

Butlr Heatic2

specification sheet

供应商：浙江海通通讯电子股份有限公司

Supplier: Zhejiang Haitong communications electronic Limited by Share Ltd.

地址：浙江省温州龙湾区滨海园区滨海一道 1607 号

Address : No. 1607 Binhai Road, Binhai Park, Longwan District, Wenzhou, Zhejiang Province

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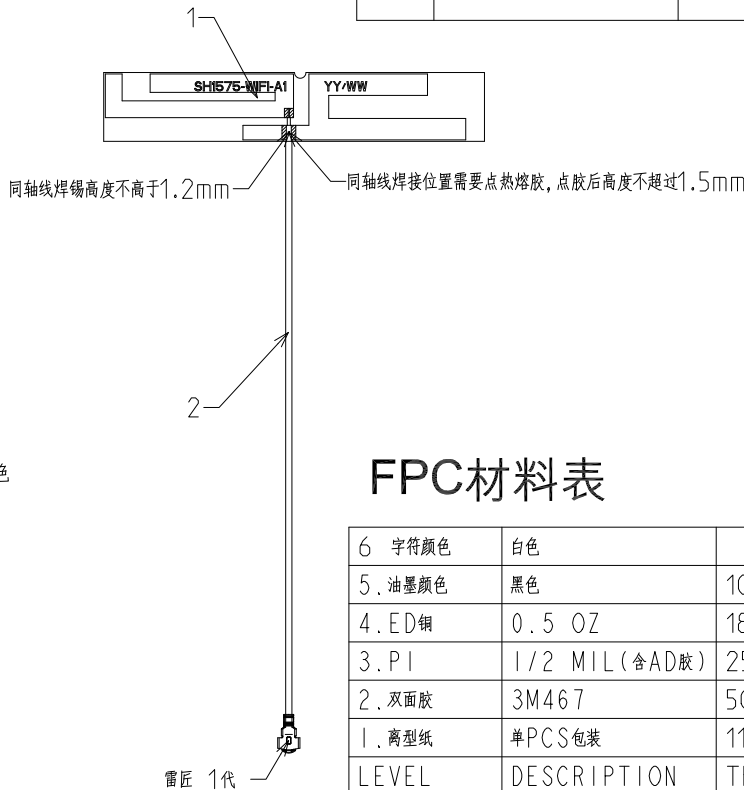
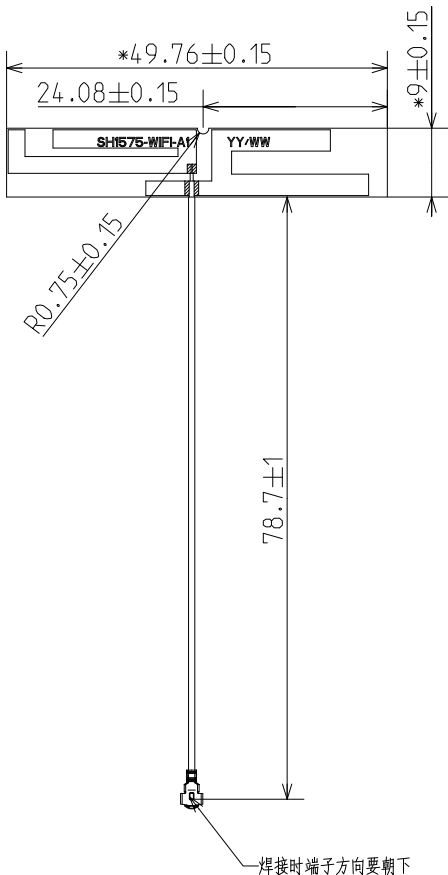


同轴线参数要求

- 材料: 同轴线
- 电气特性
 - 额定电压: 60V, 50Hz, rms.
 - 绝缘电阻: $\geq 5,000\text{M}\Omega$
 - 耐电压: 200V AC;
 - 接触电阻
 - 内导体接触电阻 $\leq 20\text{m}\Omega$;
 - 外导体接触电阻 $\leq 20\text{m}\Omega$;
 - 特性阻抗: 50Ω .
 - VSWR: ≤ 1.3 DC ~ 3GHz).
 ≤ 1.5 3 ~ 6GHz).
 - 频率范围: DC ~ 6GHz.
 - 100% 短路测试.
- 机械性能
 - 端子与电缆保持力 $\geq 7\text{N}$;
- 端子方向
 - 单头打端
- 环境
 - 工作温度: $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$.
 - 相对湿度: $\leq 95\%$ ($40^{\circ}\text{C} \pm 2^{\circ}\text{C}$)
 - 产品需符合HSF控制要求;
- 标有*的尺寸为重要管控尺寸; CPK 管控值 > 1.33 .

FPC参数要求

- 注
- 不明尺寸参考图档;
未注公差要求:
A. 铜箔到铜箔 ± 0.05 ; B. 铜箔到外形 ± 0.15 ;
C. 孔到外形的公差 ± 0.15 ; D. 孔径的尺寸公差 ± 0.05 ;
E. 阻焊公差 ± 0.30 ; F. 外形到外形 ± 0.15 ;
G. 冲孔与冲孔之间的距离公差 ± 0.1 ; H. 孔到铜箔 ± 0.15 .
 - 材质: FPC 天线;
 - 电镀区域: 先镀Ni (2-8um), 后镀AU $\geq 0.03\text{um}$
 - 零件标识: 按指定位置
 - 需通过HAITONG品质部门要求FPC的各项测试; 盐水喷雾测试要求48H后产品表面无氧化现象。
 - 尺寸要求:
 - ST尺寸: 测量最小量为500中选取的任意35个产品的尺寸作cpk分析;
 - * 尺寸为重点管控尺寸;
 - 首批物品: 随机挑选5pcs做全尺寸测量, 报告及物品转递HAITONG品质部;
 - 任何用料上的修改必须通过HT工程部门的书面同意;
 - 产品符合 (RoHS/HF/REACH)的要求;



FPC材料表

6. 字符颜色	白色	
5. 油墨颜色	黑色	10-15 μm
4. ED铜	0.5 OZ	18 μm
3. PI	1/2 MIL (含AD胶)	25 μm
2. 双面胶	3M467	50 μm
1. 离型纸	单PCS包装	110 μm
LEVEL	DESCRIPTION	THICKNESS

4			
3			
2	SH1575-WIFI-CAB	I	
I	SH1575-WIFI-FPC	I	
ITEM	PART NAME	Q'TY	REMARK

NHAI 浙江海通通讯电子股份有限公司
ZHEJIANG HAITONG COMMUNICATION ELECTRONICS CO., LTD.

PROJECT NAME: SH1575-WIFI-FPC_ASM

PRODUCT NAME: Butlr_Heatic2-WIFI-FPC_ASM

NO TOLERANCE NOTED		
ONE PLACE	X.X	± 0.15
TWO PLACE	X.XX	± 0.10
ANGULAR DIM	X.°	$\pm 1.0^{\circ}$
HOLE DIA	X.X	± 0.10

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APPD:		HTI成品码:	B.1.05.L.0212
CHKD:		HTI半成品码:	XXX
DWN:		客户编码:	XXX
SCALE:	1:1	PAGE:	1/1
REV:	A2		
UNIT:	mm	SIZE:	A4
DRWING NO:			118-2576

BOM LIST

Customer: 蓝岸(Blue)

Project: Butlr Heatic2

Product: SH1575

Version: A/0

NO	阶层Hierarchy				海通量产料号HT P/N	客户料号Customer P/N	环保要求RoHS compliance	品名Product name	规格Specifications	单位Unit	单位用量Quantity per	毛重Gross weight (g)	净重Net weight (g)	物料来源Material source	版本Ver	备注Notes
1	1				B.1.05.L.0212		RoHS 2.0+HF	SH1575_WIFI_FPC_ASM	WIFI antenna assembly		1			外购	A0	
2	2				G.1.11.L.0327		RoHS 2.0+HF	SH1575_WIFI_FPC	49.76*9.0 单面ED 黑油 3M467 镀金1.2麦 RoHS 2.0+HF		1				A0	
3	2				G.1.22.L.0195		RoHS 2.0+HF	SH1575_WIFI_CAB	线径0.81 长度83mm 黑色 雷匠1代 RoHS 2.0+HF		1				A0	
4								PE package	10*18		1/50				A	
								Inner box	Commonly used non perforated inner box		1/2000				A	
								Outer box	Common HT outer box (10 inner box)		1/20000				A	
								Solder wire	博士达无卤0.6mm		1/15000				A	

Check:

Approval:

data: 20240710

2.4G WIFI 天线射频性能报告

RF performance report of the WIFI antenna

客户	蓝岸/BlueBank
项目名 Project name	Heatic2
产品类型 Product type	FPC+cable antenna
频段/增益 Frequency/Gain	2400~2500MHZ/2.2dBi
发行日期 Data	2024.7.18
发行版本 Version	V1.3
工程师 Engineer	Longming Yuan
审阅 Review	夏彪/Arvin

1. 概述/Summary

此文档是 Butlr 版本 2.4GWiFi 射频性能报告。

This document is the Butlr version 2.4GWiFi RF performance report.

1.1 机器状态/Device Status



图 1 机器图片/Figure1 Device images

1.2 天线状态/Antenna Status

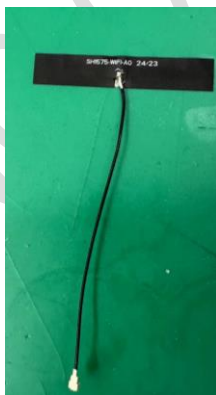


图 2 天线图片/Figure2 Antenna image

2. 天线测试环境/ Antenna testing environment

a. 天线输入特性测试使用 Agilent E5071C 矢量网络分析仪。

The antenna input characteristics were tested using the Agilent E5071C vector network analyzer.

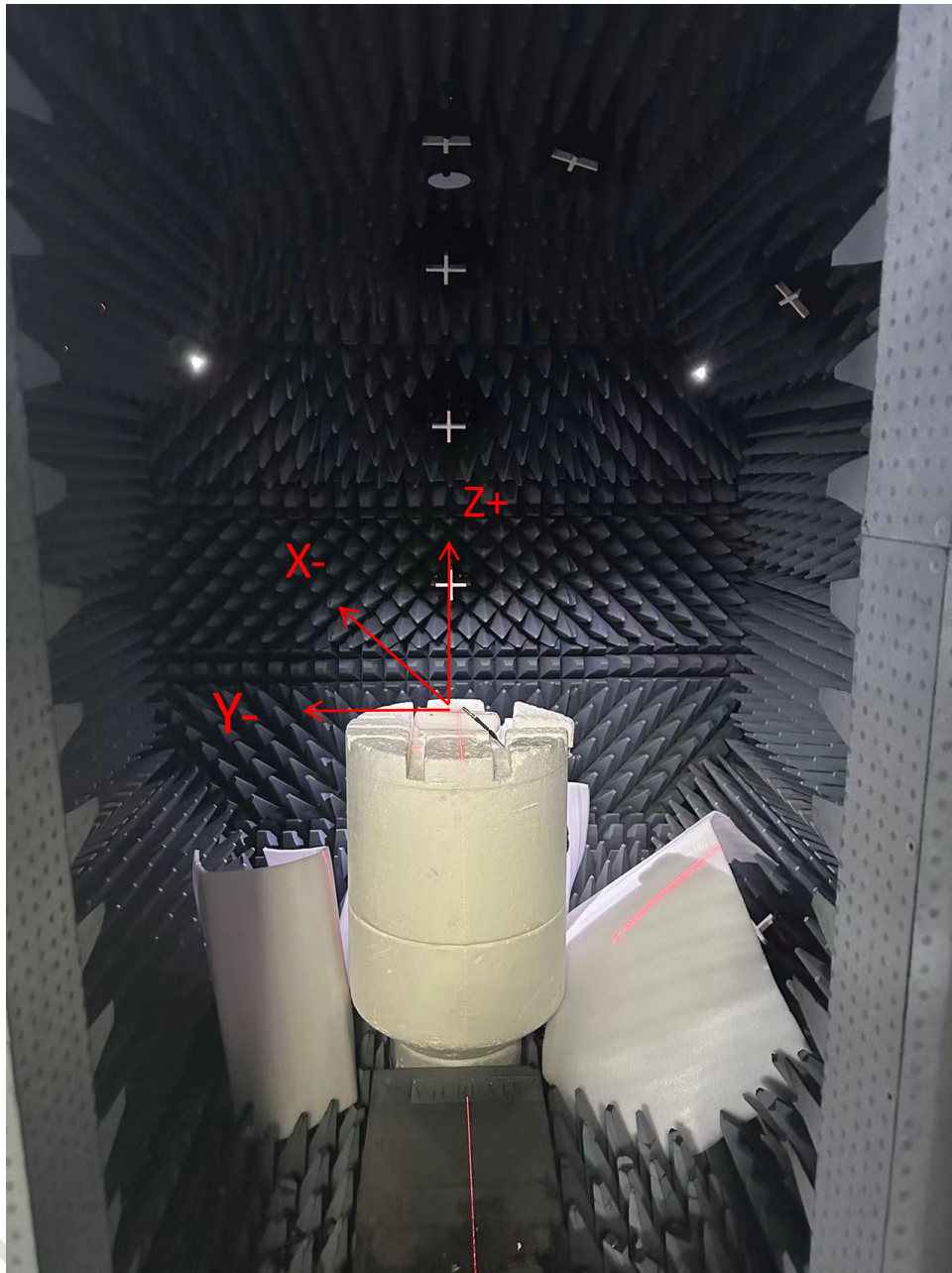


图 3 3D 微波暗室测试坐标系(back view)

Figure 3 3D Microwave Anechoic Chamber Test Coordinate System (Back View)

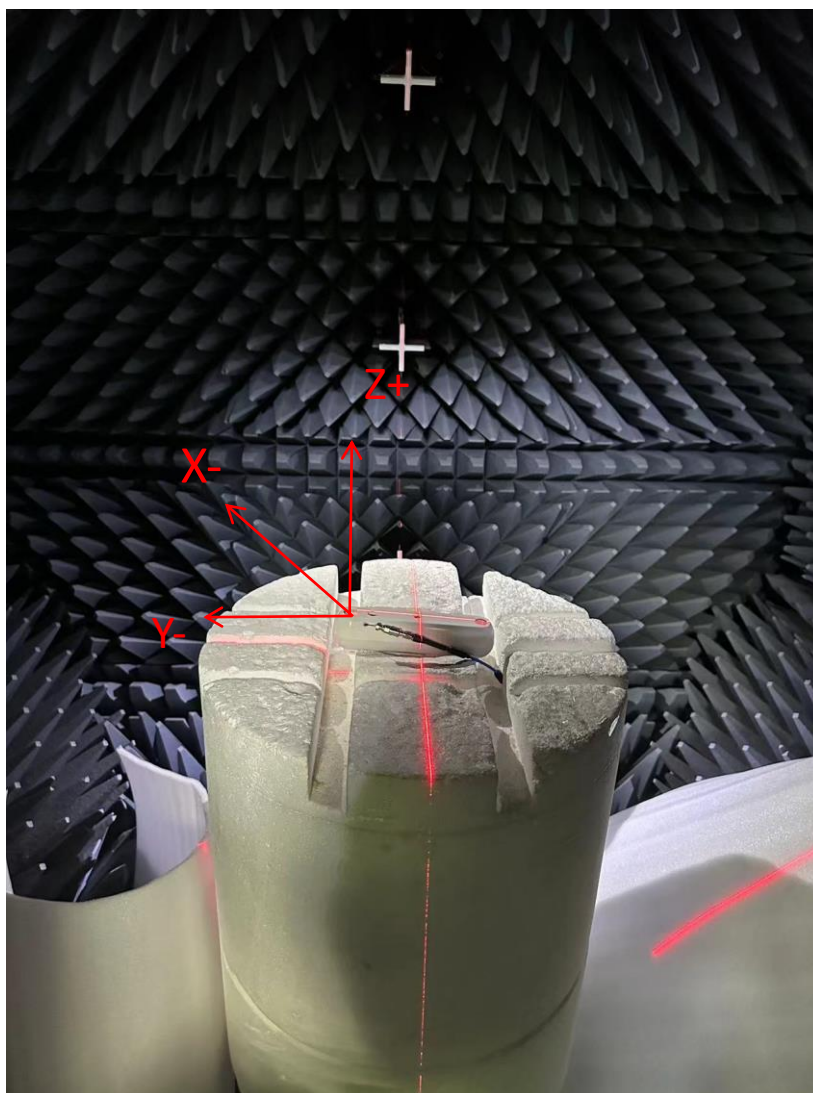


图 4 实物对应坐标

Figure 4 Corresponding Coordinates of Physical Object

3. 天线测试结果/Antenna Test Result

3.1 天线反射损耗/ Antenna return loss

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
S11(dB)	-15	-17	-20	-24	-28.5	-30	-25	-15	-14.5	-15	-17

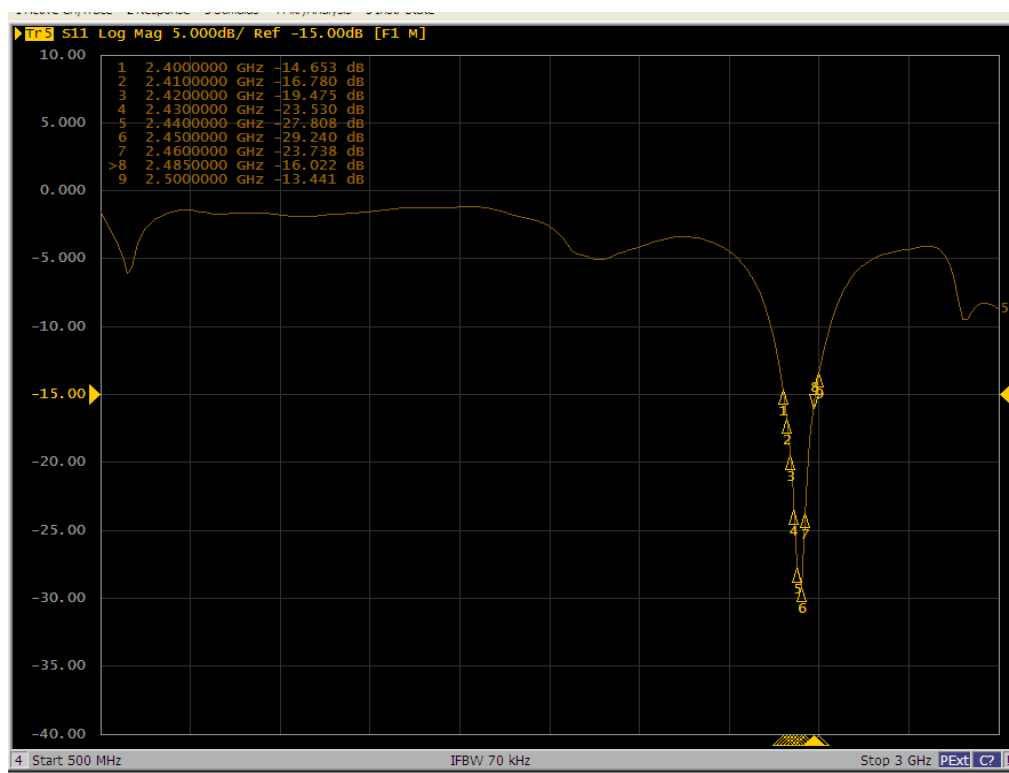


图 5 WIFI 天线反射损耗
Figure 5 WIFI antenna return loss

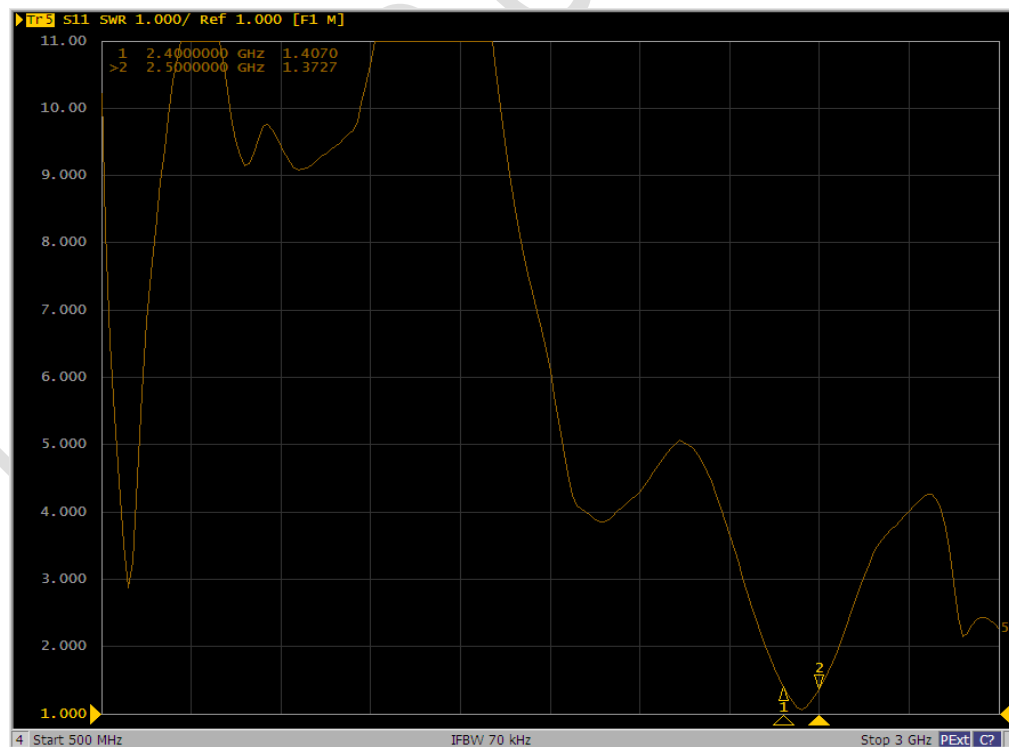
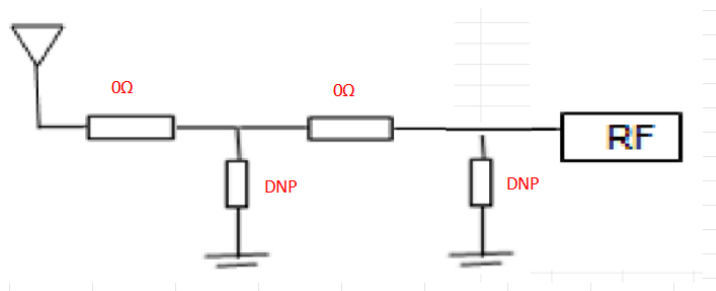


图 6 主天线 VSWR
Figure 6 antenna VSWR

天线匹配/ Antenna matching

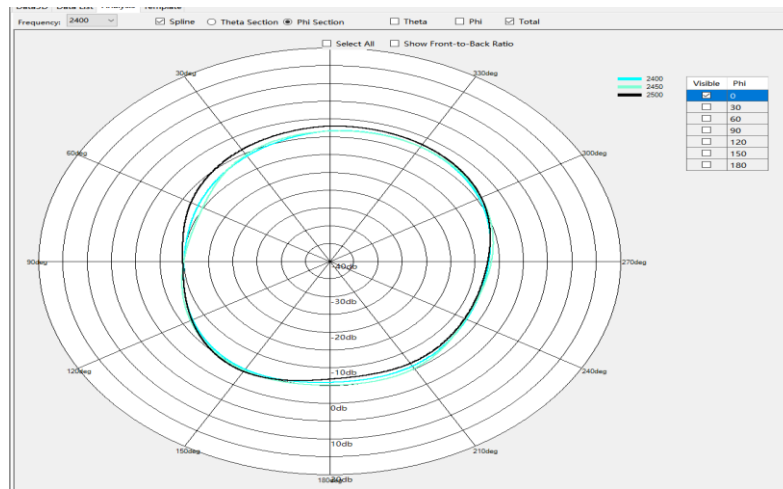
WIFI/



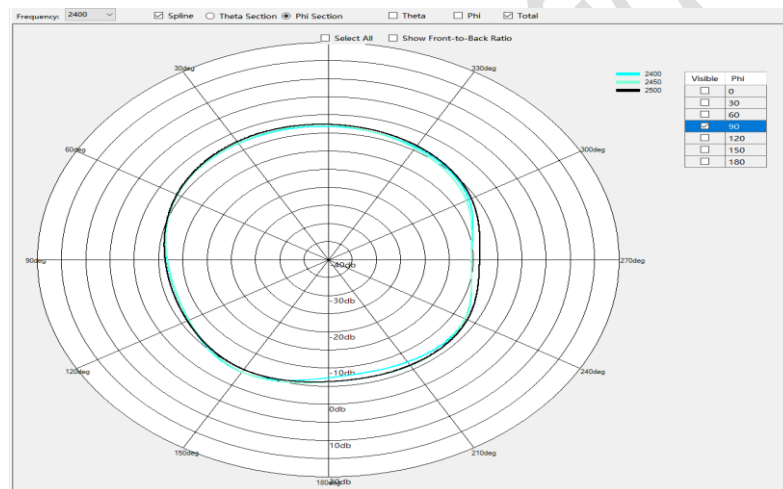
3.2 天线效率/Antenna Efficiency

Freq (MHz)	Eff	Ave Gain
2400	54%	-2.7
2410	53%	-2.8
2420	55%	-2.6
2430	54%	-2.7
2440	57%	-2.5
2450	56%	-2.5
2460	58%	-2.4
2470	57%	-2.4
2480	59%	-2.3
2490	56%	-2.5
2500	58%	-2.4

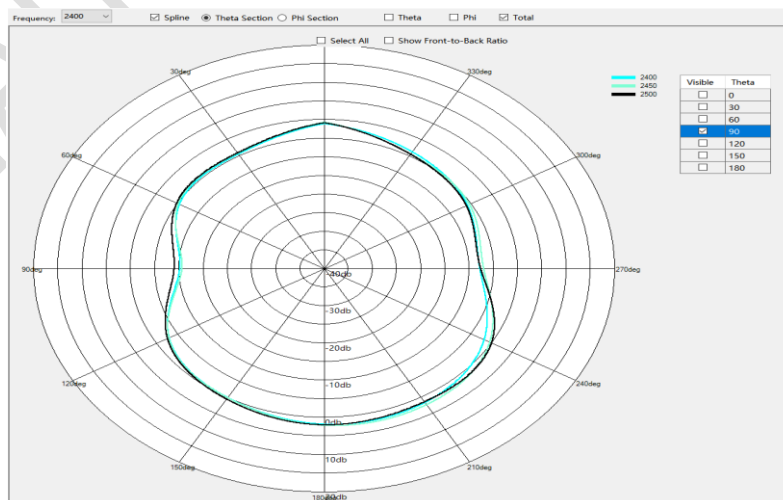
3.3 天线效率图/Antenna efficiency pattern



Phi=90°



Phi=0°



Theta=90°

网分测试管控作业指导书

SOP for Network Analyzer Testing and Control Operations

产品名 Product name	SH1575_WIFI_FPC_ASM
产品编号 Product number	B.1.05.L.0192
产品类别 Product category	FPC+cable antenna
工序名 Process name	FPC+cable antenna
工具 Equipment	网络分析仪/Network analyzer
人员佩戴 Personnel wearing	手指套/Finger stall
测试频段 Test frequency	500MHz-6GHz
工程质量检测 Engineering quality inspection	全检/ full-inspection
品质 QA	Xiaoyu Wu
工程 EPM	Guobin Han

一、测试管控参数

Test control parameters

1. 参数设置如下:

The parameter settings are as follows:

Frequency-

Star: 500MHz Stop: 6GHz

Measure-

S11

Format-

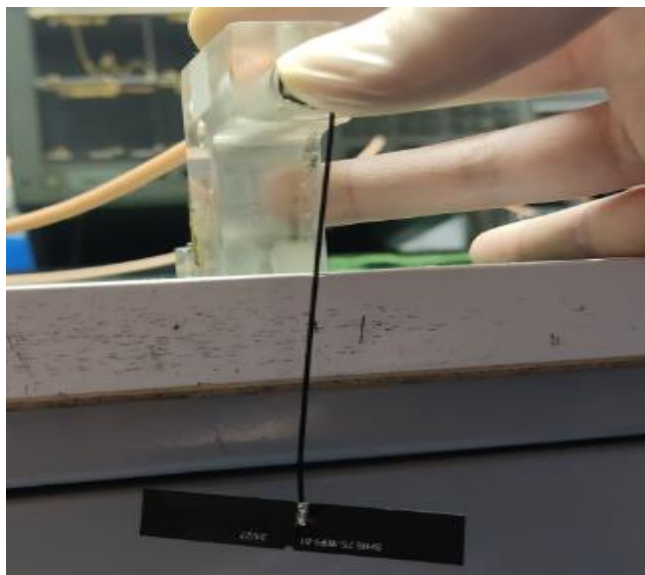
Log

管控波形 Control Wave	管控范围 Control Frequency	管控公差 Control Tolerance
1	2390MHz	± 30MHz
2	2780MHz	± 30MHz

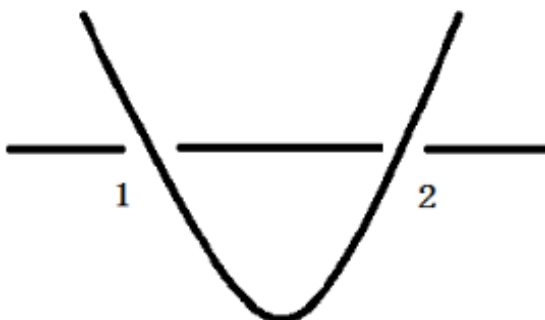
二、作业步骤和内容

Assignment Steps and Content

1. 打开网分，设置网分的波形范围为 500MHz-6GHz。选定 1PCS 产品作为金样，将端子头扣在测试头上。
Open the network analyzer and set the waveform frequency range to 500MHz-6GHz. Select 1PCS product as the gold sample and fasten the terminal head onto the test connector.

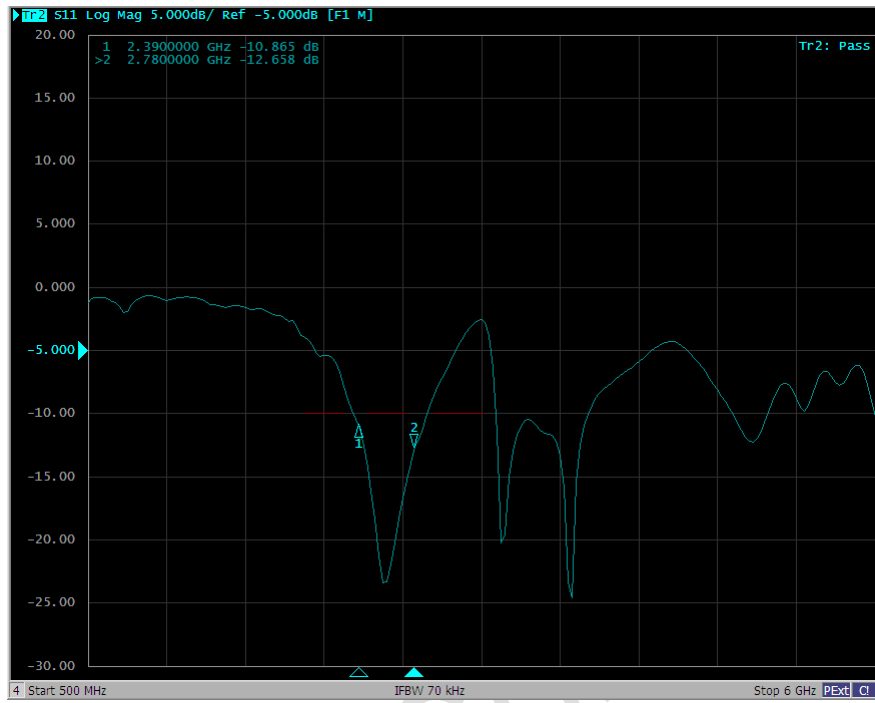


2. 采取两点管控法，MARK1(2.780GHz) / MARK2(2.910GHz)分别设置 1/2 两点左右左右的偏移做结果判定。网分门限设置 $\pm 25\text{Mhz}$ 。
Adopting a two-point control method, set two points, MARK1 (2.780GHz) and MARK2 (2.910GHz), respectively, and determine the results based on their left and right offsets. Threshold setting for network partitioning $\pm 25\text{Mhz}$.



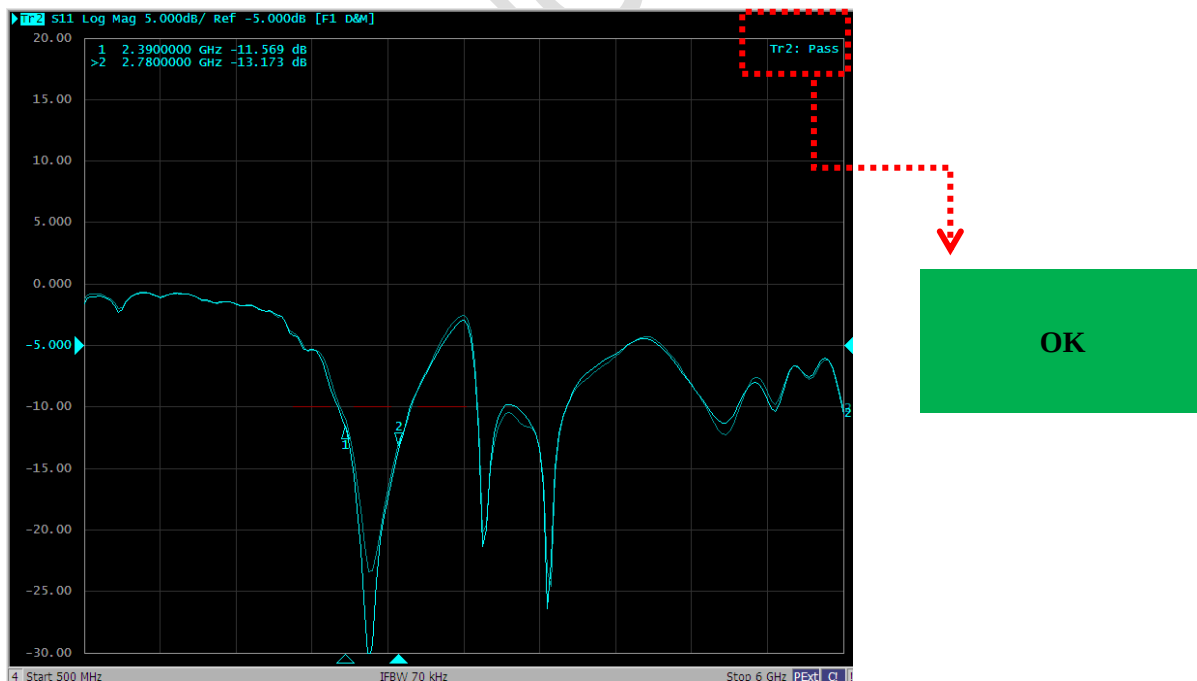
3. 将标准样设定参照波形并保存。

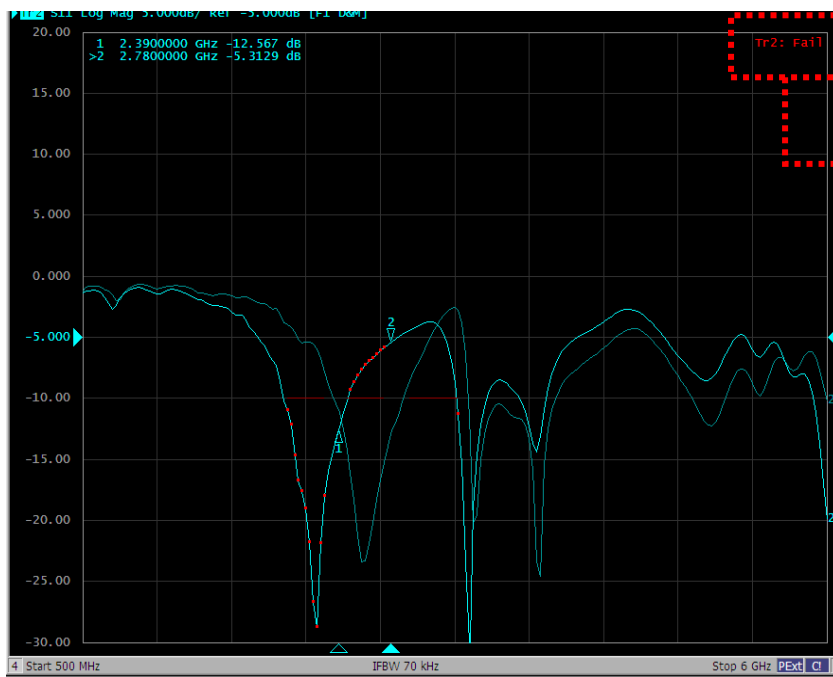
Set the reference waveform for the standard sample and save it



4. 测试天线产品，被测天线在设置波形管控范围内时，机器显示 PASS，标识 OK，反之 fail，代表 NG。

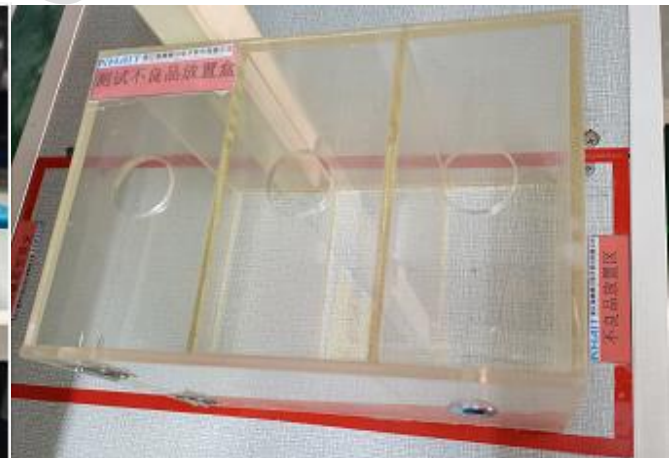
When testing antenna products, if the tested antenna is within the waveform control range, the machine displays PASS, indicating OK. Otherwise, fail represents NG.





6. 把良品以对向两排的方式放入蓝色物料盒, 且单个盒子存放数量切勿超过 200PCS; 不良品放入透明带锁放置盒。

Put the good products into the blue material box in opposite rows, and do not store more than 200PCS in a single box. Defective products are placed in a transparent lockable box.



三、注意事项和关键工序要素

Precautions and key process elements

1. 生产操作过程中，操作员要戴手指套，注意手指套一旦脏污破损，请及时更换
During production operations, operators should wear finger covers and pay attention to them, Once dirty or damaged, please replace it promptly.
2. 产品表面避免脏污，破损等外观不良
Avoid appearance defects such as dirt, damage, etc. on the surface of the product.
3. 网分在生产前，必须是有合格标签才能上线操作
Before production, network partitioning must have a qualified label before it can be put into operation.
4. 遇到异常问题时找负责生产线长或项目工程师
When encountering abnormal problems, contact the responsible production line leader or project engineer.
5. 在生产过程中，操作员每次手拿单个产品进行测试
During the production process, the operator holds a single product in hand each time test.
6. 此款产品端子头用 1 代测试。
This product's terminal head has been tested with the 4th generation.
7. 调出 0192 文件，使用标准样件对机，将网分仪参数设置为:500MHZ-5GHZ，marker 点 2.39GHZ、2.78GHZ 与对保留的标准对样机和不良品进行确认，确保无误才能下步操作
Retrieve file 0192, use standard samples to match the machine, set the parameters of the network analyzer to 500MHZ-5GHz, mark points 2.39GHz, 2.78GHz, and confirm the reserved standard samples and defective products to ensure accuracy before proceeding with the next operation.

质量管控流程 Quality control process

1. 来料检验流程/ IQC

2. 出货检验流程/ OQC



IQC检验报告单IQC inspection report sheet

表单编号The form number : HT-FM-PZ035 版本号Version number : A/1

项目名称 project name	SH1575-WIFI-CAB	物料批次Material lot	2024.7.5 July 5, 2024	供货数量 supply quantity	230PCS	检验日期 date of survey	2024.7.7 July 7, 2024	
海通码 Haitong code	G.1.22.L0195	采购订单PO	G2407040002	状 态form	正常normal ☒ 加严stricter ☐	物料类型 Material type	试生产pilot production 量产quantity production	
抽样计划 sampling plan	MIL-STD-105E-II	抽样水准Sampling level	AQL(CR=0 MAJ=0.4 MIN=0.65)	供应商名称 supplier name	昆山雷匠通信科技有限公司 Kunshan Lei Smith communication technology Co., LTD			
序号 serial numb er	检查项目 Inspection item	检查标准 (供应商) Inspection standard (Supplier)	AQL CR= 0 MAJ: 0.4 MIN: 0.65			n	检验结果Inspection result	判定 OK/NG
1	AVL检查 AVL examination	厂商是否在AVL Whether the manufacturer is in AVL	√				符合conform	OK
2	包装pack	核对包装是否完整有无破损Check packing for completeness and breakage		√		整批 batch	符合conform	OK
3	标识 Identification	标识清楚, 产品名称、型号、数量、日期俱全Clearly marked, product name, model, quantity, date readily available		√		整批 batch	符合conform	OK
4	外观Appearance	与图纸、样品核对, 不可有明显色差, 端子头无松脱、 变形、氧化、脏污、散丝等不良Check with drawings and samples, no obvious color difference, no loose terminal head, deformation, oxidation, dirt, loose wire and other bad		√		32PCS	符合conform	OK
5	拉力测试 Drawing force test	0.81线径 : 0.7kg/f 0.81 Wire diameter: 0.7kg/f	√			5PCS	0.82 0.92 0.81 0.78 0.79	OK
6	公母对插Male and female insert	拔出力0.4KG MIN Extraction force 0.4KG MIN	√			5PCS	0.51 0.54 0.53 0.55 0.59	OK
7	开短路测试Open short circuit test	将万用表调制直通档, 然后分别用红黑表笔接线材两 端, 发出“滴”声响后为合格 The multimeter is modulated through the file, and then the two ends of the wire are linked with a red and black watch, and the sound of “dropping” is qualified	√			5PCS	符合conform	OK
8	可焊性测试 Weldability test	锡炉温度: 260±5℃, 时间: 3±0.5S, 浸锡均匀光亮饱 满, 上锡面积需在95%以上 Tin furnace temperature: 260±5℃, time: 3±0.5S, immersion tin uniform bright full, tin area should be above 95%	√			5PCS	符合conform	OK
9	盐雾试验salt spray test	1.盐雾浓度:5±1 % 2.氯化钠(NaCl): 99.8%以上 3.试验温度: 35±2℃ 4.PH值: 6.5~7.2 (温度为 35±2℃时的PH值) 5.实验湿度: 85%以上 6.试验时间: 48小时 被测件表面无锈蚀、镀层剥落、 变色、氧化、腐蚀不良。 1. Salt spray concentration :5±1% 2. Sodium chloride (NaCl): more than 99.8% 3. Test temperature: 35±2℃ 4. PH value: 6.5~7.2 (PH value when the temperature is 35±2℃) 5. Experimental humidity: above 85% 6. Test time: 48 hours no corrosion, coating peeling, discoloration, oxidation, poor corrosion on the surface of the tested part.	√			5PCS	符合conform	OK
10	有害物质管控 Control of hazardous substances	必须有第三方权威检测机构的检测报告, 有效期为 1年, 确认检测结果是否满足我司标准 There must be a test report from a third-party authoritative testing agency, valid for 1 year, to confirm whether the test results meet our standards	√				有第三方检测报告, 在有效期内, 测试结果符合我司标 准 There are third-party test reports, and the test results meet our standards within the validity period	OK
11	尺寸size	①83±0.5		√		5PCS	83.1 83.2 83.1 83.1 83.0	OK
判定结果 judgement result		合格YES ☒ 不合格NO ☐						
检验员/日期 Inspector/date		何肖梅2024.7.7 He xiaomei July 7, 2024			审核/日期 Audit/Date		张爱玲2024.7.8 Zhangailling July 8, 2024	

IQC检验报告单IQC inspection report sheet

表单编号The form number : HT-FM-PZ035 版本号Version number : A/1

项目名称 project name	SH1575-WIFI-FPC		物料批次Material lot	2024.7.5 July 5, 2024		供货数量 supply quantity	230PCS	检验日期 date of survey	2024.7.7July 7, 2024	
海通码 Haitong code	G.1.11.L.0327		采购订单PO	G2407040002		状态 form	正常normal ☒ 加严stricter	物料类型 Material type	试生产pilot production ☒ 量产quantity production	
抽样计划 sampling plan	MIL-STD-105E-II		抽样水准Sampling level	AQL(CR=0 MAJ=0.4 MIN=0.65)		供应商名称 supplier name	海顺电子科技(珠海)有限公司 Haishun Electronic Technology (Zhuhai) Co., LTD			
序号 serial number	检查项目Inspection item	检查标准(供应商) Inspection standard (Supplier)	AQL			n	检验结果Inspection result	判定 OK/NG		
			CR=0	MAJ: 0.4	MIN: 0.65					
1	AVL检查AVL examination	厂商是否在AVL Whether the manufacturer is in AVL	√				符合conform	OK		
2	包装pack	核对包装是否完整有无破损Check packing for completeness and breakage		√		整批batch	符合conform	OK		
3	标识Identification	标识清楚, 产品名称、型号、数量、日期俱全Clearly marked, product name, model, quantity, date readily available		√		整批batch	符合conform	OK		
4	外观Appearance	无露铜、露底材、压痕、刮伤、脏污、多料不良等 No exposed copper, exposed bottom material, indentation, scratch, dirt, bad material, etc		√		32PCS	符合conform	OK		
5	膜厚film thickness	依图纸According to the drawing		√		5PCS	符合conform	OK		
6	折弯测试Bending test	试验品镀金区域90度与油墨区域180度重复粘贴3次, 不可有涂层脱落、分层、断线及油墨开裂不良。 Paste the gold plating area at 90 degrees and the ink area at 180 degrees for 3 times. There should be no coating peeling, delamination, broken wire and poor ink cracking.		√		5PCS	符合conform	OK		
8	盐雾试验salt spray test	1.盐雾浓度:5±1 % 2.氯化钠(NaCl): 99.8%以上 3.试验温度: 35±2°C 4.PH值: 6.5~7.2 (温度为 35±2°C时的PH值) 5.实验湿度: 85%以上 6.试验时间: 48小时 被测件表面无锈蚀、镀层剥落、变色、氧化、腐蚀不良。 1. Salt spray concentration :5±1% 2. Sodium chloride (NaCl): more than 99.8% 3. Test temperature: 35±2°C 4. PH value: 6.5~7.2 (PH value when the temperature is 35±2°C) 5. Experimental humidity: above 85% 6. Test time: 48 hours no corrosion, coating peeling, discoloration, oxidation, poor corrosion on the surface of the tested part.		√		5PCS	符合conform	OK		
9	恒温恒湿fixed temperature and humidity	FPC贴于支架/机壳, 温度45°C±3°C, 湿度90%-95%试验箱中48H, 试验结束后取出在常温下放置2H后检查, 产品无变形、氧化、开裂、起翘 The FPC was attached to the support/casing in the test chamber at 45 ° C ±3 ° C and 90%-95% humidity for 48H. After the test, the FPC was taken out and placed at room temperature for 2H and then checked. No deformation, oxidation, cracking or warping of the product was found		√		5PCS	符合conform	OK		
10	有害物质管控Control of hazardous substances	必须有第三方权威检测机构的检测报告, 有效期为1年, 确认检测结果是否满足我司标准 There must be a test report from a third-party authoritative testing agency, valid for 1 year, to confirm whether the test results meet our standards	√				有第三方检测报告, 在有效期内, 测试结果符合我司标准 There are third-party test reports, and the test results meet our standards within the validity period	OK		
10	尺寸size	49.76±0.15		√		5PCS	49.76 49.74 49.75 49.75 49.76	OK		
		9±0.15		√		5PCS	9.01 9.00 9.01 9.02 9.01	OK		
		1.2±0.3		√		5PCS	1.235 1.245 1.236 1.242 1.235	OK		
		1.8±0.3		√		5PCS	1.821 1.831 1.841 1.852 1.831	OK		
判定结果 judgement result		合格YES ☒ 不合格NO ☐								
检验员/日期Inspector/date		何肖梅2024.7.7 He xiaomei July 7, 2024			审核/日期Audit/Date		张爱玲2024.7.8 Zhangailing July 8, 2024			

3M Produktinformation

3M™ 467MP, 467MPF, 468MP Klebstoff-Filme ohne Träger

Beschreibung:

Diese hochwertigen Acrylat-Klebstofffilme wurden insbesondere für die Schilderindustrie zur selbstklebenden Ausrüstung von Schildern entwickelt.

Sie zeichnen sich durch seine sehr gute Beständigkeit gegen UV-Strahlung, Temperaturbelastung, Feuchtigkeit, Chemikalien und Lösemittel aus. Die Klebkraft steigt mit Dauer der Verklebung zu einer hervorragenden Endklebkraft an.

Dieser Klebstoff-Typ ist UL und AGA anerkannt, erfüllt die FMI-Anforderungen und entspricht militärischen Spezifikationen sowie den Anforderungen der Automobilindustrie.

Die 3M Produktionsstätte ist nach ISO 9002 zertifiziert.

Anwendungen:

Geeignet zur dauerhaften, belastbaren Befestigung verschiedener Werkstoffe wie Metall, Holz, Glas, einige (hochenergetische) Kunststoffe sowie oberflächenbehandelter Werkstoffe (z.B. lackierte Flächen).

- Befestigen von Schildern und Emblemen
- Befestigen von Zierleisten und Dekorationen

Klebebandmerkmale*	467MP	467MPF	468MP
Klebstoff	Acrylat		
Farbe	transparent		
Dicke	0,05 mm	0,05 mm	0,13 mm
Schutzabdeckung	weiß, 0,09 mm	Polyesterfolie, 0,05mm	weiß, 0,09 mm
Schälkraft auf Stahl**	55 N / 100 mm	55 N / 100 mm	76 N / 100 mm
Temperaturbeständigkeit °C • dauernd • kurzzeitig	-40°C bis +120°C +175°C		
Witterungsbeständigkeit	ohne Beanstandung		

** ASTM Testmethode D 3330 M:

- Verweilzeiten ≥ 1 Min.
- Abzugswinkel 180°
- Abzugsgeschwindigkeit 300 mm/Min.
- Test bei 22°C / 50 % r.F.

Lieferdaten	467MP	467MPF	468MP
Rollenlänge	55 m		
Rollenbreite			
• minimal	12 mm		
• maximal	1180 mm		
Schneidetoleranz	+/- 0,8 mm		
Kerninnendurchmesser	76,2 mm		
Formstanzteile	auf Anfrage		

Verarbeitung:

Die optimalen Verarbeitungsparameter sind in unserer Information "Verarbeitungshinweise für 3M Industrieklebebänder" beschrieben, die wir Ihnen auf Anfrage gerne kostenlos zusenden.

Lagerung:

Unverarbeitet, 12 Monate nach Eingang beim Kunden im Originalkarton bei 50 % relativer Luftfeuchtigkeit und ca. 20°C Lagertemperatur.

***Wichtiger Hinweis:**

Die vorstehenden Angaben stellen unsere gegenwärtigen Erfahrungswerte dar und sind nicht in Spezifikationen zu übernehmen. Prüfen Sie bitte selbst vor Verwendung unseres Produktes, ob es sich auch im Hinblick auf mögliche anwendungswirksame Einflüsse, für den von Ihnen vorgesehenen Verwendungszweck eignet. Alle Fragen einer Gewährleistung und Haftung für dieses Produkt regeln sich nach unseren jeweils gültigen Verkaufsbedingungen, sofern nicht gesetzliche Vorschriften etwas anderes vorsehen.

3M ist ein Warenzeichen der Firma 3M.

3M Österreich GmbH Industrieklebebänder, Klebstoffe u. Spezialprodukte

Brunner Feldstraße 63, 2380 Perchtoldsdorf
Tel.: 01/86 686-278 od. 495, Fax: 01/86 686-229
email: kleben-at@mmm.com

Firmenbuchnummer
80 891 h (LG Wr. Neustadt)
DVR: 0003433, ARA: 740
ATU: 1934 0005

控制计划
(Control plan)

□ 样件 (Sample) □ 试生产 (Trial production) ■ 生产 (Production)			主要联系人/电话(Primary contact): 吴小宇			编号(Number):			版本号: A/0				
零件号/最新更改等级(Part number/Latest Change Level): R.1.05.L.0212			核心小组(Core group): 林海峰、吴小宇、刘万星、谢华艳、夏超										
零件名称/描述(Part Name/Describe): S01575-W1P1-PPC-ASM			供方/工厂批准/日期(Supplier's factory approval date): 吴小宇			修订(日期) (Revision date):							
供方/工厂(Supplier's factory): /		供方代码(supplier code): /		其他批准/日期(如需要) (Other approval dates): /									
零件/过程编号 (Part/Process number)	过程名称/操作描述 Process Name/Operation Description	生产设备 Production equipment	特征(Characteristic)			特殊特性分类 Classification of special characteristic	方法(Methods)						质量计划 Reaction plan
			编号 Number	产品 Product	过程 Process		产品/过程规范/公差 Product/Process specification/Tolerance	评价/测量技术 Evaluate/Measuring technique	样 本(Sample)		控制方法(Control methods)	品质记录 Quality records	
									容量 Capacity	频率 Frequency			
110	仓库收料 Warehouse receipt	电子秤、送货单、送货单标签 Electronic scale Delivery note Delivery note label	110-1	重量 Weight		依照采购订单数量, 不可多或少 According to the quantity of the purchase order, it cannot be too much or too little	称重 Weigh	1次/工单 Once/Work order	每批 Each batch	仓库收料作业办法 Warehouse material receiving operation method	退货 Return goods		
			110-2	包装 Packing		参照包装要求 Refer to packaging requirements	目视 visual						
			110-3	标识 Identification		产品标识, 月份标签符合我司要求 The product identification and month label meet our company's requirements	目视 visual						
120	进料检验 Incoming inspection	直尺、电子秤、2.5D、EOL800B Ruler, Electronic scale 2.5D, EOL800B	120-1	外观 Appearance		《进料检验标准书》 Incoming inspection standard book	目视 visual	AGL=0.4	每批 Each batch	进料检验标准书 Incoming inspection standard book	特采、退货、填写《供应商异常报告》 Special procurement/ Return goods/ Fill out the Supplier Exception Report and provide feedback to superiors		
			120-2	尺寸 Size	☆	《进料检验标准书》 Incoming inspection standard book	测量/直尺/2.5D Test/Ruler/2.5D						
			120-3	环境 environment	◆	《进料检验标准书》 Incoming inspection standard book	测试/EOL800B Test/EOL800B						
			120-4	包装 Packing		参照包装要求 Refer to packaging requirements	目视 visual						
			120-5	拉力 Pulling force	☆	参照图纸 Refer to the drawing	拉力计 Pulling force meter						
130	入库 Warehousing	货架、ERP Goods shelves, ERP	130-1		储存 Storage	FIFO管理、ERP管理 FIFO management, ERP management	ERP	每批 Each batch	每批 Each batch	ERP	反馈上级 Feedback to superiors		
			130-2		温湿度 Temperature and humidity	参照材料MSDS存储要求 Reference Material MSDS Storage Requirements	目视、温湿度管理 Visual inspection, temperature and humidity management	每批 Each batch	每批 Each batch	温湿度点检表 Temperature and humidity inspection table			
140	领料 Picking	计划领料单、推车 Planned material requisition form, Garden cart	140-1		标识 Identification	参照生产工单和BOM表 Refer to the production work order and BOM table	目视 visual	1次/工单 Once/Work order	每批 Each batch	仓库管理规定 Warehouse Management Regulations	反馈上级 Feedback to superiors		
			140-2		数量 Quantity	参照生产工单 Refer to the production work order	目视、称重 visual, Weigh						
			140-3		FIFO	参照《仓库管理规定》 Refer to the Warehouse Management Regulations	ERP						
150	FPC焊接线材 FPC welding wire	手指套、日光灯、烙铁 Finger cuff Fluorescent lamp Soldering iron	150-1	肩点高度 Stand-off height		☆	参照SOP Refer to SOP	测量/卡尺 Measure/Calipers	每批 Each batch	每批 Each batch	焊接工艺卡/生产日报表 Production Daily Report	反馈上级 Feedback to superiors	
			150-2		烙铁温度 Solder iron temperature	☆	目视 visual						
			150-3	端子头朝向 Terminal head orientation		☆	参照图纸 Refer to the drawing	目视 visual					
160	点胶 Glue	点胶机 Dispenser	160-1	外观 Appearance			参照SOP/2D Refer to SOP/2D	目视 visual	每批 Each batch	每批 Each batch	点胶工艺卡/生产日报表 Production Daily Report	反馈上级 Feedback to superiors	
			160-2	高度 Height		☆	测量/卡尺 Measure/Calipers	每批 Each batch	每批 Each batch	Glue dispensing process card Production Daily Report	反馈上级 Feedback to superiors		
170	排废 Waste discharge	工作台、日光灯、手指套 Workbench, Fluorescent lamp, Finger cuff	170-1	外观 Appearance			参照SOP Refer to SOP	目视 visual	每批 Each batch	每批 Each batch	生产日报表 Production Daily Report	反馈上级 Feedback to superiors	
180	RF测试 RF testing	手指套、日光灯、网分仪、测试治具 Finger cuff, Fluorescent lamp, Network analyzer, Test fixture	180-1		设备参数 Equipment parameters	☆	参照SOP Refer to SOP	目视 visual	每批 Each batch	每批 Each batch	RF测试工艺卡/生产日报表 Production Daily Report	反馈上级 Feedback to superiors	
			180-2		RF	☆	参照SOP Refer to SOP	目视/网分仪 visual/Network analyzer	全数 All		反馈上级 Feedback to superiors		
190	IPQC检验 IPQC inspection	日光灯、卡尺、直尺、网分仪 Fluorescent lamp, Calipers, Ruler, Network analyzer	190-1	外观 Appearance			参照图纸 Refer to the drawing	目视 visual	5个/次/2H	每批 Each batch	首检、巡检记录表 First inspection and patrol record form	反馈上级 Feedback to superiors	
			190-2	结构 Structure			参照图纸 Refer to the drawing	目视 Measure					
			190-3	尺寸 Size	☆	参照图纸 Refer to the drawing	测量/直尺/卡尺 Measure/Ruler/Calipers						
			190-4	拉力 Pulling force	☆	参照SIP Refer to SIP	目视 visual						
			190-5	点胶高度 Glue dispensing height	☆	参照图纸 Refer to the drawing	测量/卡尺 Measure/Calipers						
			190-6	RF	☆	参照SOP Refer to SOP	测量/网分仪 Measure/Network analyzer						
200	全检 Full inspection	PE袋、手指套、工作台 PE bag Finger cuff Workbench	200-1	数量 Quantity			参照SOP Refer to SOP	目视 visual	每批 Each batch	每批 Each batch	全检工艺卡/生产日报表 Production Daily Report	反馈上级 Feedback to superiors	
			200-2	外观 Appearance			参照图纸 Refer to the drawing		每批 Each batch				
210	包装 Packing	纸箱、日光灯、手指套 Carton, Fluorescent lamp Finger cuff	210-1	包装规格 Packaging specifications			参照POP Refer to POP	目视 visual	每批 Each batch	每批 Each batch	包装工艺卡/生产日报表 Production Daily Report	反馈上级 Feedback to superiors	
220	入库 Warehousing	货架、ERP Goods shelves, ERP	220-1		储存 Storage	FIFO管理、ERP管理 FIFO management, ERP management	ERP	每批 Each batch	每批 Each batch	ERP	反馈上级 Feedback to superiors		
			220-2		温湿度 Temperature and humidity	参照材料MSDS存储要求 Reference Material MSDS Storage Requirements	目视/温湿度管理 visual/Temperature and humidity management	每批 Each batch	每批 Each batch	温湿度点检表 Temperature and humidity inspection table			
230	OQC检验 OQC inspection	直尺、卡尺、送货单、网分仪 Ruler, Calipers Delivery note Network analyzer	230-1	尺寸 Size	☆	参照图纸 Refer to the drawing	测量/直尺/卡尺 Measure/Ruler/Calipers	5个/批 5/Batch	每批 Each batch	出货检验报告 Shipment Inspection Report	反馈上级 Feedback to superiors		
			230-2	RF	☆	参照SOP Refer to SOP	测量/网分仪 Measure/Network analyzer	5个/批 5/Batch	每批 Each batch				
			230-3	结构 Structure			参照图纸 Refer to the drawing	目视 visual	5个/批 5/Batch			每批 Each batch	
			230-4	外观 Appearance			参照图纸 Refer to the drawing	目视 visual	AGL=0.4			每批 Each batch	
			230-5	出货标签 Shipping label			参照包装规范 Refer to packaging specifications	目视 visual	全数 All			每批 Each batch	
			230-6	包装数量 Packaging quantity									
240	出货 Shipment	运输车、送货单 Truck Delivery note	240-1		运输 Transport		目视 visual	每批 Each batch	每批 Each batch	客户要求 Customer requirements	反馈客户 Feedback to superiors		
			240-2		交付时间 Delivery time		ERP						
			240-3		送货单 Delivery note		ERP						