21P-221AA4-00) IPEXφ1.13/108mm BLACK

Manufacturer 製造商: Lynwave Agency 代理商: Lynwave

Mfg. Parts No 原廠料號: ALX21P-221AA4-00

Recognition Methods 承認方法: Serial 系列 Single 單一 Other 其他

Packing Type: TAPING TRAY TUBE REEL BULK Others 依進貨包裝

Test Platform (Product Model): CBA390SL5-AX5700 Regular Parts 一般零件 Specify Parts 指定零件

Sample Testing Result 測試結果

Electrical Spec Review: OK REJECT Note:

Mechanical Spec Review: OK REJECT Note:

Function Test: OK REJECT Note:

Test Item / Method / Result

OK

Conclusion: ACCEPT REJECT

送簽前請先確認承認書應附文件是否完整:

電子/機構零件承認應備文件 ●必要 ◎非必要(依要求)

總類	類別名稱	零件承認所需相關資料											
		承認書	機構尺寸圖	樣品	安規證明	測試報告	包裝方式	儲存條件說明	pin 1 標示	顏色 1 樣板	線路圖	各層底片	文字面
1	PCB	●	●	●	●	●	●	●	●	●	●	●	◎
2	IC	●	●	●	●	●	●	●	●	●	●	●	◎
3	PASSIVE	●	●	●	●	◎	●	●	●	●	●	●	◎
4	SEMICONDUCTOR	●	●	●	●	◎	●	●	◎	●	●	●	◎
5	ELE.MECH	●	●	●	●	◎	●	●	●	●	●	●	◎
6	OEM	●	●	●	●	◎	●	●	◎	◎	◎	◎	◎
7	ACCESSORY	●	●	●	●	◎	●	●	◎	◎	◎	◎	◎

總類	類別名稱	零件承認所需相關資料											
		承認書	機構尺寸圖	樣品	耐腐探測	安規證明	測試報告	包裝方式	刀模圖	破裂強度	剝落測試	硬度測試	鹽霧測試報告
8	PLASTIC	●	●	●	●	●	●	●	●	●	●	●	◎
9	MECHANICAL	●	●	●	●	●	●	◎	●	●	●	●	◎
10	PACKING	●	●	●	◎	●	●	●	●	●	●	●	◎
11	METAL	●	●	●	●	●	●	◎	◎	◎	◎	◎	◎

Remark 備註:

- 「Approve Type 零件類別」為簽核流程判斷依據，請勿選取錯誤。(CTI 凱碩: 1~3; CTK 沛丰: 4)
- 「Test Item / Method / Result」如有附件也請上傳。
- 依IQC進料檢驗判定規範驗貨。
- RoHS檔案存放路徑 [\\10.27.47.214](http://10.27.47.214)。
- CTK承認書存放路徑 <http://10.27.47.214>。

附件夾帶

檔案類型	原始檔名	附件描述	檔案大小	上傳時間	上傳者	活動名稱
	ALX21P-221AA4-00承認書20211103.pdf	規格書	3 M 308 K 78 byte(s)	2021-11-25 16:15:05	張廷宇	申請人
	CBV390SL5-AX5700 Antenna test.pdf	測試報告	383 K 951 byte(s)	2021-11-25 16:15:16	張廷宇	申請人
	凱碩-『CTK-QA-086A』環境管理物質成份展開表.rar	環境物質成分展開表	9 M 464 K 966 byte(s)	2021-11-25 16:15:38	張廷宇	申請人
	科信成端子鹽霧報告.pdf	鹽霧測試報告	190 K 546 byte(s)	2021-11-25 16:15:56	張廷宇	申請人
	科信成端子膜厚報告.pdf	端子報告	275 K 859 byte(s)	2021-11-25 16:16:07	張廷宇	申請人

處理者	建立時間	簽核時間	簽核意見	名稱	狀態
a11491-張廷宇	2021/11/25 16:13	2021/11/25 16:16		申請人	已處理
a11437-林澤青	2021/11/25 16:16	2021/11/26 11:06		直屬主管確認	已處理
a11257-周貞秀	2021/11/26 11:06	2021/11/26 15:06		CTIPE窗口確認	已處理
a11514-周湘芸	2021/11/26 15:06	2021/11/26 15:45		CTI採購成員確認	已處理
a10727-葉日璋	2021/11/26 15:45	2021/11/26 16:56		CTIQA窗口確認	已處理
a11493-黃啟賢	2021/11/26 16:56	2021/11/29 09:53		CTIPE主管確認	已處理
a11257-周貞秀	2021/11/29 09:53	2021/12/02 10:08		CTIPE零件承認窗口	已處理



產品承認書

Specification for Approval

客戶 (Customer): 凱碩科技股份有限公司

Customer Part No.: 2AN-C901BK00RFR

Product Description: CBA390SL5-AX5700

Lynwave Part No.: ALX21P-221AA4-00

客戶簽核 (Customer Approval)

客戶承認 Customer Approval	核准 (Authorized)	檢驗 (Approved)
	日期： 年 月 日	

內部簽核 (Signature) 日期： 2021 年 11 月 03 日

Approved by	Checked by	Tested by
<i>YungMing</i>	<i>Lisa Wei</i>	<i>Zero Chen</i>

綠億科技股份有限公司

Lynwave Technology Ltd.

Taiwan: 新北市樹林區學成路 655 號 5 樓

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E-mail: service@lynwave.com

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Specification

Physical Properties :

1. Operation temperature : $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
2. Storage temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
3. Storage period: 2years
4. Weight: 1.28g

Features

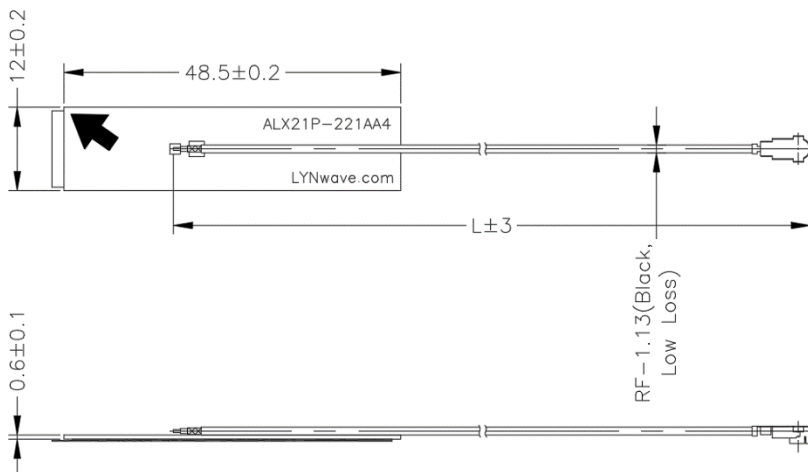
- Dual band IEEE 802.11 a/b/g/n/ac/ax standard
- Case mounting or on board mount
- High efficiency
- Quick integration



Specification(Preliminary)

Frequency (MHz)	2400 ~ 2500	5150 ~ 5825
Peak Gain (dBi)	3.5	4.6
VSWR	2.0:1	2.0:1
Power (Watts)	1	1
Impedance (Ohms)	50	50
Dimension (mm)	48.5 x 12 x 0.6	
Connector	MHF compatible	
Cable length (mm)	108	
Operating Temp (°C)	-40°C ~ +85°C	

Mechanical Dimensions



Castlenet CBV390S5-AX5700 Antenna Test Report

Report by Daniel
2021/05/06

A. Antenna Testing Conditions

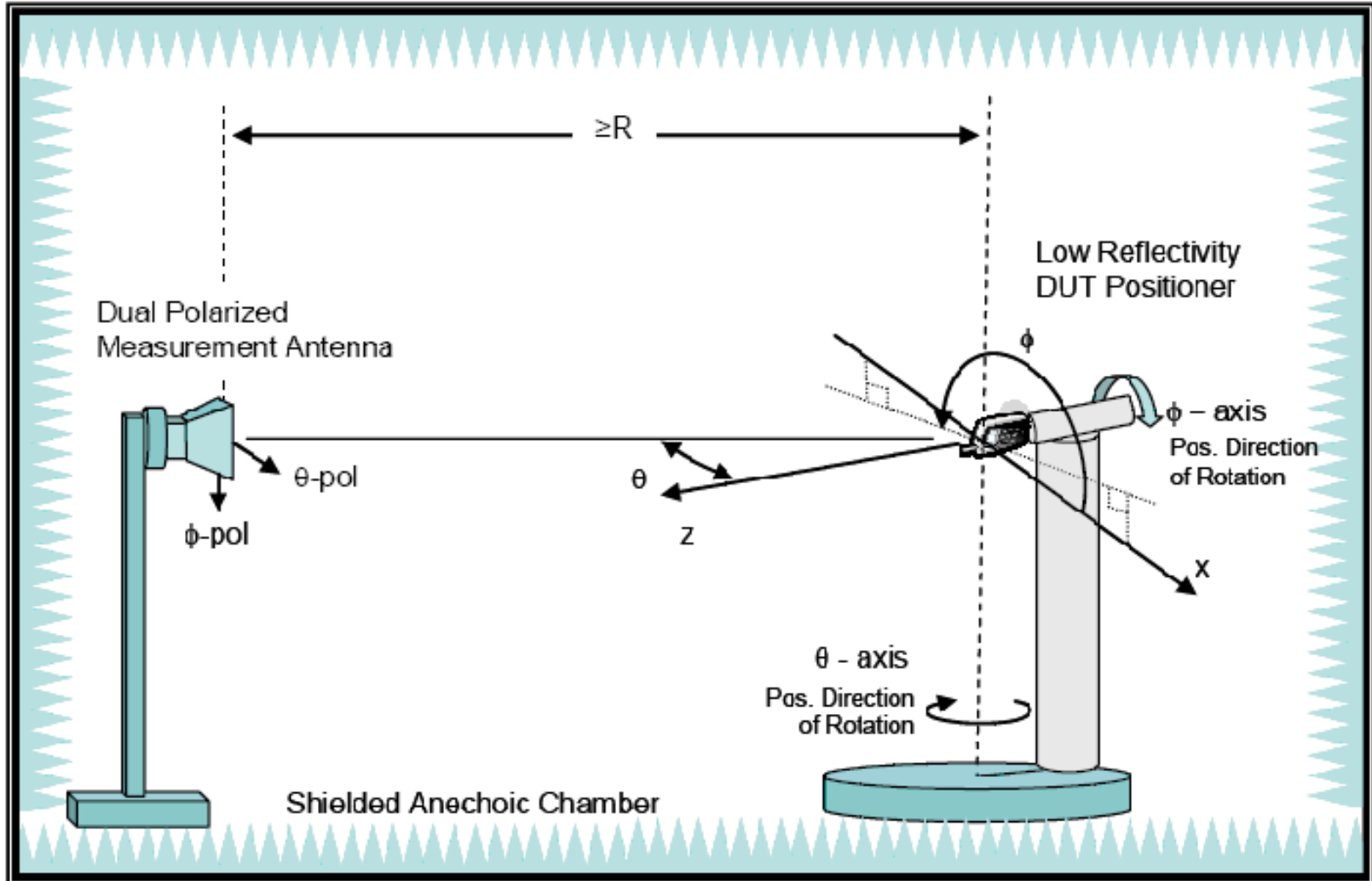
1. Test System
2. Antenna Under Test
3. Antenna Placement

B. Antenna RF Characteristics

1. Return Loss and Isolation
2. Gain Table
3. 2D Radiation Pattern

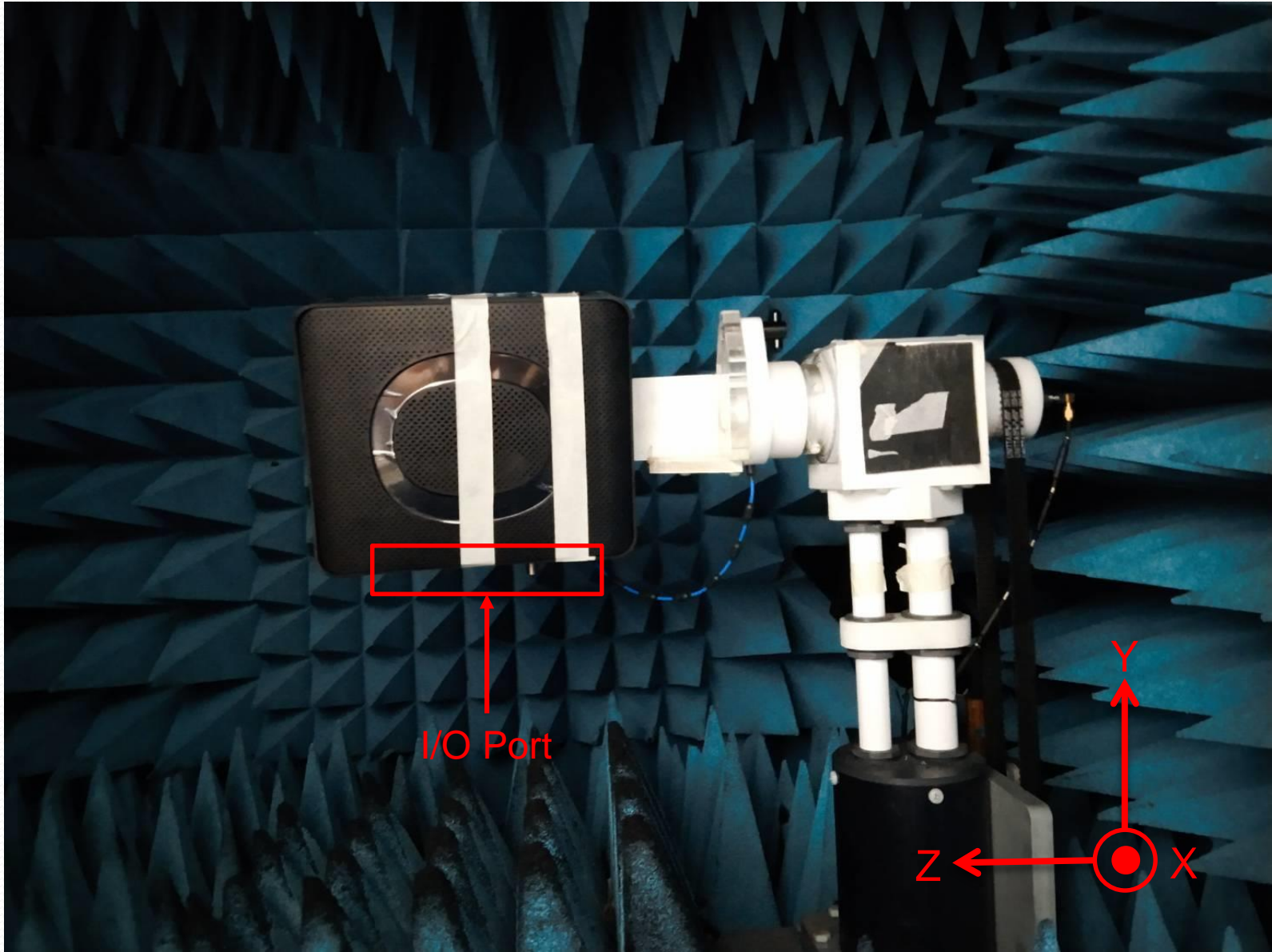
Antenna Test System

LYNwave



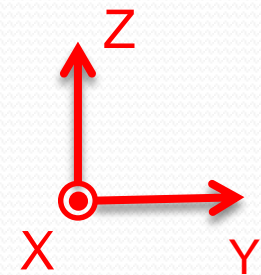
Antenna Under Test

LYNwave

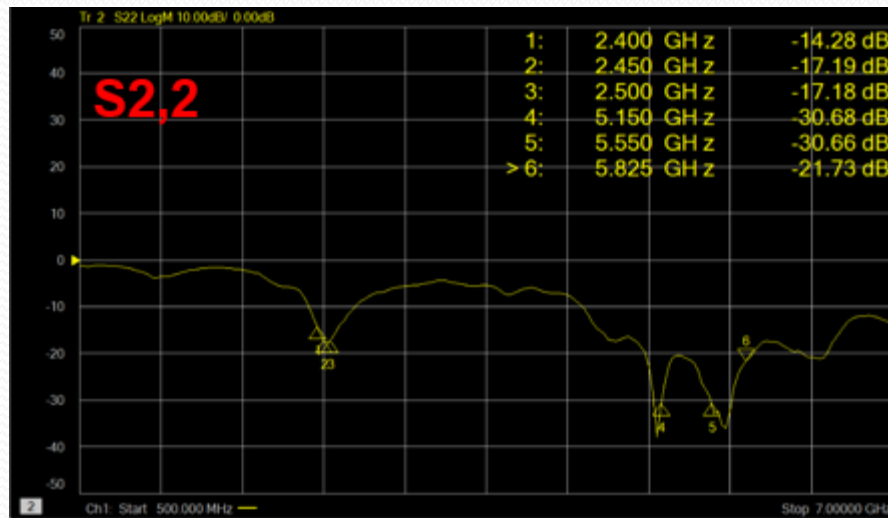


Lynwave Antenna Placement

LYNwave

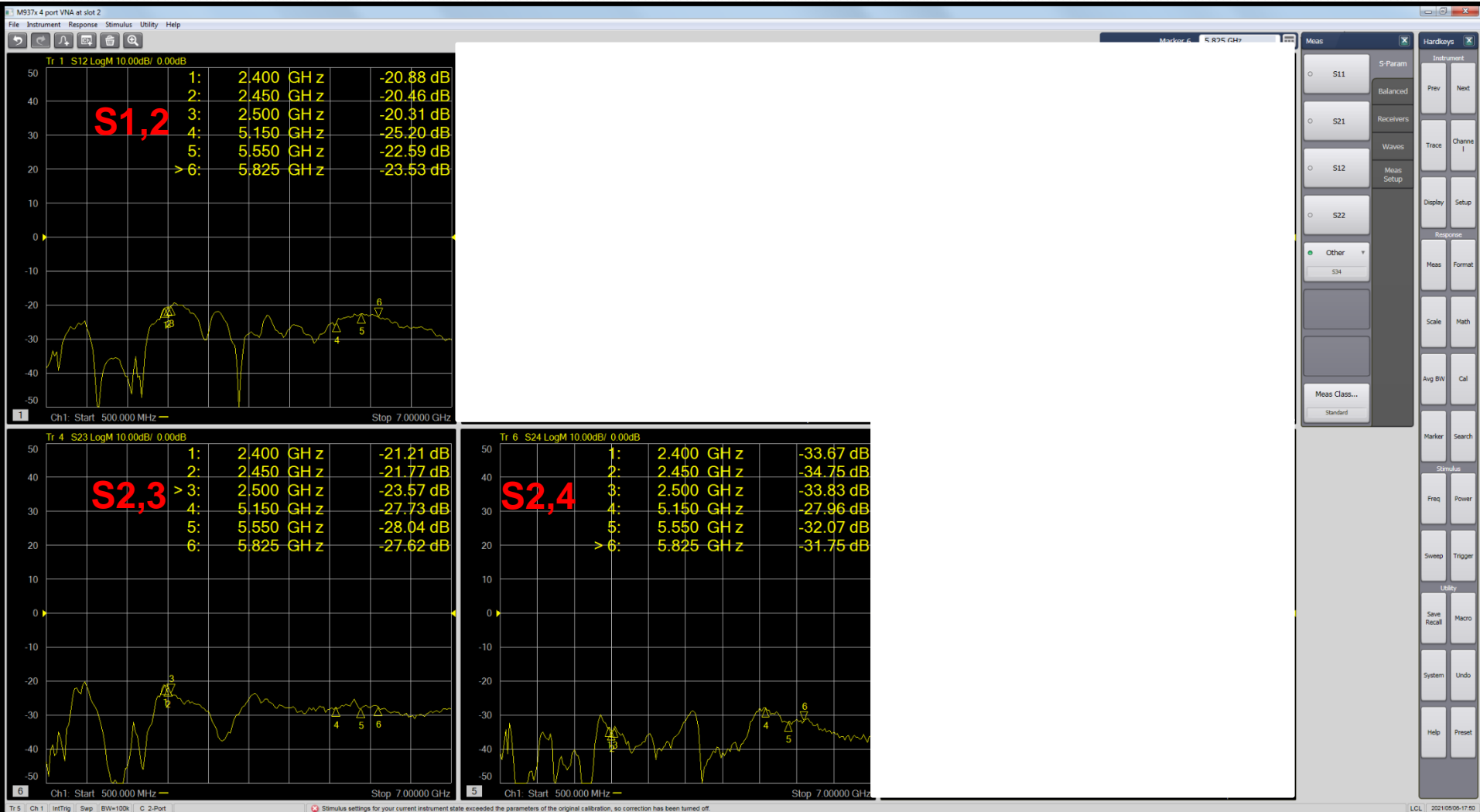


S-Parameter



Isolation

LYNwave

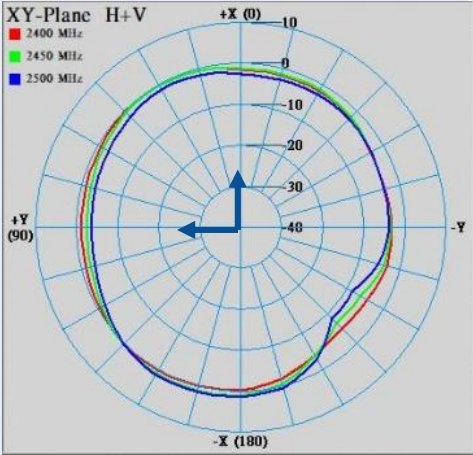
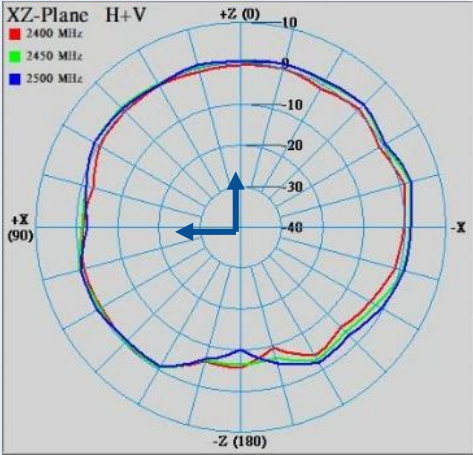
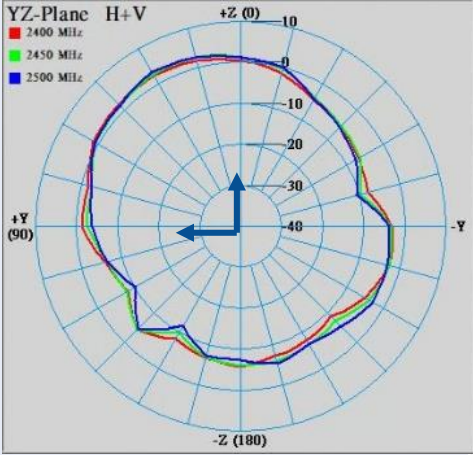





Gain Table

	Frequency(MHz)	2400	2450	2500	5150	5550	5825
Ant.2	Efficiency(%)	72	80	80	64	68	67
	Peak Gain(dBi)	3.0	3.4	3.5	3.8	4.6	2.8

Ant.2 2.4G 2D Radiation Pattern

LYNwave

Frequency	2.4GHz		
Plane	XY	ZX	ZY
Radiation Pattern			
Setup			

Ant.2 5G 2D Radiation Pattern

LYNwave

Frequency

5GHz

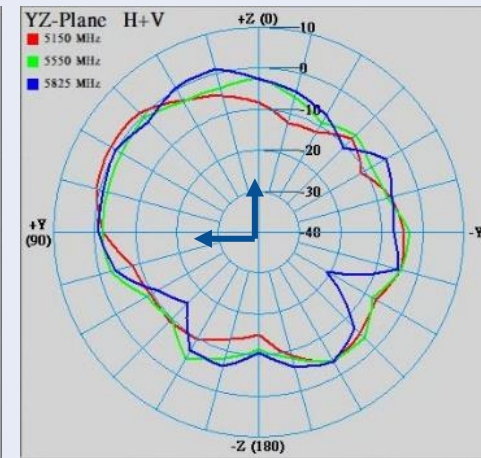
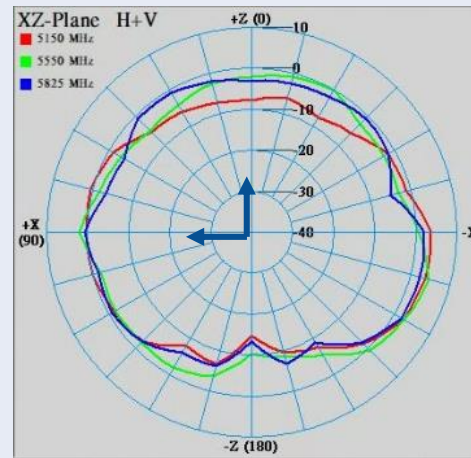
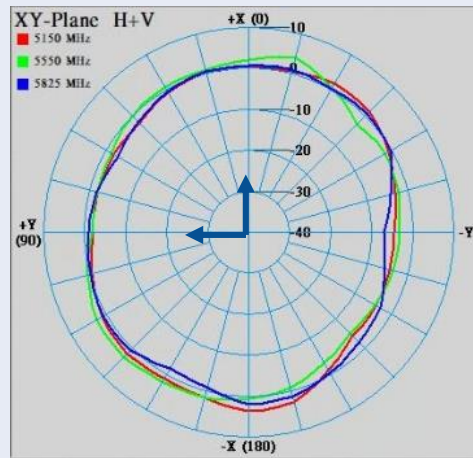
Plane

XY

ZX

ZY

Radiation Pattern



Setup



Ver.Lynwave

- The antenna characteristics
 - Return loss $< -10\text{dB}$ in operating band
 - Gain
 - Ant 2.4G band 2.5~3.6dBi
 - Ant 5G band 2.4~5.1 dBi
 - Efficiency
 - Ant 2.4G band $> 60\%$
 - Ant 5G band $> 60\%$
 - Isolation
 - Ant 2G $> 20\text{dB}$
 - Ant 5G $> 20\text{dB}$



A3 级覆铜箔板质量技术指标

试验项目	试样处理	标准值	典型值
1.抗剥强度 磅/英寸, 最小值			
A 1/2 盎司铜箔			
接收状态	A	≥6.0	6.0-8.0
热应力	A	≥6.0	6.0-8.0
提高温度下	125℃	≥4.0	7.0
暴露于工艺溶液后	125℃	≥4.5	7.0
B 1 盎司铜箔			
接收状态	A	≥8.0	8.0-10.0
热应力	A	≥8.0	8.0-10.0
提高温度下	125℃	≥6.0	9.0
暴露于工艺溶液后	125℃	≥7.0	9.0
2.体积电阻, 最小值, MΩ·CM 在提高温度下	E-24/125	≥10 ³	10 ⁶
3.表面电阻, 最小值, MΩ 在提高温度下	E-24/125	≥10 ³	10 ⁶
4.吸水性,最大值(%)	E-1/105+des	≤0.80	0.18-0.35
5.击穿电压,最小值(KV),步进(厚度≥0.50 mm)	D-48/50 D-0.5/23	≥35	38
6.抗弯强度, 最小值(N/mm ²) (厚度≥0.50 mm)			
经向	A	≥415	495
纬向	A	≥345	405
7.抗电弧性,最小值, 秒	D-48/50 D-0.5/23	≥60	75
8.阻燃性	A	UL94V0	UL94V0
9.可焊性	A	可焊	可焊
10.介电常数,1MHZ 下	A	≤ 5.4	4.7-4.9
11.损耗角正切,1MHZ 下	A	≤0.045	0.020-0.035
12.弯曲和翘曲,最大(%)			
双面(厚度大于 0.78mm; 尺寸 300mm×300mm)	A	≤1.0	0.20-0.50
单面(厚度大于 0.78mm; 尺寸 300mm×300mm)	A	≤1.5	0.30-0.70
双面(厚度 0.5~0.78 mm; 尺寸 300mm×300mm)	A	≤1.5	0.30-0.50
单面(厚度 0.5~0.78 mm; 尺寸 300mm×300mm)	A	≤2.0	0.35-0.70
13.热应力,288℃,漂锡 10 秒 未蚀刻试样	A	NO DEFECT	55-80 Sec
14.玻璃化转变温度,TG(DSC, °C)	A	≥125	135
15.适用范围: 家电行业、电脑周边产品、普通电子产品。不适用于计量用仪表。			
16.适用线路: 最小孔径>0.3mm, 最小孔间距>0.8mm。			

备注:1、处理方法中字母及数值的含义

A-板材交货阶段

D-恒温水浴 E-高温烘培 数 1/数 2: 1-时间(小时) 2-温度(°C) des-干燥 10 分钟以上或干燥状态下冷却至室温。

2、上表所定翘曲度标准仅适用于覆铜箔板交货验收。若以成品 PCB 板作为检验样品, 一般要求 PCB 两面布线基本均匀, 最大尺寸不大于 12", 且在 140℃热风循环烤箱中, 保持承载板水平, 烘烤 2 小时, 自然冷却至室温的试验测试值为准。

**QMTS2.E330731****Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component**

For enhanced search functionality, please visit UL's [iQ™ Family of Databases](#).

Click on a product designation for complete information.

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Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

See General Information for Polymeric Materials - Filament-wound Tubing, Industrial Laminates, Vulcanized Fiber, and Materials for Use in Fabricating Recognized Printed Wiring Boards - Component

GOLDENMAX INTERNATIONAL TECHNOLOGY (ZHUHAI) LTD

E330731

8 QINSHI RD QINSHI INDUSTRIAL PARK

SANZAO TOWN

JINWAN DIST

ZHUHAI, GUANGDONG 519040 CHINA

Industrial laminates:

Mtl Dsg	ANSI Type	Color	Build up Min Thk (mm)	Flame Class	R.T.I.		H W I	H A I	V T R	C T I	Meets 746E DSR
					Elec (°C)	Mech (°C)					
Industrial laminates, furnished as sheets, rods or tubes.											
GDM-C3, ILM-C3											
	CEM-3	NC (WT)	0.63	V-0	130	140	0	2	4	-	Yes
			1.6	V-0	130	140	0	2	4	3	Yes
GDM-R1, ILM-R1											
	FR-4	NC,YL	0.38	V-0	130	130	0	3	4	-	Yes
			0.63	V-0	130	140	0	3	4	-	Yes
			1.40	V-0	130	140	0	2	4	3	Yes
Industrial laminates.											
GF432	FR-4	NC (YL)	0.38	V-0	130	130	0	0	-	-	Yes
			0.63	V-0	130	140	0	0	-	-	Yes
			1.40	V-0	130	140	0	0	-	3	Yes

Ultrathin build ups:

Build Up					Laminate			Prepreg		
Mtl Dsg	ANSI Type	Min Thk (mm)	TI Elec	TI Mech	Mtl Dsg	Thk (mic)	TI Elec	Mtl Dsg	Thk (mic)	TI Elec
Ultrathin industrial laminates and bonding layers, furnished in sheet form, for use in multilayer printed wiring boards where the thickness is built up to the minimum specified.										
GDM-U1, ILM-U1	FR-4	0.38	130	130	GDM-U1, ILM-U1	100	120	GDM-P1, ILM-P1	100	120

		0.63	130	140	GDM-U1, ILM-U1	100	120	GDM-P1, ILM-P1	100	120
GF432	FR-4	0.38	130	130	GF432	155	120	GF432-PP	75	90
		0.63	130	140	GF432	155	120	GF432-PP	75	90

Metal clad industrial laminates:

Metal Clad Dsg	Laminate Dsg	Pre-preg Dsg	ANSI Type	Bld up	Clad Cond Thk			Max	Flame Class	Max	Solder Lts	
				Min Thk (mm)	Min Ext (mic)	Max Ext (mic)	Max Int (mic)	Area Dia (mm)		Oper Temp (°C)	Temp (°C)	Time (sec)
Metal clad multilayer package (mass laminate) with internal circuitry and solid copper on outside surfaces, furnished as sheets.												
GDM-ML1, ILM-ML1												
	GDM-U1, ILM-U1	GDM-P1, ILM-P1	FR-4	0.38	17	102	68	50.8	V-0	130	288	20
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides, furnished as sheets.												
GDM-U1, ILM-U1												
	GDM-U1, ILM-U1	GDM-P1- ILM-P1	FR-4	0.38	17	102	68	50.8	V-0	130	288	20
Metal clad industrial laminates for use in multilayer printed wiring boards with copper on one or both sides.												
GF432	GF432	GF432-PP	FR-4	0.38	17	102	68	50.8	V-0	130	288	20
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides, furnished as sheets.												
GDM-C3, ILM-C3												
	GDM-C3, ILM-C3	-	CEM-3	0.63	17	102	-	12.7	V-0	130	288	10
GDM-R1, ILM-R1												
	GDM-R1, ILM-R1	-	FR-4	0.38	17	102	-	50.8	V-0	130	288	20
Metal clad industrial laminates for use in single layer printed wiring boards with copper on one or both sides.												
GF432	GF432	-	FR-4	0.38	17	102	-	50.8	V-0	130	288	20

GDM, ILMMarking: Company name or trademark and material designation on container or wrapper.
Last Updated on 2013-10-31

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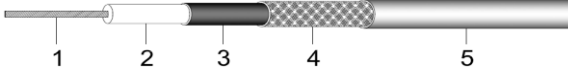
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型号 Type	RF-1.13L/50	料号 P/N	SY113L/50-001(Black)	版本: V2
结构图 Structure drawing				
结构特性 Structure characteristics				
结构 Structure	项目 Item	标准值 Standard value		
①内导体 Inner conductor	材料 Material	镀银铜线 Silverplated copper wire		
	组成:总根数/单根外径(mm) Makeup:total / O.D. of every wire(mm)	7/0.083		
	(绞合)标称外径(mm) (Intertwist)NOM.O.D.(mm)	0.249±0.02		
②绝缘层 Insulation	材料 Material	聚全氟乙丙烯 FEP		
	颜色 Color	透明 Clarity		
	标称外径(mm) NOM.O.D.(mm)	0.735±0.03		
③外导体 Outer conductor	材料 Material	铜塑箔 Cu-plastic composite tape		
	组成:厚度(mm)×宽度(mm) Makeup:thickness(mm)×width(mm)	0.012×2.5		
	标称外径(mm) NOM.O.D.(mm)	0.759±0.03		
	覆盖率(%) Coverage ratio(%)	100		
④外导体 Outer conductor	材料 Material	镀锡铜线 Tinned copper wire		
	组成:总根数/单根外径(mm) Makeup:total / O.D. of every wire(mm)	4/0.05		
	标称外径(mm) NOM.O.D.(mm)	0.96±0.05		
	覆盖率(%) Coverage ratio(%)	90±5		
⑤护套层 Jacket	材料 Material	聚全氟乙丙烯 FEP		
	颜色 Color	黑 Black		
	标称外径(mm) NOM.O.D.(mm)	1.15±0.05		
电性能特性 Electrical characteristics				
项目 Item	标准值 Standard value	项目 Item	频率 Frequency	标准值 Standard value 单位 Unit:dB/m
电容(pF/m) Capacitance(pF/m)	98	衰减 Attenuation	1GHz	≤1.88
速率(%) Velocity(%)	70		2GHz	≤2.55
阻抗(Ω) @ 1ns Impedance(Ω)	50±2		3GHz	≤3.05
驻波比 Standing wave ratio	≤1.3@0-6GHz		4GHz	≤3.52
	≤1.4@6-8GHz		5GHz	≤4.05
	≤1.5@8-10GHz		6GHz	≤4.4
最大工作电压(V) Max.operating voltage(V)	1000		7GHz	≤4.88
			8GHz	≤5.22
			9GHz	≤5.62
			10GHz	≤5.95
可靠性 Dependability				
项目 Item	单位 Unit	标准值 Standard value		
最小弯曲半径(一次/重复) Min.bending radius (static / repeated)	mm	4 / —		
工作温度范围 Operating temperature	℃	-55~+125		
包装 Packing				
项目 Item	单位 Unit	标准值 Standard value		
包装方式 Packing mode	/	纸盘 Papery plate		
每盘长度 The length of each plate	m	500		
每盘接头数/每段最短长度 Each connector plate number/The shortest length of each root	No. / m	≤3 / ≥10		
使用提示 Use tips				
存储环境 Storage environment	温度: 30℃以下; 湿度: 20%~65% Temperature: Under 30℃; Humidity: 20%~65%			
最佳保存周期 The best save cycle	2个月; 2个月以上作业性下降, 如上锡效果变差, 但电性能不受影响。夏季高温高湿环境开剥后需尽快流转。 two months; Soldering performance may decline after two months, the tinned effect may become worse, but the electrical characteristics are not affected. The stripped wire must be used as soon as possible in the summer high temperature and high humidity environment.			
加工温度 Processing temperature	260℃的极限情况下, 可短时间承受; 300℃以上分子通常带有的等端基会分解; 400℃以上发生显著的热分解。 Under the condition of 260℃ limit, can bear within short time; Molecular with terminal groups will decompose over 300℃ and significantly decompose over 400℃.			
铁氟龙收缩 Teflon Shrink	固有材料特性。绝缘: 0.2mm以下; 护套: 0.3mm以下。 The inherent material characteristics. Insulation: <0.2mm ; Jacket: <0.3mm.			
护套窜动 Jacket traverse	加工长度(护套残留长度) 低于5cm易发生。 The Jacket traverse may happen easily, when the processing length is less than 5cm.			

Standard	Appliance Wiring Material UL 758.
----------	-----------------------------------

Marking	General.
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Use	Internal wiring of Class 2 circuits of electronic equipment or as insulated single in jacketed multiconductor cables.
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CUSTOMER DRAWING

HSF

Rev.	ECN No.	DESCRIPTION
A	ECN180502-001	NEW RELEASE
B	ECN180610-001	ADD "HSF"

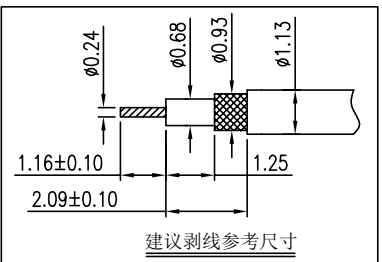
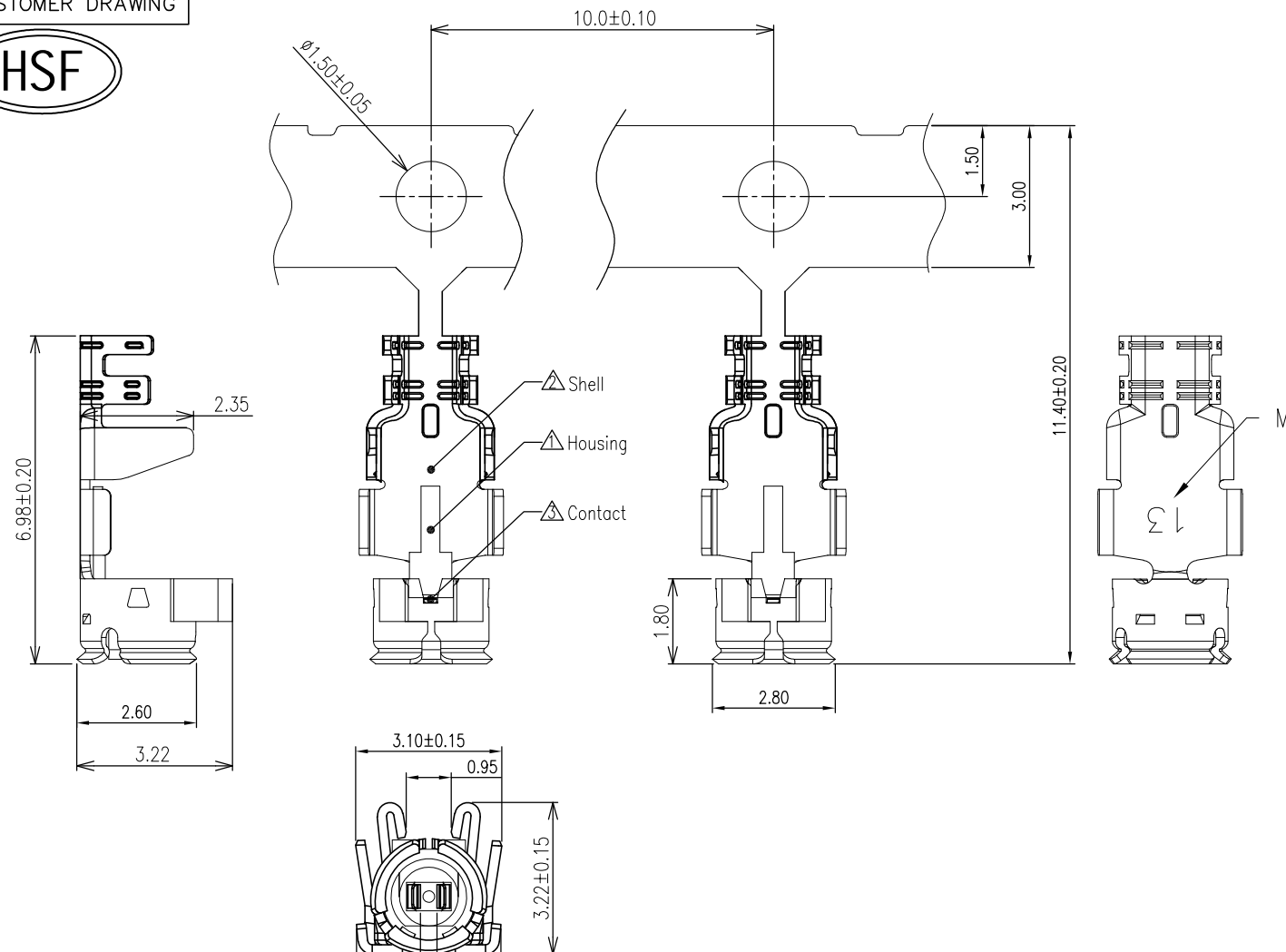
Notes:

- Material and finish(Plating)
 - △Housing PBT (Black), UL94V-0.
 - △Shell Phosphor bronze: Au over Ni
 - △Contact Phosphor bronze: Au over Ni
- Impedance: 50 OHM Nominal
- Frequency Rating: DC TO 6 GHZ
- VSWR: DC -- 3GHz 1.3max.
3GHz -- 6GHz 1.5max.
- Cable retention force 10N min.
- The harmful material of this part should be compliance with CCT document QW-QA-10.

PRODUCT NUMBER ORDER

ANC Z 113 * - 1 C 1
① ② ③ ④ ⑤ ⑥ ⑦

- Production Code :
ANC: ANTENNA PLUG for cable
- Height after mated broad end :
Z: Special SPEC. CCT PATENTED
- Match Cable ϕ :
113: Cable ϕ 1.13mm
- Shell Gold Plating Thickness :
L: Plating Gold 0.5u" min.
1: Plating Gold 1.0u" min.
- Product design generation:
1: First generation.
- Customer identification code:
1: CUS is Another
C: 1.13 CCT shell mark "13"
- Color of Housing:
1: Black



TOLERANCES UNLESS OTHERWISE SPECIFIED

X.	±0.25	X.°	±2°
.X	±0.20	.X°	±1°
.XX	±0.15	.XX°	±0.5°

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科信成精密科技(江苏)有限公司 COCENTRA PRECISION TECHNOLOGY (JIANGSU) Co. LTD.					
SERIES: RF CABLE PLUG CONN.			TITLE: RF1代 PLUG 1.13 C TYPE		
APPD: 王宁 2018/06/10			PART No.: ANCZ113x-1C1		
CKD: 魏国强 2018/06/10			DWG No.:		
DR: 魏国强 2018/06/10			307-0000-0183		
UNITS	MAT'L	FINISH	SCALE	SHEET	REV.
MM	N/A	N/A	1:1	1/1	B



SHINKONG SYNTHETIC FIBERS CORP
223 YEN PING RD SEC 3, PIN CHENG TAOYUAN HSIEN 324 TW



F202G15

Polybutylene Terephthalate (PBT), pellets

可燃性	Value	测试方法
UL 阻燃等级		UL 94
1.50 mm, ALL	V-0	IEC 60695-11-10, -20
3.20 mm, ALL	V-0	
灼热丝易燃指数		IEC 60695-2-12
1.50 mm	800 °C	
3.20 mm	960 °C	
热灯丝点火温度		IEC 60695-2-13
1.50 mm	750 °C	
3.20 mm	725 °C	
电气性能	Value	测试方法
热丝引燃 (HWI)		UL 746
1.50 mm	PLC 0	
3.20 mm	PLC 0	
高电弧燃烧指数(HAI)		UL 746
1.50 mm	PLC 0	
3.20 mm	PLC 0	
相比耐漏电起痕指数(CTI)	PLC 0	UL 746
介电强度	24 kV/mm	ASTM D149 IEC 60243-1
高电压电弧起痕速率 (HVTR)	PLC 1	UL 746
体积电阻率	1.0E+15 ohm·cm	ASTM D257 IEC 60093
耐电弧性	PLC 5	ASTM D495
热性能	Value	测试方法
RTI Elec		UL 746
1.50 mm	75.0 °C	
3.20 mm	75.0 °C	
RTI Imp		UL 746
1.50 mm	75.0 °C	
3.20 mm	75.0 °C	
RTI Str		UL 746
1.50 mm	75.0 °C	
3.20 mm	75.0 °C	

Component - Plastics

UL 档案号: E107536



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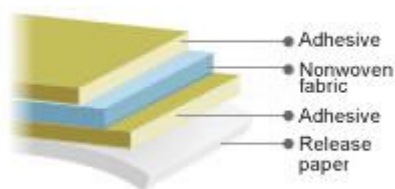
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General-purpose double coated tapes **G9000-SY**

Features

- Adhesive tape with lower environmental impact with UV curable manufacturing method (non solvent adhesive coating process).
- G9000-SY clears The VOC guideline of Japanese Health, Labor and Welfare.
- High adhesive quality (heat resistance and weather resistance) for wide ranging applications.
- Excellent holding power even at elevated temperature of 100°C.

Structure



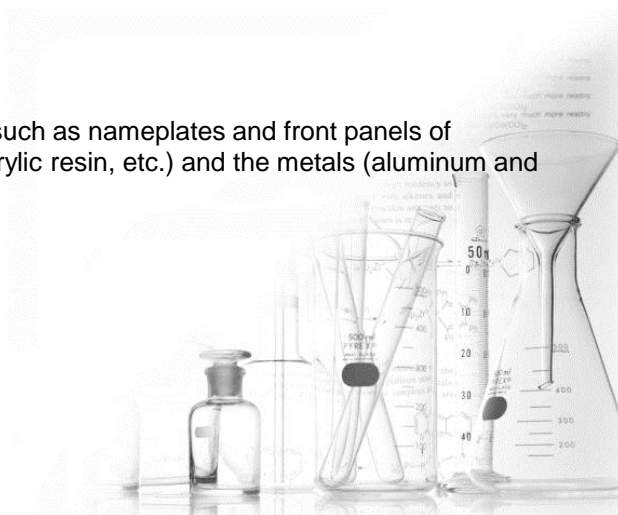
Product name	G9000-SY
Main component	Acrylic
Carrier	Nonwoven fabric
Color	Translucent
Adhesive thickness (μm)	About 150
Release paper thickness (μm)	About 120
Bonding strength (N/20mm) *1	11.77
Bonding strength (N/20mm) *2	8.00
St'd size (width & length)	500mm × 50m 1020mm × 50m

*1 180° peeling strength / substrate : stainless steel SUS304 (surface is polished by #280 sandpaper)

*2 180° peeling strength / substrate : stainless steel SUS304BA

Suitable use

- It is suitable for the material bonding usage of plastic such as nameplates and front panels of electricity and an electronic equipment (ABS, PS, and acrylic resin, etc.) and the metals (aluminum and stainless steel plate, etc.).



Technical data

[Remarks]

*The above values are sample observed values, not the guaranteed performance.

1. Bonding strength on various type of substrate (180° peeling)

<Test piece condition>

Tape width: 20mm

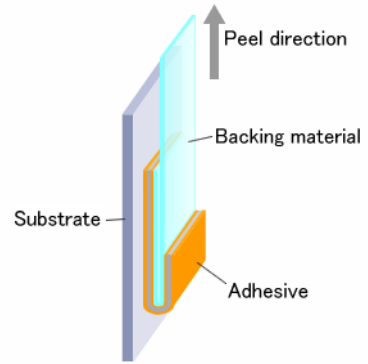
Bonding condition: One stroke with 2-kg roller

Measuring condition: 23°C±5°C 60%±20%RH

Peeling speed: 300mm/min

Backing material: 25µmPET

[Left at RT for one hour before measurement]



<180° peeling strength test>

<Results>

(N/20mm)

Substrate	AL	ABS	Acrylic	PS	PC	PP
180° peeling strength	8.8	11.6	12.4	11.5	11.9	5.1

Substrate	Soft PVC	Hard PVC	Glass	CR	NR	Slip and stick
180° peeling strength	12.6	13.2	12.9	3.4	4.0	

2. Holding power at different temperatures

<Test piece condition>

Substrate: Stainless steel SUS304

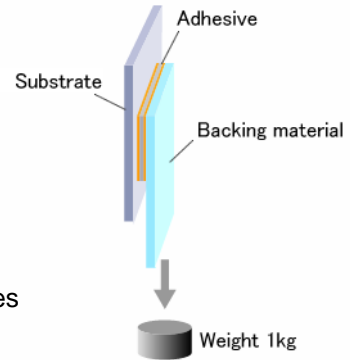
(surface is polished by #280 sandpaper)

Bonding area: 25mm × 25mm

Bonding condition: One stroke with 2-kg roller

[Left at RT for one hour and then at each temperature for 30 minutes before measurement]

[Creep length after one hour application of 1-kg load]



<Holding power test>

<Results>

Measurement temperature	40°C	60°C	80°C	100°C
Creep length (mm)	0.2	0.3	0.3	0.6

3. Bonding strength at different temperatures (180° peeling)

<Test piece condition>

Substrate: Stainless steel SUS304 (surface is polished by #280 sandpaper)

Tape width : 20mm

Bonding condition: One stroke with 2-kg roller

Peeling speed: 300mm/min

Backing material: 100µm Aluminum foil (-20°C to 5°C), 25µmPET (10°C to 100°C)

[Left at RT for one day and then at each temperature for 30 minutes before measurement]

<Results>

(N/20mm)

Measurement temperature	-20°C	0°C	5°C	10°C	23°C	40°C	60°C	80°C	100°C
180° peeling strength	*	32.4	28.3	25.5	17.4	14.4	11.9	10.8	9.3

* AF from backing material

4. Stable weight peeling

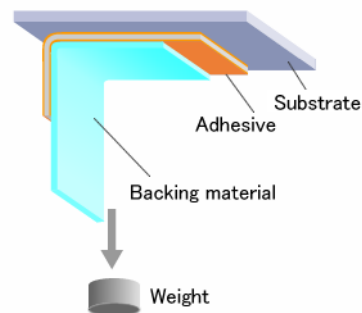
<Test piece condition>

Tape width: 20mm

Bonding condition: One stroke with 2-kg roller

Measurement condition: 23°C±5°C 60%±20%RH

[Left at RT for one hour, measure the peeled off distance by 100-g load]



<Stable weight peeling test>

<Results>

		SUS	AL	ABS	PS	Acrylic	PP
Peel off distance (mm)	1 hour	1.0	2.0	2.0	2.5	2.0	3.5
	3 hours	1.3	3.0	3.5	5.0	3.3	7.8
	5 hours	1.3	2.8	4.5	7.5	4.5	11.0
	24 hours	1.5	9.5	18.5	34.0	16.0	59.0

5. Amount of VOC diffusion

<Methods of analysis>

JIS A-1901: Small chamber method

<Results>

(Volatile organic compound)	The indoor density indicator value ※	G9000-SY
formaldehyde	100µg/m ³	<2.5
toluene	260µg/m ³	<0.5
Xylene	870µg/m ³	<0.5
para-dichlorobenzene	240µg/m ³	<0.5
Ethylbenzene	3800µg/m ³	<0.5
styrene	220µg/m ³	<0.5
Chlorpyrifos	1µg/m ³	<0.02
Dibutyl phthalate	220µg/m ³	<0.02
tetradecane	330µg/m ³	0.7
Bis-(2-ethylhexyl)phthalate	120µg/m ³	<0.02
DIAZINON	0.29µg/m ³	<0.02
acetaldehyde	48µg/m ³	<2.5
FENOBUCARB	33µg/m ³	<0.02

※ The indoor density indicator value that the Ministry of Health, Labour and Welfare in Japan sets

Revision in Apr., 2015

Note on the characteristic data given— Data on the characteristics of the products described in this catalog are based on the results of evaluations carried out by the company. This does not guarantee that the characteristics of the product conform with your usage environment. Before use, review the usage conditions based on evaluation data obtained from the equipment and substrates actually used.

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PGGU2.MH15431 Marking and Labeling System Materials - Component

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Marking and Labeling System Materials - Component

[See General Information for Marking and Labeling System Materials - Component](#)

DEXERIALS CORP

1078 KAMIISHIKAWA

KANUMA-SHI, TOCHIGI-KEN 322-8503 JAPAN

MH15431

Pressure-sensitive laminating adhesives:

Model No.	Face Stock	Face Stock Thk(mm)	Application Surface	Max Temp (°C)	Min Temp (°C)	Indoor Use	Outdoor Use	Additional Conditions
G4000								
	Acrylic	0.483 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.483 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-

G9000, G9000R, G9000-SY, G9000W, G9000RW, G9000T, G9010, G9011, G9050, G9050W, G9051, G9052, G9052W								
	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.483 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
G9050, G9050W, G9051, G9052, G9052W								
	Acrylic	0.483 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
G9100, G9100W, G9120								
	Acrylic	0.508 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Aluminum	0.203 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.508 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
G9900, G9900W, G9900T, G9953RP								
	Acrylic	0.508 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.508 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
NP203, NP203W								
	Acrylic	0.48 - 2	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.48 - 2	Acrylonitrile butadiene styrene	80	-40	X	-	-
NP303, NP303W								
	Acrylic	0.48 - 2	Acrylonitrile butadiene styrene	80	-40	X	-	-

	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.48 - 2	Acrylonitrile butadiene styrene	80	-40	X	-	-
T4000, T4000W								
	Acrylic	0.483 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.483 - 2.007	Acrylonitrile butadiene styrene	80	-40	X	-	-
T4000B, T4000BW								
	Acrylic	0.48 - 2	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Aluminum	0.178 - 0.508	Acrylonitrile butadiene styrene	80	-40	X	-	-
	Polycarbonate	0.48 - 2	Acrylonitrile butadiene styrene	80	-40	X	-	-
T4411, T4411W, T4900, T4900W								
	Aluminum	0.051 - 0.813	Alkyd paint	150	-40	X	X	-
		0.051 - 0.813	Aluminum	150	-40	X	-	-
		0.051 - 0.813	Galvanized steel	150	-40	X	X	-
		0.051 - 0.813	Porcelain	150	-40	X	X	-
		0.051 - 0.813	Stainless steel	150	-40	X	-	-
		0.051 - 0.813	Polycarbonate	100	-40	X	-	-
		0.051 - 0.813	Acrylonitrile butadiene styrene	80	-40	X	X	-
		0.051 - 0.813	Nylon - Polyamide	80	-40	X	-	-

	0.051 - 0.813	Polyphenylene oxide/ether	80	-40	X	-	-
T4720							
Aluminum	0.051 - 0.813	Aluminum	150	-40	X	-	-
	0.051 - 0.813	Galvanized steel	150	-40	X	-	-
	0.051 - 0.813	Acrylonitrile butadiene styrene	80	-40	X	-	-
	0.051 - 0.813	Polypropylene	80	-40	X	-	-
	0.051 - 0.813	Polystyrene	60	-40	X	-	-

Note: Application surfaces are smooth, flat, and rigid unless otherwise specified. Labels suitable for application to two or more plastic or painted surfaces are considered suitable for blends of those plastics or paints, with Conditions of Acceptability common to the individual components in the blend.

Marking: Company name and model designation.

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产品概要

圣翰无铅锡线

产品名称

无铅锡线
(合金Sn98.9/Ag0.3/Cu0.7)

产品编号

SAC0307HF F3



产品描述

SAC0307HF F3 是无铅焊锡线，合金成份为锡 98.9%、铜 0.7%、银0.3%、镍0.03%。本类型焊剂的焊锡丝有零卤素、低烟雾，并且符合 RoHS 标准。

合金的化学成份

圣翰**SAC0307HF F3** 无铅锡线的成份规格：

元素		含量(%wt/wt)
锡	Sn	余量
铅	Pb	<0.050
铝	Al	<0.001
铋	Sb	<0.050
砷	As	< 0.030
铋	Bi	<0.100
铜	Cu	0.6 – 0.8
铁	Fe	< 0.010
锌	Zn	<0.001
镉	Cd	<0.002
银	Ag	0.28 – 0.32
镍	Ni	0.02 – 0.04
铟	In	< 0.050



助焊剂的化学成份

松香芯焊剂适合含量为锡线重量的 $3.0\pm 0.3\%$ ，其它含量比例也可以使用，客户有要求则需按其生产。

助焊剂的特性

所含助焊剂型号	特性	清洗方式
F3	润湿快、零卤素、低烟雾，适合于消费电子组装行业，一般情况下助焊剂残留物低腐蚀，不导电。	溶剂清洗剂

助焊剂的特性 SAC0307HF F3

物理性能和可靠性数据	规格	测试方法	结果
助焊剂类型	——	——	F3
等级类型	查阅 J-STD-004	——	ROL1
颜色	——	——	微黄色
气味	——	——	淡
卤化物含量 (%) (氯化物和溴化物)	Max0.00%	JIS Z 3197, Method 8.1.4.2.1	<0.000%



产品外观

圣翰(ST)无铅焊锡线产品外观是银灰色的，直径标准有 0.1~0.3mm(± 0.01 mm)， $\geq 0.3\sim 0.8$ mm(± 0.03 mm)， $\geq 0.8\sim 2.5$ mm(± 0.05 mm)， $\geq 2.5\sim 6.0$ mm(± 0.10 mm)。

清洗

助焊剂残留物低腐蚀，不导电。由于焊盘间距不定及周边环境因素的影响，建议使用者对焊接后残留物进行清洗，请选可使用溶剂清洗剂清洗。

操作

焊接时烙铁头适合温度控制在 350-430°C 之间，烙铁头的角度以 45-60°。(垂直工作面)为最佳。烙铁头应与元件引线和 PCB 焊盘表面接触。

包装

无铅焊锡线每卷 0.5kg 或 1kg，每箱 5kg 或 10kg。盒子外标识有可以追踪的生产批号，制造商名称，合金成份，重量等。注意：线径 ≥ 0.8 mm 的锡线 1kg/卷，线径 < 0.8 mm 的锡线 0.5kg/卷。客户有要求需按客户要求要求进行生产。



出货

每批出货产品均有相应的分析证明书，证明产品的合金组成和相关数据。

贮存和保质期

圣翰无铅锡线的保质期自生产之日期 12 个月内，本产品应储藏在干燥而无腐蚀的环境。尽量减少锡线受到氧化，确保包装不破损，锡线不曝露于灰尘和其它物质中。

健康和安

关于安全和健康问题，请参考对应的材料安全数据表(MSDS)。

以上信息和声明均是可信的，但我公司不承担任何担保和陈述上的责任。为确保这里的任何信息和产品对各自目的适用性，用户需要做出充分的认证和测试来测定。没有任何针对特别目的的适合性可以担保。不可作为规格使用。



綠億科技股份有限公司

LYNwave Technology Limited

包裝規範書

產品名稱	A. PCB帶線	客戶名稱		版次	A
綠億料號		客戶料號		製作日期	2021/6/11
產品包裝說明	產品包裝圖示				
<p>一、包裝： (1)20~30pcs/束，出線尾端使用珍珠棉包紮好 (2)2~10束/袋</p> <p>二、裝箱： 每箱10~100袋</p> <p>註： 1.線長50mm以下,接頭端不包珍珠棉 2.以實際裝箱數量為準</p>	<p>The diagram illustrates the packaging process in three stages: 1. A single PCB lead with a connector and a tail. 2. Two PCB leads are shown inside a rectangular PE bag. 3. The PE bags are packed into a cardboard box.</p>				

核准：徐永銘

審核：張良鉅

製表：魏詩怡



科信成精密技术（江苏）有限公司
Cocentra Precision Technology (Jiangsu) Co., Ltd.

膜厚测试报告

料号: 028-17GL-0031

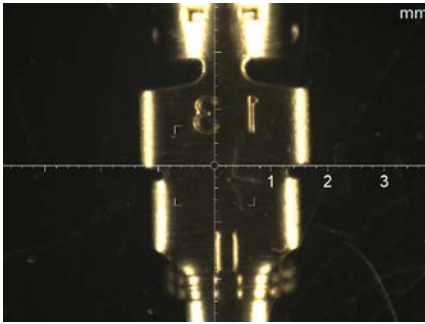
测试时间: 2021/11/1 13:28:59

电镀规格: Au:0.5u"min Ni:50-90u"

Fischerscope XRAY XULM 240

Product: 2 / Au/Ni/CuSn Dir.: Fischer Block: 1113

Application: 2 / Au/Ni/CuSn



n=	1	Au 1 =	1.26 μ "	Ni 2 =	78.0 μ "
n=	2	Au 1 =	1.07 μ "	Ni 2 =	61.5 μ "
n=	3	Au 1 =	0.745 μ "	Ni 2 =	58.6 μ "
n=	4	Au 1 =	0.728 μ "	Ni 2 =	60.6 μ "
n=	5	Au 1 =	0.608 μ "	Ni 2 =	59.9 μ "


Mean	0.883 μ "	63.69 μ "
Standard deviation	0.272 μ "	8.063 μ "
C.O.V. (%)	30.85	12.66
Range	0.652 μ "	19.4 μ "
Number of readings	5	5
Min. reading	0.608 μ "	58.6 μ "
Max. reading	1.26 μ "	78.0 μ "
Measuring time	15 sec	

Operator:

Date: 2021/11/1 Time: 13:28:59

Test Report

Specimen Name	RF Connector	Part Number	028-17GL-0031 058-20G1-0060
Manufacturer	CCT	Model/Type	----
Department	QC	Applicant	Zhangjing
Sample Quantity	20PCS	Environment	23.6℃ ; 42%
Date of Receipt	2021-10-26	Date of Testing	2021-10-26~2021-10-28
Sample Description: Total:20pcs			
Test Item: Please refer to the test report			
Based on testing: According to the test specification			
Test Conclusion: Please refer to test summary.			
(Inspection Company Seal)			



Approved by : 万仁强

Test by: 郑维松

Date : 2021-10-28

Date : 2021-10-28

- * The results of the Test Record relate only to the items tested and the specimen received.
- * This test document cannot be reproduced in any way, except in full content or the prior approval in writing of the laboratory.
- * The report will be not valid, if there are not "Detection Seal" or seal of our company on the report.

Test Summary

Step NO	Test Item	Spec	Test Result	PASS/FAIL
1	General Examination	There shall be no defects that would impair normal operation	Passed the specified requirement	PASS
2	Salt spray Test	Test Condition : 48 hour spray, at temp.35+-2°C R/H: 85%; Salt NaCl mist 5% After test wash parts and return to room ambient for 2 hours GB-T 2423.17	There's no material corrosion And Coating have not fall off .	PASS

Photos



The main equipment for testing

No.	Equipment Name	Model/Type	Manufacturer	Equipment No.
1	Salt spray Test	JY-60-SS	JY	CCT-WJ-012

Remark: Above equipments are in the effective date of calibration.

Connector_GROU-CONTACT鍍錫	鍍錫層	翔騰電子科技(昆山)有限公司	Ni	7440-02-0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A2200375950101002	2020/10/31	Y				
			Pb	7439-92-1																					
			S	63705-05-5																					
			Zn	12039-35-9																					
			Fe	7439-89-6																					
			C	7440-44-0																					
			Co	7440-48-4																					
			As	7440-38-2																					
Cu	7440-50-8																								
Connector_GROU-CONTACT鍍金	金鍍層	翔騰電子科技(昆山)有限公司	Au	7440-57-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A2200375950101001	2020/10/31	Y				
			Co	7440-48-4																					
			K	7440-09-7																					
C	75-15-0																								
Connector_GROU-CONTACT	CS210	福建紫金銅業有限公司	Cu	7440-50-8	11	-	-	-	-	-	-	-	-	-	-	-	-	-	CANEC2102353601	2021/2/25	Y				
			Sn	7440-31-5																					
			P	7723-14-0																					
			Zn	7440-66-6																					
			Pb	7439-92-1																					
			Fe	7439-89-6																					
			Ni	7440-02-0																					
			Al	7429-90-5																					
Si	7440-21-3																								
Connector_1.13_HOUSING(BLACK)	PBT F202G15BK	Shinkong Synthetic Fibers Corporation	PBT	30965-26-5	-	-	-	-	-	-	-	-	-	-	-	-	-	ETR21801352	2021/8/13	Y					
			磷氮系Flame Retardants(不含紅磷)	Not applicable																					
			Glass Fiber	65997-17-3																					
黑色粉	Trade secrets																								
ADHESIVE_基材	G9000-SY	Dexerials Corporation	Tissue Paper	Not applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	ETR21101402	2021/1/14	Y					
Tackifier			Not applicable																						
Acrylic monomer			Not applicable																						
ADHESIVE_膠	松香	昆山市至翰錫業有限公司	Acrylic resin	Not applicable	-	-	-	-	-	-	-	-	-	-	-	-	-	SHAEC2109255602	2021/5/19	Y					
助焊劑(不含紅磷)			Not applicable																						
SOLDER	SAC0307HF	昆山市至翰錫業有限公司	Sn	7440-31-5	37	-	-	-	-	-	-	-	-	-	-	-	-	SHAEC2119162914A01	2021/9/17	Y					
			Cu	7440-50-8																					
			Ni	7440-02-0																					
			Ag	7440-22-4																					

簽署人保證已經獲得公司充分授權，並保證本表格的內容以及所附的測試報告完全準確、真實。
The below u-ersigned person declares that he/she is duly authorized to sign off as behalf a- that the contents,test reports are completely true a- accurate.

被授權聲明人 Authorized Declarer	徐永銘	公司法定代理人姓名 Legal Representative Name	
被授權聲明人所屬部門 Dept. of Authorized Declarer	品質部	吳三元	
被授權聲明人職位 Title of Authorized Declarer	品質部部長		
聲明日期 Date of Declaration	2021年11月3日	職位 Title	總經理
被授權聲明人簽字 Signature of Authorized Declarer			