

联晟欣连接器（深圳）有限公司

Lianshengxin Connector (Shenzhen) Co., Ltd

工厂地址: 深圳市光明区马田街道马山头社区工业区 100 栋 3 楼

Factory address: 3rd Floor, Building 100, Mashantou Community

Industrial Zone, Matian Street, Guangming District, Shenzhen

Product Specifications

产 品 承 认 书

客 户

Customer:

部品编号

Part Number:

A2001

产品名称

Description:

PH 2.00系列

客户料号

Code NO:

样品提供 (SAMPLE PROVIDE)		
工程 Engineering	业务 Sales	核准 Approval
黄梅	李强	潘正熊

客户承认 (CUSTOMER APPROVAL)		
工程 Engineering	品管 Q. C	核准 Approval

产 品 承 认 书 目 录

1、封面-----1-1

2、修订履历-----2-2

2、目录-----3-3

3、技术规范-----4-10

4、产品图纸-----11-20

PRODUCT SPECIFICATION

产 品 规 范

1、Scope

适用范围

This specification includes the following specifications, including the specification of 2.00mm pitch PH series connector

本规范包括下列此种规格包括 2.00mm Pitch PH 系列连接器规格说明

2、Appearance and Dimension

外观及尺寸

2.1 Appearance:Product surface without defect、dirt、crack、and mechanical damang,Contactwithout rust,plating not oxided and not peeled.

产品表面不应有对制品有害的缺陷、污垢、裂痕及机械损伤；接触件无锈蚀、镀层氧化脱落等现象

2.2 Dimension:According to drawings

外形尺寸：依照附图

3、Disposal of Material and surface

材料与表面处理

Specification 规格内容		Material 材 质	Finish 表面处理	Environmental protection grade 环保等级
Terminal 端 子		Phosphor bronze 磷铜 厚 0.20mm	Tin Plating:2.5~5 μ m 镀锡： 2.5~5 μ m	RoHS2.0
Housing 胶 壳		PA66 UL94V-0	Color: White 颜色： 白色	
Wafer 直/弯/定位弯 针 座	Plastic 塑 壳	PA66 UL94V-0	Color:White 颜色： 白色	
	Contact 插 针	Brass 黄铜 厚 0.50mm	Tin Plating:2.5~5 μ m 镀锡： 2.5~5 μ m	
Wafer 弯针带焊脚	Plastic 塑 壳	PA6T UL94V-0	Color: Beige 颜色： 米色	
	Contact 插 针	Brass 黄铜 厚 0.50mm	Tin Plating:2.5~5 μ m 镀锡： 2.5~5 μ m	
	Solder tab 焊护耳	Brass 黄铜 厚 0.40mm	Tin Plating:2.5~5 μ m 镀锡： 2.5~5 μ m	
Wafer 卧贴/立 贴针座	Plastic 塑 壳	PA6T UL94V-0	Color: Beige 颜色： 米色	
	Contact 插 针	Brass 黄铜 厚 0.50mm	Tin Plating:2.5~5 μ m 镀锡： 2.5~5 μ m	
	Solder tab 焊护耳	Brass 黄铜 卧贴厚 0.40mm	Tin Plating:2.5~5 μ m 镀锡： 2.5~5 μ m	
		Brass 黄铜 立贴厚 0.25mm		

4、Ratings and applicable wires
额定等级

Item 项 目	Standard 规 格
Rated Voltage 额定电压	250V AC/DC
Rated Current 额定电流	2A AC/DC
Ambient temperature Range 使用温度范围	-25℃- +85℃
Applicable wire insulation 适用线径	AWG24#-30#

5、Electrical Performance
电 气 性 能

N0. 序号	Ltem 项 目	Test mode 试验方法	Requirement 技术要求
5.1	ContactResistance 接触电阻	Male female cooperation, open voltage less than 20mV, current 100mA detection connector at both ends 公母配合, 开放电压20mV 以下, 电流100mA 检测连接器连接器两端	Initial:20mΩ Max 初始: 20mΩ Max After Test: 30mΩ Max 试验后: 30mΩ Max
5.2	withstandvoltage 耐电压	Mate connectors, apply 800V AC for 1 minute between adjacent terminal or ground 公母配合, 在相邻端子, 端子与地片之间, 使用800V 的交流电1 分钟, 检测连接器	No Breakdown and Flashover 外观无损伤, 无打火花
5.3	InsulationResistance 绝缘电阻	Mate connectors, apply 500V DC between adjacent terminal or ground 公母配合, 在相邻端子, 端子与地片之间, 使用500V 的直流电, 检测连接器	1000MΩ Min

6、机械性能

Mechanical Performance

N0. 序号	Ltem 项 目	Test mode 试验方法		Requirement 技术要求
6.1	Terminal crimping wire strength 端子压接导线强度	Fix the crimped terminal, apply axial pull out force on thewire 固定铆线后的端子，使电线与端 子分离时所需的最小力量	AWG#24 wire AWG#24导线	More than 30N ≥30N
			AWG#26 wire AWG#26导线	More than 20N ≥20N
			AWG#28 wire AWG#28导线	More than 13N ≥13N
			AWG#30 wire AWG#30导线	More than 8N ≥8N
			AWG#24 wire AWG#24导线	More than 30N ≥30N
6.2	Terminal/ Housing Retention Force 端子保持力	Apply axial pull out force at the speed rate of25.4±3mm/minute on the terminal assembled in the Housing 以每分25.4±3mm 的速率,将端子从Housing 内轴 向拔出力		Per contact: 15N Min 单一接触点: 15N Min
6.3	Insertion & withdraw Force 插拔力	Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute 以每分 25.4±3mm 的速率插入和拔出		Refer to paragraph 8 参照第 8 项
6.4	Pin Retention Force Pin 针保持力	Apply axial push force at the speed rate of 25.4±3mm/minute 以每分 25.4±3mm 的速率,将 PIN 针从 Wafer 内轴向拔出力		Per contact: 10N Min 单一接触点: 10N Min

7、Endurance Characteristics:

环境性能

N0. 序号	Ltem 项 目	Test mode 试验方法	Requirement 技术要求	
7.1	Repeated Insertion/ Withdrawal 重复插拔	When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute 以每分钟不超过 10 次的速率, 将公母插 拔 30 次	Contact Resistance 接触电阻	30 mΩ Max
7.2	Temperature Rise 温升测试	Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise 公母连接器配合后, 加载额定电流直到温 度上升到稳定 状态, 然后再测量温升	Temperature Rise 温升测试	30℃ Max
7.3	Vibration test 振动测试	Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials 振幅: 1.5mm P-P 时间: 10~55~10 HZ in 1 minute 持续时间: 每轴向 2 小时	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
			Discontinuity 瞬断	1 micro- second Max.
7.4	Heat Resistance 耐热性	85±2℃,96 hours	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
7.5	Cold Resistance 耐寒性	-25±3℃,96 hours	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
7.6	Humidity 耐湿性	Temperature: 60±2℃ Relative Humidity: 90~95% Duration: 96 hours 温度: 60±2℃ 湿度: 90~95%(RH) 持续时间: 96 hours	Appearance 外观	No damage 无异常
			Contact Resistance 接触电阻	30 mΩ Max
			Withstand Voltage 耐电压	No Breakdown and Flashover 外观无损伤, 无打火花
			Insulation Resistance 绝缘电阻	1000MΩ Min

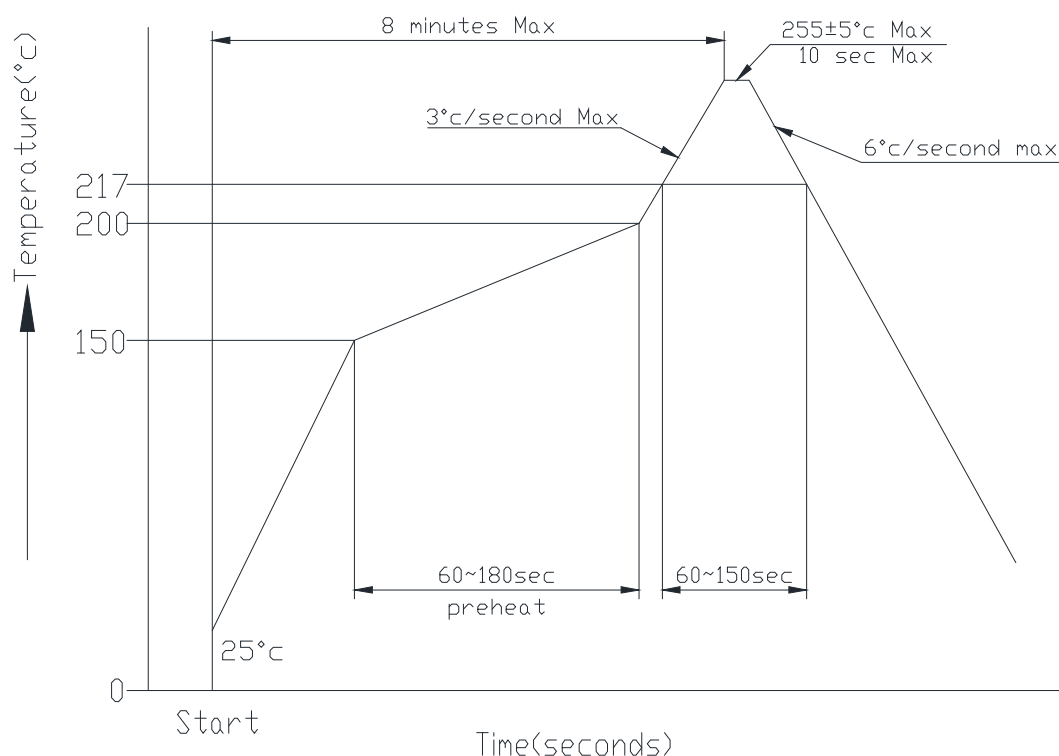
N0. 序号	Ltem 项 目	Test mode 试验方法	Requirement 技术要求	
7.7	温度变化 Temperature Cycling	5 cycles of: a) -25℃ 30 minutes b) +85℃ 30 minutes	Appearance 外观	No damage 无异常
		从-25℃持续30 分锺升至+85℃持续30 分锺, 循环5 次	Contact Resistance 接触电阻	30 mΩ Max
7.8	Salt spray 盐雾	24±1 hours exposure to a salt spray from the 5±1% solution at 35±2℃	Appearance 外观	No damage 无异常
		在温度35±2℃, 盐水浓度5±1%下, 盐水 喷雾24±1 小时	Contact Resistance 接触电阻	30 mΩ Max
7.9	Solderability 焊锡附着性	Soldering Time: 3-5sec solder Temperature: 245±5℃ 焊接时间: 3-5 秒 焊接温度: 245±5℃	Solder Wetting 焊料润湿	Immersion area above 95% 浸渍面积 95% 以上
7.10	Solder- Resistance 焊锡耐热性	DIP type PA66 material welding heat resistance range: Soldering time:3~5sec solder. Temperature:230±5℃ DIP 型 PA66 材质焊接耐热范围: 焊接时间: 3~5 秒. 焊接温度: 230±5℃ DIP type PA46 material welding heat resistance range: Soldering time:3~5sec solder. Temperature:245±5℃ DIP 型 PA46 材质焊接耐热范围: 焊接时间: 3~5 秒. 焊接温度: 245±5℃ SMT reflow soldering heat resistance range: Soldering time:5~10sec solder. Temperature:255±5℃ SMT 型回流焊接耐热范围: 焊接时间: 5~10 秒. 焊接温度: 255±5℃ Please refer to the 9.1 solder reflow temperature curve 回流焊请参考 9.1 温度曲线图	Appearance 外观	No damage 无异常

8、INSERTION/WITHDRAWAL FORCE

综合插入力及拔出力

No. of CTK PIN 数	At Initial 初始值		At 30th 插拔 30 次	No. of CTK PIN 数	At Initial 初始值		At 30th 插拔 30 次
	I. F (N Max) 插入力	W. F (N Min) 拔出力	W. F (N Min) 拔出力		I. F (N Max) 插入力	W. F (N Min) 拔出力	W. F (N Min) 拔出力
2	25	8	6	12	75	18	16
3	30	8	6	13	80	20	16
4	35	10	8	14	85	20	18
5	40	10	8	15	90	20	18
6	45	12	10	16	95	26	22
7	50	12	10				
8	55	14	12				
9	60	14	12				
10	65	16	14				
11	70	16	14				

9、 SMT lead-free process temperature curve SMT 无铅工艺温度曲线



Notes: Please check the reflow soldering condition by your own devices beforehand. Because the condition changes by the soldering devices, P.C. boards, and so on

注记: 由于 P.C 板等焊接装置改变条件,所以请预先用自己的装置检查回流焊的条件

10、 Caution 注意事项

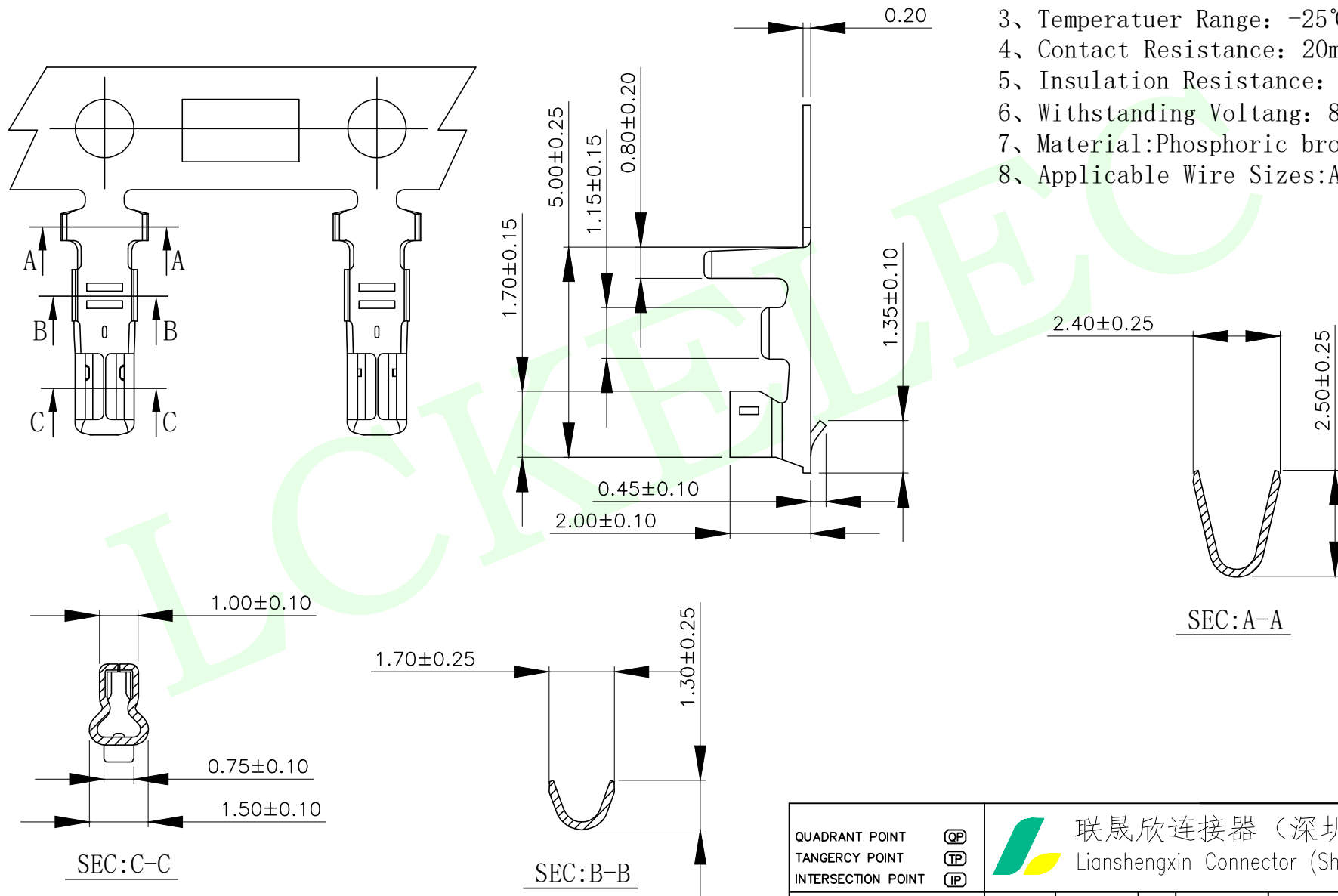
plastic because of characteristics with water after package is opened should avoid exposure to, the temperature is higher than 30 °C, humidity is higher than 60%RH in the environment, and in the 24 hours after all after use, to prevent subsequent reflow, wave soldering process to produce foaming phenomenon of deformation

塑料因具有吸水之特性包装拆封后应避免暴露于, 温度高于 30°C, 湿度高于 60%RH 的环境中, 并在拆封后 24 小时内全数使用完毕, 防止后续回流焊、波峰焊制程产生起泡变形现象

RoHS Compliant

SPECIFICATIONS

- 1、Current Rating: 2A AC, DC
- 2、Voltage Rating: 250V AC, DC
- 3、Temperatuer Range: $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 4、Contact Resistance: $20\text{m}\Omega$ Max
- 5、Insulation Resistance: $1000\text{M}\Omega$ Min
- 6、Withstanding Voltang: 800V AC/minute
- 7、Material: Phosphoric bronze Tin-plated
- 8、Applicable Wire Sizes: AWG#24~30#



QUADRANT POINT (QP)
TANGENCY POINT (TP)
INTERSECTION POINT (IP)

UNLESS OTHERWISE
SPECIFIED, TOLERANCE:
X. ± 0.25
X.x ± 0.20
X.xx ± 0.15
ANGULAR $\pm 3^{\circ}$



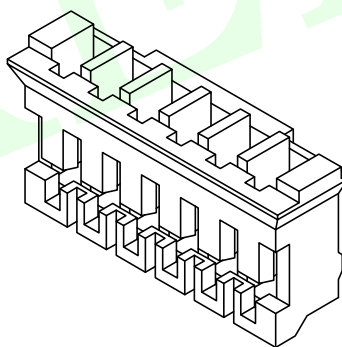
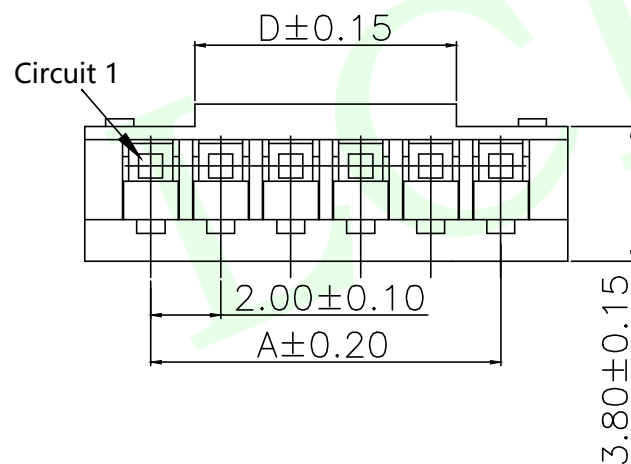
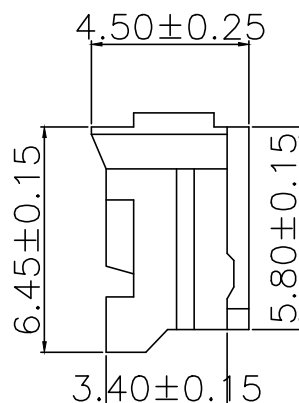
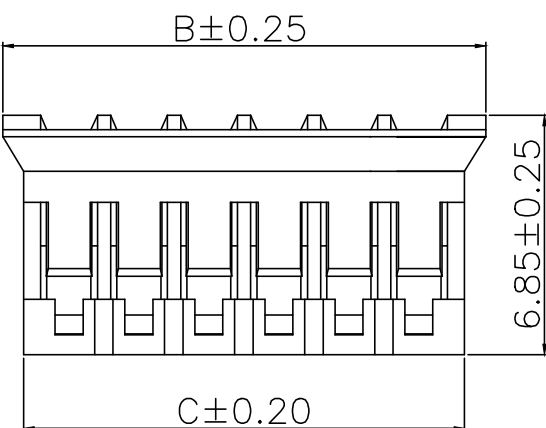
联晟欣连接器（深圳）有限公司
Lianshengxin Connector (Shenzhen) Co., Ltd

DESIGN	Andy	DATE	2014.12.24	TITLE: PH 2.0Pitch 端子			
CHECKED		DATE					
APPROVED		DATE					
PART NO: LCK-WF-A2001-T				REV: 04	SCALE: 1:1	UNIT: mm	
DRAWING NO:				SIZE: A4	SHEET: 1/1		

RoHS Compliant

SPECIFICATIONS

- 1、Current Rating: 2A AC, DC
- 2、Voltage Rating: 250V AC, DC
- 3、Temperatuer Range: $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 4、Contact Resistance: $20\text{m}\Omega$ Max
- 5、Insulation Resistance: $1000\text{M}\Omega$ Min
- 6、Withstanding Voltang: 800V AC/minute
- 7、Material:Housing:PA66, UL94V-0



PIN	尺寸 (mm)			
	A	B	C	D
02	2.00	5.80	4.60	0.70
03	4.00	7.80	6.60	1.20
04	6.00	9.80	8.60	3.35
05	8.00	11.80	10.60	5.35
06	10.00	13.80	12.60	7.30
07	12.00	15.80	14.60	9.30
08	14.00	17.80	16.60	11.35
09	16.00	19.80	18.60	13.35
10	18.00	21.80	20.60	15.35
11	20.00	23.80	22.60	17.35
12	22.00	25.80	24.60	19.35
13	24.00	27.80	26.60	21.35
14	26.00	29.80	28.60	23.35
15	28.00	31.80	30.60	25.35
16	30.00	33.80	32.60	27.35

QUADRANT POINT (QP)
TANGENCY POINT (TP)
INTERSECTION POINT (IP)

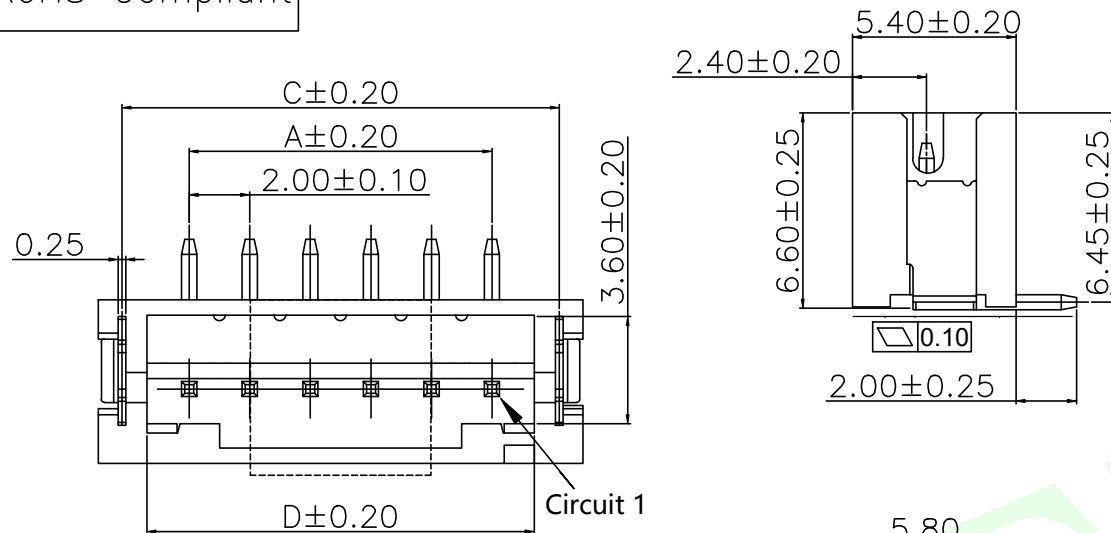
UNLESS OTHERWISE
SPECIFIED, TOLERANCE:
X. ± 0.25
X.x ± 0.20
X.xx ± 0.15
ANGULAR $\pm 3^{\circ}$



联晟欣连接器（深圳）有限公司
Lianshengxin Connector (Shenzhen) Co., Ltd

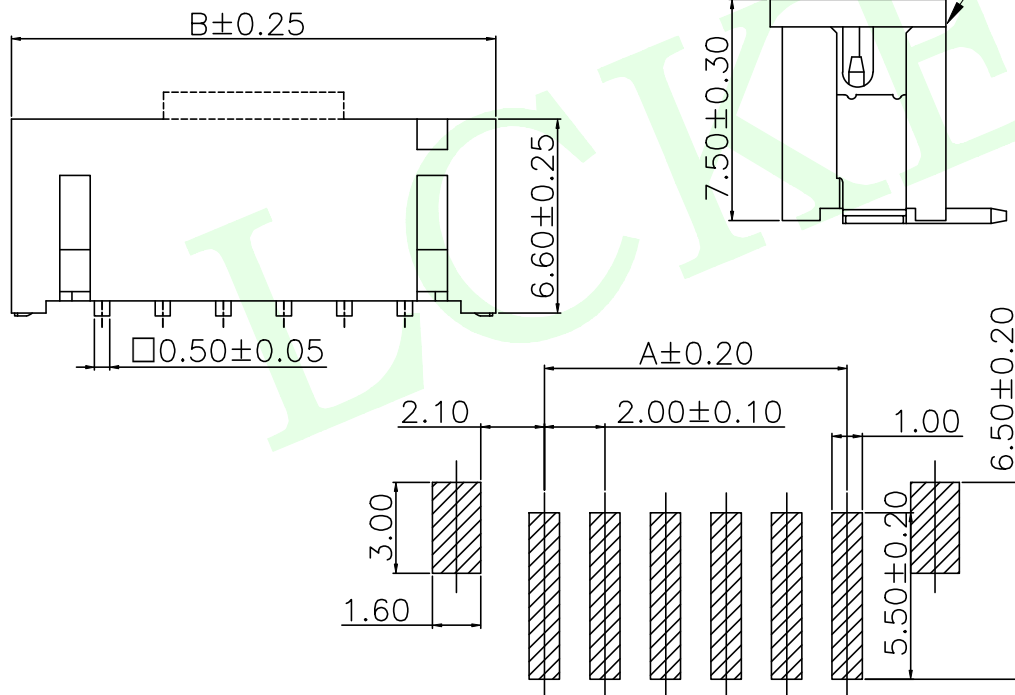
DESIGN	Andy	DATE	2014.12.24	TITLE:		
CHECKED		DATE		PH 2.0Pitch 胶壳		
APPROVED		DATE				
PART NO: LCK-WF-A2001H-NAP				REV: 04	SCALE: 1:1	UNIT: mm
DRAWING NO:				SIZE: A4	SHEET: 1/1	

RoHS Compliant

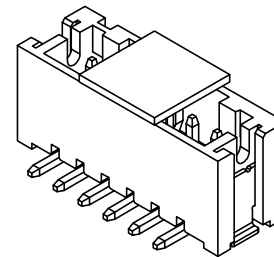


SPECIFICATIONS

- 1、Current Rating: 2A AC, DC
- 2、Voltage Rating: 250V AC, DC
- 3、Temperatuer Range: $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 4、Contact Resistance: $20\text{m}\Omega$ Max
- 5、Insulation Resistance: $1000\text{M}\Omega$ Min
- 6、Withstanding Voltang: 800V AC/minute
- 7、Material: Wafer PA6T, UL94V-0
PIN Brass Tin-plated
Solder tad Brass Tin-plated



PCB LAYOUT



PIN	尺寸 (mm)			
	A	B	C	D
02	2.00	8.00	6.50	5.00
03	4.00	10.00	8.50	7.00
04	6.00	12.00	10.50	9.00
05	8.00	14.00	12.50	11.00
06	10.00	16.00	14.50	13.00
07	12.00	18.00	16.50	15.00
08	14.00	20.00	18.50	17.00
09	16.00	22.00	20.50	19.00
10	18.00	24.00	22.50	21.00
11	20.00	26.00	24.50	23.00
12	22.00	28.00	26.50	25.00
13	24.00	30.00	28.50	27.00
14	26.00	32.00	30.50	29.00
15	28.00	34.00	32.50	31.00
16	30.00	36.00	34.50	33.00

QUADRANT POINT (QP)
TANGENCY POINT (TP)
INTERSECTION POINT (IP)

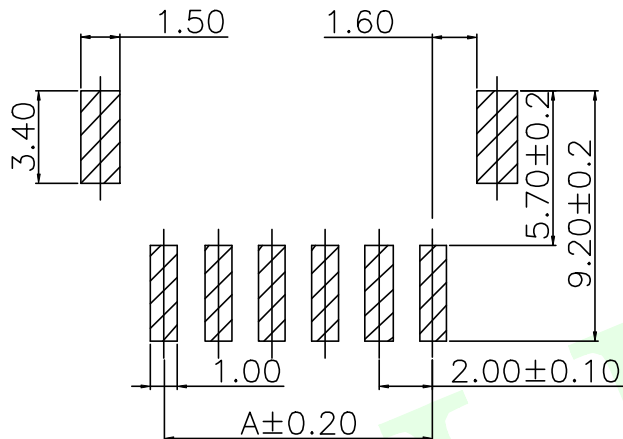
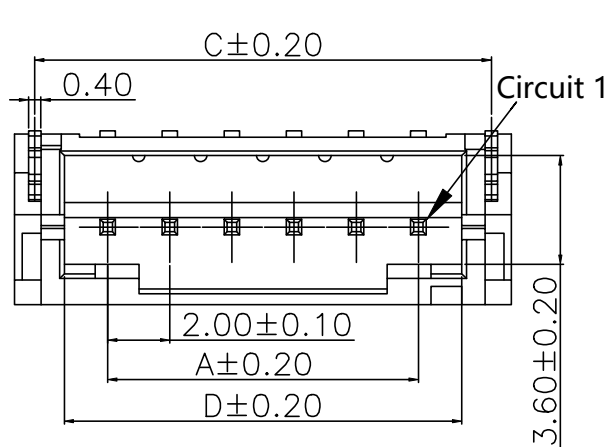
联晟欣连接器 (深圳) 有限公司
Lianshengxin Connector (Shenzhen) Co., Ltd

UNLESS OTHERWISE
SPECIFIED, TOLERANCE:

X. ± 0.25
X.x ± 0.20
X.xx ± 0.15
ANGULAR $\pm 3^{\circ}$

DESIGN	Andy	DATE	2014.12.24	TITLE:	
CHECKED		DATE		PH 2.00Pitch 立贴	
APPROVED		DATE			
PART NO: LCK-WF-A2001WV-S-2PA		REV: 04	SCALE: 1:1	UNIT: mm	
DRAWING NO:		SIZE: A4	SHEET: 1/1		

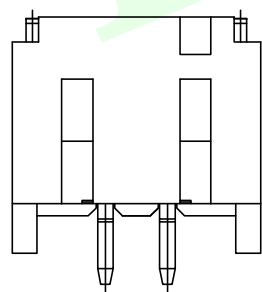
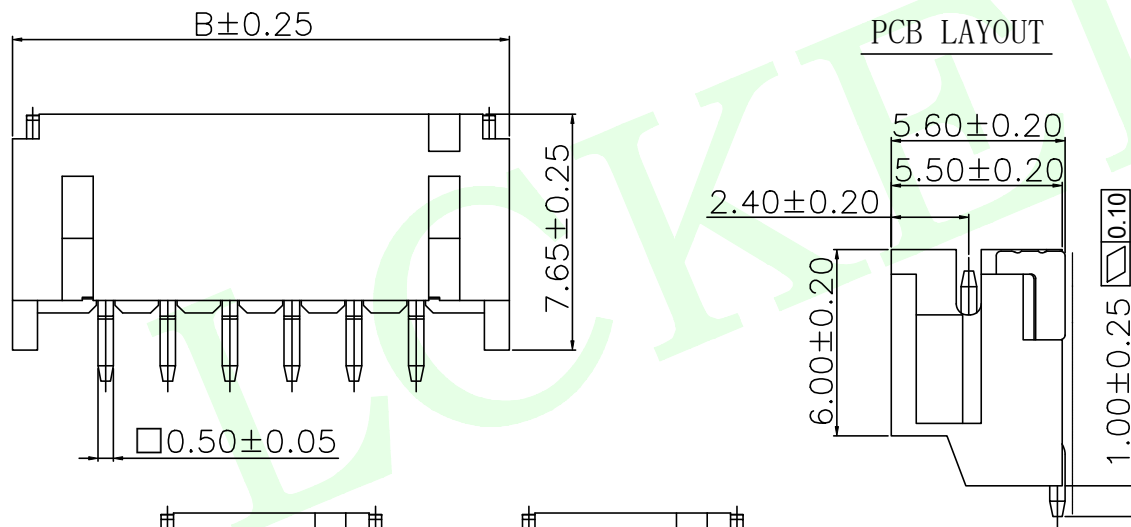
RoHS Compliant



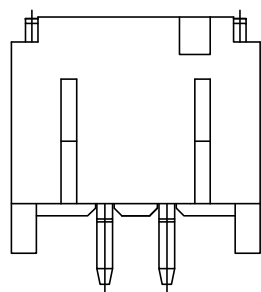
SPECIFICATIONS

- 1、Current Rating: 2A AC, DC
- 2、Voltage Rating: 250V AC, DC
- 3、Temperatuer Range: -25℃~+85℃
- 4、Contact Resistance: 20mΩ Max
- 5、Insulation Resistance: 1000MΩ Min
- 6、Withstanding Voltang: 800V AC/minute
- 7、Material: Wafer PA6T, UL94V-0
PIN Brass Tin-plated
Solder tad Brass Tin-plated

PCB LAYOUT



2A TYPE1



2A TYPE2

PIN	尺寸 (mm)			
	A	B	C	D
02	2.00	8.00	6.70	5.00
03	4.00	10.00	8.70	7.00
04	6.00	12.00	10.70	9.00
05	8.00	14.00	12.70	11.00
06	10.00	16.00	14.70	13.00
07	12.00	18.00	16.70	15.00
08	14.00	20.00	18.70	17.00
09	16.00	22.00	20.70	19.00
10	18.00	24.00	22.70	21.00
11	20.00	26.00	24.70	23.00
12	22.00	28.00	26.70	25.00
13	24.00	30.00	28.70	27.00
14	26.00	32.00	30.70	29.00
15	28.00	34.00	32.70	31.00
16	30.00	36.00	34.70	33.00

QUADRANT POINT (QP)
TANGENCY POINT (TP)
INTERSECTION POINT (IP)

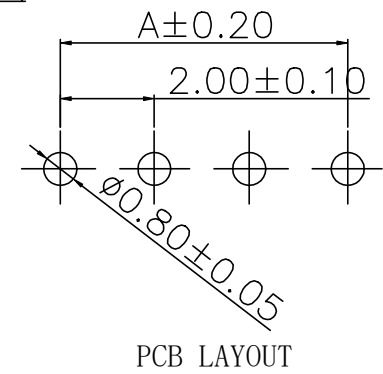
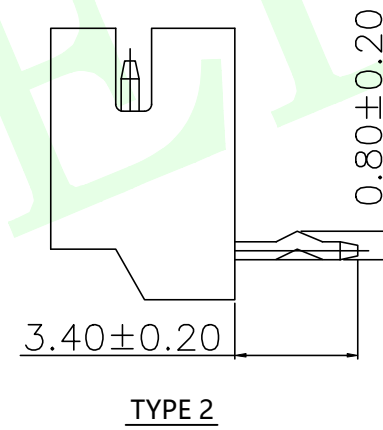
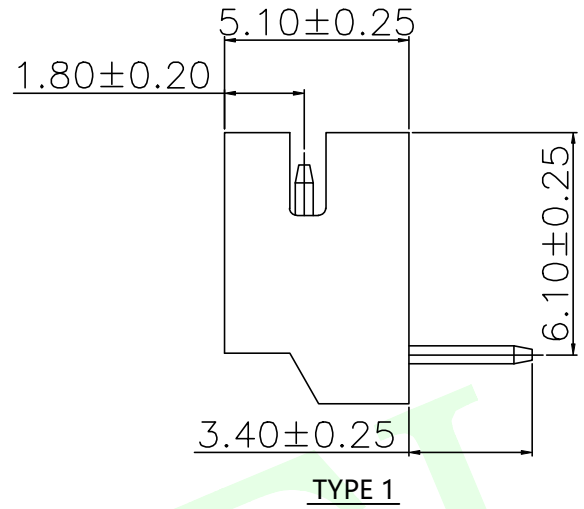
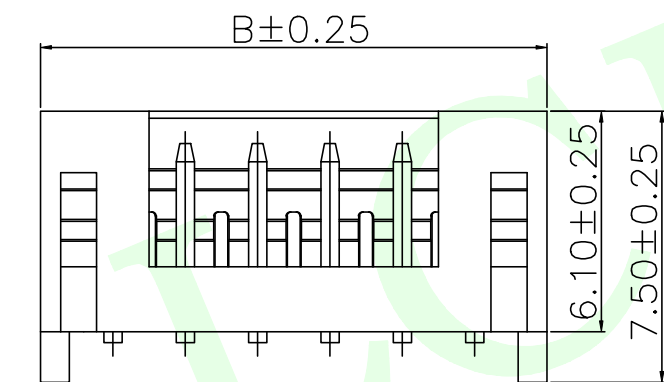
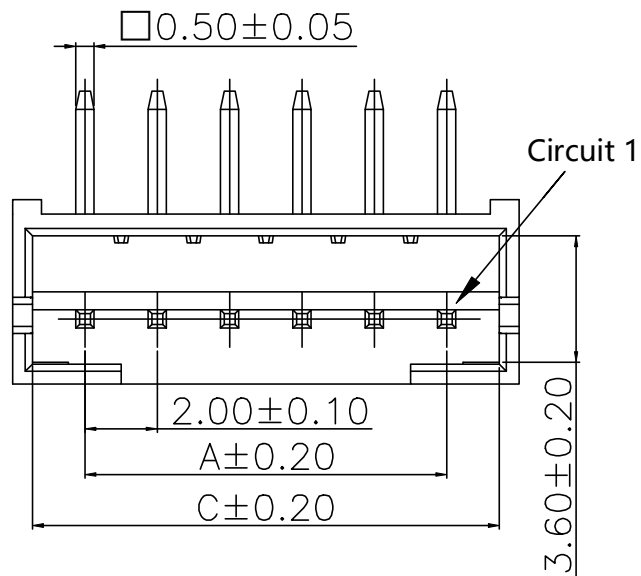
UNLESS OTHERWISE
SPECIFIED, TOLERANCE:
X. ±0.25
X.x ±0.20
X.xx ±0.15
ANGULAR ±3°



联晟欣连接器 (深圳) 有限公司
Lianshengxin Connector (Shenzhen) Co., Ltd

DESIGN	Andy	DATE	2014.12.24	TITLE:	PH 2.00Pitch 卧贴		
CHECKED		DATE					
APPROVED		DATE					
PART NO:	LCK-WF-A2001WR-S-NPA			REV:	04	SCALE:	1:1
DRAWING NO:				SIZE:	A4	SHEET:	1/1

RoHS Compliant



SPECIFICATIONS

- 1、Current Rating: 2A AC, DC
- 2、Voltage Rating: 250V AC, DC
- 3、Temperatuer Range: $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- 4、Contact Resistance: $20\text{m}\Omega$ Max
- 5、Insulation Resistance: $1000\text{M}\Omega$ Min
- 6、Withstanding Voltang: 800V AC/minute
- 7、Material: Wafer PA66, UL94V-0
PIN Brass Tin-plated

PIN	尺寸 (mm)		
	A	B	C
02	2.00	6.00	5.00
03	4.00	8.00	7.00
04	6.00	10.00	9.00
05	8.00	12.00	11.00
06	10.00	14.00	13.00
07	12.00	16.00	15.00
08	14.00	18.00	17.00
09	16.00	20.00	19.00
10	18.00	22.00	21.00
11	20.00	24.00	23.00
12	22.00	26.00	25.00
13	24.00	28.00	27.00
14	26.00	30.00	29.00
15	28.00	32.00	31.00
16	30.00	34.00	33.00

QUADRANT POINT (QP)
TANGENCY POINT (TP)
INTERSECTION POINT (IP)

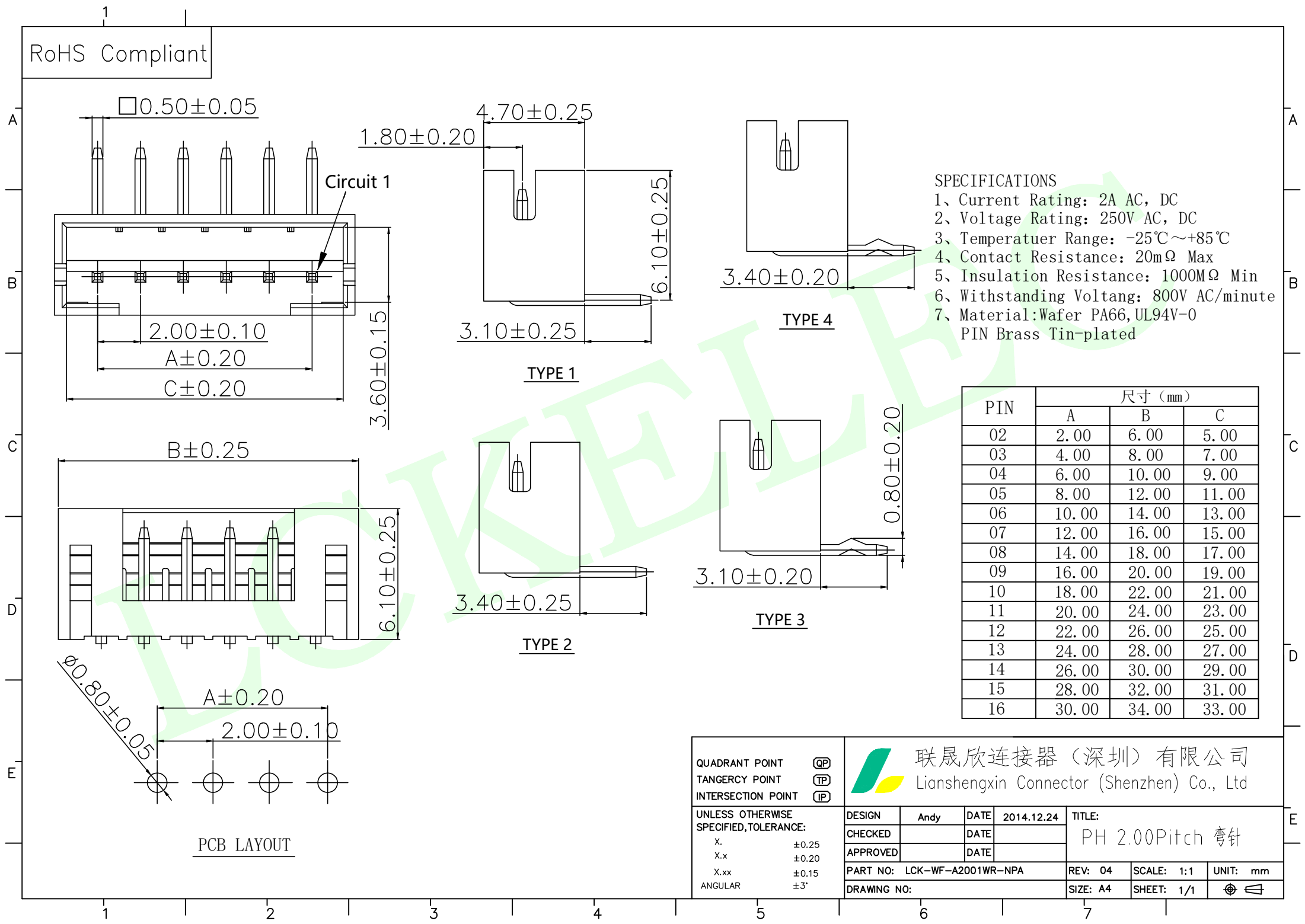
UNLESS OTHERWISE SPECIFIED, TOLERANCE:
X. ± 0.25
X.x ± 0.20
X.xx ± 0.15
ANGULAR $\pm 3^{\circ}$



联晟欣连接器 (深圳) 有限公司
Lianshengxin Connector (Shenzhen) Co., Ltd

DESIGN	Andy	DATE	2014.12.24	TITLE:	PH 2.00Pitch 定位弯针		
CHECKED		DATE					
APPROVED		DATE					
PART NO: LCK-WF-A2001WVR-NPA				REV: 04	SCALE: 1:1	UNIT: mm	
DRAWING NO:				SIZE: A4	SHEET: 1/1		

RoHS Compliant



- SPECIFICATIONS
- 1、Current Rating: 2A AC, DC
 - 2、Voltage Rating: 250V AC, DC
 - 3、Temperatuer Range: -25℃~+85℃
 - 4、Contact Resistance: 20mΩ Max
 - 5、Insulation Resistance: 1000MΩ Min
 - 6、Withstanding Voltang: 800V AC/minute
 - 7、Material: Wafer PA66, UL94V-0
PIN Brass Tin-plated

PIN	尺寸 (mm)		
	A	B	C
02	2.00	6.00	5.00
03	4.00	8.00	7.00
04	6.00	10.00	9.00
05	8.00	12.00	11.00
06	10.00	14.00	13.00
07	12.00	16.00	15.00
08	14.00	18.00	17.00
09	16.00	20.00	19.00
10	18.00	22.00	21.00
11	20.00	24.00	23.00
12	22.00	26.00	25.00
13	24.00	28.00	27.00
14	26.00	30.00	29.00
15	28.00	32.00	31.00
16	30.00	34.00	33.00

QUADRANT POINT TANGENCY POINT INTERSECTION POINT	 	联晟欣连接器（深圳）有限公司 Lianshengxin Connector (Shenzhen) Co., Ltd			
		DESIGN	Andy	DATE	2014.12.24
		CHECKED		DATE	
		APPROVED		DATE	
UNLESS OTHERWISE SPECIFIED, TOLERANCE: X. ±0.25 X.x ±0.20 X.xx ±0.15 ANGULAR ±3°	PART NO: LCK-WF-A2001WR-NPA				REV: 04
	DRAWING NO:				SCALE: 1:1
					UNIT: mm
TITLE: PH 2.00Pitch 弯针				SIZE: A4	SHEET: 1/1

RoHS Compliant

