

品名：RFFPA252011IMAB301

History List

[illegible]

1.Explanation of part number :

RF	FPA	2520	11	I	M	A	B	3	01
Type Code	Product Code	FPCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	FPA: FPCB Antenna	Per 2 digits of length, width e.g.:2520 Length 25.0mm, Width 20.0mm	2 digits for cable length e.g.:11 Cable Length: 11.0cm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:∅ 0.81 3:∅ 1.13 4:∅ 1.13 Low Loss 6:RG316 7:∅ 1.37 8:RG178 79∅ 1.37 Low Loss	01~99 series number

2.Electrical Specification :

Item	Specification
Frequency Range	2400 ~ 2500 MHz
Impedance	50 Ohm Nominal
VSWR	2.0 (Max)
Peak Gain	2.47 dBi
Radiation	Omni-directional
Polarization	Linear Vertical
Admitted Power	1W
Operation Temperature	- 20℃ ~ + 65℃

Antenna manufacturer: INPAQ TECHNOLOGY CO., LTD

Address:Antai 1st Road, Xishan Economic Development Zone, Wuxi

Antenna Model:RFFPA252011IMAB30

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 : 詹惠雯

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

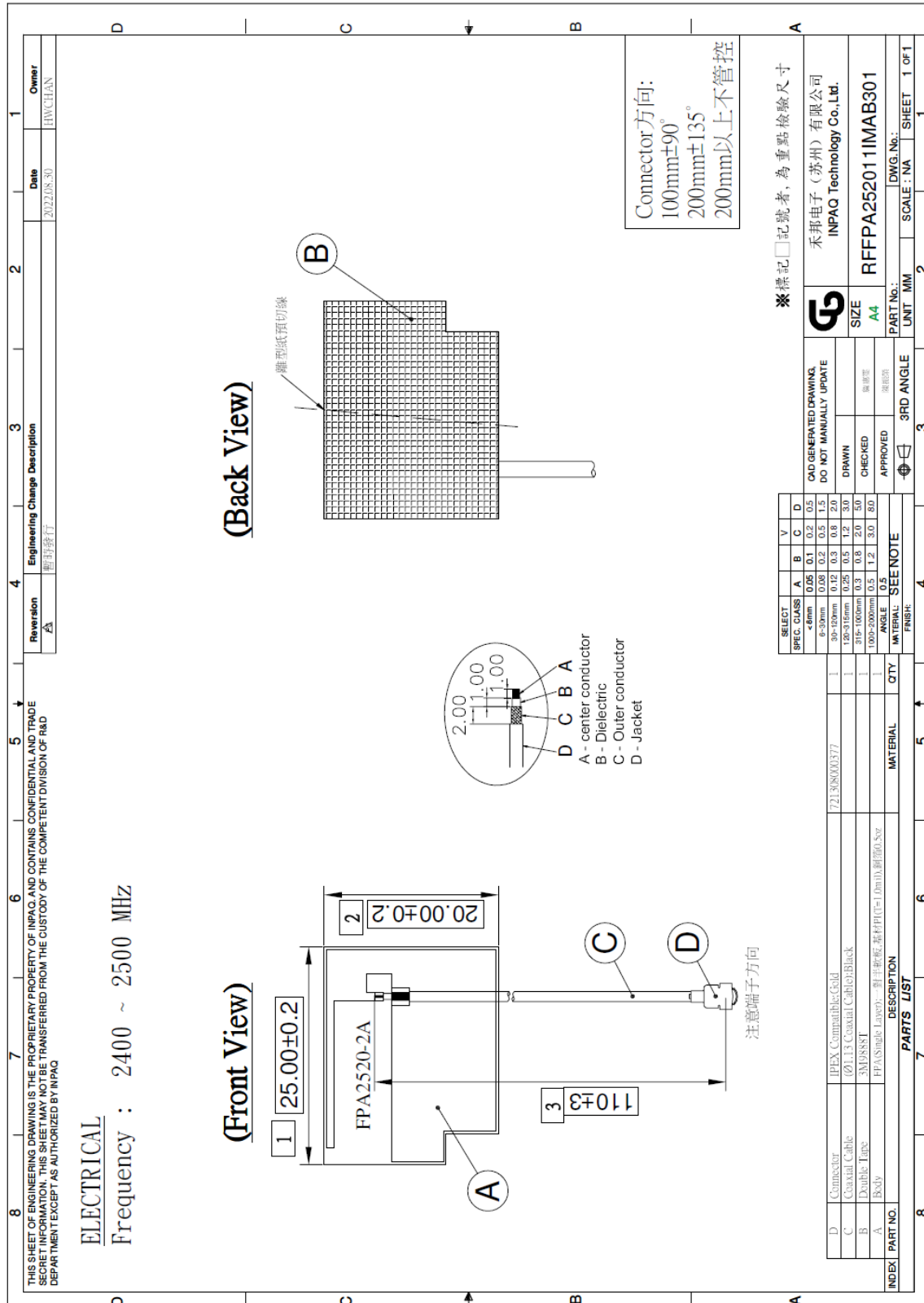
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3. Antenna Drawing :



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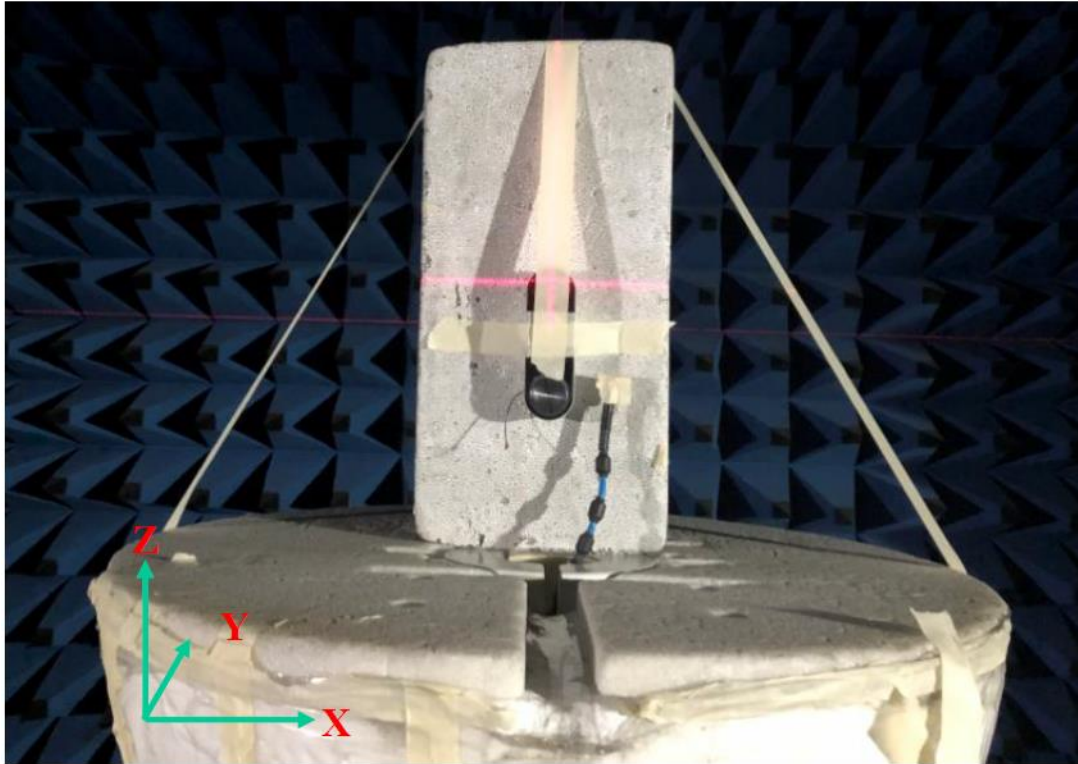
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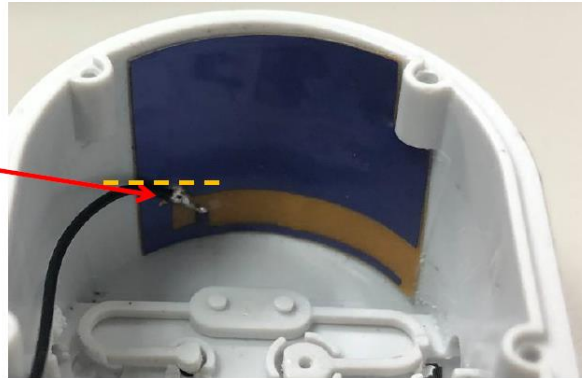
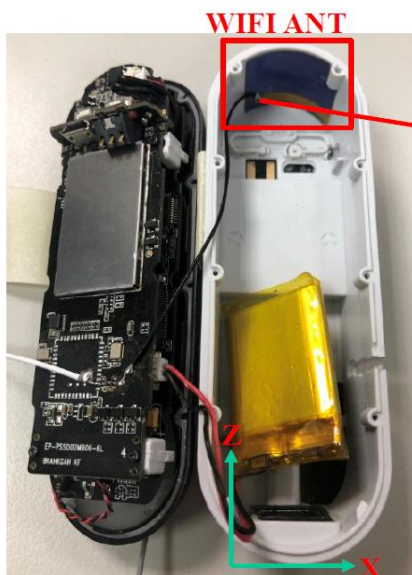
4. Performance Report :

Test Report

■ Experimental Setup



1.2 Antenna Solution Detail



焊接點往下移，約略低於主板高度，再改成斜出線，避免出線直角轉彎。

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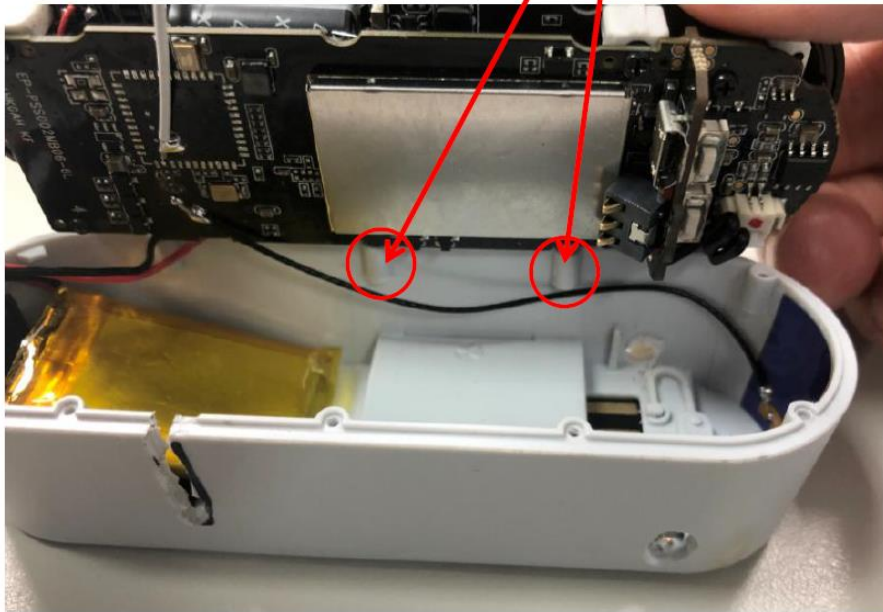
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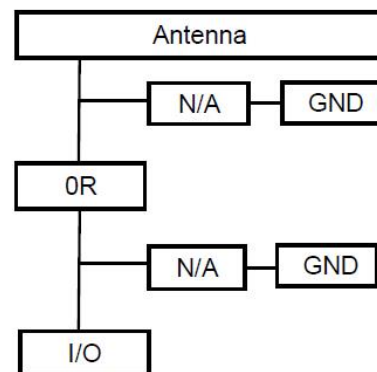
Antenna Solution Detail

走線時請注意讓線能先藏在這兩個突起的螺絲孔的下方，避免壓折斷線。



Antenna Solution Detail

天線焊接於主板上



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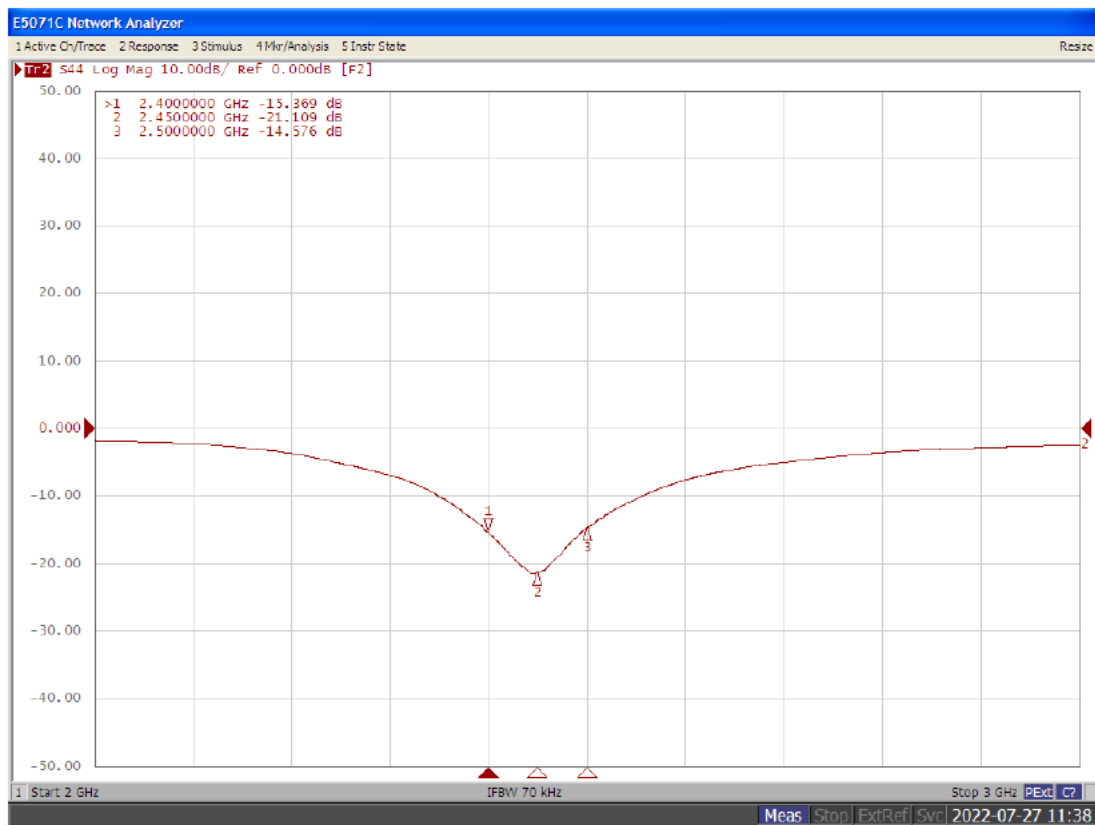
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ELECTRICAL CHARACTERISTICS

Return Loss



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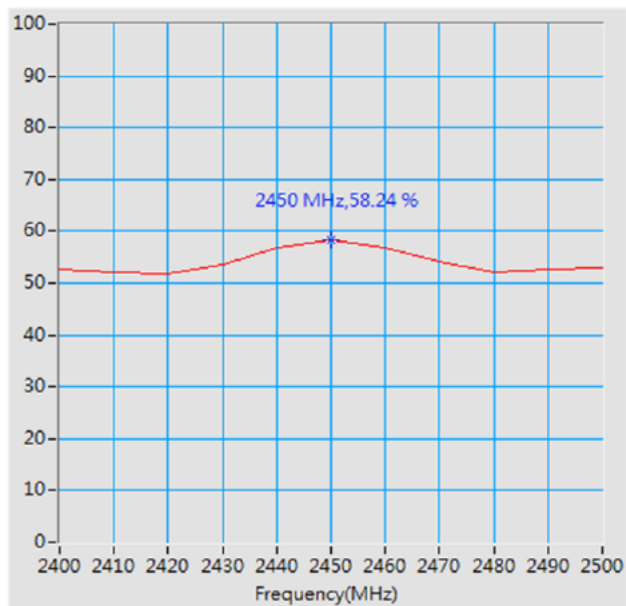
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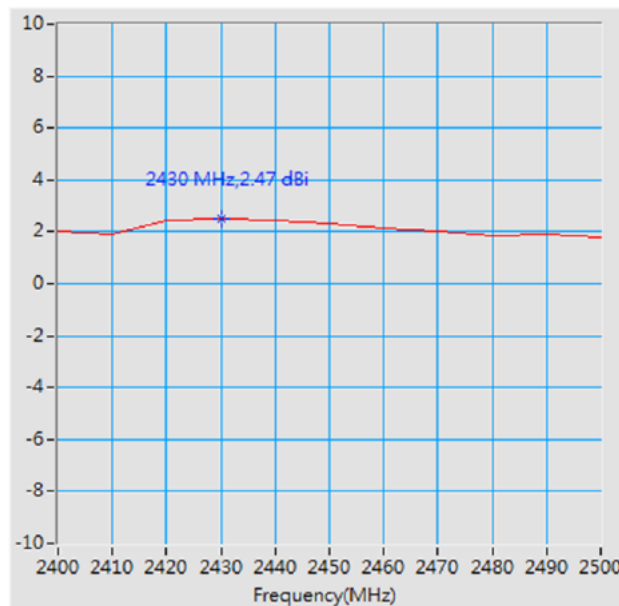
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■ Antenna Efficiency & Peak Gain



Maximum Efficiency at 2450MHz : 58.24 %



Maximum Peak Gain at 2430MHz : 2.47 dBi

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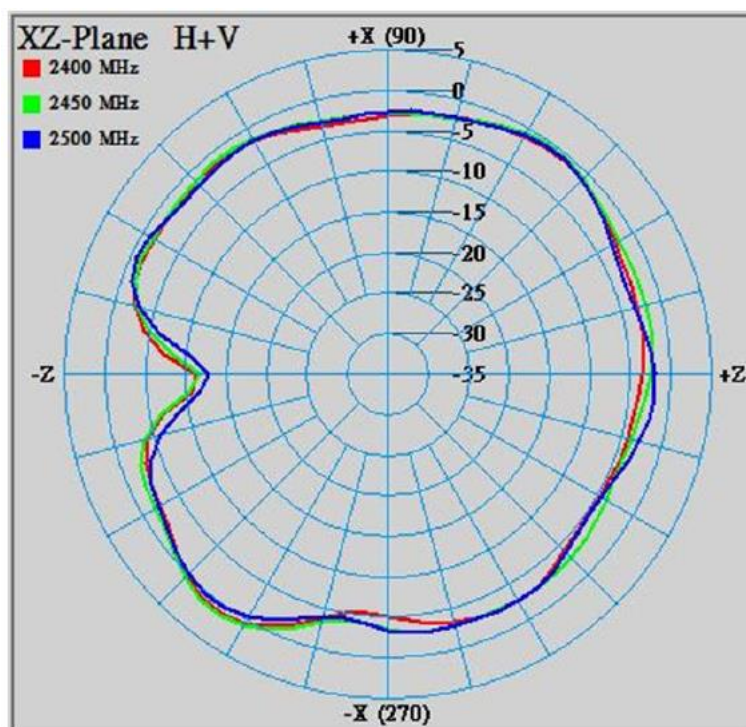
RADIATION PATTERN

2400~2500 MHz

X-Z Plane

Phi=0.00deg

Gain . dB



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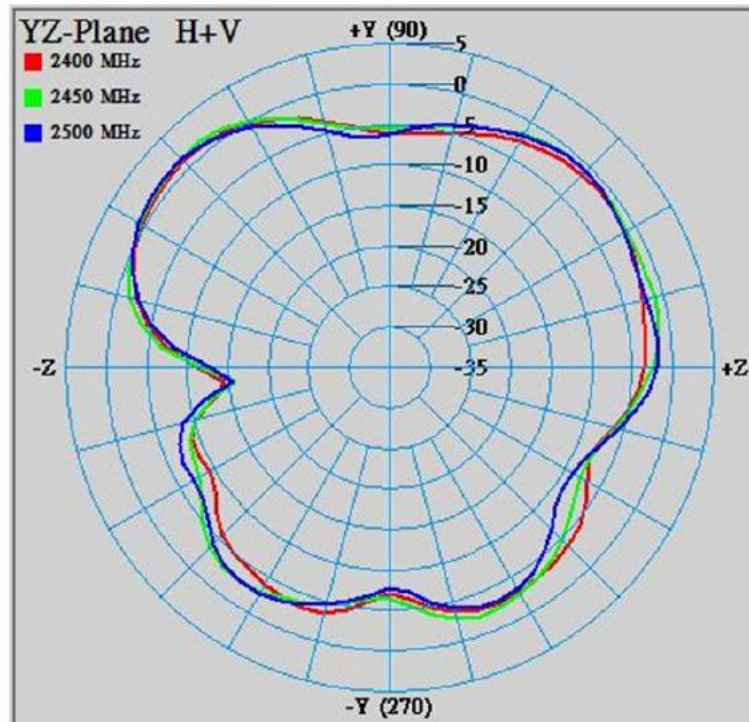
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Y-Z Plane

Phi=90.00deg

Gain . dB



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ANGLES = N/A HOLEDIA = N/A



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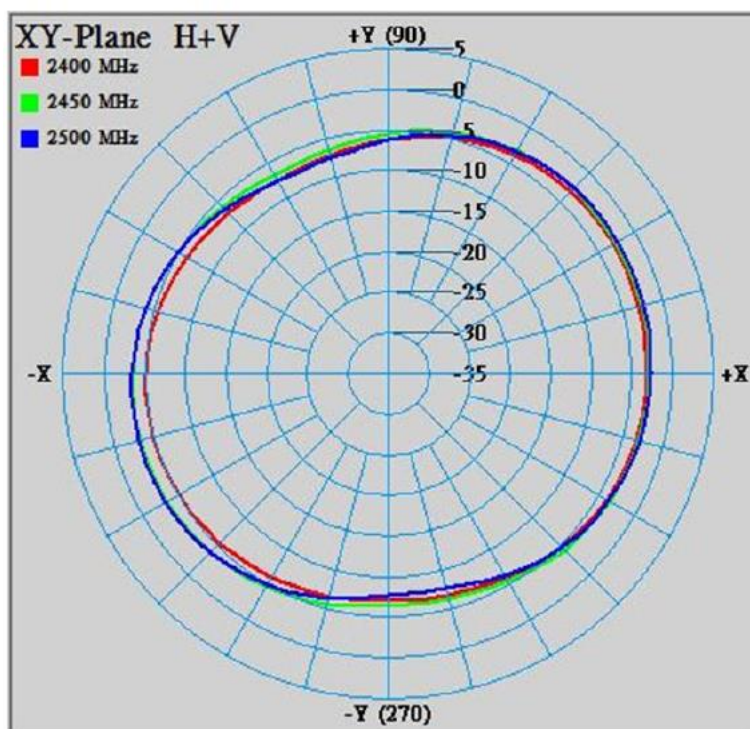
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X-Y Plane

Theta=90.00deg

Gain . dB



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.08	-2.62	1.02	-3.35	-3.08	-5.08
2450	1.34	-2.17	1.52	-2.84	-2.65	-4.25
2500	0.24	-2.57	1.34	-3.22	-2.41	-4.40

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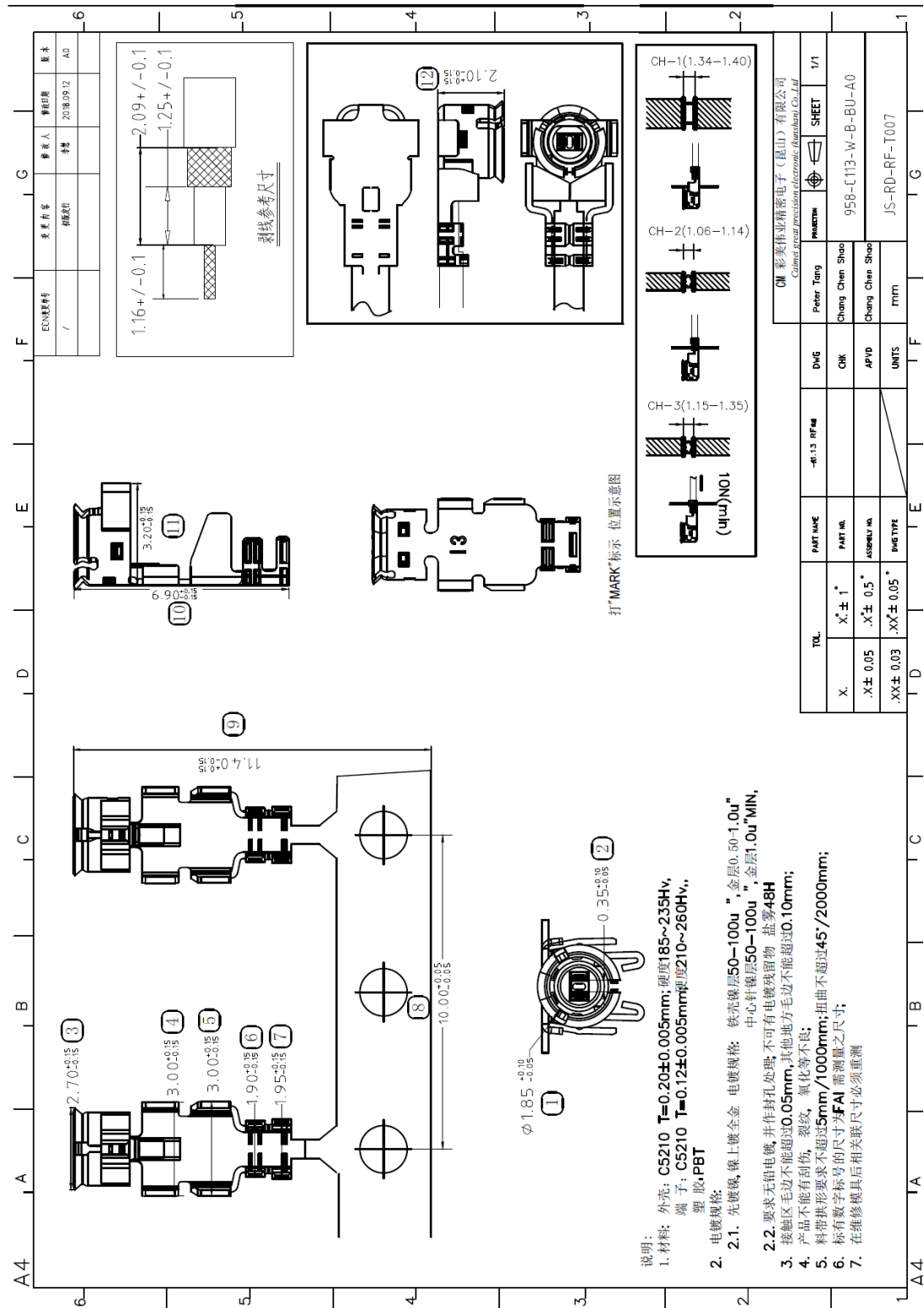
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Connector Specification



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Cable Specification

型号 Type	RF-1.13/50	料号 P/N	SY113/50-055(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		镀锡铜线 Tinned copper wire	
	组成:总根数/单根外径(mm) Makeup:total / O.D. of every wire(mm)		7/0.08	
	(绞合)标称外径(mm) (Intertwist)NOM.O.D.(mm)		0.24±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)		0.7±0.03	
③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)		0.92±0.05	
	覆盖率(%) Coverage ratio(%)		90±5	
④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)		1.13±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	≤2.32
速率(%) Velocity(%)	70		2GHz	≤3.27
阻抗(Ω) Impedance(Ω)	50±2 @1ns		3GHz	≤4.01
驻波比 Standing wave ratio	≤1.3@0~6GHz		4GHz	≤4.64
	≤1.4@6~8GHz		5GHz	≤5.17
	≤1.5@8~10GHz		6GHz	≤5.69
最大工作电压(V) Max.operating voltage(V)	1000		7GHz	≤6.41
			8GHz	≤7.04
			9GHz	≤7.65
			10GHz	≤8.07
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	1000	
每盘接头数/每段最短长度 Each connector plate number/The shortest length of each root		No. / m	≤5 / ≥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.			
护套滑动 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.			
其他 Other				
特殊加工工艺, 请与供方协商后使用 Special processing technology please consult with supplier before using.				

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5. Package

禾邦電子有限公司	
RFFPA252011IMAB301生規	頁次：5 之 1
	版次：A0版
	制修訂日期：2022/12/30

包裝圖 |

圖一

圖二

圖三

產品包裝規範：

- 將每25pcs產品使用珍珠棉將端子端用白色橡皮筋包扎，每PE袋200pcs，PE袋需封口，如圖示（一）
- 將泡棉放入外箱中（如圖示二）
- 將裝好的成品（如圖示三）放入外箱中，每箱放4000pcs產品，上下各放1片珍珠棉，封箱并粘貼製造標，封箱為“工”字型即六面封箱。
- 標籤需貼到最小包裝。
- 尾數箱填充參照此規範《Y-WI-09-281》

Metal Antenna 370625
RFFMTA370625IMAB301 75B1031604 10

第一排：機種+空格+Antenna+空格+規格的6-11位
第二排：規格+空格+批號+空格+數量
第三排條碼內容：規格+批號+序號（同第四排最後的4碼流水碼）+數量（單位是K/PCS）
第四排：“-”+打印者工號+“-”月份+日期+年+時+分+秒+“-”+“當次打印的”標籤數量” +批號+4碼流水碼

製造標籤規格：銅版紙（L85±5mm*W25±3mm）字體規格：標楷體
製造條碼規格：code 128（高度80mm）

毛重標籤，內容供參考，實際出貨重量為準。

尾數標籤，內容供參考，實際出貨重量為準。

標籤注釋權屬（PSA）華新科技股份有限公司

核准：	何耀輝	審核：	趙文鈞	制定：	張海艷
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