



MULTECH PCB TECHNOLOGIES CO., LIMITED

艾尔特线路科技(HK)有限公司

Homepage: www.multech-pcb.com

E-mail:marketing@multech-pcb.com,UL:E320829

CERTIFICATION OF COMPLIANCE

Dear Customer:

This is to certify that the enclosed material have been manufactured and inspected in accordance with customer drawing and specification. All units have found to meet, or exceed the required specifications which include the construction, dimension and raw material. And the following parameter(s) of testing is performed on 100% basis in compliance with customer specification.

ITEM/项目	DESCRIPTION/说明	ACTUAL/结果
1	Customer name/客户名称	A300
2	Customer P/N/客户型号	probe-characterization-v0p1
3	Internal P/N/厂家生产编号	
4	Customer P/O/客户订单号	P0200313001
5	Shipment quantity/交货数量	10PCS
6	Inspection standard/检查标准	. IPC 6012 & IPC 600 CLASS 2
7	UL plame class/UL 耐燃级别	94V-0
8	Our UL designation/UL 标示(“兄”字)	
10	Laminate type/板材类型	ROGERS R04350B 高-Tg≥280
11	Date code /生产周期	1420
12	Ship date / 出货日期	2020/4/7
13	Where is the product made in /产品出产地	China
14	Where compliant ROHS request/是否满足客户ROHS要求	YES
15	Customer DWG/客户资料	

Thanks for your attention !!

Certified by : ZHONGXING

Quality Assurance Manager

WILLIAM

Date : 2020/4/7

Signature



Microsection Test Report

PROD P/N : _____
 CUSTOMER P/N : probe-characterization-v0p1
 CUSTOMER : A300
 REF.NO : _____

DATE CODE: 1420
 LOT NO. : /
 JOB CODE : /
 QUANTITY : 10PCS

1.0 Thickness of copper/孔铜厚测试(unit:um)

Speciment location/采样位置

Thickness copper/铜厚 unit/单位 : um

Test point/ 测试点	request/要求	Actual/实际	surface copper thickness /表铜		
			Point/测试点	Request /要求	Actual/实际
A	≥20 Avg 25	27	A	>=35	40
B	≥20 Avg 25	27	B	>=35	40
C	≥20 Avg 25	29	C	>=35	44
D	≥20 Avg 25	26	D	>=35	42
E	≥20 Avg 25	27			
F	≥20 Avg 25	27			
Max		29			44
Min		26			40
Aver		27.667			41.5

2.0 Roughness/孔壁粗糙度 unit/单位 : um

Request/要求	Actual/实测	ACC	Rej
≤25.4	20	ACC	

3.0 阻焊厚度(单位: um) Soldermask thickness (Unit:um)

测试点		要求 Request	实测 Actual	ACC	Rej
A		/	/	ACC	
B		≥10	15	ACC	
C		≥10	17	ACC	

4.0 Tin/lead thickness/锡铅厚度 unit/单位: um

Request/要求	Actual/实测	ACC	Rej



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Microsection Test Report

5.0 CU & Medium Layer thickness/铜厚及介质层厚度测量 unit/单位: um

铜厚 CU Thickness			介质层厚度 Medium Layer thickness			ACC	Rej
层数 Layer	要求 Request	实际 Actual	层数 Layer	要求 Request	实际 Actual		
L1	1oz	44	L1~L2	1524+152/-152	1470	ACC	
L2	1oz	40				ACC	

6.0 Ni-Au thickness/镍金厚 unit/单位: um

Request/要求	Actual/实测	ACC	Rej
Ag THK:0.12-0.4	0.162	ACC	

7.0. Defects Inspection/缺陷检测

Item/项目	Request要求	Actual/实际	Acc	Rej
镀层裂纹 plating crack	Not found	Not found	Acc	
树脂内缩 resin recession	Not found	Not found	Acc	
镀层空洞 plating void	Not found	Not found	Acc	
分层 delamination	Not found	Not found	Acc	
钻污 smear	Not found	Not found	Acc	
铜裂缝 copper crack	Not found	Not found	Acc	
起泡 blistering	Not found	Not found	Acc	
连接面分离 interconnection separation	Not found	Not found	Acc	
基材空洞 laminate void	Not found	Not found	Acc	
灯芯 wicking	<0.1mm	<0.02mm	Acc	
钉头 nail heading	Not found	Not found	Acc	

Final result : Acc Rej

Prepared by: ZHONGXING Approved by: WILIAM



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ROHS COMPLIANCE CERTIFICATE

Dear Customer,

This is to certify that the Printed Circuited Boards we manufactured are complied with ROHS compliance.

PROD P/N : _____ DATE CODE: _____ 1420

CUSTOMER P/N : _____ probe-characterization-v0p1 LOT NO. : _____ /

CUSTOMER : _____ A300 JOB CODE : _____ /

REF.NO : _____ QUANTITY : _____ 10PCS

NO.	Test Item	% Limit	Result
1	Lead (pb)	0.1(1000Ppm)	Not detected
2	Cadmium(Cd)	0.01(100Ppm)	Not detected
3	Mercury(Hg).	0.1(1000Ppm)	Not detected
4	Chromium VI(Cr+6 or CrVI)	0.1(1000Ppm)	Not detected
5	PBBs	0.1(1000Ppm)	Not detected
6	PBDEs	0.1(1000Ppm)	Not detected
7	DIBP	0.1(1000Ppm)	Not detected
8	DEHP	0.1(1000Ppm)	Not detected
9	BBP	0.1(1000Ppm)	Not detected
10	DBP	0.1(1000Ppm)	Not detected

Checked by: ZHONGIXNG

Approved By: WILLIAM

Date : 2020/4/7

Date : 2020/4/7



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ELECTRIC TEST REPORT

PROD P/N :	_____	DATE CODE:	1420
CUSTOMER P/N :	probe-characterization-v0p1	LOT NO. :	/
CUSTOMER :	A300	JOB CODE :	/
REF.NO :	_____	QUANTITY :	10PCS

Quantity/数量	Test time/时间		Test Condition /测试条件	Test type/测试类型
<input type="checkbox"/> Electric	2min/1PCS		正常条件 (温度23℃,湿度52.5%)	Electric
<input checked="" type="checkbox"/> Fly probe				
Test condition 测试条件	voltage 测试电压	250V	Conductive resistance 导通电阻	30Ω
	electricity 测试电流	10 mA	Insistance resistance 绝缘电阻	25MΩ
Test Result 测试结果	Total 总数	10PCS	Pass 合格	10PCS
	Open 开路	0	Short 短路	0
	Thru no 导通不良	0	Insulation no 绝缘不良	0

Note1: Please baking the products 2-3 hours under 120 degrees before assembly.to eliminate moisture and perform better solderability.

Note2: we are willing to supply PCB to our customer,after get our shipment,please confirm the quality feedback within 3 months.more than 3 month's complaint from customer side,we have the right to refuse it and reject compensation. For PCBA complaint we can only accept Max.3 times of bare PCB value to afford everything consequential cost in customer side if we supplied defective PCBs to customer.

Checked by: ZHONGXING

Approved By: WILLIAM

Date : 2020/4/7

Date : 2020/4/7



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Products final audit report

生产报告

PROD P/N : _____
 CUSTOMER P/N : probe-characterization-v0p1
 CUSTOMER : A300
 REF.NO : _____

DATE CODE: 1420
 LOT NO. : /
 JOB CODE : /
 QUANTITY : 10PCS

1.0 Material/物料

Item 项目	Inspection Method 测试方法	Requirement 要求	Actual 实际	Acc	Rej
Laminate type 板材	Visual 目检	<input checked="" type="checkbox"/> ROGERS RO4350B	<input checked="" type="checkbox"/> ROGERS RO4350B	Acc	
		PTEE	PTEE		
		<input checked="" type="checkbox"/> 高-Tg≥280	<input checked="" type="checkbox"/> 高-Tg≥280	Acc	
		<input type="checkbox"/> 其它	<input type="checkbox"/> 其它		
Soldermask type 绿油类型	Visual 目检	<input checked="" type="checkbox"/> H-8100_09BL60	<input checked="" type="checkbox"/> H-8100_09BL60	Acc	
		<input type="checkbox"/> PSR-2000 DXS3D	<input type="checkbox"/> PSR-2000 DXS3D		
		<input type="checkbox"/> TaiYang PSR-4000	<input type="checkbox"/> TaiYang PSR-4000		
		<input type="checkbox"/> 其它	<input type="checkbox"/> 其它		
Soldermask color 绿油颜色	Visual 目检	<input checked="" type="checkbox"/> Blue 蓝色	<input checked="" type="checkbox"/> Blue 蓝色	Acc	
		<input type="checkbox"/> red 红色	<input type="checkbox"/> red 红色		
		<input type="checkbox"/> black 黑色	<input type="checkbox"/> black 黑色		
		<input type="checkbox"/> dark green 亚色绿油	<input type="checkbox"/> dark green 亚色绿油		
		<input type="checkbox"/> 其它	<input type="checkbox"/> 其它		
C/M Type 字符	Visual 目检	<input checked="" type="checkbox"/> SR-500_HCW1/CA-66_HA	<input checked="" type="checkbox"/> SR-500_HCW1/CA-66_HA	Acc	
		<input type="checkbox"/> ASR-150	<input type="checkbox"/> ASR-150		
		<input type="checkbox"/> S-380W	<input type="checkbox"/> S-380W		
C/M Color 字符颜色	Visual 目检	<input type="checkbox"/> Yellow 黄色	<input type="checkbox"/> Yellow 黄色		
		<input checked="" type="checkbox"/> white 白色	<input checked="" type="checkbox"/> white 白色	Acc	
		<input type="checkbox"/> 其它	<input type="checkbox"/> 其它		
Peelable soldermask 可剥离兰胶	Visual 目检				

2.0 Board thickness Measurement/板厚测量 unit/单位: mm

Item 项目	Inspection Method 测试方法	Requirement 要求	Actual 实际	Acc	Rej
Thickness 板厚	Micrometer 千分尺	1.6+/-0.16	1.565	Acc	
Size 尺寸	three-D 三次元	24.9*74.9	24.83*74.95	Acc	



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Products final audit report

生产报告

3.0 Marking 标记

Item 项目	Inspection Method 测试方法	Requirement 要求	Actual 实际	Acc	Rej
logo 标记	Visual 目检	<input type="checkbox"/> By S/M 阻焊	<input type="checkbox"/> By S/M 阻焊		
		<input checked="" type="checkbox"/> By C/M 字符	<input checked="" type="checkbox"/> By C/M 字符	Acc	
		<input type="checkbox"/> By Etch 蚀刻	<input type="checkbox"/> By Etch 蚀刻		
		<input checked="" type="checkbox"/> By Comp side 元件面	<input checked="" type="checkbox"/> By Comp side 元件面	Acc	
		<input type="checkbox"/> By Solder side 焊接面	<input type="checkbox"/> By Solder side 焊接面		
Date code 周期标记	Visual 目检	<input checked="" type="checkbox"/> WWYY 周年	<input checked="" type="checkbox"/> WWYY 周年	Acc	
		<input type="checkbox"/> YYWW 年周	<input type="checkbox"/> YYWW 年周		
		<input type="checkbox"/> By S/M 阻焊	<input type="checkbox"/> By S/M 阻焊		
		<input checked="" type="checkbox"/> By C/M 字符	<input checked="" type="checkbox"/> By C/M 字符	Acc	
		<input type="checkbox"/> By Etch 蚀刻	<input type="checkbox"/> By Etch 蚀刻		
		<input checked="" type="checkbox"/> By Comp side 元件面	<input checked="" type="checkbox"/> By Comp side 元件面	Acc	
Customer P/N 客户型号	Visual 目检	<input type="checkbox"/> P/N 型号	<input type="checkbox"/> P/N 型号		
		<input type="checkbox"/> By S/M 阻焊	<input type="checkbox"/> By S/M 阻焊		
		<input type="checkbox"/> By C/M 字符	<input type="checkbox"/> By C/M 字符		
		<input type="checkbox"/> By Etch 蚀刻	<input type="checkbox"/> By Etch 蚀刻		
		<input type="checkbox"/> By Comp side 元件面	<input type="checkbox"/> By Comp side 元件面		
		<input type="checkbox"/> By Solder side 焊接面	<input type="checkbox"/> By Solder side 焊接面		

4.0 Line wide/space measurement (线宽线隙测试) unit/单位: mm

Item 项目	Inspection Method 测试方法	Requirement 要求	Actual 实际	Acc	Rej
		Comp side 元件面 : 0.78+/-20%	0.803	Acc	
		Solder side 焊接面 : /	/	/	
	100倍放大镜 100times magnifier	Comp side 元件面 : 0.11+/-20%	0.118	Acc	
		Solder side 焊接面 : /	/	/	
SMT&BGA side	100倍放大镜 100times magnifier	BGA: /	/	/	
Annularring 焊环	100倍放大镜 100times magnifier	≥0.05mm	0.14mm	Acc	



生产报告

5.0 Warpage Measurement (板曲度测量)				
Inspection Method 测试方法	Requirement 要求	Actual 实际	Acc	Rej
IPC II	≤ 0.75%	0.19%	Acc	

6.0 V-CUT Measurement (V-CUT测量)				
Inspection Method 测试方法	Requirement 要求:	Actual 实际	Acc	Rej
	H: / B: /	H: / B: /	/	

7.0 Gold finger Measurement (金手指角度测试)				
Inspection Method 测试方法	Requirement 要求	Actual 实际	Acc	Rej
Measurement by angle magnifier 角度镜测试		N/A		

7.0 Visual inspection (外观检查)				
Inspection Method 测试方法	Requirement 要求:	Actual 实际	Acc	Rej
IPC-A-600 /Customer request	NO visual defects 无外观不良	<input checked="" type="checkbox"/> No defects 无缺陷	Acc	
		<input type="checkbox"/> have defects 有缺陷		

8.0 Hole size method (孔径检查)					
Inspection Method 测试方法	By pin Gauge (用针规) unit/单位: mm				
Hole size 孔径	Requirement 要求		Actual 实际	PTH & NPTH	Result
0.300	+ 0.1	- 0.1	0.29	Via	ACC

Final result : Acc Rej

Prepared by: ZHONGIXNG

Approved by: WILLIAM



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Characteristic Impedance Test Report

PROD P/N :
CUSTOMER P/N : probe-characterization-v0p1
CUSTOMER : A300
REF.NO :

DATE CODE: 1420
LOT NO. : /
JOB CODE : /
QUANTITY : 10PCS

Table with 7 columns: Item, Design, Actual (Max, Min, Average), Adjustment, Layer. Rows include Material, Board Thickness, Dielectric Constant, Stack up, Unitline Impedance, Differential Impedance, Inspection Method, and Conclusion.

Check by: YQCHEN

Approved by: DQCAI



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SOLDERABILITY TEST REPORT

PROD P/N : ... DATE CODE: 1420
CUSTOMER P/N : probe-characterization-v0p1 LOT NO. : /
CUSTOMER : A300 JOB CODE : /
REF. NO : ... QUANTITY : 2PCS

TEST METHOD : IN ACCORDANCE WITH IPC-TM-650
APPARATUS : SOLDER POT , THERMOMETER . FLUX: ETC HF-268
TEST CONDITION : BANKING TEMP: 0°C , TIME: 0 HOURS 0 HOURS
SOLDERING TEMP: 255°C 3s*1T
TEST METHOD : [] Wave solder [] Dip solder [x] Float solder

After tested specimen and defect:

- 1. Discolor : NO 2. Wrinkles : NO
3: Delamination: NO 4. Lifted Lands NO
5. Measling : NO 6. Blow-hole : NO
7. Solder mask peel off: NO
8. Solder filled into holes-wall not completely : NO

Remarks: _____

Dispositon : ACC[x] TIME: _____ HOURS REJ[]
TEST BY : ZHONGXING Date: 2020/4/7
Approved by : WILIAM Date: 2020/4/7