



产品规格书

PRODUCT SPECIFICATION

产品描述：L6.2 系列连接器

Product Description: L6.2 Connector

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 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.	<u>制定 Edit:</u> 王彦飞 2017.11.28	<u>产品名称 Product Name:</u> L6.2
	<u>审核 Check:</u> 王国英 2019.1.15	<u>编号 Document No.:</u> PS3978
	<u>批准 Approval:</u> 刘冬旭 2019.1.15	<u>版本 REVISION:</u> 2

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1. 更改履历 Change History

序号 No.:	版本号 Version No.	更改前描述 Description Before Modification	更改后描述 Description After Modification	更改人/日期 Reviser/Date
1	1	/	新版本发放	王彦飞 2017.11.28
2	2	/	更改图纸商标 LOGO	王彦飞 2019.1.12
3				
4				
5				

产品名称 Product Name:	L6.2	编号 Document No.	PS3978	版本号 VersionNo.	2
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2. 适用范围 Scope

本产品规格书适用于浙江合兴电子元件有限公司生产的 WTW 6.2P 阴型 & 阳型电子连接器，产品名称：[L6.2](#)。

This product specification covers the requirement for [Wire to Wire 6.2mm pitch Receptacle & Plug connector](#), which are designed and manufactured by CWB Electronics(ZheJiang) Co.,LTD. P/N: [L6.2](#).

3. 产品描述 Product Description

L6.2 系列产品为家电连接器产品，产品部件组成如下：

The L6.2 series connector designed for home appliances connection. Part checklist as following form:

Name	Part name	Notes
条形连接器针座 Plug Housing	L6.2-1A	PA66 UL94 V-2
条形连接器针座 Plug Housing	L6.2-2A	PA66 UL94 V-2
条形连接器针座 Plug Housing	L6.2-2AF	PA66 UL94 V-2
条形连接器针座 Plug Housing	L6.2-3A	PA66 UL94 V-2
条形连接器针座 Plug Housing	L6.2-4A	PA66 UL94 V-2
条形连接器针座 Plug Housing	L6.2-6A	PA66 UL94 V-2
条形连接器孔座 Receptacle Housing	L6.2-1Y	PA66 UL94 V-2
条形连接器孔座 Receptacle Housing	L6.2-2Y	PA66 UL94 V-2
条形连接器孔座 Receptacle Housing	L6.2-2Y-1	PA66 UL94 V-2
条形连接器孔座 Receptacle Housing	L6.2-3Y	PA66 UL94 V-2
条形连接器孔座 Receptacle Housing	L6.2-4Y	PA66 UL94 V-2
条形连接器孔座 Receptacle Housing	L6.2-6Y	PA66 UL94 V-2
插针 Pin Contact	L6.2-A	Phosphor bronze Tin Plating
插簧 Socket Contact	L6.2/L6.2-Y	Phosphor bronze Tin Plating
插簧 Socket Contact	L6.2B	Phosphor bronze Tin Plating

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4. 相关标准 Related Standards

以下参考文件是本规格书的一个组成部份。若本规格书中的要求与产品图纸发生冲突，则产品图中的要求为优先；若本规格书中的要求与参考文件中的要求冲突，则本规格书为优先。

The following documents form a part of this specification. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

GB/T 2421	电工电子产品环境试验 第一部分 总则 Testing Method for Environmental of Electrical Connectors	Class 1: General Principles
GB/T 2423	电工电子产品环境试验方法 Testing Method for Environmental of Electrical Connectors	
GB/T 2424	电工电子产品环境试验导则 Testing Method for Environmental of Electrical Connectors	
GB/T 5095	电子设备用机电元件基本试验规程及测量方法 Testing procedure/ Method for components of electric equipment	

产品符合合兴企标 Q/HX J1150001 《产品及所用材料的环保要求》 I 类或顾客要求。

The connector should comply with CWB standard Q/HX J1150001 Class I or customer's requests

5.参数范围 Parameter Ratings:

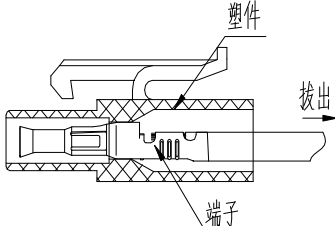
额定电流 Rated Current	AWG22#:3A AWG20#:5A AWG18#:7A
额定电压 Rated Voltage	250V [AC(有效值 rms)/DC]
使用温度范围（包含温升） Operating temperature range (Include temperature rise)	-25℃~+85℃
适用线型 Applicable wires	Wire Size: AWG22#~AWG18# (0.33mm ² -0.82 mm ²) Insulation Diameter: Ø1.6mm- Ø2.05mm

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6. 产品性能 Performance

6.1 机械性能 Mechanical

序号 No.	项 目 Item	测试条件 Test Condition	规 格 Requirement
6.1.1	外观 Appearance	目测 Checking by eyes 视力: 1.0 以上 Eyesight: > 1.0 照明: (200~300) lx Lamp: (200~300) lx 目测距离: (0.3~0.5) m Space: (0.3~0.5) m GB/T 5095.1 Method 1a	1.塑料件表面应无明显疤痕、凹陷、开裂及影响使用的变形。 Plastic part: smooth and flat surface without discolor, broken, crack, and distortion, etc. 2 金属件表面无锈蚀、氧化、无明显的机械损伤及电镀层脱落等缺陷。 Metal part: bright and even surface without rust, oxide, fog and obvious physical damage, etc.
6.1.2	端子固定力 Retention Force for Contact	固定连接器和测力计, 在连接器轴线方向施加规定的拉力; 速度不大于 25 mm/min. Apply axial pull out force at the speed rate of not more 25mm/min on the pin assembled in the housing. GB/T 5095.8 Method 15d / EIA-364-29B 	40N Min
6.1.3	压着部位抗张强度 Crimping Pull Out Force	在试验装置夹头中固定试验样品, 在连接的轴线方向施加张力; 25 mm/min. Fix the crimped contact, axial pull out force on the contact in the housing at a rate less than 25 mm/min. GB/T5095.8 Method 16d / EIA-364-08B	AWG 22: 40N Min. AWG 20: 50N Min. AWG 18: 80N Min.
6.1.4	机械振动 Random Vibration	插合连接器, 串联在一直流电源上, 电流100mA; 并模拟正常工作状态; 振频为 (10~55~10) Hz, 每个循环时间为1分钟, 振幅1.52mm。沿XYZ三轴正反方向各循环2h。 Mate connectors subjected them to following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, 100 mA current shall be applied. Frequency: (10~55~10) HZ/min. Amplitude: 1.52mm GB/T 5095.4 Method 6d / EIA-364-28D	外观: 无损伤 (参照6.1.1) Appearance: No damage.(refer to 6.1.1) 接触电阻: 0.02Ω Max. Contact resistance: 0.02Ω Max. 中断: 1μsec Max.

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6.1.5	机械冲击 Shock	连接器相配，沿XYZ三轴正反方向各冲击3次(总共18次)，在测试过程中通以100mA电流。 冲击强度：490m/s ² 持续时间：11ms Mate connectors and subject them to the following shock conditions, 3 times of shock shall be applied for each 6 directions along 3 mutually perpendicular axes, passing DC 100mA current during the test.(Total of 18 shocks) Test Pulse: : 490m/s ² Duration: 11ms GB/T 5095.4 Method 6c / EIA-364-27B				外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1) 中断: 1μsec Max. <1μsec discontinuity					
6.1.6	机械寿命 Durability	以每分钟 10 次的速度插拔 50 次。 Fifty cycles for mating and unmating test at the speed of 10 cycles per minute GB/T 5095.5 Method 9a / EIA-364-09C				外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1) 接触电阻：0.02Ω Max. Contact resistance: 0.02Ω Max.					
6.2 电气性能 Electrical											
序号 No.	项 目 Item	测试条件 Test Condition				规格 Requirement					
6.2.1	接触电阻 Contact Resistance	插配阴阳连接器后,用小功率电路进行测试 Mate connectors with dry circuit to test Contact Resistance GB/T 5095.2 Method 2a / EIA-364-23B				0.01 Ω Max. (Initial) 0.02 Ω Max. (Final)					
6.2.2	绝缘电阻 Insulation Resistance	在相邻接触件之间或地线之间,用 500V DC 电压进行测试。 Apply a voltage of 500V DC between adjacent contacts and between contacts to ground. GB/T 5095.2 Method 3a / EIA-364-21C				1000 MΩ Min. (Initial) 500 MΩ Min. (Final)					
6.2.3	耐电压 Withstand Voltage	相邻接触件之间或地线之间施加 1500V AC (有效值),漏电流 1mA 的电压作用,时间 1min. Apply a voltage of AC 1500V for 1 minute between adjacent contacts and between contacts to ground. GB/T 5095.2 Method 4a / EIA-364-20B				外观：无击穿和飞弧现象 Appearance: No Breakdown or flashover					
6.2.4	温升 Temperature Rise	插合连接器，通以最大允许电流，测温度的差值 Mate connectors and measure the temperature rise of contact when the maximum AC rated current is passed. GB/T 5095.3 Method 5a / EIA-364-70A				Δ60℃ Max.					
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6.3 环境性能 Environmental

序号 No.	项 目 Item	测试条件 Test Condition	规 格 Requirement
6.3.1	耐高温 Heat Resistance	连接器配合后，于 85±2℃ 的空气中放置 240 小时，再回到室温中放置 1-2 小时测定 Mated connectors exposed to the condition of 85±2℃ for 240 hours. Recovery time 1~2 hours GB/T 5095.6 Method 11i / EIA-364-17B	外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1) 接触电阻： 0.02Ω Max. Contact resistance: 0.02Ω Max. 绝缘电阻： 500 MΩ Min. Insulation Resistance : 500 MΩ Min. 耐电压： 1000V Min. Withstand Voltage: 1000V Min.
6.3.2	耐低温 Cold Resistance	连接器配合后，于 -25±2℃ 的空气中放置 240 小时，再回到室温中放置 1-2 小时测定 Mated connectors exposed to the condition of -25±2℃ for 240 hours. Recovery time 1~2 hours GB/T 5095.6 Method 11j / EIA-364-17B	外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1) 接触电阻： 0.02Ω Max. Contact resistance: 0.02Ω Max. 绝缘电阻： 500 MΩ Min. Insulation Resistance : 500 MΩ Min. 耐电压： 1000V Min. Withstand Voltage: 1000V Min.
6.3.3	恒定湿热 Humidity	温度 40±2℃， 相对湿度(90~95)% 搁置时间 240h，取出恢复 1~2h 后检查. Mated connectors exposed to the condition of temperature 40±2℃， humidity (90~95)% for 240 hours. Recovery time 1~2 hours GB/T 5095.6 Method 11c /EIA-364-31B	外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1) 接触电阻： 0.02Ω Max. Contact resistance: 0.02Ω Max. 绝缘电阻： 500 MΩ Min. Insulation Resistance : 500 MΩ Min. 耐电压： 1000V Min. Withstand Voltage: 1000V Min.
6.3.4	温度循环 Temperature Cycling	把试验样品分别放入高、低温试验箱中，按下列步骤调试验温度： a) 在(-55±2)℃ 的恒温条件下放置 0.5h; b) 在(85±2)℃ 的恒温条件下放置 0.5h; 从 a)到 b)为一个循环，周期温度转换时间应不大于 5 分钟，共进行 25 个循环,恢复 1~2h 后检查。 Mated connectors shall be tested under the following conditions Temperature °C Duration (Minutes) 1 -55 30 2 +25 5Max. 3 +85 30 4 +25 5Max. Step 1 to 4 is one cycle,25 cycles shall be tested. Recovery time 1~2 hours. GB/T 5095.6 method 11d / EIA-364-32C	外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1) 接触电阻： 0.02Ω Max. Contact resistance: 0.02Ω Max. 绝缘电阻： 500 MΩ Min. Insulation Resistance : 500 MΩ Min. 耐电压： 1000V Min. Withstand Voltage: 1000V Min.
6.3.5	盐雾 Salt Spray	把试验样品从试验箱顶悬挂下来，采用浓度为(5±1)%(质量百分比)的氯化钠溶液，在(35±2)℃ 温度下连续雾化 48h,试验后用流动的蒸馏水轻轻洗去表面沉积物。在常温常湿条件下恢复 1~2h 48h spray, at temp (35±2)℃， NaCl mist concentration (5±1)%. After test, wash parts and put it into room ambient for 1~2 hours GB/T 5095.6 Method 11f /EIA-364-26B	外观：无损伤(五金件应无露出底金属的严重锈蚀;使用预镀好的型材，其落料面允许有不影响其性能的轻微腐蚀。) Appearance: No Damage (No erosion on material exposed. and plating material, slight erosion on the cutting surface is acceptable) 接触电阻： 0.02Ω Max. Contact resistance: 0.02Ω Max.

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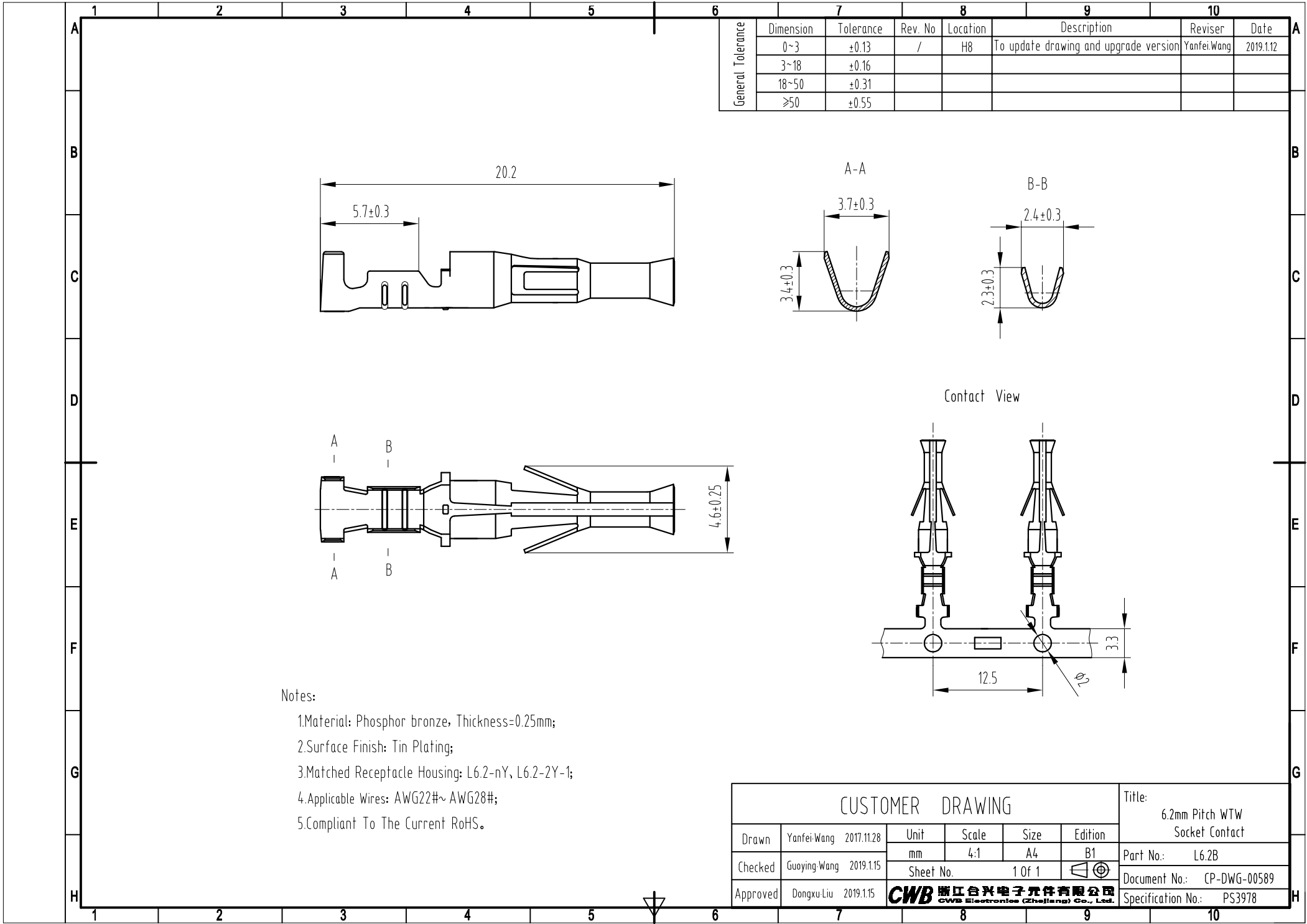
产品规格书

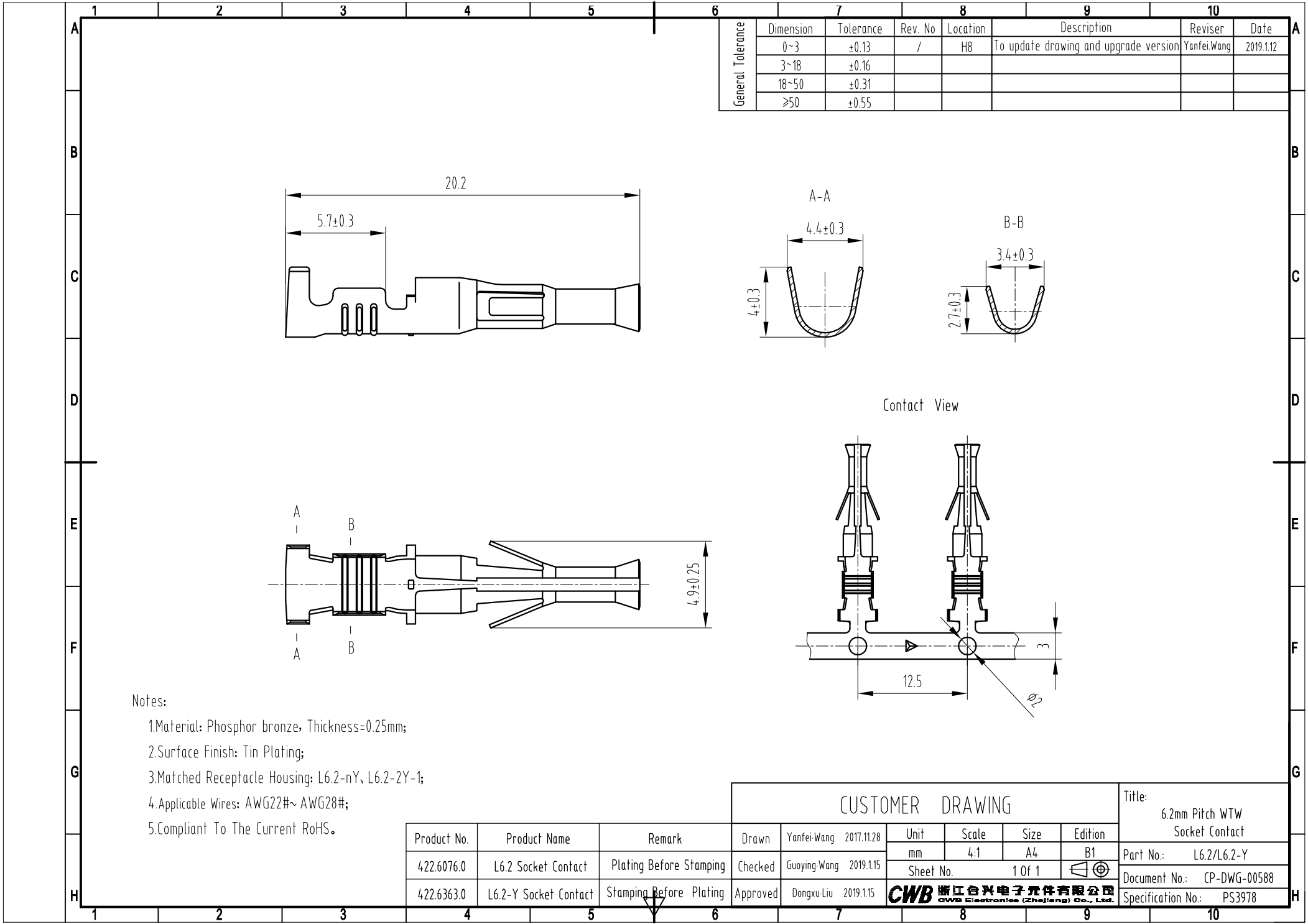
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7. 测试分组 Test Sequences (Samples: 5PCS)

测试组 GROUP NUMBER	A	B	C	D	E	F	G	H	I	J	K	L
外观 Appearance	1	1	1	1,5	1,3	1,7	1	1,7	1,7	1,7	1,7	1,5
端子的固定力 Retention Force for contact		2										
压着部位抗张强度 Crimping Pull Out Force			2									
机械振动 Random Vibration				3								
机械冲击 Shock					2							
机械寿命 Durability						5						
接触电阻 Low Level Contact Resistance				2,4		2,6		2,4	2,4	2,3	2,3	2,4
绝缘电阻 Insulation Resistance						3		5	5	5	5	
耐电压 Withstand Voltage						4		6	6	6	6	
温升 Temperature Rise							2					
耐高温 Heat Resistance								3				
耐低温 Cold Resistance									3			
恒定湿热 Humidity										3		
温度循环 Temperature Cycling											3	
盐雾 Salt Spray												3

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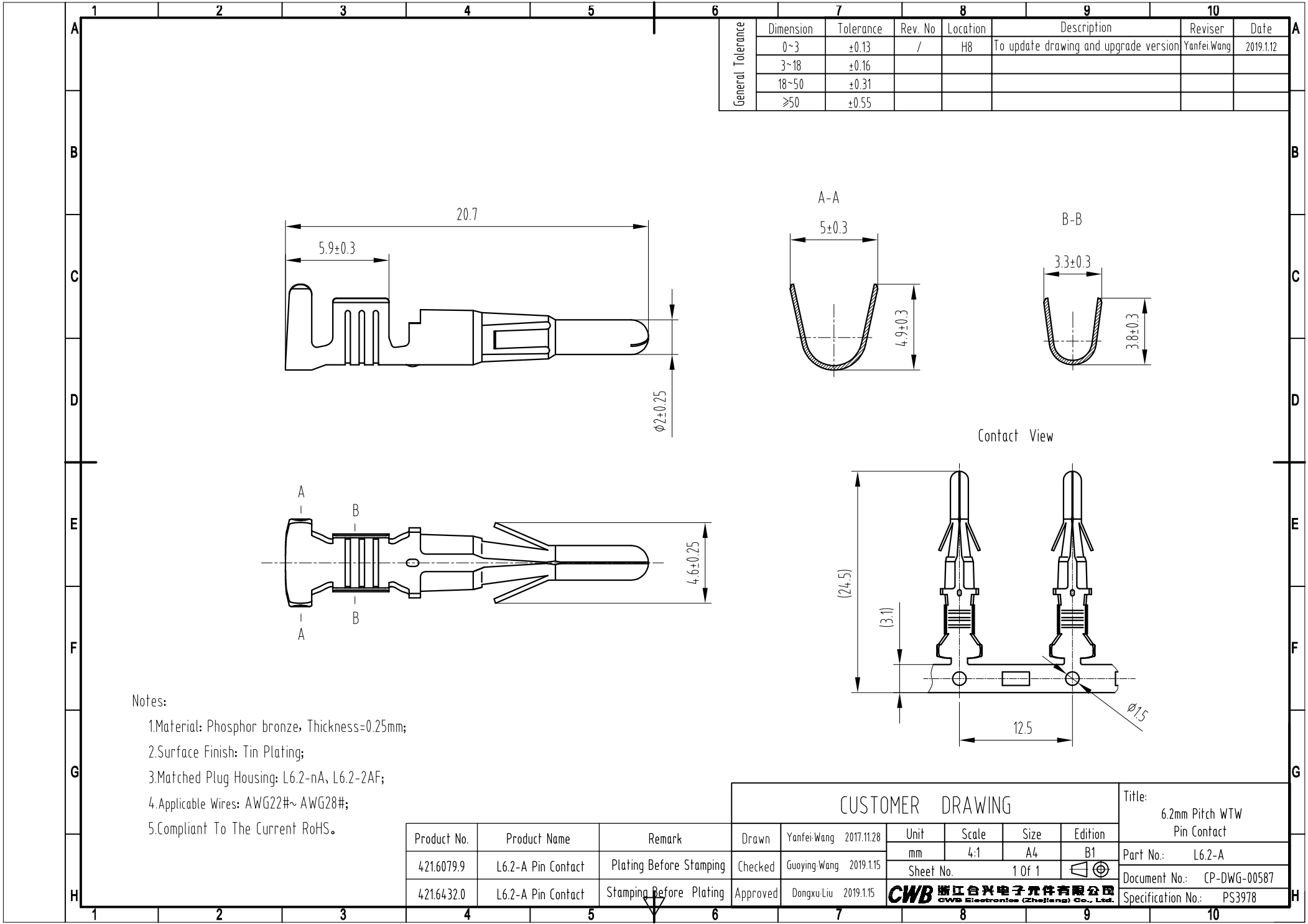
General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	YanfeiWang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					

Notes:

- 1.Material: Phosphor bronze, Thickness=0.25mm;
- 2.Surface Finish: Tin Plating;
- 3.Matched Receptacle Housing: L6.2-nY, L6.2-2Y-1;
- 4.Applicable Wires: AWG22#~AWG28#;
- 5.Compliant To The Current RoHS.

Product No.	Product Name	Remark
422.6076.0	L6.2 Socket Contact	Plating Before Stamping
422.6363.0	L6.2-Y Socket Contact	Stamping Before Plating

CUSTOMER DRAWING								Title:	
Drawn	Yanfei-Wang	2017.11.28	Unit	Scale	Size	Edition		6.2mm Pitch WTW Socket Contact	
Checked	Guoying-Wang	2019.1.15	mm	4:1	A4	B1		Part No.: L6.2/L6.2-Y	
Approved	Dongxu-Liu	2019.1.15	Sheet No.	1 Of 1				Document No.: CP-DWG-00588	
CWB 浙江台兴电子元件有限公司								Specification No.: PS3978	



General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	Yanfei.Wang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					

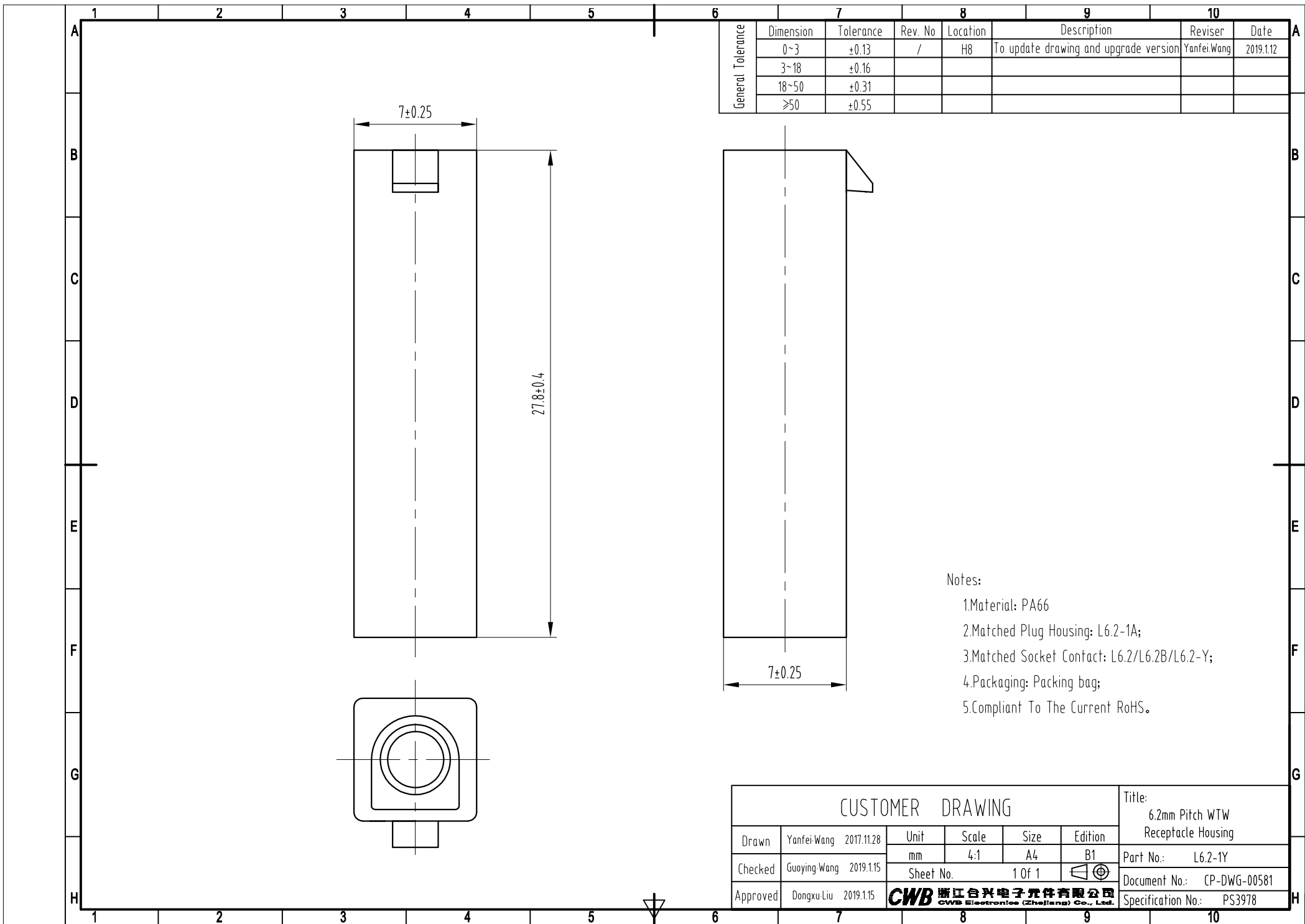
Notes:

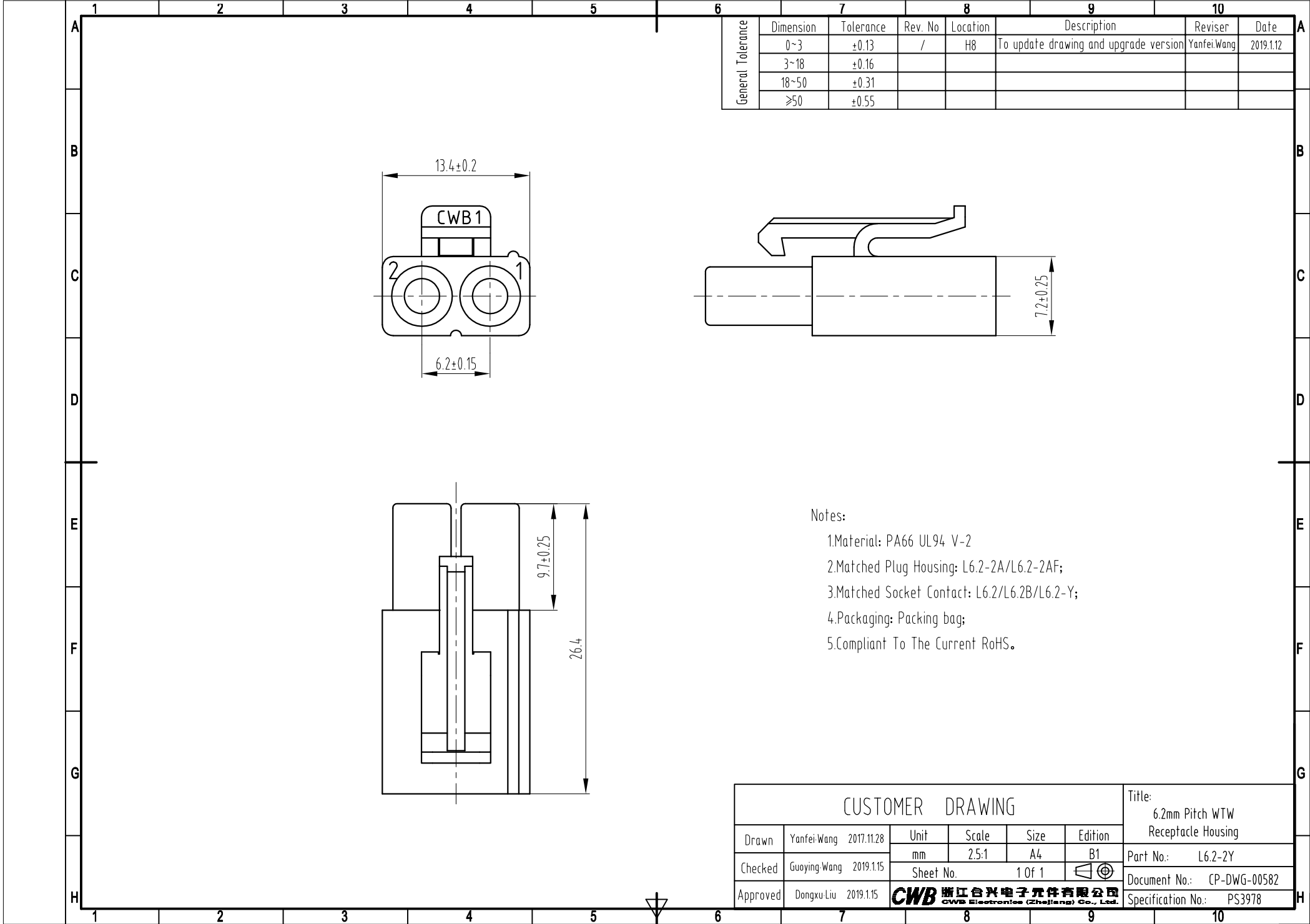
- 1.Material: Phosphor bronze, Thickness=0.25mm;
- 2.Surface Finish: Tin Plating;
- 3.Matched Plug Housing: L6.2-nA, L6.2-2AF;
- 4.Applicable Wires: AWG22#~ AWG28#;
- 5.Compliant To The Current RoHS.

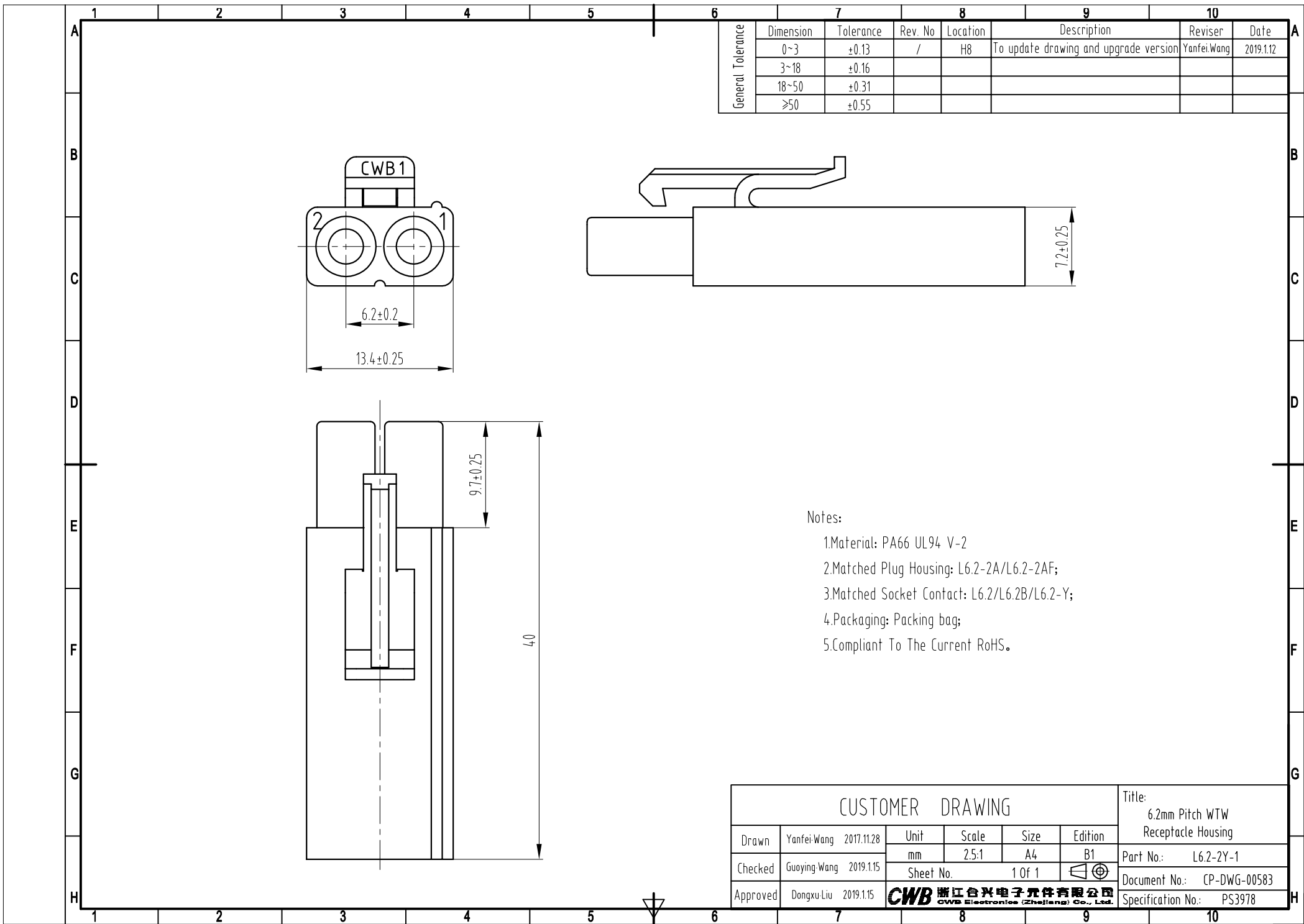
Product No.	Product Name	Remark
421.6079.9	L6.2-A Pin Contact	Plating Before Stamping
421.6432.0	L6.2-A Pin Contact	Stamping Before Plating

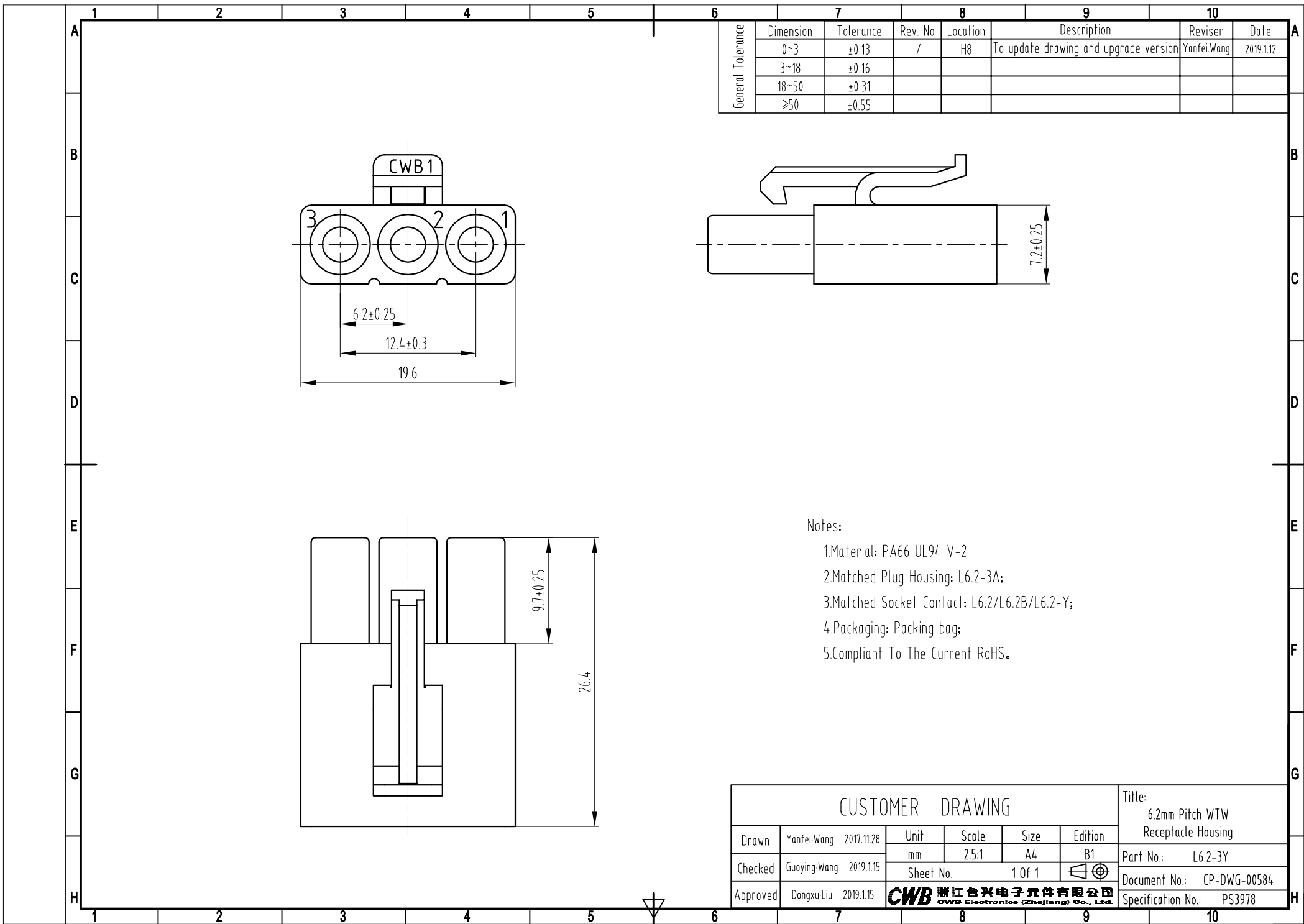
CUSTOMER DRAWING							
Drawn	Yanfei.Wang	2017.11.28	Unit	Scale	Size	Edition	
			mm	4:1	A4	B1	
Checked	Guoying.Wang	2019.1.15	Sheet No.		1 Of 1		
Approved	Dongxu.Liu	2019.1.15	CWB 浙江合兴电子元件有限公司				
CWB Electronics (Zhejiang) Co., Ltd.							

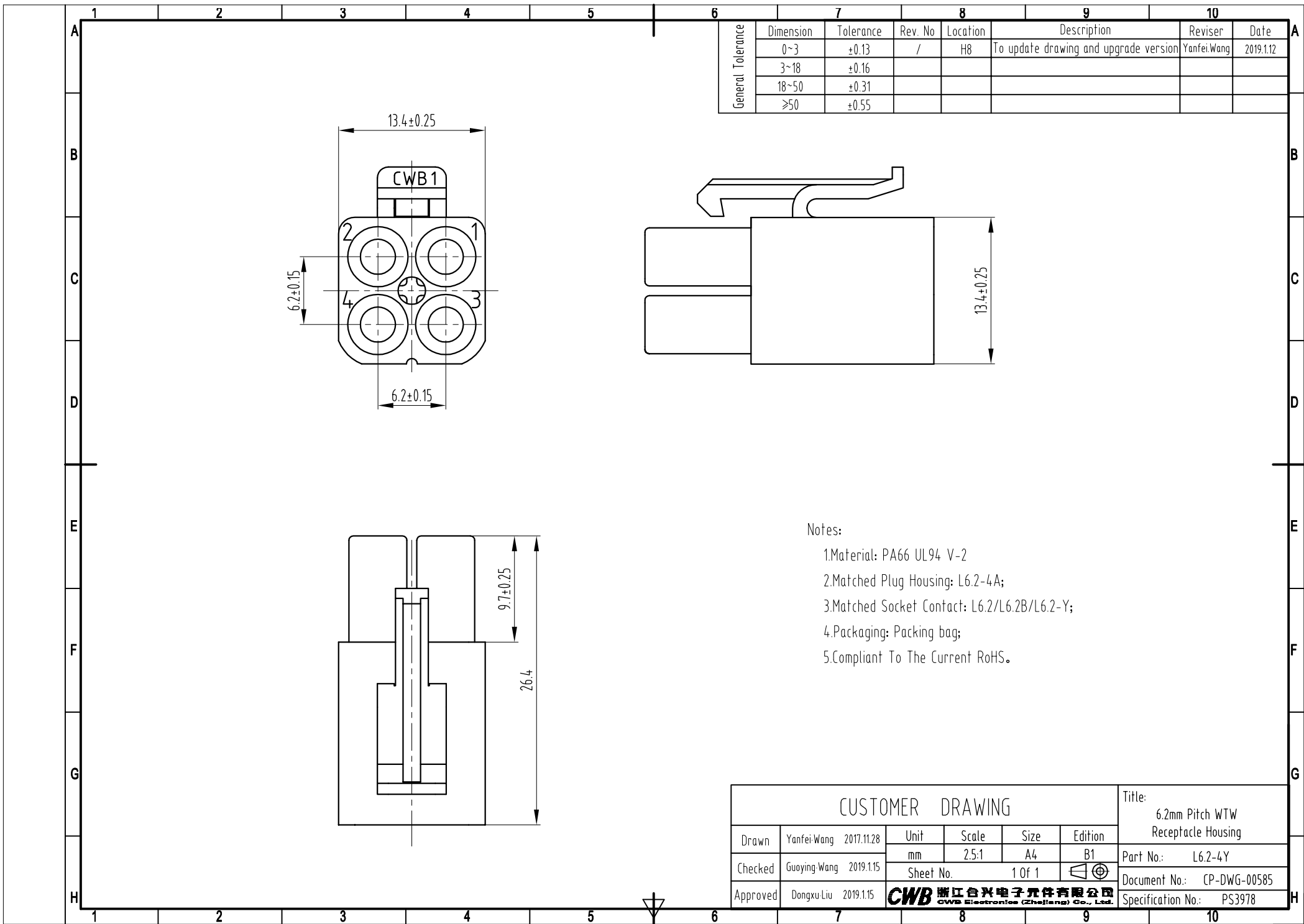
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Part No.:	L6.2-A
Document No.:	CP-DWG-00587
Specification No.:	PS3978

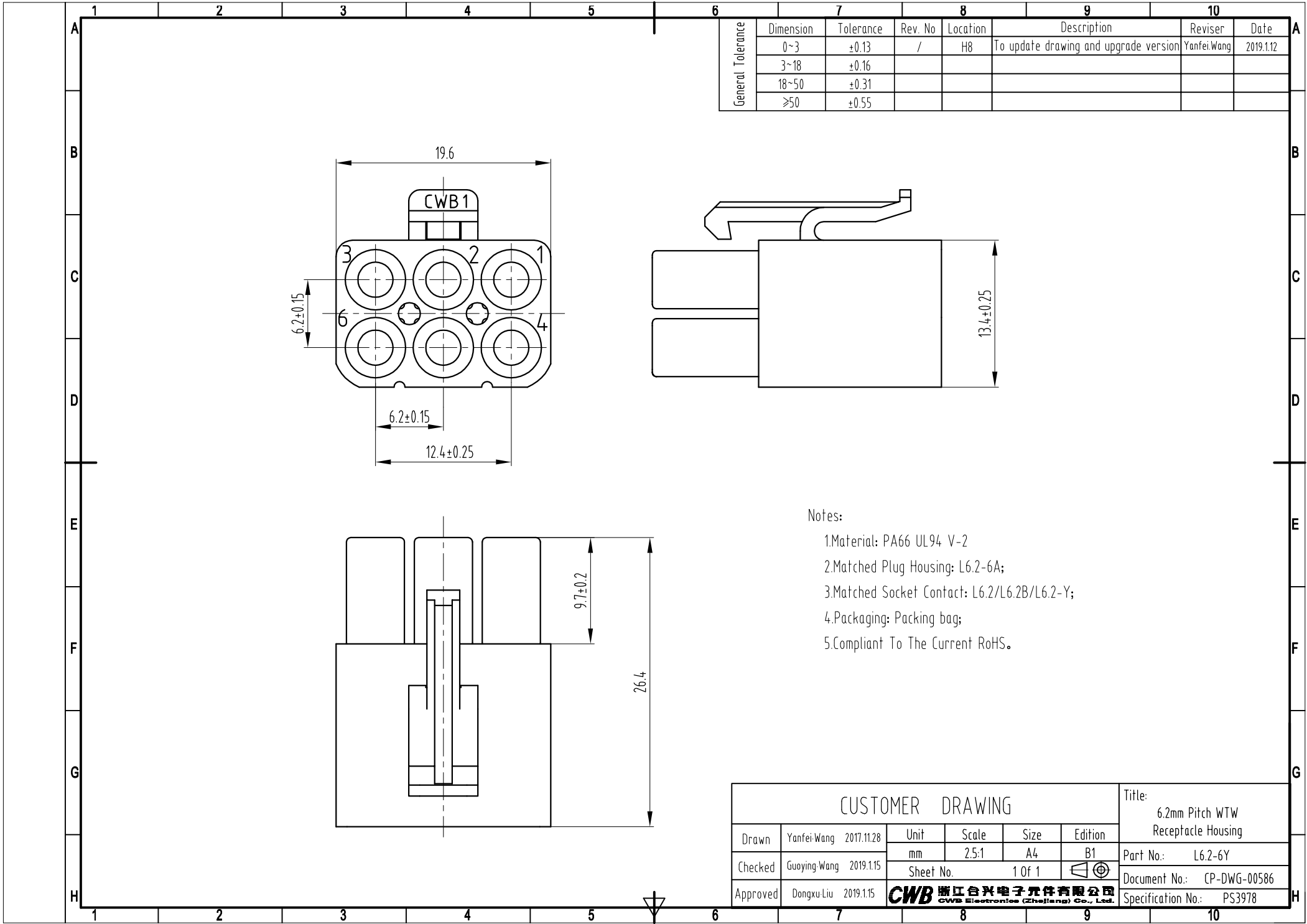


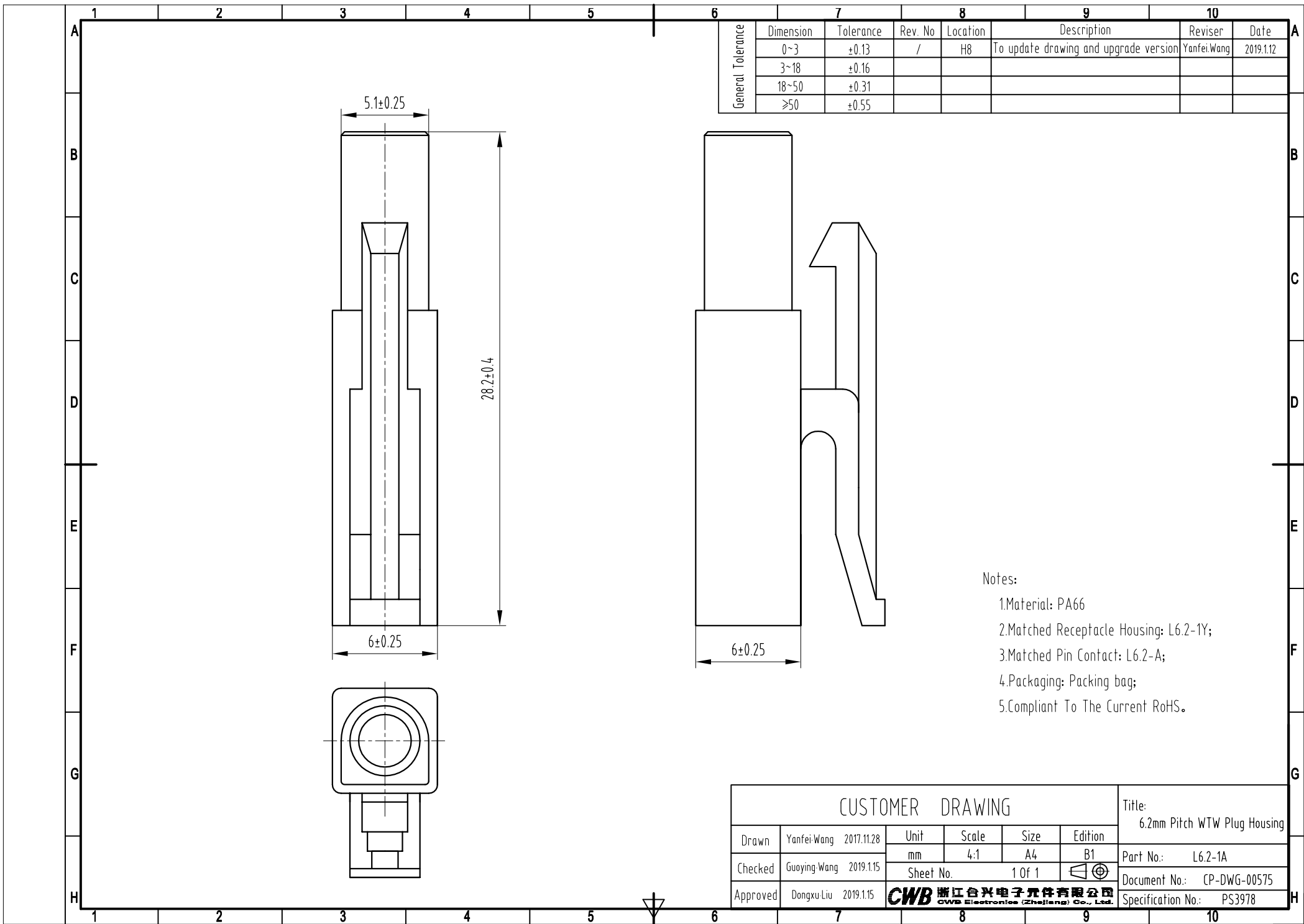


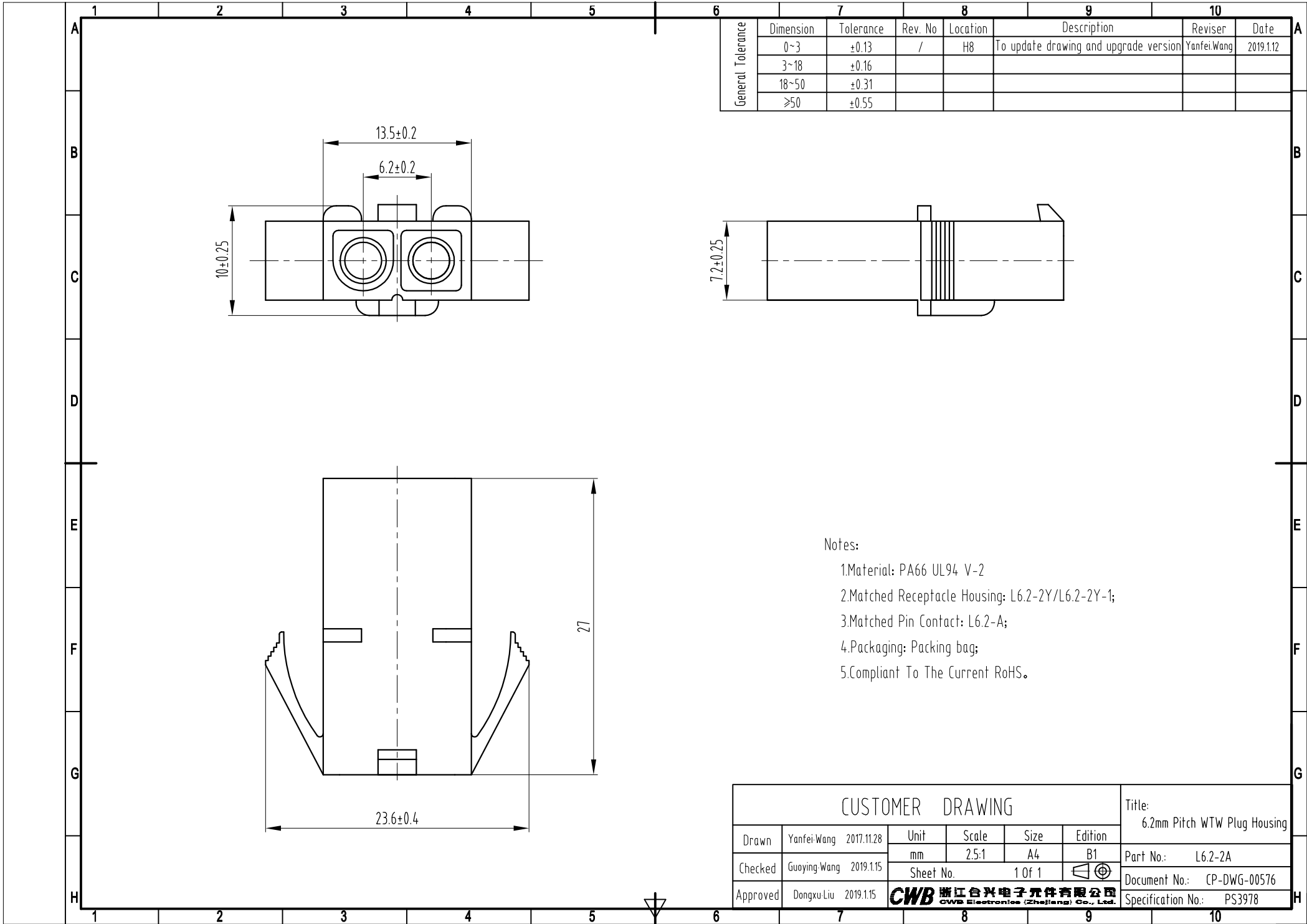








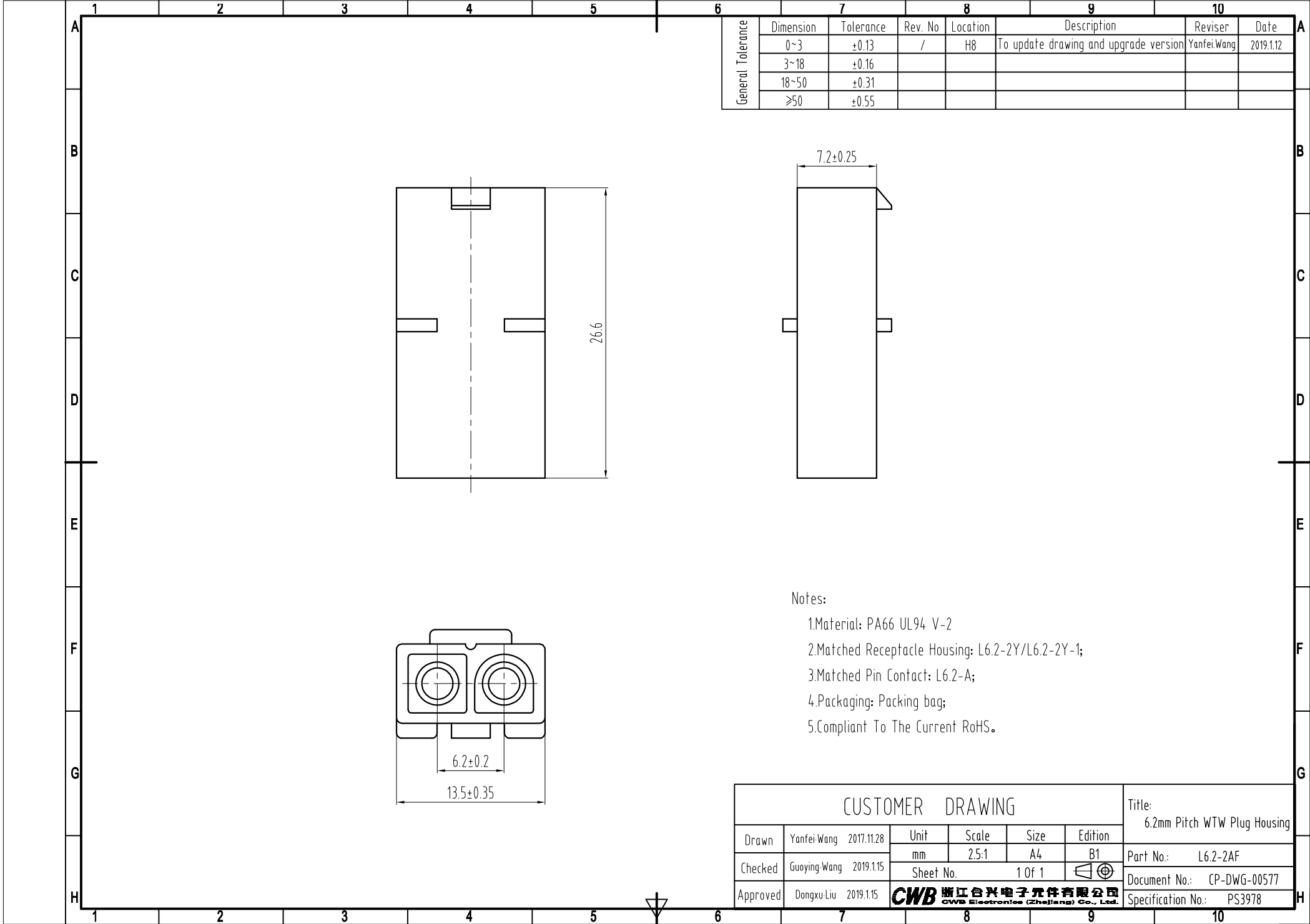


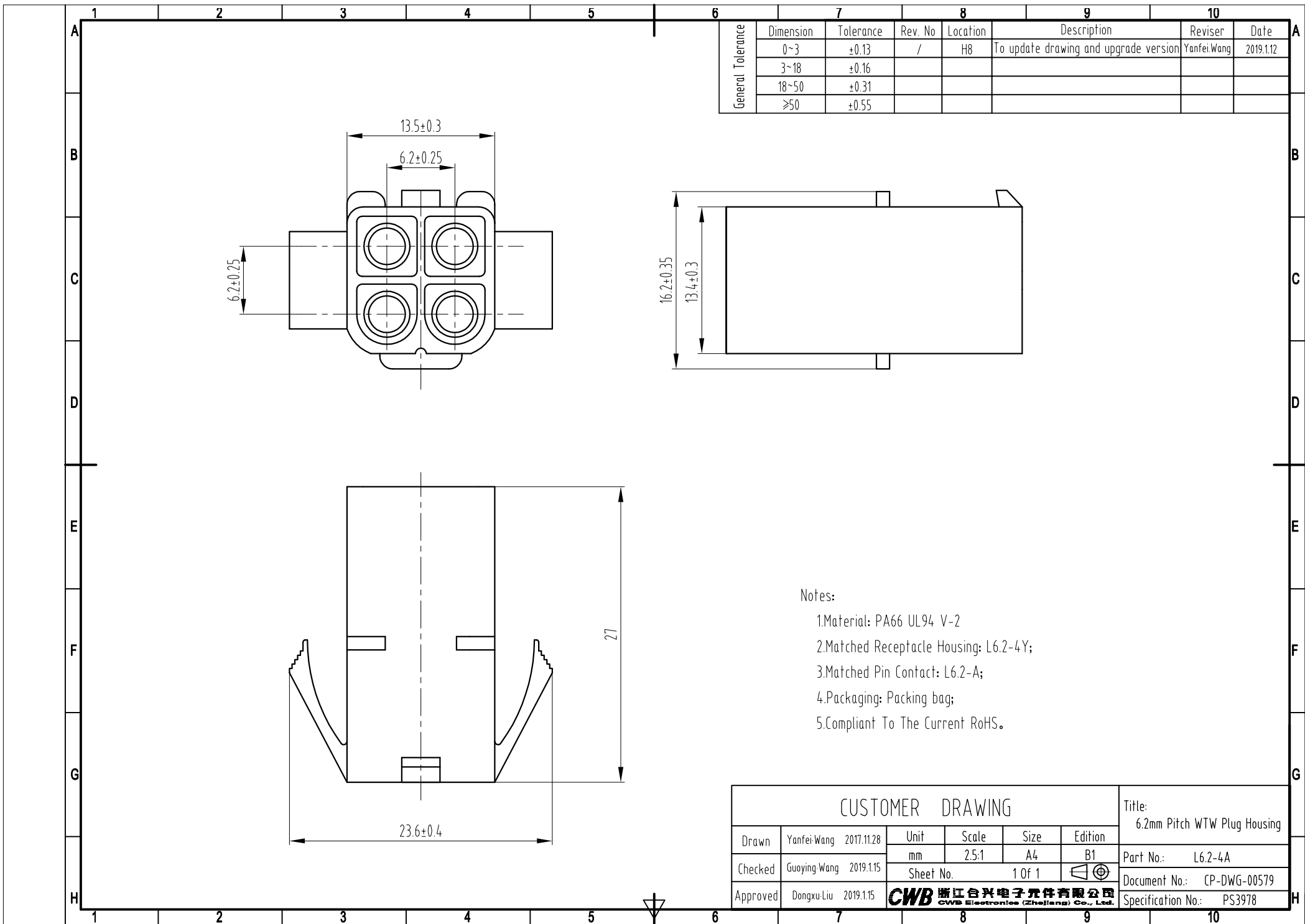


General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	YanfeiWang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					

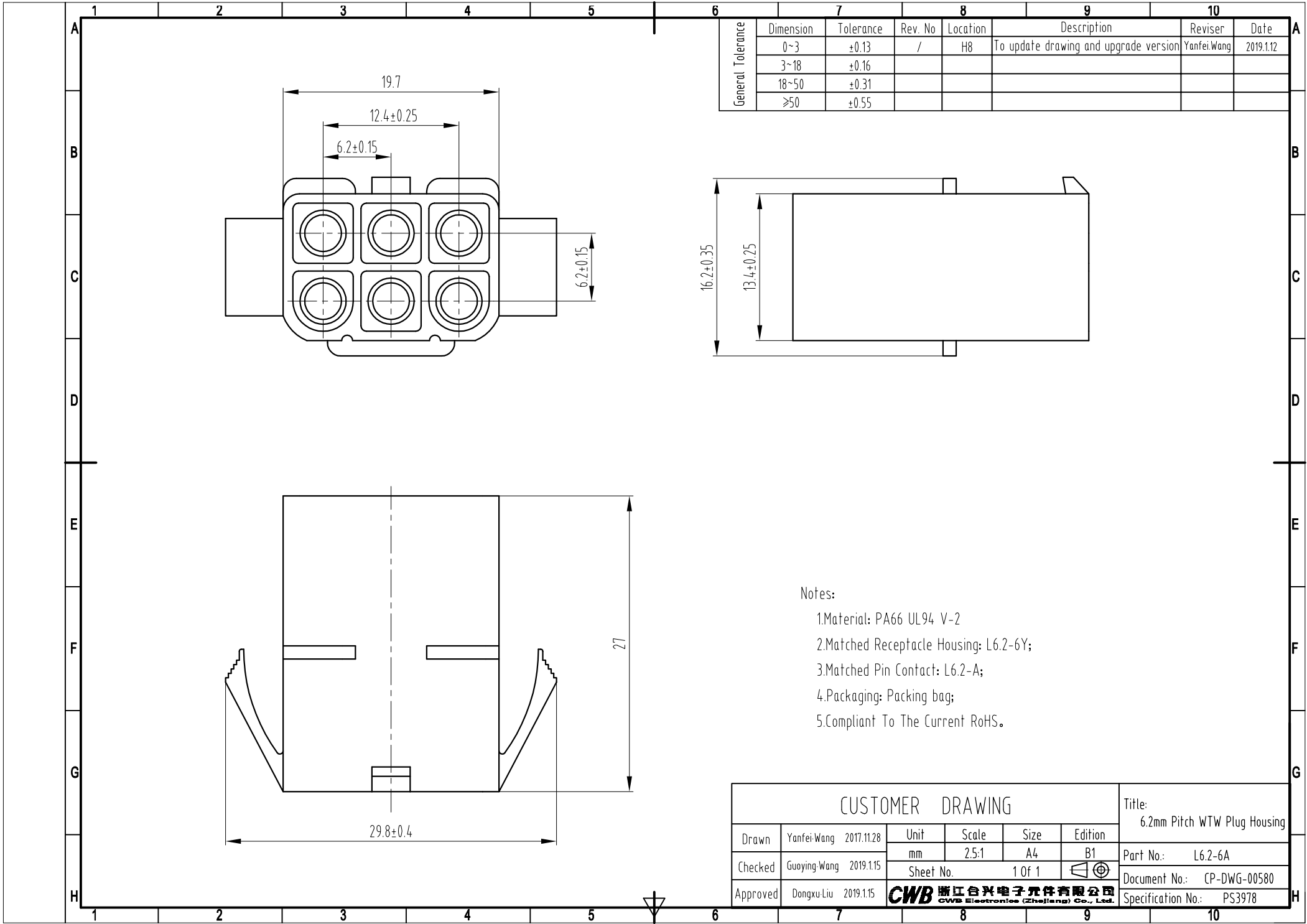
- Notes:
- 1.Material: PA66 UL94 V-2
 - 2.Matched Receptacle Housing: L6.2-2Y/L6.2-2Y-1;
 - 3.Matched Pin Contact: L6.2-A;
 - 4.Packaging: Packing bag;
 - 5.Compliant To The Current RoHS.

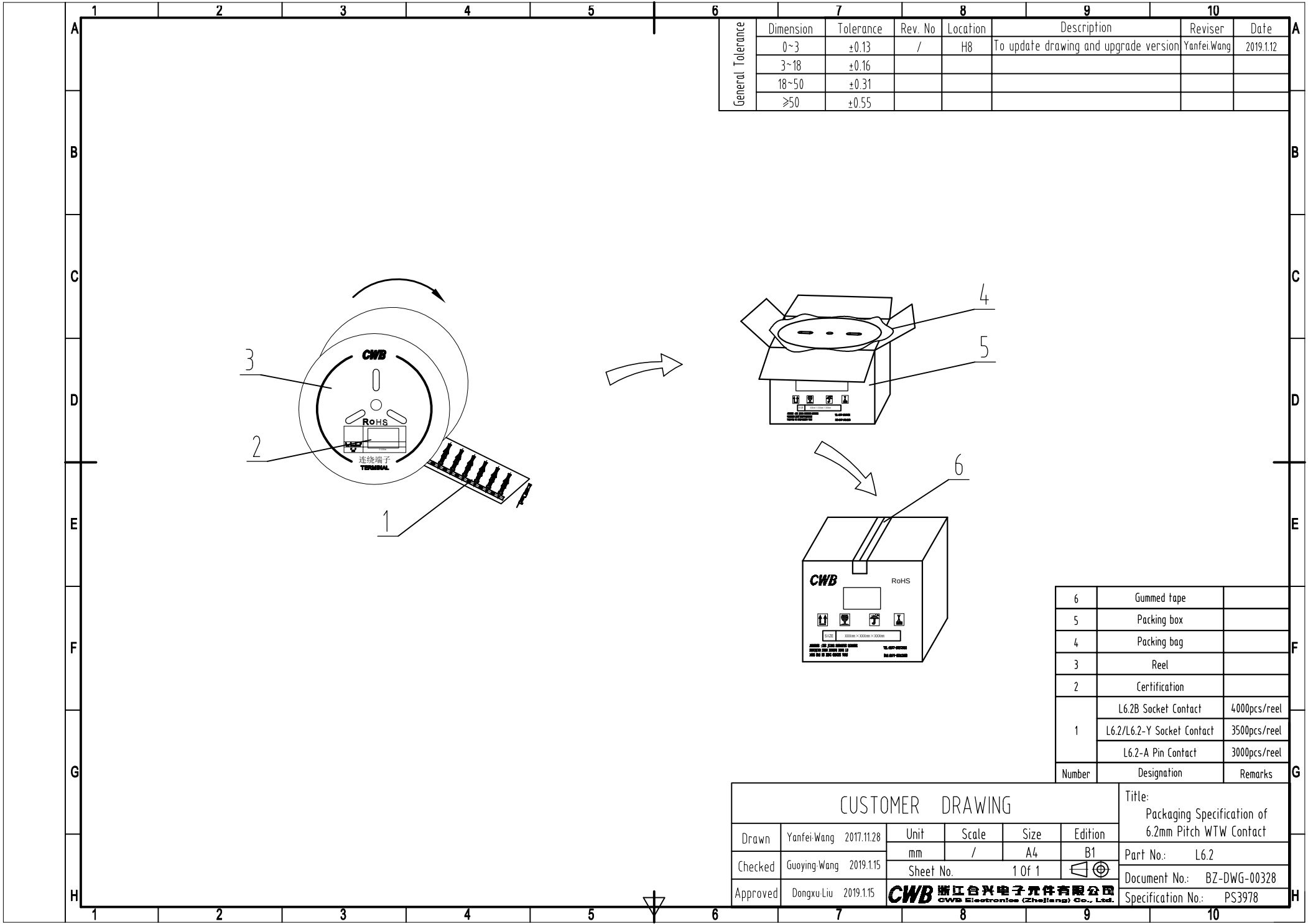
CUSTOMER DRAWING							Title: 6.2mm Pitch WTW Plug Housing	
Drawn	Yanfei-Wang	2017.11.28	Unit	Scale	Size	Edition	Part No.: L6.2-2A Document No.: CP-DWG-00576 Specification No.: PS3978	
Checked	Guoying-Wang	2019.1.15	mm	2.5:1	A4	B1		
			Sheet No. 1 Of 1					
Approved	Dongxu-Liu	2019.1.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.					





CUSTOMER DRAWING						Title: 6.2mm Pitch WTW Plug Housing	
Drawn	Yanfei-Wang	2017.11.28	Unit	Scale	Size	Edition	Part No.: L6.2-4A
			mm	2.5:1	A4	B1	
Checked	Guoying-Wang	2019.1.15	Sheet No.		1 Of 1		Document No.: CP-DWG-00579
Approved	Dongxu-Liu	2019.1.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.				Specification No.: PS3978





General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	YanfeiWang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					

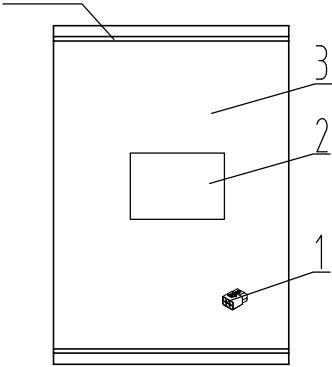
6	Gummed tape	
5	Packing box	
4	Packing bag	
3	Reel	
2	Certification	
1	L6.2B Socket Contact	4000pcs/reel
	L6.2/L6.2-Y Socket Contact	3500pcs/reel
	L6.2-A Pin Contact	3000pcs/reel
Number	Designation	Remarks

CUSTOMER DRAWING						Title:	
Drawn	Yanfei-Wang	2017.11.28	Unit	Scale	Size	Edition	Packaging Specification of 6.2mm Pitch WTW Contact
Checked	Guoying-Wang	2019.1.15	mm	/	A4	B1	Part No.: L6.2
Approved	Dongxu-Liu	2019.1.15	Sheet No.	1 Of 1			Document No.: BZ-DWG-00328
CWB 浙江台兴电子元件有限公司							Specification No.: PS3978

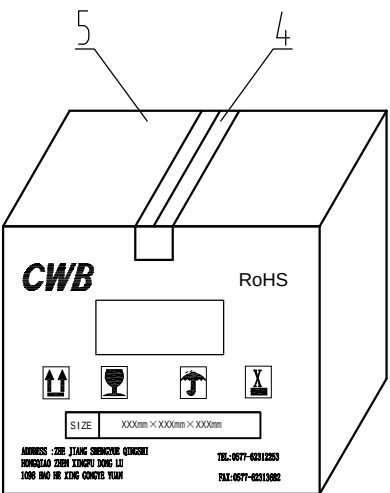
	1	2	3	4	5	6	7	8	9	10					
A						General Tolerance		Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date	A
								0~3	±0.13	/	H8	To update drawing and upgrade version	YanfeiWang	2019.1.12	
B								3~18	±0.16						
C								18~50	±0.31						
D								≥50	±0.55						
E															
F															
G															
H															

Packing bag

Sealed



Packing box



5	Packing box	L6.2-2Y	500	
4	Gummed tape	L6.2-2AF	500	
3	Packing bag	L6.2-2A	500	
2	Certification	L6.2-1Y	1000	
1	L6.2 Series Housing	L6.2-1A	1000	
Number	Designation	Part No.	Pcs/bag	Remarks

CUSTOMER DRAWING						Title: Packaging Specification of 6.2mm Pitch WTW Housing	
Drawn	Yanfei-Wang	2017.11.28	Unit	Scale	Size	Edition	Part No.: L6.2 Document No.: BZ-DWG-00327 Specification No.: PS3978
Checked	Guoying-Wang	2019.1.15	mm	/	A4	B1	
Approved	Dongxu-Liu	2019.1.15	Sheet No.		1 Of 1		
CWB 浙江台兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.							

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