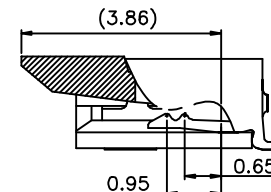
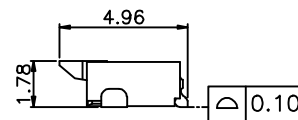
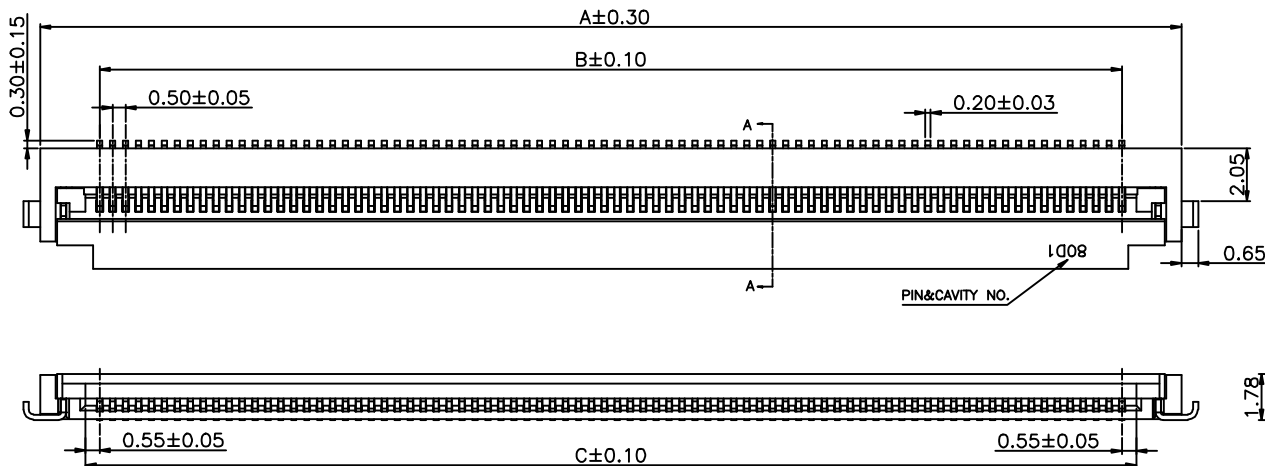


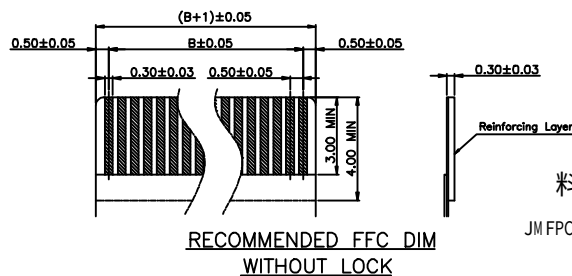
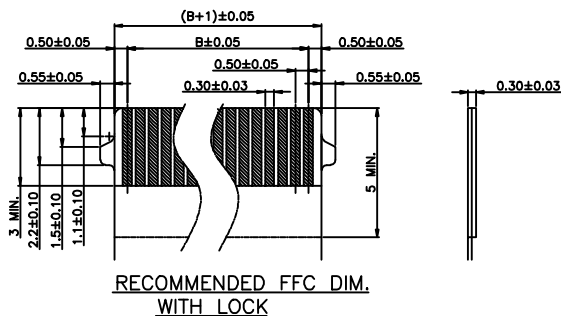
环保要求 RoHS 2.0

由 Autodesk 教育版产品制作

NOTES:
1.MATERIAL:
HOUSING:THERMOPLASTIC(UL94V-0) NATURE
ACTUATOR:THERMOPLASTIC(UL94V-0) BLACK
TERMINAL:PHOSPHOR BRONZE PLATED GOLD 1u" FOR SOLDERING
AREA AND CONNECT AREA, PLATED NI MIN 30u" FOR
ALLOVER UNDER.
FITTING NAIL:PHOSPHOR BRONZE MATTE TIN MIN 80u" PLATED FOR
ALLOVER PLATED NI MIN 30u" FOR ALLOVER UNDER.
2.SPECIFICATION
CURRENT RATING: 0.5A 50VAC/DC
CONTACT RESISTANCE: 40mΩ MAX
INSULATION RESISTANCE: 100MΩ MIN AT 500V DC
OPERATING TEMPERATURE RANGE: -40°C TO +85°C
WITHSTANDING VOLTANG: 500V AC/minute

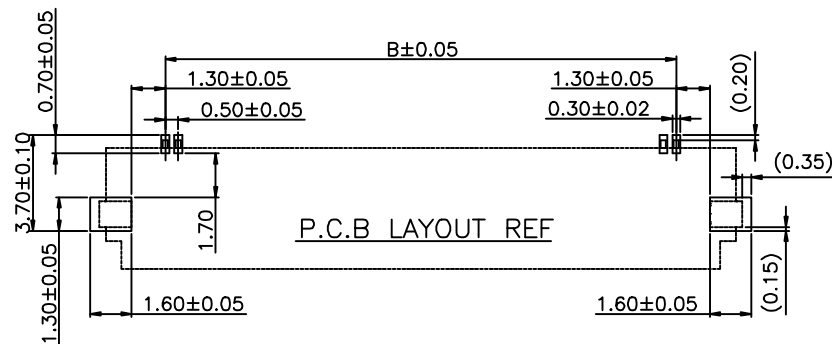


SECTION A-A
SCALE 2:1



料号: 5001 -FPC 05 18 -** R 1-00
JM FPC CONNECTOR SERIES
PITCH:0.5
HIGH:1.78
ALTERNATE
PACKING:R:卷
PIN

PIN数	A	B	C
60	34.1	29.5	30.6
68	38.1	33.5	34.6
80	44.1	39.5	40.6



CUSTOMER DRAWING

深圳市文章济美科技有限公司

UNLESS OTHERWISE
SPECIFIED
TOLERANCES ARE
X.X ±0.30
X.XX ±0.20
X.XXX ±0.10
ANG. ±0°30'

APPROVED BY DATE TITLE
FPC CONN. 0.5P H1.8
FLIP TYPE 成品图
CHECKED BY DATE
DRAWN BY DATE DOCUMENT NO PAGE

UNIT P/M SIZE A4 DRAWING NO REV A SHEET 1/1 SCALE 1:1

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SPECIFICATION OF PRODUCTS

0.5mm PITCH H1.8 FFC/FPC CONNECTOR

1. 范围(Scope)：

此作业规范仅适用于 FPC P0.5mm 系列产品

(This specification covers the 0.5mm PITCH FPC CONNECTOR series.)

2. 参考文件(Reference Document)：

下列文件是指定规格书的一部份,如果规格书要求与产品图纸相矛盾,应以产品图纸为准,如果规格书与参考文件矛盾,应以规格书为准.

A. SONY SS-00259 技术规范

B. UL STD-94：关于塑材设备零配件及器材阻燃性测试规范.

(This specification has refer SONY SS-00259 and UL STD-94. If this specification has come into conflict with drawing, Pleases refer to drawing. If this specification has come into conflict with reference document, Pleases refer to this specification.)

3. 要求(Required)：

3.1 材料组成(Material Assembly)：

A. 塑胶本体(Housing)：Heat Resistance Plastic LCP (UL 94V-0).

B. 塑胶锁扣(Autuator)：Heat Resistance Plastic LCP (UL 94V-0).

C. 端子(Terminal)：Copper Alloy, Plating Au

D. 固定脚(Fitting Nail) Copper Alloy, Plating Matte Tin

3.2 设计及结构(Design and Construction)：

产品设计,结构及尺寸如产品图纸所示.

(Product shall be of the design, construction and physical dimensions specified in the product drawing)

3.3 性能(Performance)：

1) 标准状态(Predicament Criterion)：

A 常温温度(Normal Temperature)： 15~35℃

B 常湿湿度(Normal Humidity)： 25-85%

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0.5 PITCH H1.8 FLIP TYPE FPC CONNECTOR

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C 常压气压(Normal Air pressure)：860~1060hPa;

2) 电 压(Voltage)： 50V AC rms max

3) 电 流(Current)： 0.5 A

4) 操作温度(Operation Temperature)：-45℃~85℃

5) 贮存温度(Preservation Temperature): -25℃~85℃

6) 测试条件(Testing Qualification)：

本产品的设计符合电性的、机械的及环境性能要求。如图表所示

Refer to below sheet.

4. 测试要求及基本程序(Testing Requirement Process)：

一、电 气 特 性 ELECTRICAL PERFORMANCE			
项 目 Item		测试条件 (Test Condition)	要 求 (Requirement)
1	接触阻抗 Contact Resistance	同一根端子测试，电流：10mA(DC),电压：20mV 以下，使用电线：适配 FFC 标准线。 Mate applicable FPC, measure by dry circuit , 20mV MAXIMUM, 10mA MAXIMUM.	20mΩ Max
2	绝缘阻抗 Insulation Resistance	相邻端子间 DC 500V，1 分钟。 Mate applicable FPC together and apply 500V DC between adjacent terminal and ground. Test Duration: 60 seconds	500MΩ Min
3	耐压测试 Dielectric Strength	相邻端子间 AC 500V 1 分钟。 Mate applicable FPC, apply 500V AC for 1 minute between adjacent terminal or ground. Test Duration: 60 seconds.	无击穿，无短路 No Breakdown No Short
二、机 械 性 能 Mechanical Performance			
1	端子保持力 Terminal Retention Force	端子以 25±3mm/分的速度，均速垂直拔出 Pull the terminal at the speed rate of 25+3/-3mm per minute.	50gf/Pin Min
2	FFC/FPC 保持力 FFC/FPC Retention Force (without lock)	FFC 插入 FPC 后，以 25~100mm/分均速垂直拉出； Insert the actuator, pull the FPC at the speed rate of 25+3/-3mm per minute.	30gf/Pin Min

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3	插拔寿命 Repeated Actuator Insertion / Withdrawal	将 FFC 插入 FPC 后，循环 30 次 Insert and withdraw actuator up to 30 cycles,	1) 端子无变形，裂痕 Terminal: No Distortion.
---	--	--	---

三、物 理 及 环 境 性 能

Physical Performance and Environmental Performance

1	耐震性 Vibration	震幅 1.5mm.,频率 10-50-10Hz,X/Y/Z 方向各 2 小时，共计 6 小时. Amplitude: 1.5mm P-P Sweep time: 10~55~10 Hz in 1 minute Duration: 2 hours in each X.Y.Z. axes, Total 6 hours.	无变形、损伤 No Damage
2	焊锡耐热性 Resistance to Soldering Heat	1. SMT 型产品参阅回流焊设置温度 1. If the product's type is SMT, Refer to SMT profile.	无变，无损伤 No Damage
3	高温实验 Heat Resistance	温度 85 ± 2℃，时间 96H Temperature: 85+2/-2℃. Duration: 96H	1. 接触阻抗：40mΩ Max 2. 绝缘阻抗：500 M Ω Min 3. 耐电压：无击穿， 短路 4. 外观：无异常 1. Contact Resistance: 40mΩ Max 2. Insulation Resistance 500 MΩ Min 3. Dielectric Strength 4. Appearance: No Defect
4	恒温恒湿 Constant Temperature /Humidity	温度 40±5℃；湿度 90~95% RH,时间 96H Temperature:40±5℃，Humidity: 90~95% RH Duration:96H	
5	盐雾试验 Salt Spray	温度 35±2℃；盐水比重 5±1%喷雾试验 48H NaCl solution Concentration : 5+1/-1 % Spray time : 48+/-4 hours Ambient temperature : 35+2/-2 degree C	
6	冷热冲击 Temperature Cycling	-55±3℃；85±2℃的温度下各放置 30 分钟，共进行 25 次循环；常温 25℃ and subject to the following conditions for 10 cycles. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed.25 cycle of a) -55 degree C 30 minutes b) +85 degree C 30 minutes	
7	蒸气老化 Steam Life	温度 95±5℃，时间 48H Temperature : 95±5℃ Duration: 48 hours	

Product Name:

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8	沾锡性 Solder Ability	沾锡温度 260±5℃ (Sn : Pb=97 : 3); 时间 5 ± 0. 5S Solder Temperature: 260±5℃ (Sn : Pb=97 : 3) Solder Time: 5 ± 0. 5second SMT stencil thickness: 0.12~0.15mm	吃锡饱满，在 95%以上 Continuous solder coating with a minimum 95% coverage.
---	-----------------------	--	--

备注：产品测试后,应符合目视外观要求,无损伤,且需符合章 6 测试顺序规定的附加要求.

Note : Shall meet visual requirements ,show no physical damage ,and shall meet requirements of additional tests as specified in Test Sequence in paragraph 6

5.产品认证及再认证顺序(Product Qualifications and Qualification Test Sequence)：

A. 样品选择(Sample Selection)：

样品选择应按照结构栏要求符合随意性原则.

Test samples shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production

B. 测试顺序(Test Sequence)：

下列是检测顺序的范例：

The following is an example of how the test sequence works: In Test Group 8, the first test is (1), examination of product, followed by test (2), Temperature Life , followed by test (3), examination of product .Six samples are tested in this test group.

测试认证顺序		测试项目 Test Group							
Test Description Sequence		A1	A2	A3	A4	A5	A6	A7	A8
1	产品检验(Product Inspection)	1	1/3	1/3	1/3	1/3	1/3	1/3	1/3
2	接触阻抗测试(Contact Resistance)	2	4			4	4	4	4
3	绝缘阻抗测试(Dielectric Strength)	3		4	4	5	5	5	5
4	耐电压测试(Dielectric Strength)	4		5	5	6	6	6	6
5	插拔力测试(Insertion/ Withdrawal Force)	5			6				
6	保持力测试(Terminal Retention Force)	6			7				
7	插拔寿命测试(Repeated Insertion/ Withdrawal)		2						
8	耐高温测试(Heat Resistance)			2					
9	焊锡耐热性测试(Resistance to Soldering Heat)				2		7		
10	恒温恒湿测试(Constant Temperature /Humidity)					2			
11	盐水喷雾试验(Salt Spray)						2		
12	蒸气老化测试(Steam Life)							2	
13	冷热冲击测试(Temperature Cycling)								2
	每组测试之样品 (Samples)	B1	B2	B3	B4	B5	B6	B7	B8

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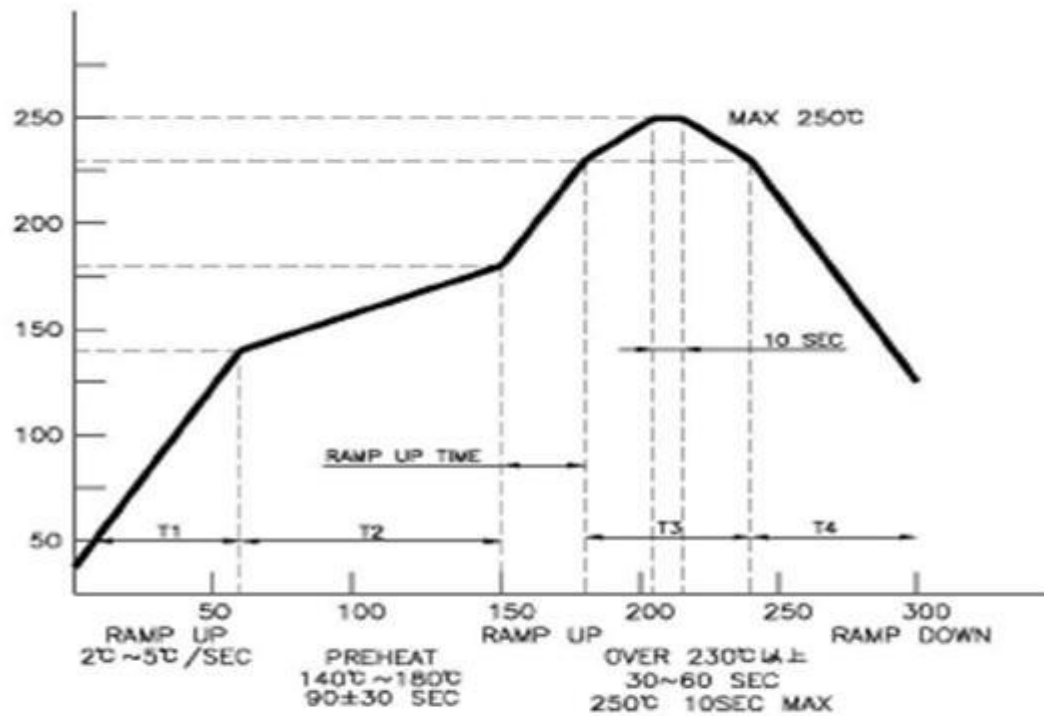
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SPECIFICATION OF PRODUCT

Sn-Ag-Cu PROFILE



T1:	Temperature Ramp Up Rate	2°C~5°C/SEC
T2:	Preheat: 140°C~180°C	90±30 SEC
T3:	Time Over 230°C	30~60 SEC
T4:	Ramp Down Rate During Cooling	4°C~7°C/SEC
	Peak Temperature	250°C Max

Temperature Profile of Reflow Soldering

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MATERIAL REFERENCE TABLE

Parts Name	General Name	Model No.	Heat Resistance Level	UL Card NO.
Housing	LCP	E463i	UL94V-0	E106764
Actuator	LCP	MG350BK	UL94V-0	E91944
Terminal	Phosphor Borne	C5191R	—	—
Fitting Nail	Brass	C2680R	—	—

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MATERIAL CERTIFICATE OF HOUSING

1. E463i的一般物性

表 1-1 一般物性(ISO)

项 目	单位	试验方法	高耐热, 高流动
			E463i
			低翘曲性
密度	g/cm ³	ISO 1183	1.72
拉伸强度*	MPa	ASTM D638	110
拉伸率*	%	ASTM D638	3
弯曲强度	MPa	ISO 178	130
弯曲模量	MPa	ISO 178	10600
弯曲应变	%	ISO 178	3.1
简支梁冲击强度(有缺口)	kJ/m ²	ISO 179/1eA	5
负荷变形温度(1.8MPa)	℃	ISO 75-1,2	235
成型收缩率(90℃×1mm, 流动方向, 注射压力50MPa)	%		0.09
成型收缩率(90℃×1mm, 垂直方向, 注射压力50MPa)	%		0.5
成型收缩率(90℃×1mm, 流动方向, 注射压力70MPa)	%		-
成型收缩率(90℃×1mm, 垂直方向, 注射压力70MPa)	%		-
体积电阻率	Ω • cm	IEC 60093	-
表面电阻率	Ω	IEC 60093	-
介电常数(1kHz)		IEC 60250	-
介电常数(1MHz)		IEC 60250	-
介电常数(10GHz)			-
介电损耗角正切(1kHz)		IEC 60250	-
介电损耗角正切(1MHz)		IEC 60250	-
介电损耗角正切(10GHz)			-
绝缘破坏强度(1mmt)	kV/mm	IEC 60243-1	-
绝缘破坏强度(3mmt)	kV/mm	IEC 60243-1	-
耐导电径迹	CTI	IEC 60112	-
耐电弧性	s		-
阻燃性		UL94	V-0

以上数值为材料的代表性测试值、并非该规格材料的最低值。

*1)有关UL (Underwriters Laboratories Inc.) 的认定值、请参照UL发行的黄卡 (File No.E106764)。

*2)本品级受以日本国外汇管理及外国贸易法为依据的出口贸易管理条例表中的第1条第16项的制约。

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Component - Plastics

E106764

POLYPLASTICS CO LTD

VECTRA DIV, 18-1 KONAN 2-CHOME, MINATO-KU, TOKYO 108-8280 JP

E463i

Liquid Crystal Polymer (LCP), thermotropic aromatic polyester, "Vectra", furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	1.5	V-0	-	-	130	130	130

Comparative Tracking Index (CTI): -

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10^x ohm-cm): -

High-Voltage Arc Tracking Rate
(HVTR): -

High Volt, Low Current Arc Resis (D495): -

Dimensional Stability (%): -

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 1998-07-02

Last Revised: 2003-10-24

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness Tested (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	1.5	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m ²	-	-
ISO Izod Impact	ISO 180	kJ/m ²	-	-
ISO Charpy Impact	ISO 179-2	kJ/m ²	-	-

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The materials covered in this database are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE PRODUCTS SUBMITTED TO UNDERWRITERS LABORATORIES.

Notice of Disclaimer

Product Name:

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MATERIAL CERTIFICATE OF ACTUATOR

Typical properties of Xydar® MG-350 PRL

Properties	Unit	Method (ASTM)	MG-350 PRL
Tensile strength (3.2mmT)	MPa	D638	116
Tensile Modulus (3.2mmT)	GPa		14.6
Elongation (3.2mmT)	%		3.0
Flexural strength (3.2mmT)	MPa	D790	160
Flexural modulus (3.2mmT)	GPa		13.3
Poisson's ratio	—	—	0.33
Izod impact strength (un-notched)	kJ/m ²	D256	42
Rockwell hardness	R scale	D785	97
Specific gravity	—	D792	1.78
Water absorption	%	D570	0.02
Deflection temperature under load (load 1.82MPa)	degree C	D648	275
Thermal conductivity	kcal/m·hr·°C	F433	0.310
Flammability rating (V-0 applied thickness)	mm	UL94	0.30
Oxygen index	%	D2863	46
Dielectric strength	KV/mm	D149	34.9
Arc resistance	sec	D495	-
Volume resistivity	×10 ¹⁵ Ω·cm	D257	26.0
Surface resistivity	×10 ¹⁵ Ω		18.5
Dielectric constant	10 ² Hz	D150	4.2
	10 ⁶ Hz		5.2
Dielectric dissipation factor	10 ² Hz	D150	0.013
	10 ⁶ Hz		0.029

XYDAR® is a trademark of Solvay Advanced Polymers, L.L.C.

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UL iQ™ for Plastics

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MATERIAL CERTIFICATE OF TERMINAL



福建紫金铜业有限公司
Fujian Zijin Copper CO., LTD.

产品质量证明书 INSPECTION CERTIFICATE

福建省上杭县南岗工业开发区 邮编 364200
Nangang Development Park Shanghang
Fujian
P.C. 364200 P.R. China
TEL (0597) 3960609

NO: 14080549

客户 CUSTOMER: 深圳正泽祥

带卷号 Q6420629B1 牌号: C5191 状态: EH 规格: 0.2*380

化学成分 CHEMICAL COMPOSITION % 化学标准 JIS H 3110:2012

Cu	Sn	P	Zn	Ni	Pb	Fe	Al	Cu+Sn+P
remainder	5.84	0.15	0.046	0.059	0.0032	0.0073	0.0013	99.87

物理性能 PHYSICAL PROPERTY 性能标准 JIS H 3110:2012

抗拉 (MPa)	延伸率 (%)	维氏硬度 (HV)	厚度公差 (mm)	弯曲试验	件数	重量 kg
693.2	13	215	-0.01	无裂纹	1	1039.4
降伏 (MPa)	粗糙度 正 (um)	粗糙度 反 (um)				

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MATERIAL CERTIFICATE OF FITTING NAIL

产品质量证明书

CERTIFICATE OF QUALITY



安徽精诚铜业有限公司
ANHUI JINGCHENG COPPER CO.,Ltd.
地址: 安徽省芜湖市九华北路 8 号
邮编: 241008 电话: 0553-5316008
No.8 jiuhua North Road, Wuhu City, Anhui, China 241008

客户名称(Customer)	正泽祥 (D3021)	发货重量 (Weight)	858.2KG
产品名称 (Commodity)	C2680	生产日期 (Date)	2014-09-24
生产批号 (Lot NO.)	287207-03	执行标准 (Carried Standard)	JIS H 3100:2006

尺寸公差 (Size & Tolerance)					
规格 Specification (mm×mm×mm)	厚度公差 Thickness Tolerance(mm)		宽度公差 (Width Tolerance(mm)	长度公差 (Lenth Tolerance(mm)	
0.25*305 ⁺ H	-0.01 +0.01		+0.16	—	
化学成份 (CHEMICAL COMPOSITION)					
元素名称(Element)	铜 (Cu) %	磷 (P) %	铅 (Pb) %	铁 (Fe) %	锌 (Zn) %
含量标准 (Standard)	64-68.0	≤0.004	≤0.05	≤0.050	余量 (R)
实测值 (Value)	64.39	0.0017	0.0060	0.015	余量 (R)
物理性能 (MECHANICAL PROPERTIES)					
检测项目 (Testing Items)	抗拉强度 Tensile Strength(N/mm ²)	延伸率 Elongation(%)	硬度值 Hardness (HV)	杯突值 Drawability(mm)	晶粒度 Grain Size(mm)
实测值 (Value)	538	18	155		

一、本保证书未报项次 (如形状精度、表面质量等) 均合格。

The other unreported items in the paper, such as shape precision, appearance quality etc. are up to standard.

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质量主管:
Manager of Quality Assurance Dept.

实验人: 王清明 王彩凤
Operator of test: Qingming Wang Caifeng Wang

质量专用章:
Seal of Quality Assurance Dept.

Product Name:

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