

# 深圳市华灿天禄电子有限公司

## 物料承认书

### SPECIFICATION FOR APPROVAL

客户名称:

Customer: \_\_\_\_\_

产品名称:

Description: \_\_\_\_\_

规格型号:

Modelno: \_\_\_\_\_

1. 2MM系列

物料编号:

Cust P/N: \_\_\_\_\_

出厂签章

校 对 Issuer

审 核 Engineer

批 准 Approver

李攀进

/

罗观彬

承认签章 CUSTOMER

校 对 Issuer

审 核 Engineer

批 准 Approver

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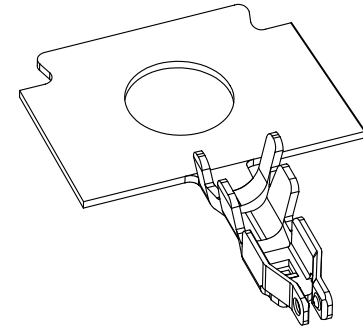
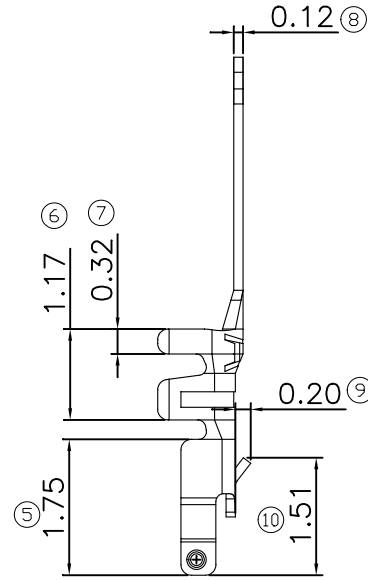
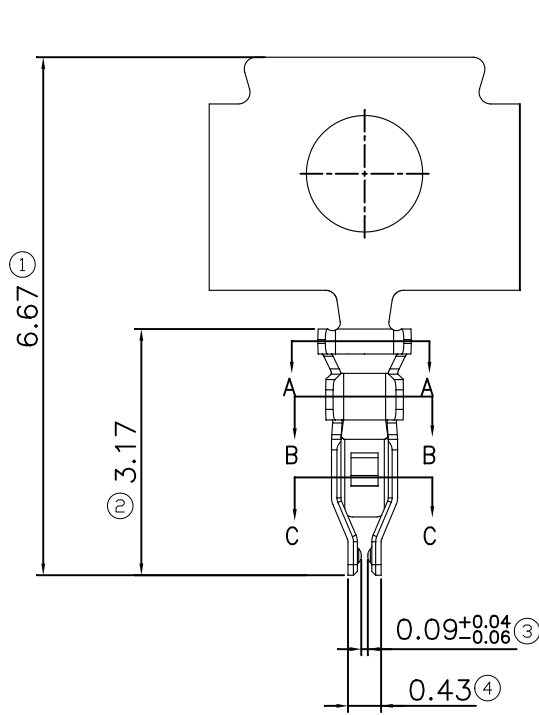
Http://www.HCTLDZ.com

E-mail: jinpan.hu@hctldz.com

确认合格后烦请回签一份给我司存档, 谢谢!

Pls. sign acknowledge and re-turn document to us after confirming, thank you !

REV.	DATE	ECN NO.	MODIFICATION	APPROVER
A	2020/10/09	/	NEW	Vicky



3D视图(SCALE .1:1)

**SPECIFICATIONS**

Rated voltage: 50V DC/AC

Rated current: 1.5A(28AWG),

1.0A(30AWG) AC,DC

Withstand voltage: 500V AC/minute

Working Temperature: -25°C~+85°C

Contact resistance: 20mΩ Max

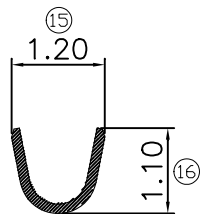
**MATERIAL**

Material: Copper Alloy

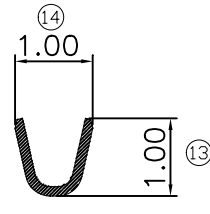
Finish: Gold Flash over Nickel

Applicable Wires:AWG#28~#30

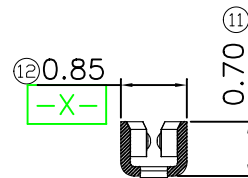
Insulation O.D.:0.75mm MAX



**SECTION.A-A**

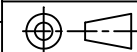


**SECTION.B-B**



**SECTION.C-C**

GENERAL TOLERANCE			UNITS	mm	NAME(INTENDED USE)	深圳市华灿天禄电子有限公司
SELECT	✓		MAT'L		1.2mm 单排 柳线端子	
ON.	1	2	3	FINISH	PART NO.(INTENDED USE)	TITLE:
X.XXX	±0.15	±0.05	±0.15		TR12001303	CUSTOMER DRAWING FOR 1.2mm 单排 柳线端子
X.XX	±0.20	±0.13	±0.25	Q'TY	APPD: JASON	DWG NO.:
X.X	±0.25	±0.25	±0.50		CHKD: ABEL	HC-1.2-T
X.	±0.30	±0.38	±1.00		DR: TOM	
ANGLE	±3'					

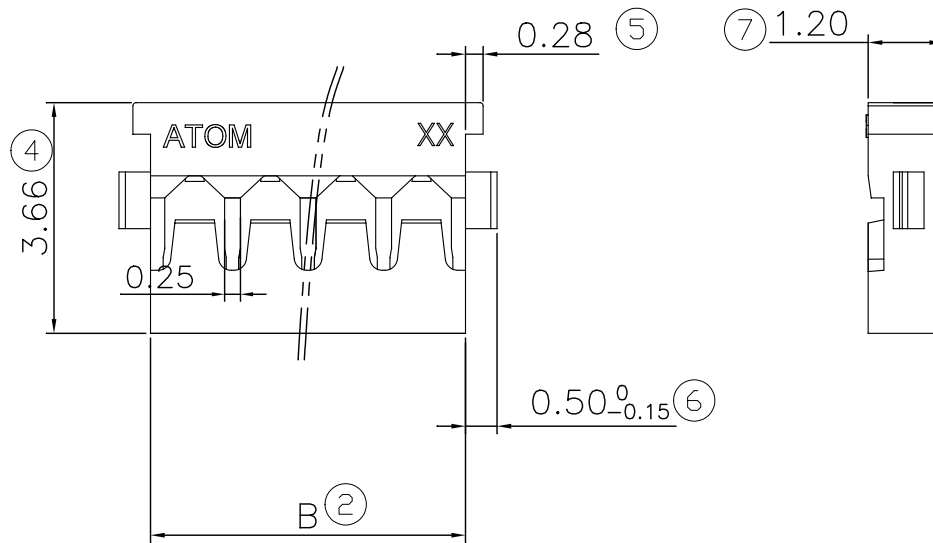
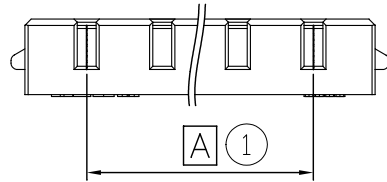


SCALE	SHEET	REV.
1:1	1/1	A

REV	DATE	MODIFICATION	APPROVER
A0	2021/01/14	NEW	Jason
A1	2021/06/03	增加无齿标示	Jason

HF

(A1)



1. Material:

1.1. Housing: Material: PA Nylon UL94V-0  
Color: Black

2. Electrical performance:

2.1. Insulation resistance: 100MΩ MIN

3. The product environmental requirements.

3.1. Work temperature: -25 ℃ ~ +85℃

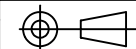
4. Product environmental protection level:

4.1. Products comply with RoHS standards

极数	尺寸	
	A	B
2PIN	1.20	2.60
3PIN	2.40	3.80
4PIN	3.60	5.00
5PIN	4.80	6.20
6PIN	6.00	7.40
7PIN	7.20	8.60



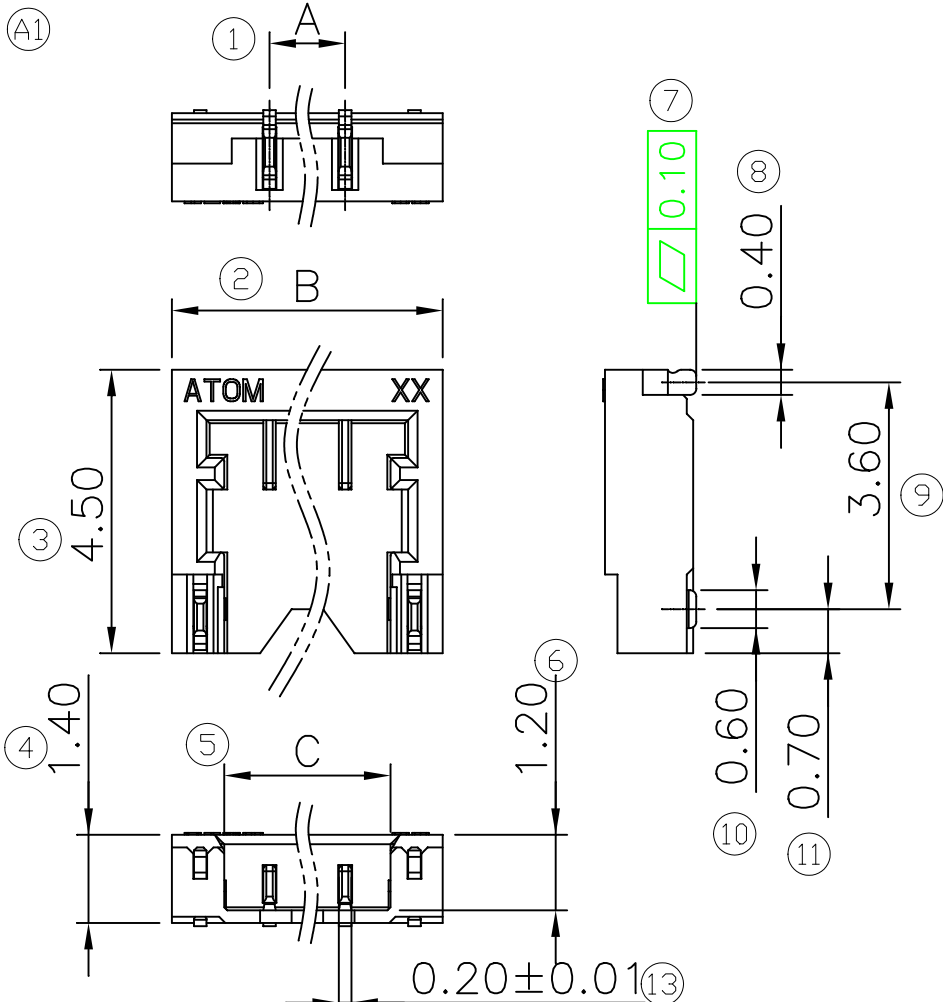
GENERAL TOLERANCE			UNITS	NAME (INTENDED USE)	
SELECT	✓		mm	1. 2 CONN. REC. HOUSING	
TOL.	1	2	MAT'L	深圳市华灿天禄电子有限公司	
ON.	1	3		PART NO. (INTENDED USE)	
X.XXX	±0.10	±0.15	FINISH	H0120**-01***	
X.XX	±0.15	±0.20		TITLE: Customer drawing for 1.2(无齿) XP Housing	
X.X	±0.20	±0.25	Q'TY	APPD: JASON	DWG NO.: HC-1.2-NY
X.	±0.25	±0.30		CHKD: ABEL	
ANGLE	±2'		DR: TOM		



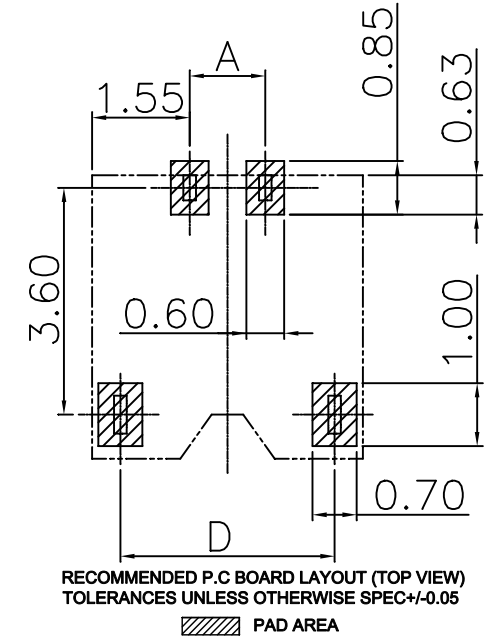
SCALE	SHEET	REV.
1:1	1/1	A1

HF

REV	DATE	MODIFICATION	APPROVER
A0	2021/01/11	NEW	Jason
A1	2021/06/03	增加无齿标示	Jason
A2	2021/08/17	电流分段管控	Jason



- Material:
  - INSULATOR: PA NYLON UL94V-0, COLOR: BLACK.
  - TERMINAL: C5191 T=0.20MM,
  - FITTING NAIL: C2680 T=0.20MM
- Plating of Contact
  - Terminal: Au 1U" Min Plated.
  - Fitting Nail: Matte Tin Plated.
- Electrical performance:
  - Current rating: 2P~4P: 1.5A(AWG#28~#30), 2.0A(AWG#28) 5P~7P: 1.5A(AWG#28~#30).
  - Voltage rating: 50V AC, DC
  - Insulation resistance: 100MΩ Min. at 500 V DC.
  - Terminal contact resistance: 20mΩ Max.
  - Withstanding voltage: 500V AC at 1mA Max. for 1 minute.
- Environment performance:
  - Operating temperature: -25℃ ~ +85℃
- Products comply with RoHS standards



PIN	A	B	C	D
2P	1.20	4.30	2.64	3.40
3P	2.40	5.50	3.84	4.60
4P	3.60	6.70	5.04	5.80
5P	4.80	7.90	6.24	7.00
6P	6.00	9.10	7.44	8.20
7P	7.20	10.30	8.64	9.40

GENERAL TOLERANCE			UNITS mm		NAME (INTENDED USE)	
SELECT	✓				Wafer 1.2mm 连接器	
TOL.	1	2	3		PART NO. (INTENDED USE)	
X.XXX	±0.10	±0.15	±0.20		WF120**~01***	
X.XX	±0.15	±0.20	±0.25		APPD:	
X.X	±0.20	±0.25	±0.30		CHKD:	
X.	±0.25	±0.30	±0.50		DR: ming	
ANGLE	±2'				TITLE: 深圳市华灿天禄电子有限公司	
					DWG NO.: HC-1.2-NPWT	
					SCALE: 1:1	
					SHEET: 1/1	
					REV: A2	

# PRODUCT SPECIFICATION

## 1. 产规/Product name and part number

Product Name	1.2mm PITCH WIRE TO BOARD CONNECTOR
Terminal	Copper alloy
Housing	REC:High-temp Plastic;Color : Black. lammability
Wafer Assembly ST. (DIP/SMT)	Rating :UL94 V-0
Wafer Assembly R.A (DIP/SMT)	SMT

## 2. 额定电压电流及使用线径/Ratings and applicable wires

ITEM	STANDARD	
Rated Voltage (Max)      额定电压 (最高)	50V DC/AC (rms)	
	AWG. #28	1.5A
	AWG. #30	1.0A
Applicable wires                      使用线径	#30~ #28	
Insulation O.D                          绝缘外径	Φ0.6~Φ0.7mm	
Ambient Temperature                  使用温度范围	-25℃~+85℃	

## 3. 特性测试/Performance

### 3-1. 电气特性/Electrical performance

ITEM	Test condition	Requirement
3-1-1      接触阻抗 Contact Resistance	将公母对插，二头接上微电流电压测试。 Mate connectors, reassure by dry circuit ,20mV MAX, 10mA. (EIA-364-23)	20mΩ (MAX)
3-1-2      绝缘阻抗 Insulation resistance	将公母对插，二头接上电压测试 Mate connectors, apply 500V DC between adjacent terminal or ground. (EIA-364-21)	100MΩ (MIN)
3-1-3      高压测试 Dielectric strength	将公母对插，相邻的二支端子接上高压测试 Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground. (EIA-364-20)	没有损坏/没有电弧产生 No breakdown and flashover
3-1-4      铆线端子接触 阻抗 Contact Resistance on Crimped Portion	将铆线端子，二头接上微电流电压测试。 Crimp the applicable wire to the terminal, measured by dry circuits, 20mV MAX., 10mA MAX.	5 milliohms MAX

Product Description	Wafer1.2mm 系列		Product NO: WF-12-001		
			REVISION	DATE	SHEET NO
APPROVED BY	CHECKED BY	MADE BY	A/0	2018.10.25	1/8
JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	

# PRODUCT SPECIFICATION

## 3-2. 机械特性/Mechanical performance

ITEM		Test condition	Requirement		
3-2-1	Insertion force and withdrawal force 整组插拔力测试	公母对插插拔 10 次，机器行走速度 25±3mm/分钟。 Insert and withdraw connectors at the speed rate of 25 ± 3mm/minute (EIA-364-13)	第 5 参照 Refer to paragraph 5		
3-2-2	Crimping pull out force 导体保持力（铆线端子）	端子固定住，将端子从线材拔出，机器行走速度 25±3mm/分钟。 Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of 25 ± 3mm/minute (EIA 364-35)	Wire Size (AWG)	28	30
			Crimp Strength (kgf)	10N (1.0kgf ) MIN	5N (0.5kgf) MIN
3-2-3	Terminal insertion force 插入力(铆线端子)	将端子插入塑胶，测试插入值 Insert the crimped terminal into the housing (EIA-364-13)	14.7N (1.5kgf) MAX		
3-2-4	Terminal/Housing retention force 塑胶保持力（铆线端子）	将端子从塑胶中拔出，测试拔出值 Apply axial pull out force at the speed rate of 25±3mm/minute on the terminal assembled in the housing.	4N (0.4kgf) MIN		
3-2-5	Pin retention force （单 PIN 保持力）	将铜针从塑胶中推出，测试推出值 Apply axial push force at the speed rate of 25±3mm/minute.	2N (0.2kgf) MIN		

## 3-3. 环境特性测试/Environmental performance and others

ITEM		Test condition	Requirement	
3-3-1	重复插拔 Repeated insertion withdrawal	十次插拔后，测量接触阻抗 When mated up to 10 cycles repeatedly by the rate of 10 cycles per minute	接触阻抗 Contact Resistance	20mΩ MAX
3-3-2.	温升测试 Temperature Rise （按需测试）	最大容许电流通电，温度测定。 (EIA-364-70 METHOD 2) Carrying rated current load.	温度上升 Temperature Rise	30°C MAX

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			REVISION	DATE	SHEET NO
APPROVED BY	CHECKED BY	MADE BY	A/0	2018.10.25	2/8
JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	

## PRODUCT SPECIFICATION

ITEM		Test condition	Requirement	
3-3-3	振动测试 Vibration (按需测试)	DC 1mA 通电状态下; 嵌合轴沿 XYZ 三个方向振动; 振幅 1.5mm; 频率 10-55-10Hz/分; 历时 2 小时 Amplitude: 1.5mm P-P Sweep time: 10-55-10Hz in 1 minute Duration : 2 hours in each X.Y.Z. axes (EIA-364-28)	外观 Appearance	No Damage
			接触阻抗 Contact Resistance	20mΩ MAX
			瞬间 Discontinuity	1.0 microsecond MAX
3-3-4	高温测试 Heat Resistance (按需测试)	将公座与母座连接至于环境温度85±2℃测试时间 96小时, 再放置与室温下1~2小时 85±2℃, 96hours (EIA-364-17 )	外观 Appearance	No Damage
			接触阻抗 Contact Resistance	20mΩ MAX
3-3-5	低温测试 Cold Resistance (按需测试)	将公座与母座连接至于环境温度-25±3℃测试时 间 96 小时, 再放置于室温下 1~2 小时 -25±3℃, 96hours (EIA-364-17 )	外观 Appearance	No Damage
			接触阻抗 Contact Resistance	20mΩ MAX
3-3-6	恒温恒湿测试 Humidity (按需测试)	温度 60±2℃, 湿度 90~95%, 时间 96 小时。 Temperature:60±2℃, Relative humidity:90~95% (RH) (EIA-364-31B)	Appearance	No Damage
			接触阻抗 Contact Resistance	20mΩ MAX
			耐电压 Dielectric Strength	没有损坏/没 有电弧产生
3-3-7	盐雾测试 Salt spray	时间 12 小时, 盐水体比例 5±1%, 温度 35±2℃。 12 hours exposure to a salt spray from the 5 ±1% solution at 35±2℃. (EIA-364-26)	外观 Appearance	No Damage
			接触阻抗 Contact Resistance	20mΩ MAX
3-3-8	沾锡性测试 Solderability	时间: 3±0.5 秒, 温度: 245±5℃ Soldering time:3±0.5sec, solder temperature:245±5℃ (EIA-364-52)	95%以上沾锡面积	

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JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	

# PRODUCT SPECIFICATION

ITEM	Test condition	Requirement
2-3-9  Resistance to soldering heat 焊热性测试	1). Reflow part 260±5°C Peak 220°C MIN. 60sec. MAX. 2). Pre-heat part 180°C, 0~120sec. * Refer to reflow temperature profile. <p style="text-align: center;">265°C MAX. (Peak temperature)</p> <p style="text-align: center;">Average range up: 1.8°C/s MAX</p> <p style="text-align: center;">90-120 秒 90-120 sec (预热 150~180°C) (Pre-heat 150~180°C)</p> <p style="text-align: center;">40-60 秒 40-60sec. (220°C MIN.) (220°C以上)</p>	Appearance 外观  No Damage 无 损坏、变形

4. 产品规格尺寸及材质请参考工程图面/Product shape, Dimensions and materials

5. 整组插拔力/Insertion force and withdrawal force (UNIT:N/Kgf)

极数 NO. OF CKT	单位: UNIT	插入力 (最大值) : Insertion (MAX)			拔出力 (最小值) : Withdrawal (MIN)		
		初始: 1ST	3次: 3ST	10次: 10ST	初始: 1ST	3次: 3ST	10次: 10ST
2	N{kgf}	18 {1.8}	18 {1.8}	18 {1.8}	4.0 {0.41}	1.8 {0.18}	1.2 {0.12}
3	N{kgf}	21 {2.1}	21 {2.1}	21 {2.1}	4.0 {0.41}	1.8 {0.18}	1.2 {0.12}
4	N{kgf}	24 {2.4}	24 {2.4}	24 {2.4}	4.0 {0.41}	1.8 {0.18}	1.2 {0.12}
5	N{kgf}	27 {2.8}	27 {2.8}	27 {2.8}	2.5 {0.26}	1.8 {0.18}	1.2 {0.12}
6	N{kgf}	30 {3.1}	30 {3.1}	30 {3.1}	2.5 {0.26}	1.8 {0.18}	1.2 {0.12}
7							

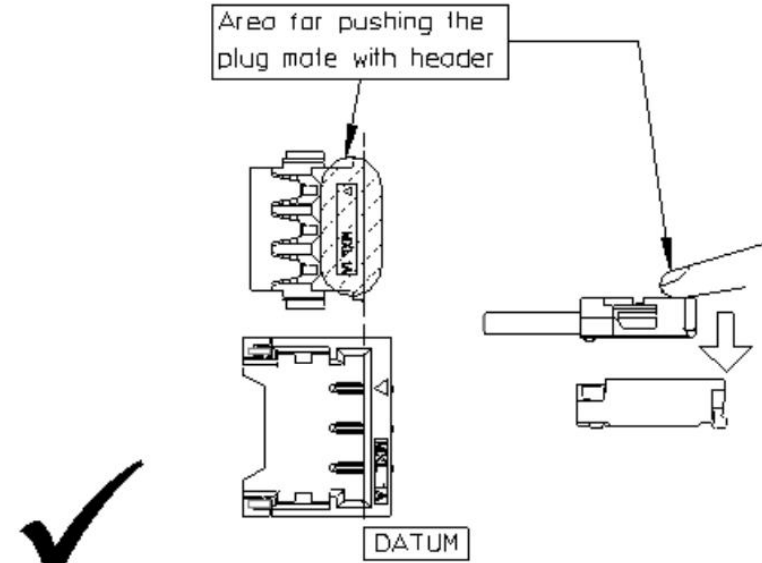
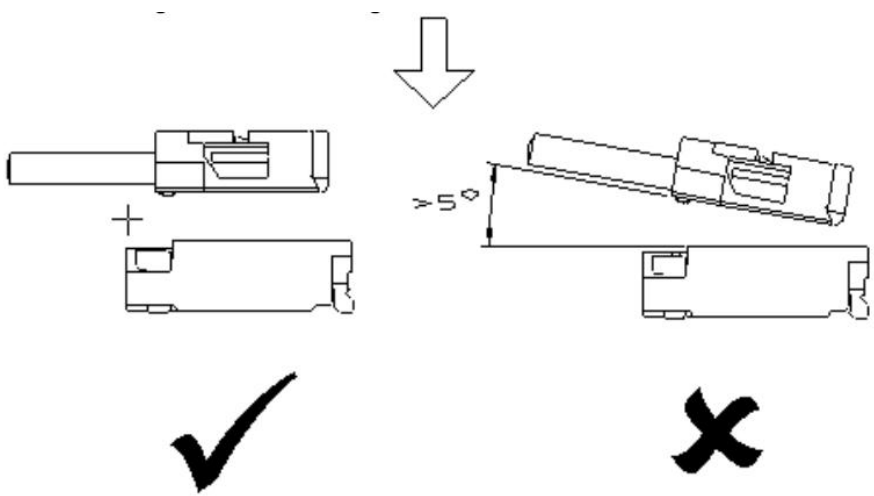
6. 产品符合 ROHS/HF 要求/Lead free and ROHS/HF compliant product

Product Description	Wafer 1.2mm 系列		Product NO: WF-12-001		
			REVISION	DATE	SHEET NO
APPROVED BY	CHECKED BY	MADE BY		2018.10.25	4/8
JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	



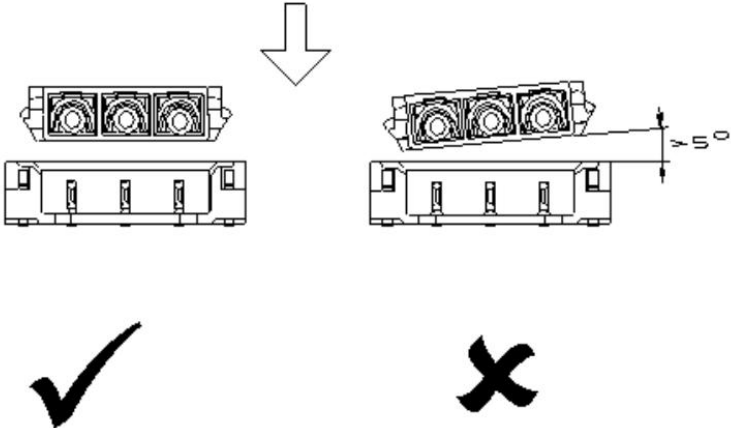
# PRODUCT SPECIFICATION

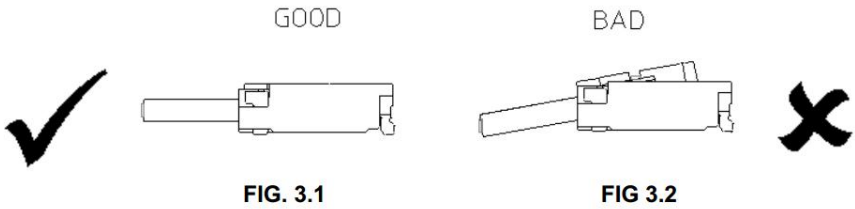
## 7. 连接器操作标准/CONNECTOR HANDLING CRITERIA

ITEM	操作图示标准/Operating standards here
<p>7-1-1</p> <p>Align plug on top of receptacle as per datum shown in fig. 1. Press down the plug at ighlighted area toward the eceptacle to mate the connectors.</p>	 <p style="text-align: right;"><b>FIG. 1</b></p>
<p>7-1-2</p> <p>During mating process, If incase the plug is angle mated towards the straight part of mating entrance as in fig. 2, the allow angle must not exceed 5°</p>	

Product Description	Wafer1.2mm 系列		Product NO: WF-12-001		
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JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	

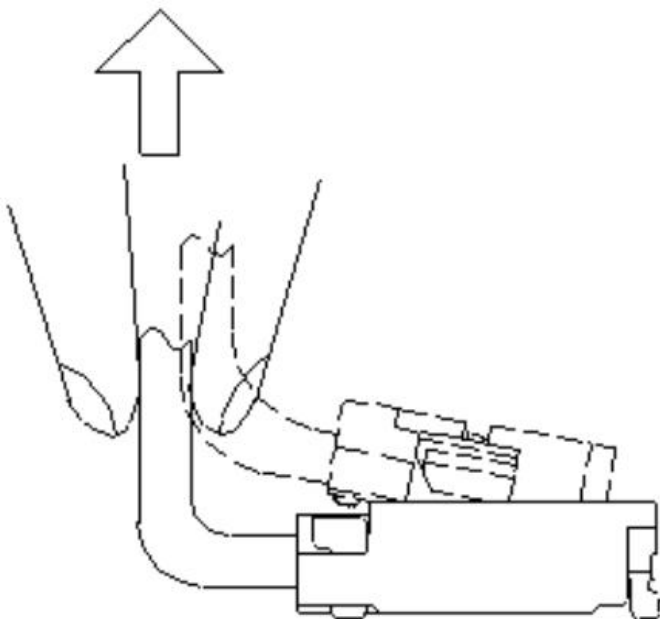
# PRODUCT SPECIFICATION

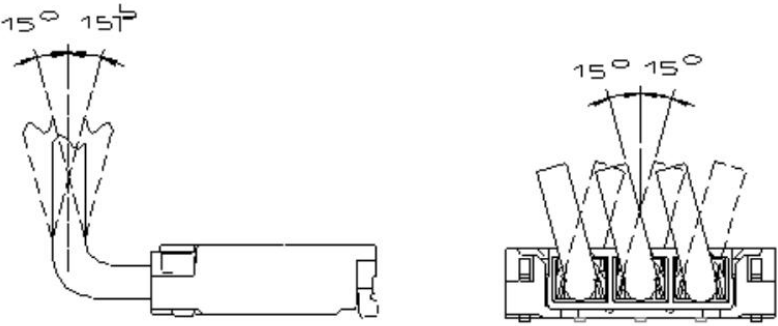
ITEM	操作图示标准/Operating standards here	
7-1-2	<p>Align plug on top of receptacle as per datum shown in fig. 1. Press down the plug at ighlighted area toward the eceptacle to mate the connectors.</p>	 <p style="text-align: right;"><b>FIG. 2</b></p>

7-1-3	<p>When connector is fully mated, as shown in fig. 3.1, check for any incomplete mating which will cause damaged contacts as shown in fig. 3.2</p>	 <p style="text-align: center;"><b>FIG. 3.1</b>                      <b>FIG. 3.2</b></p>
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Product Description	Wafer1.2mm 系列		Product NO: WF-12-001		
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APPROVED BY	CHECKED BY	MADE BY		2018.10.25	6/8
JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	

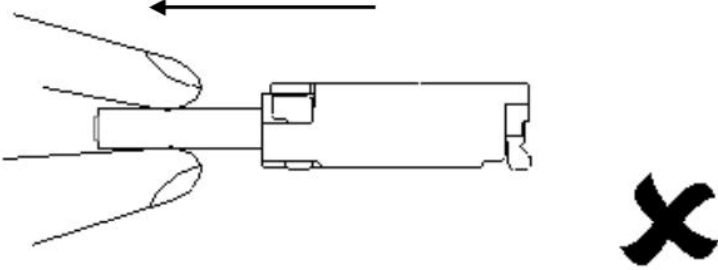
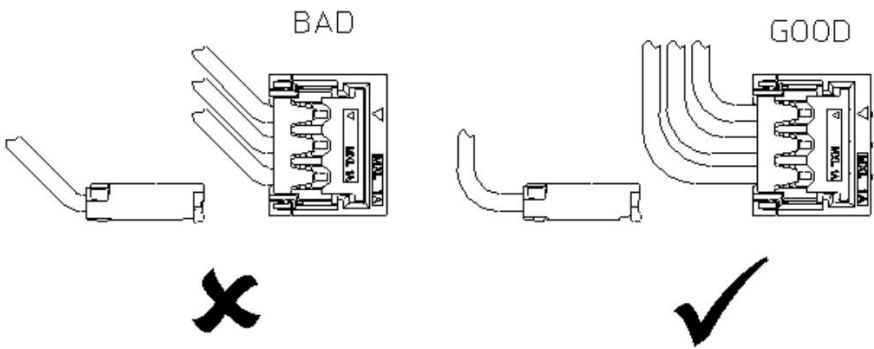
# PRODUCT SPECIFICATION

ITEM	操作图示标准/Operating standards here	
7-1-4	<p>Connector unmating method, Hold gently on plug wires and pull up to unmate the connector as per fig. 4 shown.</p>	 <p style="text-align: right;"><b>FIG. 4</b></p>

7-1-5	<p>For unmating process, plug wires pull and stress angle must be maintained within 15° as per fig.5 shown</p>	 <p style="text-align: right;"><b>FIG. 5</b></p>
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Product Description	Wafer1.2mm 系列		Product NO: WF-12-001		
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JASON	ABEL	TOM	DOCUMENT NO	WF-12-001	

# PRODUCT SPECIFICATION

ITEM	操作图示标准/Operating standards here	
7-1-6	Connector shall not be unmated horizontally as shown in fig. 6 to prevent part damage	 <p style="text-align: right;"><b>FIG. 6</b></p>
7-1-7	Application consideration Make certain the areas & space where the connector placed are clear and sufficient to prevent over stress on plug wires as example shown in fig. 7	 <p style="text-align: center;"><b>FIG. 7</b></p>

Product Description	Wafer1.2mm 系列		Product NO: WF-12-001		
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