



产品规格书

PRODUCT SPECIFICATION

产品描述: PH/PHC/TJC20066/TJC20046 系列连接器

Product Description: PH/PHC/TJC20066/TJC20046 Connector

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 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.	制定 Edit: <u>王彦飞 2018.12.10</u>	产品名称 Product Name: <u>PH/PHC/TJC20066/TJC20046</u> 连接器
	审核 Check: <u>王国英 2019.1.15</u>	编号 Document No.: PS3876
中国·浙江省乐清市虹桥镇幸福东路 1098 号 合兴工业园 1098,Xingfu `Road(East),CWB Industrial Zone,Hongqiao,Yueqing,Zhejiang 325608,China Tel: 86-577-61313157 Fax: 86-577-62313681	批准 Approval: <u>刘冬旭 2019.1.15</u>	版本 REVISION: 11



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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	日期 Date
1	1	PS0014/PS0021/PS0071/PS0072/PS0073/PS0074/PS0320/PS0321/PS0322/PS0323/PS0324/PS0325/PS0326/PS0327/PS0328/PS0329/PS0330/PS0331/PS0749/PS0766/PS0767/PS0855/PS0993/PS1096/PS1219/PS1220/PS1221/PS1245/PS1252/PS1274/PS1321/PS1534/PS1601/PS1623/PS1727/PS1760/PS1963/PS1964/PS2041/PS2480/PS2530/PS2569/PS2583/PS2634/PS2647/PS2696/PS2816/PS3256/PS3273/PS3284/PS3496/PS3501/PS3538/PS3539/PS3608/PS3729/PS3763/PS3964/PS3771/PS3789/PS3805/PS3832/PS3849/PS3851	PS3876（新版本发放）	2016.4.18
2	2	/	更改成品插入力与拔出力	2016.7.4
3	3	/	更新 PH 插簧、PH 插簧 D 型图纸	2017.2.20
4	4	/	增加 PH-nA/AWJ 无小弯，更新 PH 插簧、PH 插簧 D 型图纸	2017.4.15
5	5	/	版本升级	2017.4.21
6	6	/	新增 TJC20066-nY 孔座和 TJC20046-nYS 锁紧片，新增端子固定力（带锁紧片）标准	2017.7.5
7	7	/	更新试验条件，更新包装规范	2017.10.18
8	8	/	新增 PHC-nA，更新部分内容	2018.1.5
9	9	/	更新 PH 插簧图纸，试验视图，使用温度范围，插簧与插针试验描述	2018.6.28
10	10	/	更新 PH 插簧图纸	2018.12.10
11	11	/	更改图纸商标 LOGO	2019.1.12

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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 CTB 2.0P 阴型 & 阳型电子连接器, 产品名称: PH。

This product specification covers the requirement for Cable to Board 2.0mm pitch Receptacle & Plug connector, which is designed and manufactured by CWB Electronics(ZheJiang) Co.,LTD. P/N: PH.

3. 产品描述 Product Description

PH 系列产品为家电连接器产品, 产品部件组成如下:

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

Name	Part name	Notes
阳连接器 Header	PH-nA	Wafer: 180°, PA66 UL94 V-0 / UL94 V-2,PA66 UL94 V-0 750℃ Post: Brass Tin plating
阳连接器 Header	PH-nAW	Wafer: 90°, PA66 UL94 V-0 / UL94 V-2,PA66 UL94 V-0 750℃ Post: Brass Tin plating
阳连接器 Header	PH-nAWJ	Wafer: 90°, PA66 UL94 V-0 / UL94 V-2,PA66 UL94 V-0 750℃ Post: Brass Tin plating
阳连接器	PH-nA 无小弯	Wafer: 180°, PA66 UL94 V-2 Post: Brass Tin plating
阳连接器	PH-nAWJ 无小弯	Wafer: 180°, PA66 UL94 V-2 Post: Brass Tin plating
阳连接器 Header	PH-5A-2.5	Wafer: 180°, PA66 UL94 V-2 Post: Brass Tin plating
阳连接器 Header	PH-nAWJ-2.5	Wafer: 90°, PA66 UL94 V-2 Post: Brass Tin plating
阳连接器 Header	PH-nAWJD	Wafer: 90°, PA66 UL94 V-2 Post: Brass Tin plating
阳连接器 Header	PH-nAWJ-2.4 无小弯	Wafer: 90°, PA66 UL94 V-2 Post: Brass Tin plating
阳连接器 Header	PH-16AWJ-1.2	Wafer: 90°, PA66 UL94 V-0 Post: Brass Tin plating
阳连接器 Header	PH-15AW-2.2	Wafer: 90°, PA66 UL94 V-0 Post: Brass Tin plating
阳连接器 Header	PHC-nA	Wafer: PA9T UL94V-0 Post: Brass Tin plating
条形连接器孔座 Housing	PH-nY	PA66 UL94 V-0
条形连接器孔座 Housing	TJC20066-nY	PA66 UL94 V-0
锁紧片 Lock Plate	TJC20046-nYS	PA66 UL94 V-0
插簧 Contact	PH 插簧	Phosphor bronze, Tin plating
插簧 Contact	PH 插簧 D 型	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

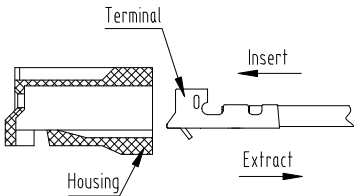
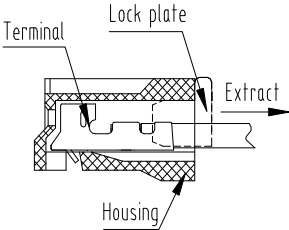
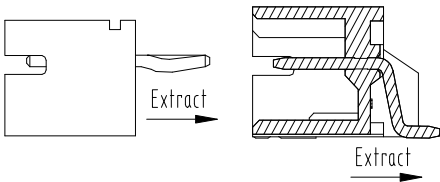
额定电流 Rated Current	AWG28 1.0A [AC(有效值 rms)/DC]。 AWG26 1.5A [AC(有效值 rms)/DC]。 AWG24 2.0A [AC(有效值 rms)/DC]。 AWG22 2.5A [AC(有效值 rms)/DC]
适用 PCB 板 Applicable P.C.B	Board Thickness: 1.2mm-1.6mm Hole Diameter: 0.7mm-0.8mm
额定电压 Rated Voltage	250V [AC(有效值 rms)/DC]
使用温度范围 Operating temperature range	-30℃~+85℃
适用线型 Applicable wires	Wire Size: AWG28~AWG22(0.08mm ² ~0.32mm ²) Insulation Diameter: 1.2mm~1.6mm

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6. 产品性能 Performance

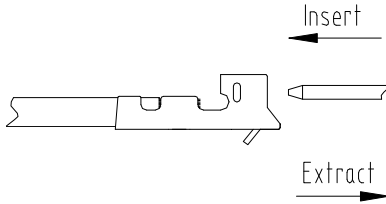
6.1 机械性能 Mechanical

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 eye 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	端子的插入力与固定力(不带锁紧片) Insertion force and Retention Force for contact(Without Lock Plate)	固定连接器和/或测力计, 在连接器轴线方向插入和拔出; 速度不大于 25 mm/min Axial Insert and withdraw force on the contact in the housing at a rate of 25 mm per minute. GB/T 5095.8 Method 15d / EIA-364-29B 	插入力 (Insertion) Max	固定力 (Retention)Min
			10N	15N
6.1.3	端子固定力(带锁紧片) Retention Force for contact(With Lock Plate)	固定装配好 PH 插簧与 TJC20046 锁紧片的 TJC20066 孔座或测力计, 沿连接器轴线方向拔出; 速度不大于 25 mm/min。 GB/T 5095.8 Method 15d / EIA-364-29B 	20N Min	
6.1.4	针的固定力 Retention Force for Pin	固定连接器/或测力计, 在连接器轴线方向施加规定的推力进行测试, 速度不大于 25mm/min。 Apply thrust force on the Pin in the wafer at a rate of 25 mm/min GB/T 5095.8 Method 15a / EIA-364-29B 	10N Min	

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6.1.5	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;速度不大于 25mm/min。 Fix the crimped contact, Axial pull out force on the contact in the housing at a rate less than 25 mm /min. GB/T5095.8-1997 Method 16d / EIA-364-08B	AWG 28: 10N Min. AWG 26: 20N Min. AWG 24: 30N Min. AWG 22: 40N Min.																																																																			
6.1.6	成品插入力与拔出力 Insertion and Withdrawal Force for Connector	固定连接器和/或测力计, 在连接器轴线方向插入和拔出;速度不大于25mm/min Apply Axial Insert and withdraw force on the contact in the housing at a rate of 25 mm /min. GB/T 5095.7 Method 13b / EIA-364-13B	<table><tr><th>PIN</th><th>首次插入力 (Insertion 1st) Max</th><th>首次拔出力 Withdrawal (1st) Min</th><th>50 次后拔出力 Withdrawal (50st) Min</th></tr><tr><td>2P</td><td>24.5N</td><td>5N</td><td>5N</td></tr><tr><td>3P</td><td>29.4N</td><td>5N</td><td>5N</td></tr><tr><td>4P</td><td>34.3N</td><td>9.8N</td><td>7.8N</td></tr><tr><td>5P</td><td>39.2N</td><td>9.8N</td><td>7.8N</td></tr><tr><td>6P</td><td>44.1N</td><td>11.8N</td><td>9.8N</td></tr><tr><td>7P</td><td>49N</td><td>11.8N</td><td>9.8N</td></tr><tr><td>8P</td><td>53.9N</td><td>13.7N</td><td>11.8N</td></tr><tr><td>9P</td><td>58.8N</td><td>13.7N</td><td>11.8N</td></tr><tr><td>10P</td><td>63.7N</td><td>15.7N</td><td>13.7N</td></tr><tr><td>11P</td><td>68.6N</td><td>15.7N</td><td>13.7N</td></tr><tr><td>12P</td><td>73.5N</td><td>17.7N</td><td>15.7N</td></tr><tr><td>13P</td><td>78.5N</td><td>19.6N</td><td>17.7N</td></tr><tr><td>14P</td><td>78.5N</td><td>19.6N</td><td>17.7N</td></tr><tr><td>15P</td><td>78.5N</td><td>19.6N</td><td>17.7N</td></tr><tr><td>16P</td><td>93.1N</td><td>25.5N</td><td>21.6N</td></tr></table>				PIN	首次插入力 (Insertion 1st) Max	首次拔出力 Withdrawal (1st) Min	50 次后拔出力 Withdrawal (50st) Min	2P	24.5N	5N	5N	3P	29.4N	5N	5N	4P	34.3N	9.8N	7.8N	5P	39.2N	9.8N	7.8N	6P	44.1N	11.8N	9.8N	7P	49N	11.8N	9.8N	8P	53.9N	13.7N	11.8N	9P	58.8N	13.7N	11.8N	10P	63.7N	15.7N	13.7N	11P	68.6N	15.7N	13.7N	12P	73.5N	17.7N	15.7N	13P	78.5N	19.6N	17.7N	14P	78.5N	19.6N	17.7N	15P	78.5N	19.6N	17.7N	16P	93.1N	25.5N	21.6N
PIN	首次插入力 (Insertion 1st) Max	首次拔出力 Withdrawal (1st) Min	50 次后拔出力 Withdrawal (50st) Min																																																																			
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3P	29.4N	5N	5N																																																																			
4P	34.3N	9.8N	7.8N																																																																			
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7P	49N	11.8N	9.8N																																																																			
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14P	78.5N	19.6N	17.7N																																																																			
15P	78.5N	19.6N	17.7N																																																																			
16P	93.1N	25.5N	21.6N																																																																			
6.1.7	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。 Mated connectors subjected 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/minute 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。 <1μsec discontinuity																																																																			
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6.1.8	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 Mated connectors and subject to the following shock conditions, 3times 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: Half Sine Peak Value: 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
6.1.9	机械寿命 Durability	以每分钟 10 次的速度插拔 50 次。 50 cycles mating and unmating test at the speed 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.
6.1.10	端子的插拔力 Insertion and Withdrawal Force for Pin in the Contact	固定插簧和测力计, 沿插簧轴线方向插入和拔出方针; 速度不大于 25 mm/min. Fixed contact and dynamometer, inserted and pulled out pin contact along the axis of the contact at a rate of 25 mm /min. GB/T 5095.7 Method 13b / EIA-364-13B 	插入力: 8N Max Insertion force: 8N Max 拔出力: 1.5N Min Pull out force: 1.5N Min

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) 500MΩ Min.(Final)
6.2.3	耐电压 Withstand Voltage	相邻接触件之间或地线之间施加800V AC (有效值),漏电流1mA的电压作用,时间1min。 Apply a voltage of AC 800 V 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

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6.2.4	温升 Temperature Rise	插入连接器，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	$\Delta 30^{\circ}\text{C}$ 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 $(105\pm 2)^{\circ}\text{C}$ 的空气中放置240小时，再回到室温中放置1-2小时测定 Mate connector exposed to the condition of $(105\pm 2)^{\circ}\text{C}$ 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： $500\text{ M}\Omega$ Min. Insulation Resistance : $500\text{ M}\Omega$ Min. 耐电压： 500V Min. Withstand Voltage: 500V Min
6.3.2	耐低温 Cold Resistance	连接器配合后，于 $-40\pm 2^{\circ}\text{C}$ 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 $-40\pm 2^{\circ}\text{C}$ 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： $500\text{ M}\Omega$ Min. Insulation Resistance : $500\text{ M}\Omega$ Min. 耐电压： 500V Min. Withstand Voltage: 500V Min
6.3.3	恒定湿热 Humidity	温度 $(40\pm 2)^{\circ}\text{C}$ ， 相对湿度 $(90\sim 95)\%$ 搁置时间 240h，取出恢复 1~2h 后检查。 Mated connector exposed to the condition of $40\pm 2^{\circ}\text{C}$ $(90\sim 95)\%$ Humidity 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： $500\text{ M}\Omega$ Min. Insulation Resistance : $500\text{ M}\Omega$ Min. 耐电压： 500V Min. Withstand Voltage: 500V Min

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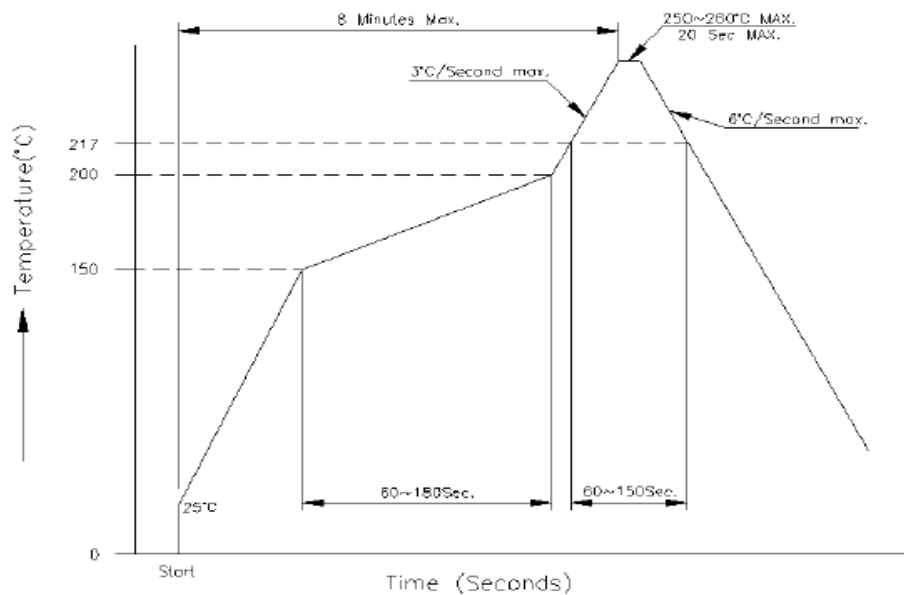
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6.3.4	温度循环 Temperature Cycling	把试验样品分别放入高、低温试验箱中，按下列步骤调试温度： a) 在(-55±2)℃的恒温条件下放置0.5h； b) 在(85±2)℃的恒温条件下放置0.5h； 从a)到b)为一个循环周期，中间周转时间不得超过5分钟，共进行25个循环,恢复1~2h后检查。 Mate connectors shall be tested under the following conditions <table><tr><th>Temperature °C</th><th>Duration (Minutes)</th></tr><tr><td>1 -55</td><td>30</td></tr><tr><td>2 +25</td><td>5Max</td></tr><tr><td>3 +85</td><td>30</td></tr><tr><td>4 +25</td><td>5Max</td></tr></table> Step 1 to 4 is one cycle 25 cycles shall be tested. Recovery time 1~2h hours. GB/T 5095.6 method 11d / EIA-364-32C	Temperature °C	Duration (Minutes)	1 -55	30	2 +25	5Max	3 +85	30	4 +25	5Max	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： 500V Min. Withstand Voltage: 500V Min
Temperature °C	Duration (Minutes)												
1 -55	30												
2 +25	5Max												
3 +85	30												
4 +25	5Max												
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, 试验后用流动的蒸蒸馏水轻轻洗去表面沉积物。在常温常湿条件下恢复 1~2h。 48 hours spray, at temp 35±2℃, Salt NaCl mist (5±1)% After test wash parts and return to room ambient for 1~2h 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 with material exposed. And with plating material, slight erosion on the cutting surface is acceptable) 接触电阻： 0.02Ω Max。 Contact resistance: 0.02Ω Max.										
6.3.6	可焊性 Solderability	把试验样品需要焊接的部位浸入焊锡炉中，锡炉温度(245±5)℃，时间(4~5)s Dip solder tails into the molten solder(held at 245±5℃ for 4~5 sec. GB/T 5095.6 Method 12a / EIA-364-52	上锡率≥95%： Solder coverage: ≥95%										
6.3.7	耐焊接热 Resistance to Soldering Heat	1、耐波峰焊：把试验样品需要焊接的部位浸入焊锡炉中，锡炉温度（260±5）℃；时间（5±1）s 后，在正常条件下恢复 1~2h。 Dip solder tails into the molten solder(held at 260±5℃ for 5 ±1 sec, Recovery time 1~2 hours. GB/T 5095.6 Method 12d / EIA-364-56A 2.手工焊接： 温度(350±10)℃，时间(3±0.5) s Manual soldering : (350±10)℃ for (3±0.5) seconds GB/T 5095.6 Method 12E / EIA-364-56A 3、回流焊形式(适合 PHC 等 SMT 类产品): 按下图的条件测试耐焊接热 Reflow Type: The specimen shall be tested resistance, To soldering heat in the following conditions.	外观：无损伤（参照6.1.1） Appearance: No damage.(refer to 6.1.1)										
产品名称 Product Name:	PH/PHC/TJC20066/ TJC20046 连接器	编号 Document No.	PS3876	版本号 VersionNo.	11								
PAGE: 9 / 11													

Recommended IR Reflow Temperature Profile:

1 Using Lead-Free Solder Paste





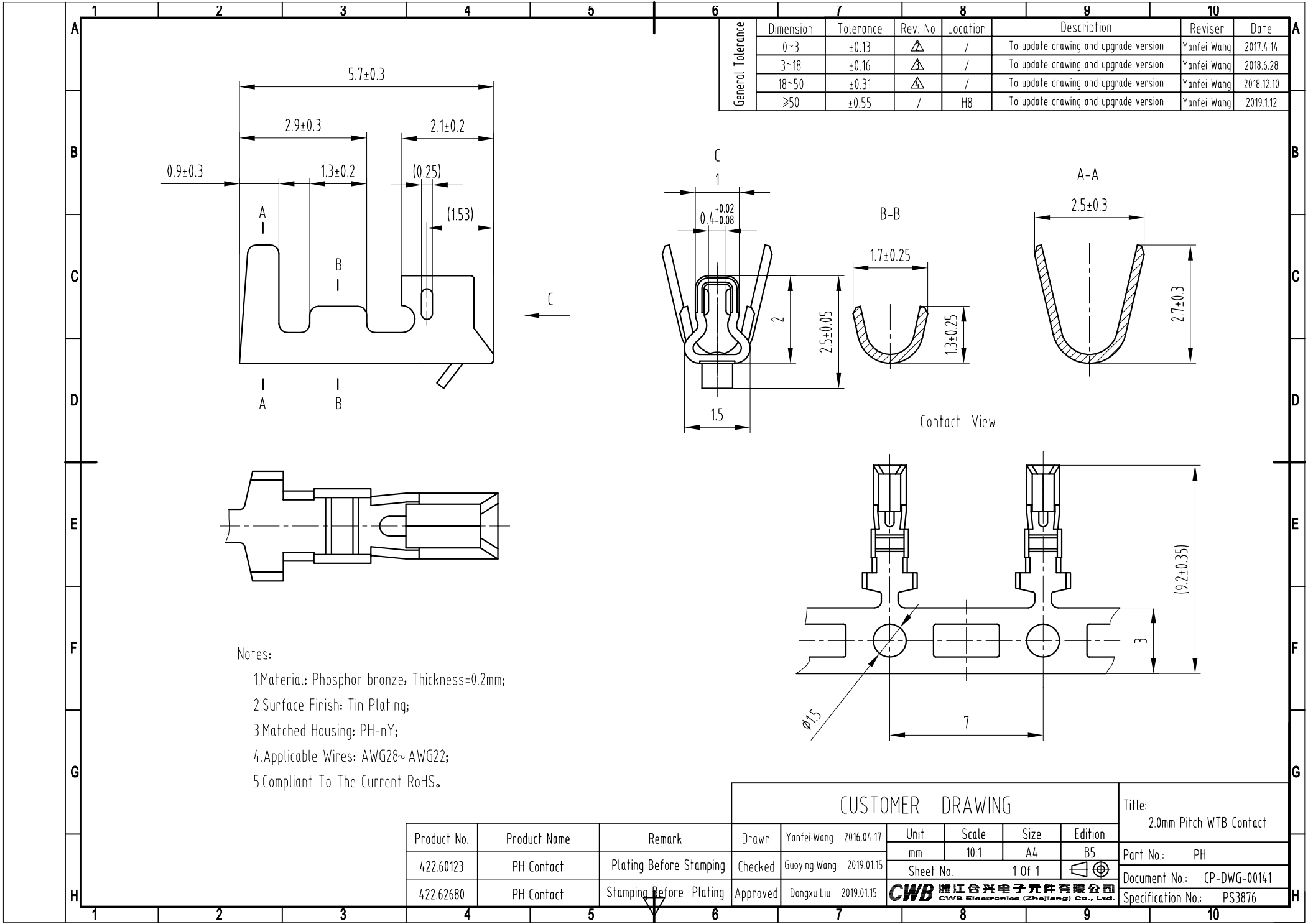
产品规格书

PRODUCT SPECIFICATION

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	M	N	O	P
外观 Appearance	1	1	1	1	1,5	1,3	1,7	1	1	1,7	1,7	1,7	1,7	1,5	1	1,3
端子的插入力与固定力 Insertion force and Retention Force for Contact	2															
针的固定力 Pin Retention Force		2														
压着部位抗张强度 Crimping Pull Out Force			2													
成品插入力与拔出力 Insertion and Withdrawal Force for Connector				2												
机械振动 Random Vibration					3											
机械冲击 Shock						2										
机械寿命 Durability							5									
端子的插拔力 Insertion and Withdrawal Force for Pin in the Contact								2								
接触电阻 Low Level Contact Resistance					2,4		2,6			2,4	2,4	2,4	2,4	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		
可焊性 Solderability															2	
耐焊接热 Resistance to Soldering Heat																2

产品名称 Product Name:	PH/PHC/TJC20066/ TJC20046 连接器	编号 Document No.	PS3876	版本号 VersionNo.	11
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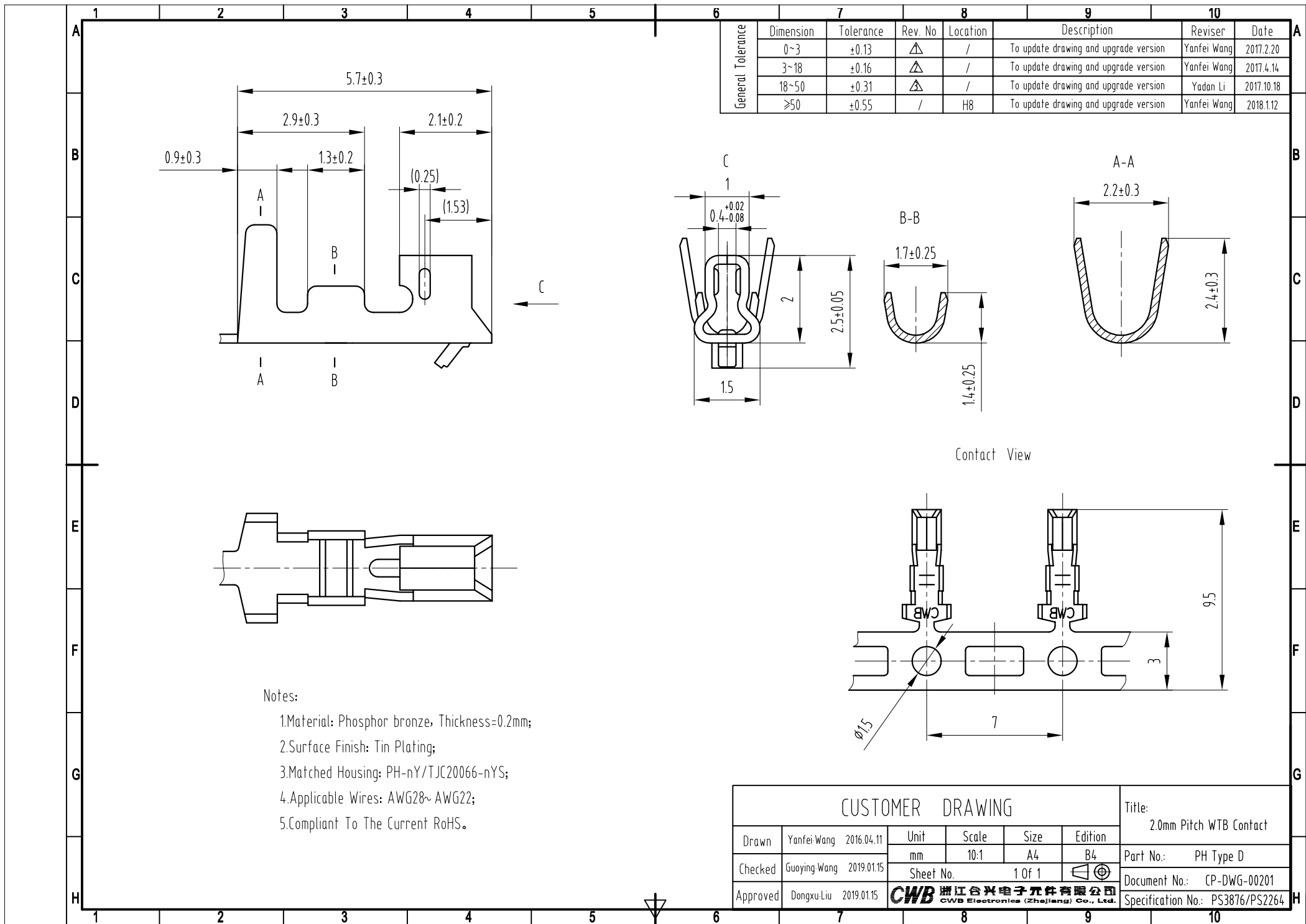


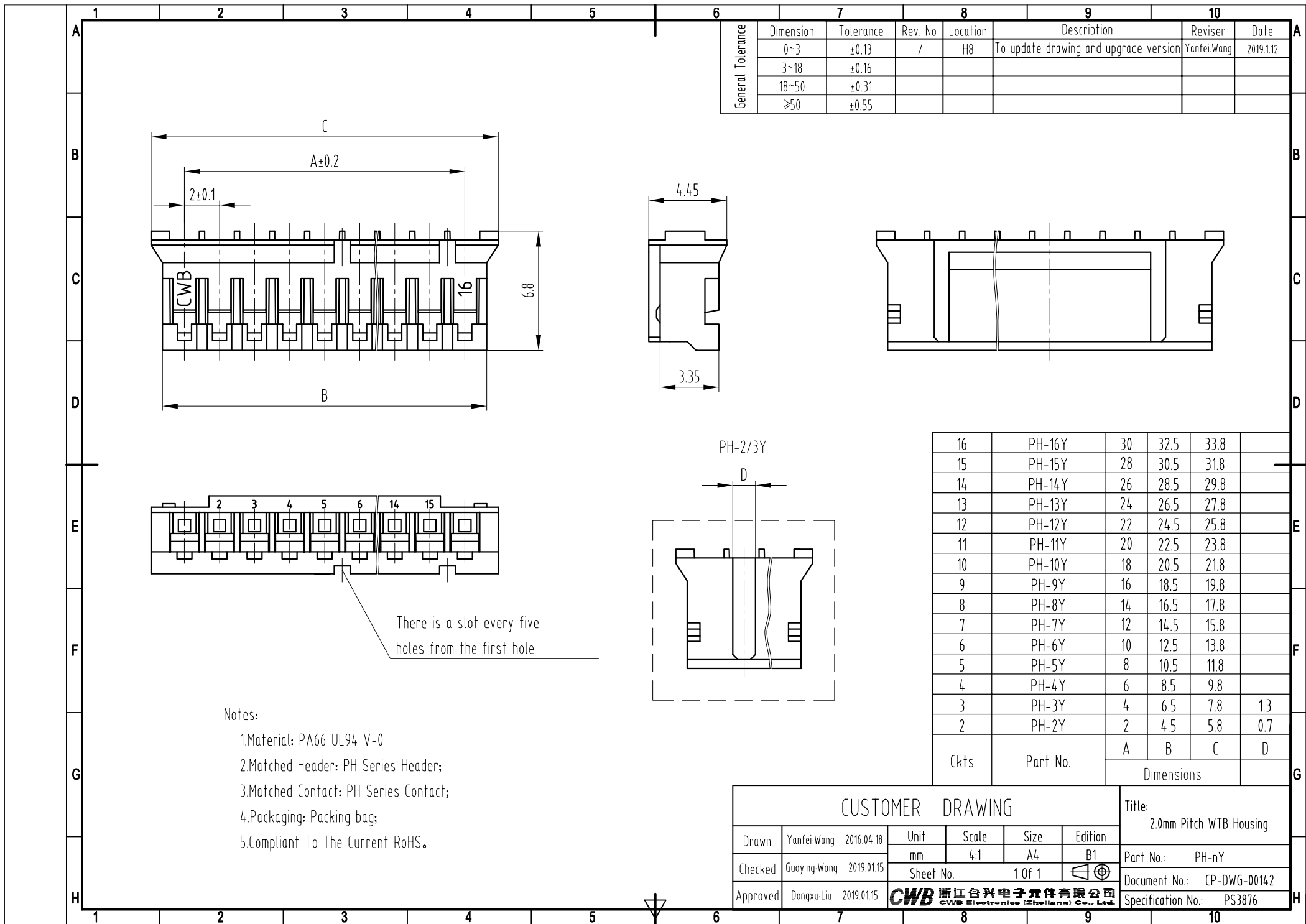
General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
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	3~18	±0.16	△	/	To update drawing and upgrade version	Yanfei Wang	2018.6.28
	18~50	±0.31	△	/	To update drawing and upgrade version	Yanfei Wang	2018.12.10
	≥50	±0.55	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12

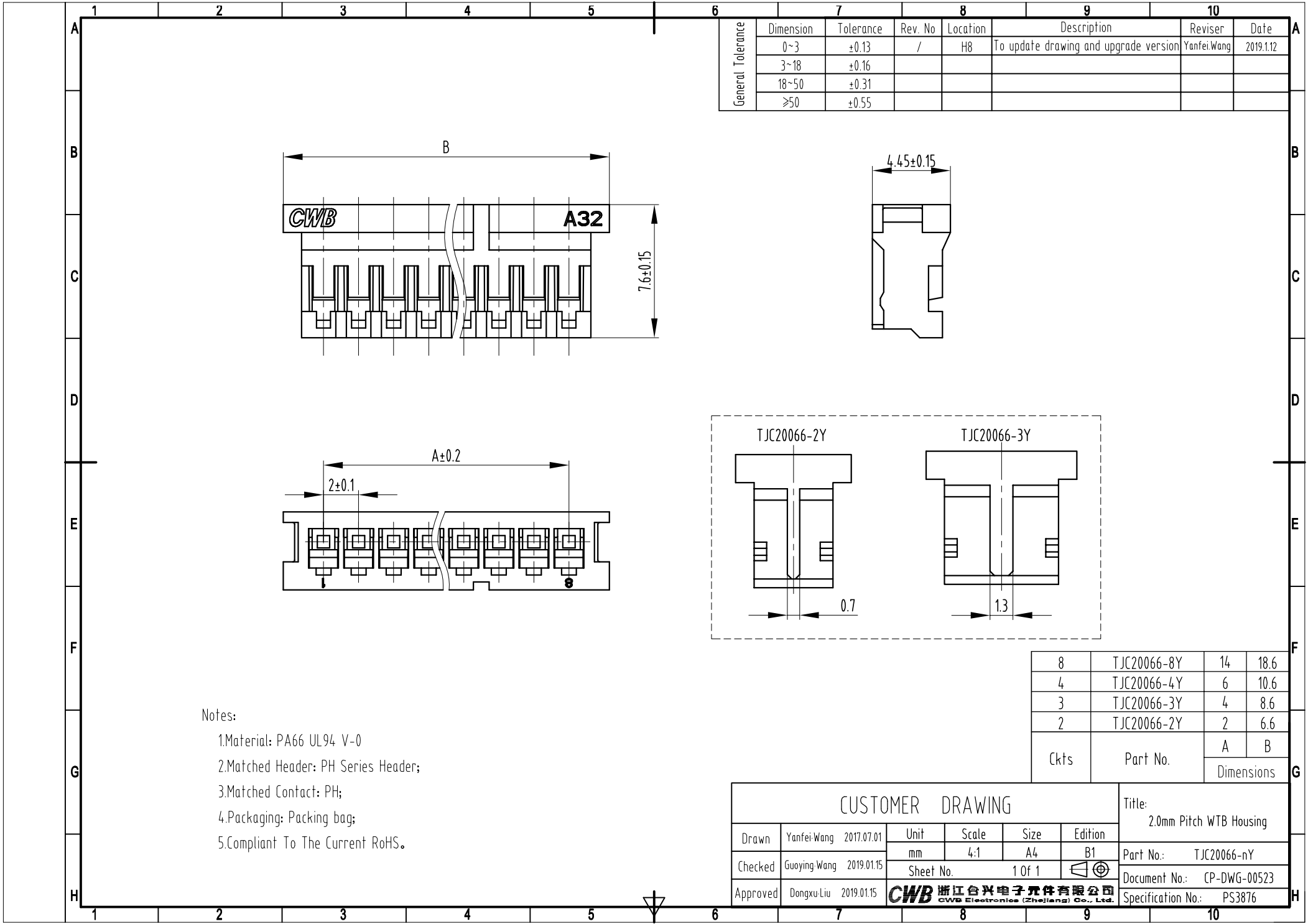
Notes:

- 1.Material: Phosphor bronze; Thickness=0.2mm;
- 2.Surface Finish: Tin Plating;
- 3.Matched Housing: PH-nY;
- 4.Applicable Wires: AWG28~AWG22;
- 5.Compliant To The Current RoHS.

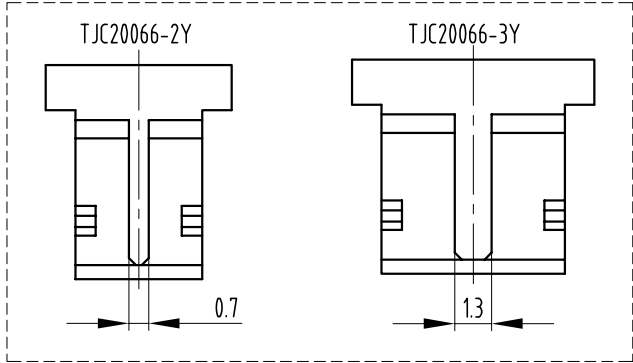
CUSTOMER DRAWING								Title: 2.0mm Pitch WTB Contact	
Drawn	Yanfei-Wang	2016.04.17	Unit	Scale	Size	Edition		Part No.:	PH
Checked	Guoying-Wang	2019.01.15	mm	10:1	A4	B5			
			Sheet No.			1 Of 1			
Approved	Dongxu-Liu	2019.01.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.					Document No.:	CP-DWG-00141
								Specification No.:	PS3876







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					

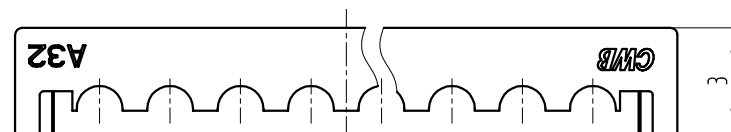
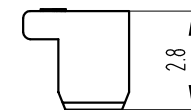
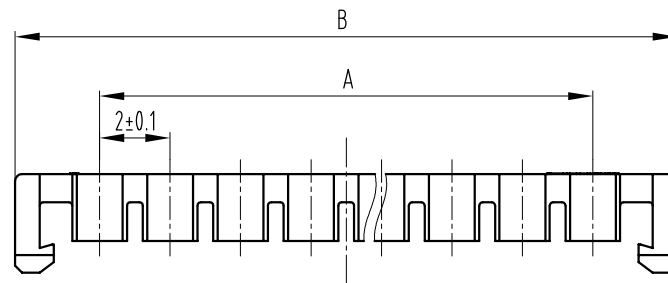


8	TJC20066-8Y	14	18.6
4	TJC20066-4Y	6	10.6
3	TJC20066-3Y	4	8.6
2	TJC20066-2Y	2	6.6
Ckts	Part No.	A	B
		Dimensions	

Notes:
1.Material: PA66 UL94 V-0
2.Matched Header: PH Series Header;
3.Matched Contact: PH;
4.Packaging: Packing bag;
5.Compliant To The Current RoHS.

CUSTOMER DRAWING							Title: 2.0mm Pitch WTB Housing	
Drawn	Yanfei Wang	2017.07.01	Unit	Scale	Size	Edition	Part No.: TJC20066-nY Document No.: CP-DWG-00523 Specification No.: PS3876	
Checked	Guoying Wang	2019.01.15	mm	4:1	A4	B1		
			Sheet No.		1 Of 1			
Approved	Dongxu Liu	2019.01.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.					

General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13		G3,F9	Increase 5P, 7P	LiQin	2017.12.15
	3~18	±0.16	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12
	18~50	±0.31					
	≥50	±0.55					

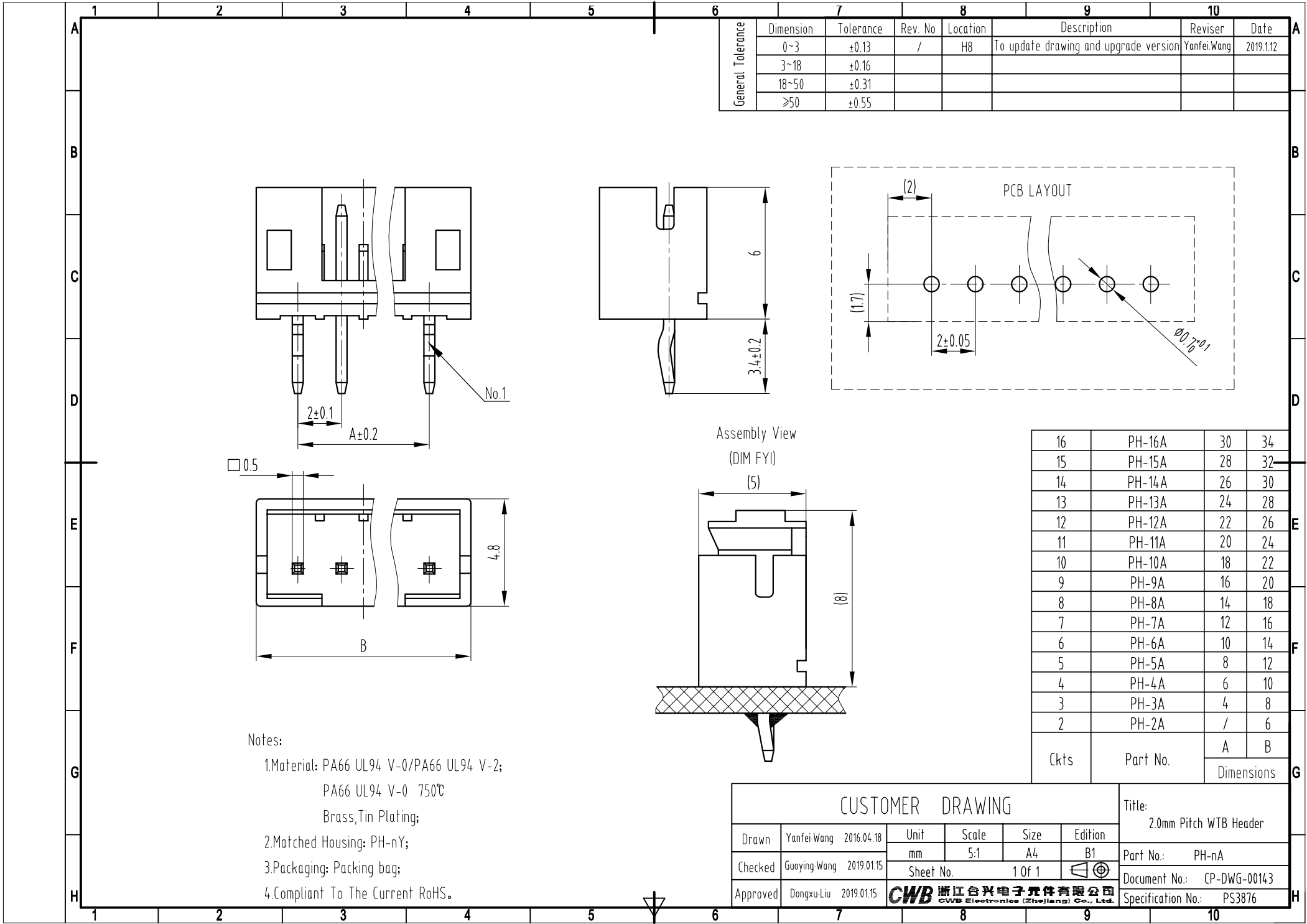


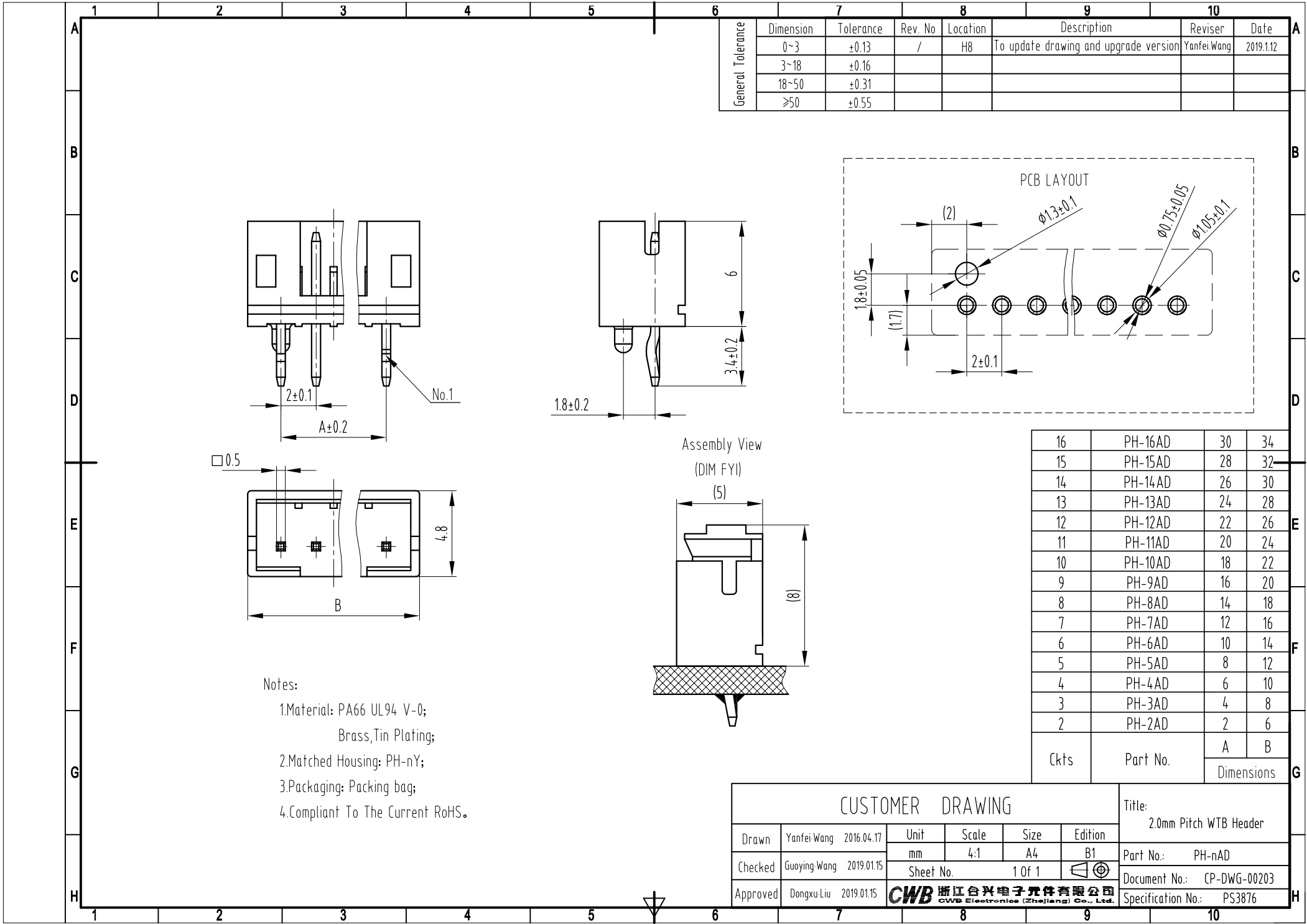
Notes:

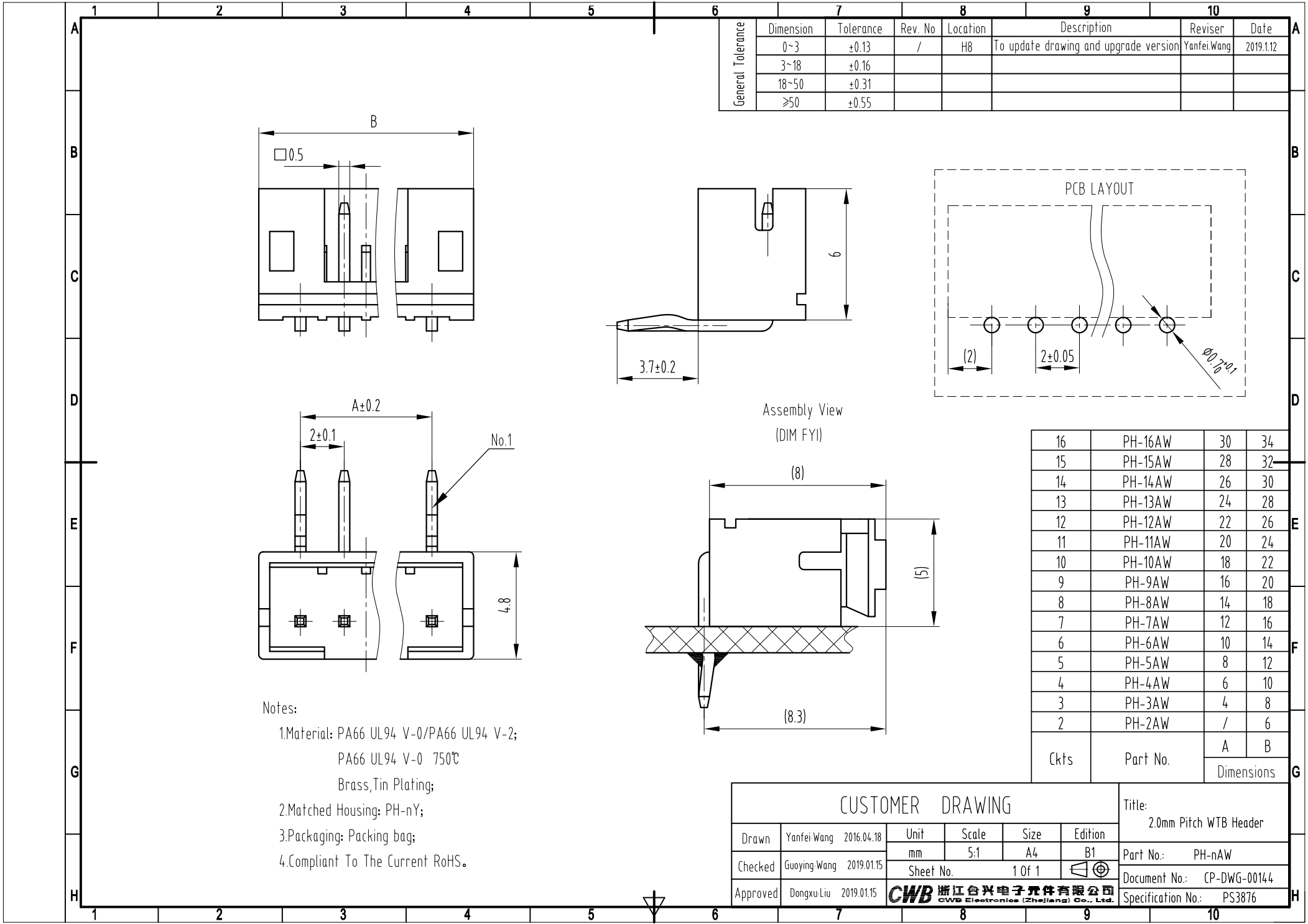
- 1.Material: PA66 UL94 V-0
- 2.Matched Housing:
2P~ 4P,8P:TJC20066-nY,
5P, 7P:TJC20046-nY
- 3.Packaging: Packing bag;
- 4.Compliant To The Current RoHS.

8	TJC20046-8YS	14	18.8
7	TJC20046-7YS	10	16.8
5	TJC20046-5YS	8	12.8
4	TJC20046-4YS	6	10.8
3	TJC20046-3YS	4	8.8
2	TJC20046-2YS	2	6.8
Ckts(n)	Part No.	A	B
		Dimensions	

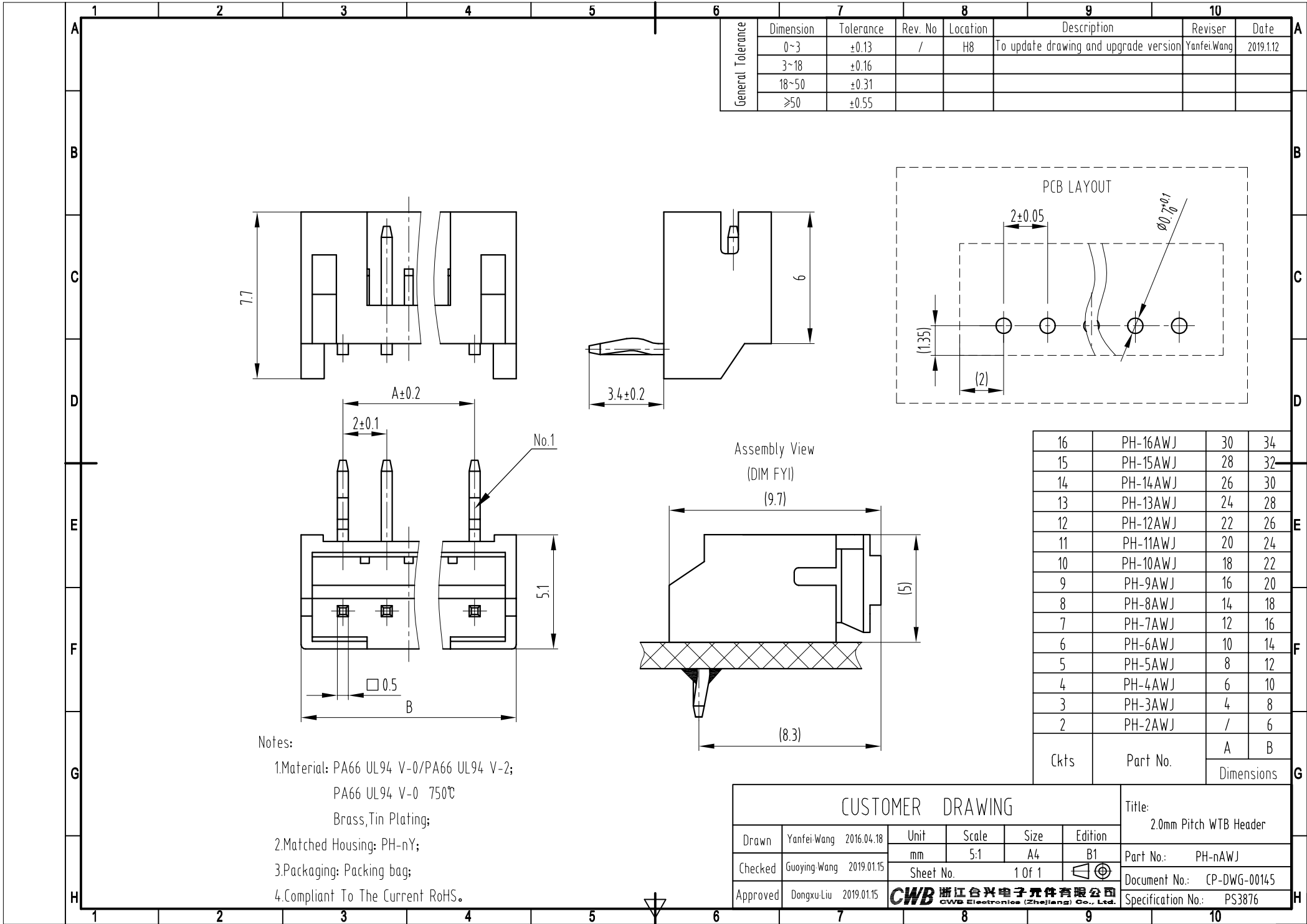
CUSTOMER DRAWING						Title: 2.0mm Pitch WTB Lock Plate	
Drawn	Yanfei-Wang	2017.07.01	Unit	Scale	Size	Edition	Part No.: TJC20046-nYS
			mm	5:1	A4	B2	
Checked	Guoying-Wang	2019.01.15	Sheet No.		1 Of 1		Document No.: CP-DWG-00524
Approved	Dongxu-Liu	2019.01.15	 浙江合兴电子有限公司 CWB Electronics (Zhejiang) Co., Ltd.				Specification No.: PS3876/PS3980

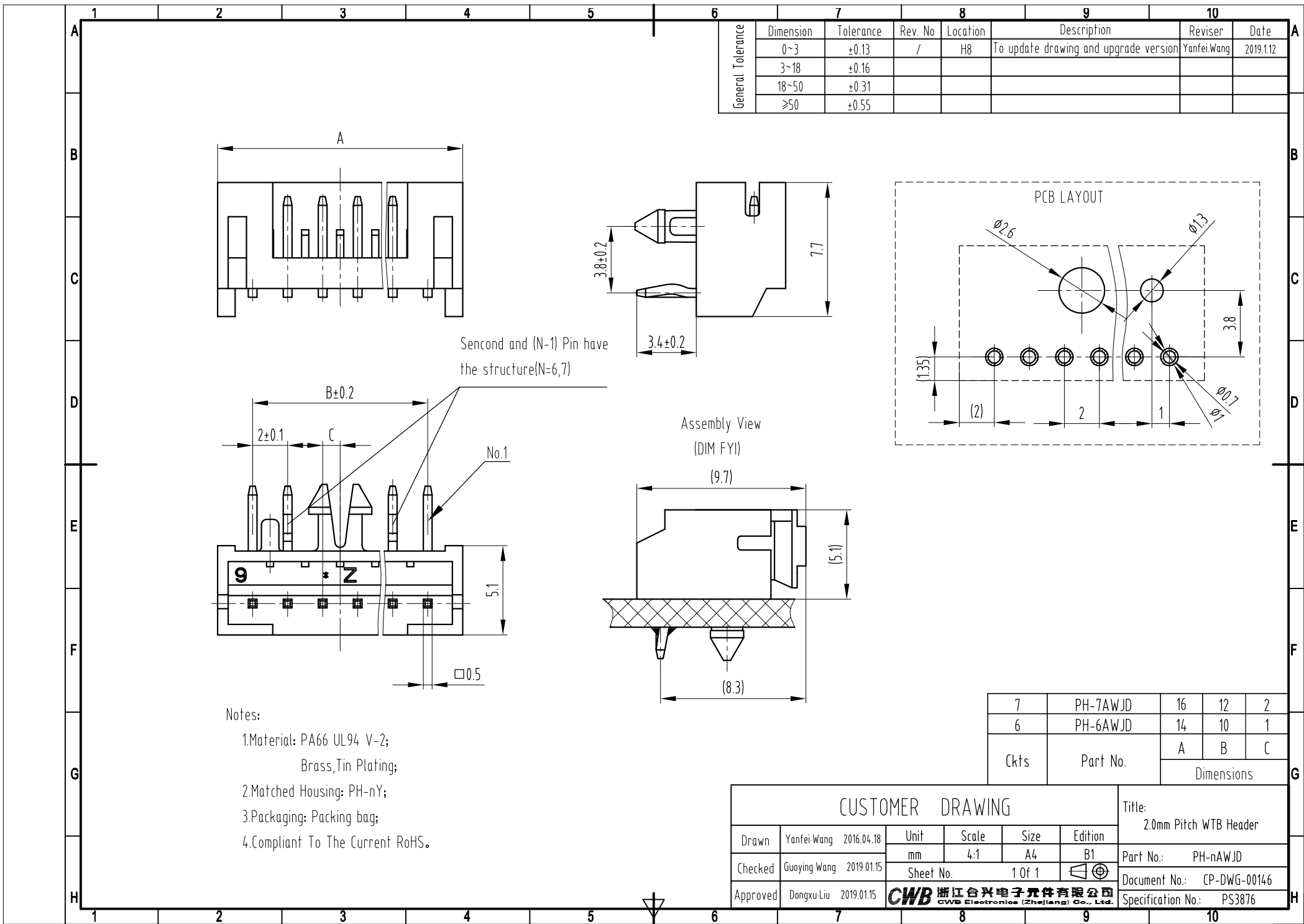


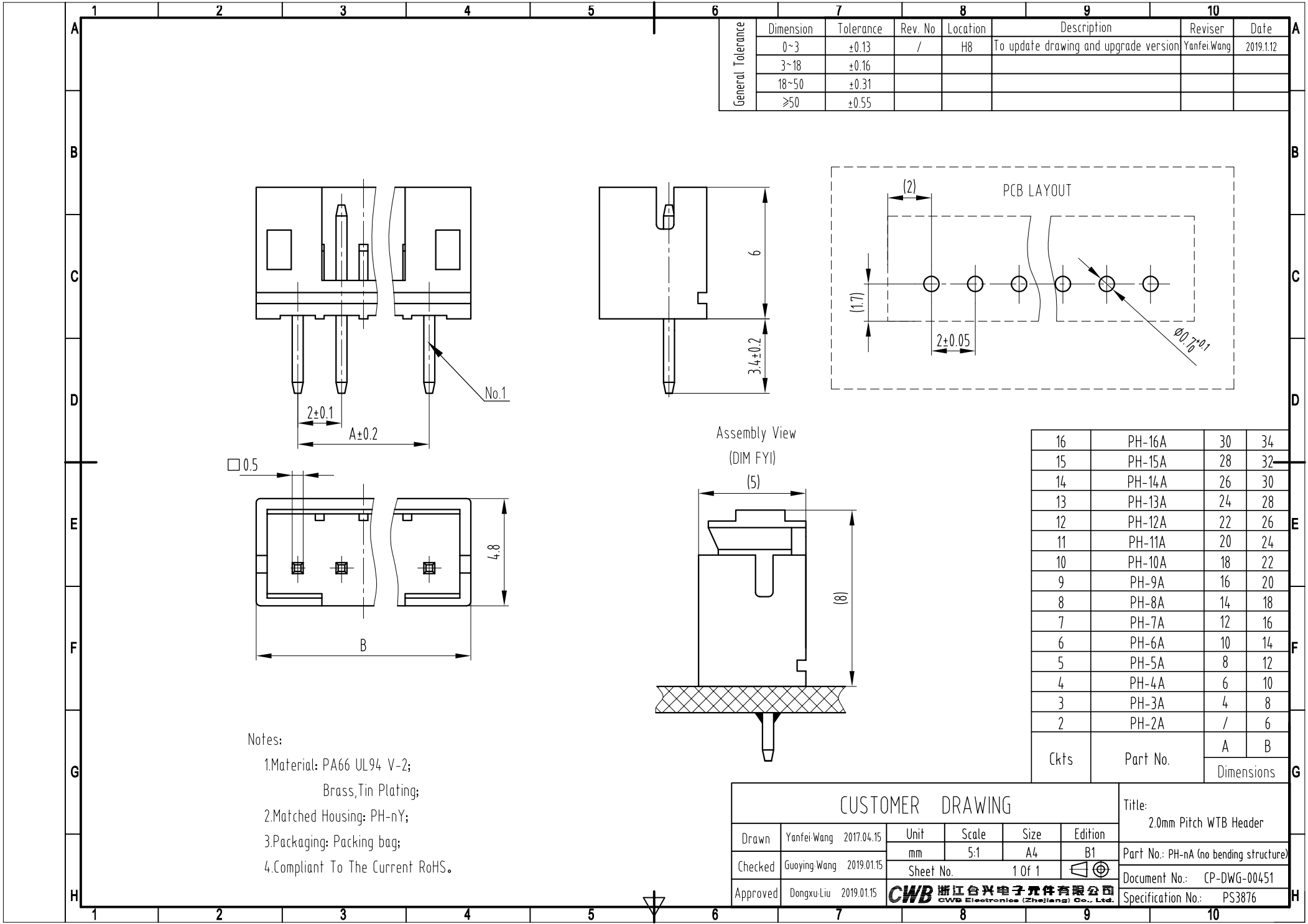




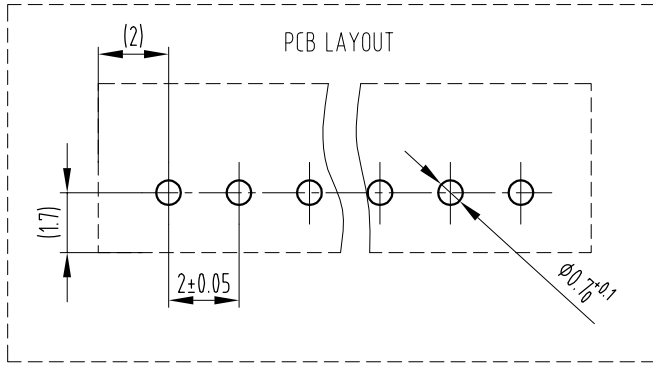
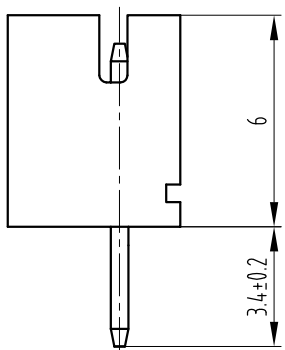
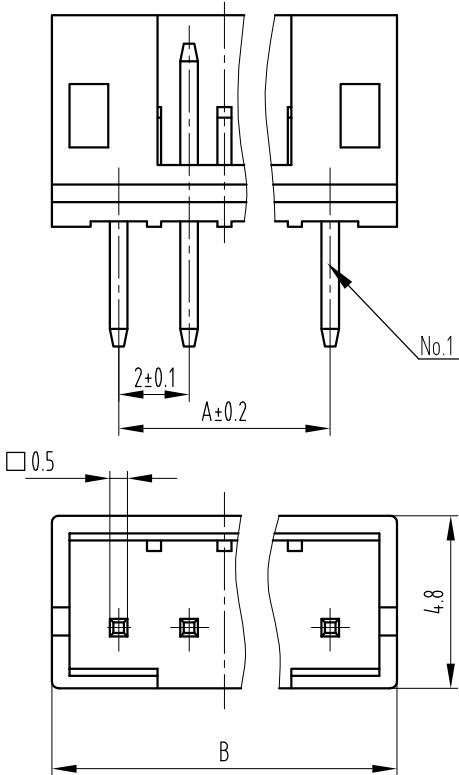
CUSTOMER DRAWING							Title: 2.0mm Pitch WTB Header	
Drawn	Yanfei Wang	2016.04.18	Unit	Scale	Size	Edition	Part No.: PH-nAW	
			mm	5:1	A4	B1		
Checked	Guoying Wang	2019.01.15	Sheet No.		1 Of 1		Document No.: CP-DWG-00144	
Approved	Dongxu Liu	2019.01.15	CWB 浙江台兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.				Specification No.: PS3876	



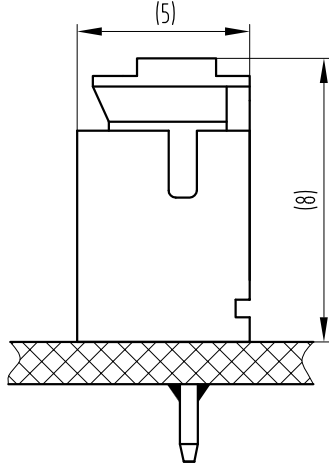




General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					



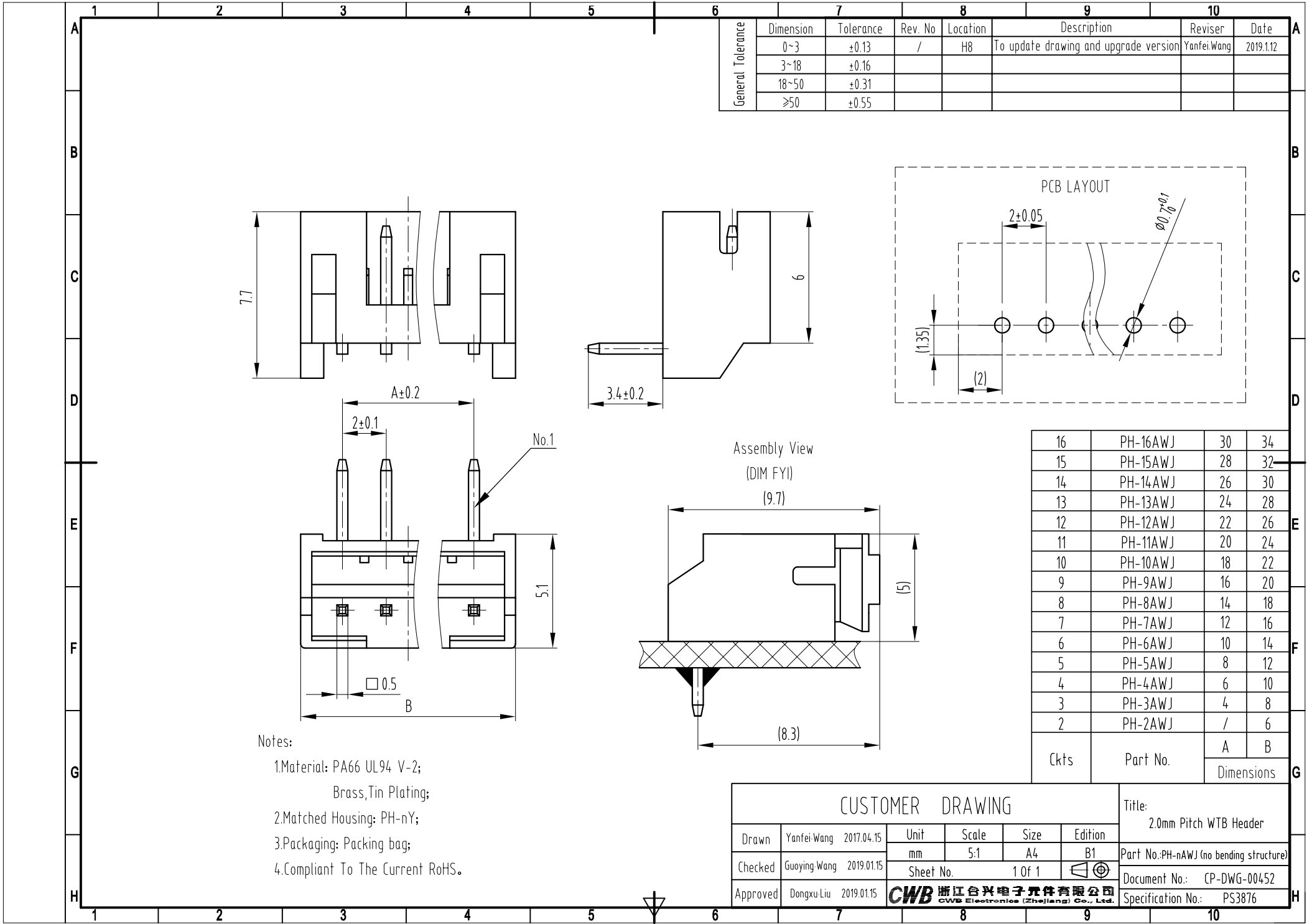
Assembly View
(DIM FYI)

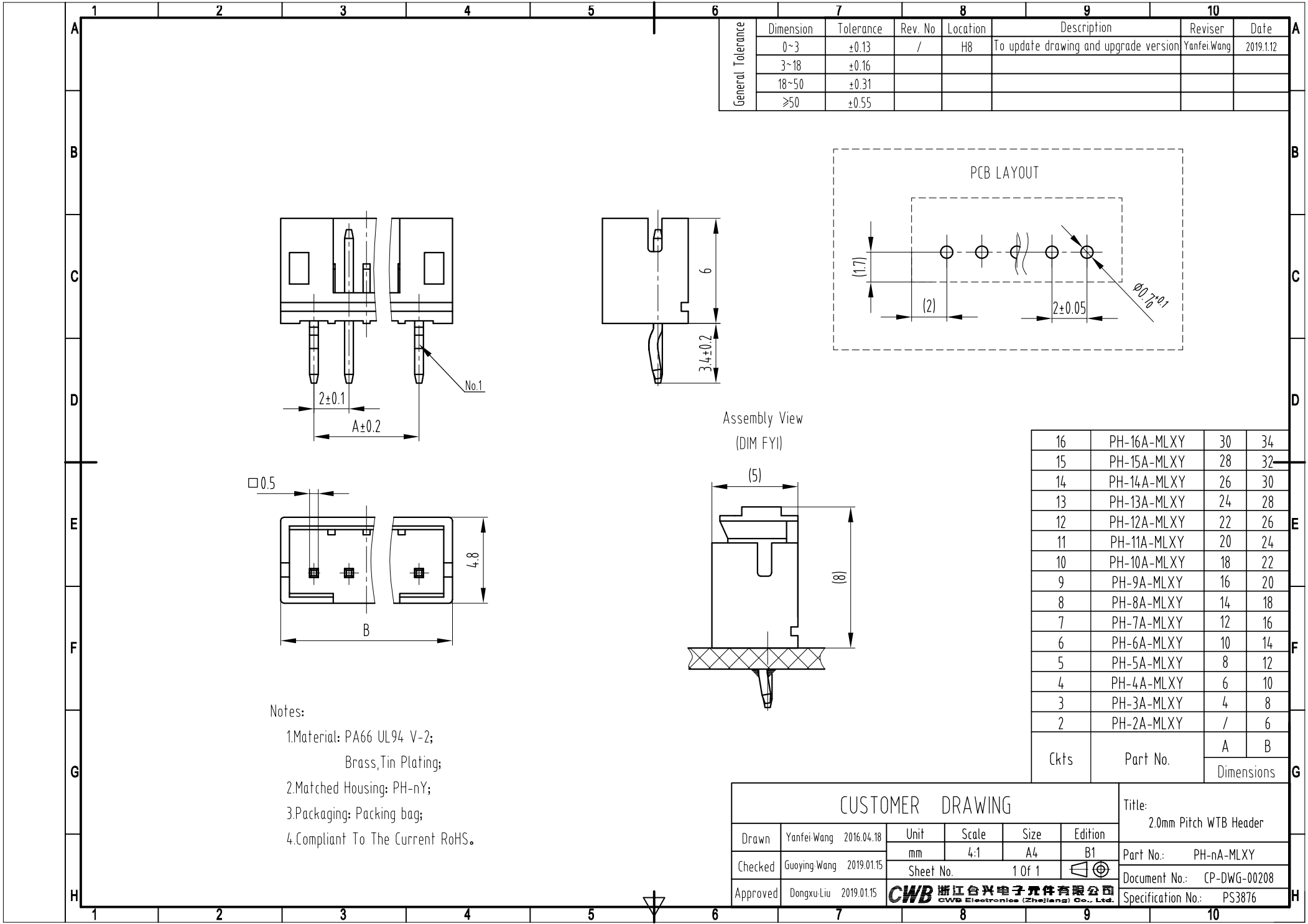


16	PH-16A	30	34
15	PH-15A	28	32
14	PH-14A	26	30
13	PH-13A	24	28
12	PH-12A	22	26
11	PH-11A	20	24
10	PH-10A	18	22
9	PH-9A	16	20
8	PH-8A	14	18
7	PH-7A	12	16
6	PH-6A	10	14
5	PH-5A	8	12
4	PH-4A	6	10
3	PH-3A	4	8
2	PH-2A	/	6
Ckts	Part No.	A	B
		Dimensions	

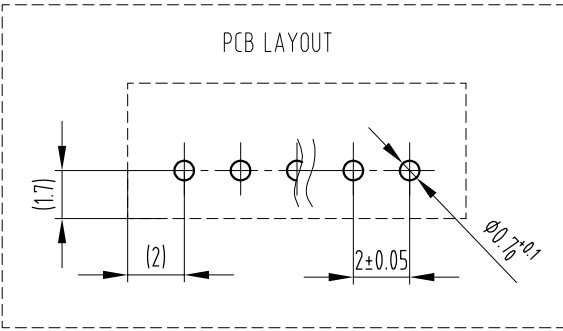
- Notes:
- 1.Material: PA66 UL94 V-2;
Brass,Tin Plating;
 - 2.Matched Housing: PH-nY;
 - 3.Packaging: Packing bag;
 - 4.Compliant To The Current RoHS.

CUSTOMER DRAWING							Title: 2.0mm Pitch WTB Header	
Drawn	Yanfei Wang	2017.04.15	Unit	Scale	Size	Edition	Part No.: PH-nA (no bending structure)	
Checked	Guoying Wang	2019.01.15	mm	5:1	A4	B1		
			Sheet No. 1 Of 1					
Approved	Dongxu Liu	2019.01.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.				Document No.: CP-DWG-00451	
							Specification No.: PS3876	

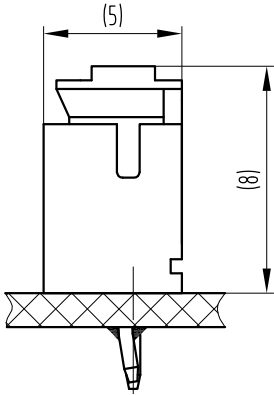




General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					



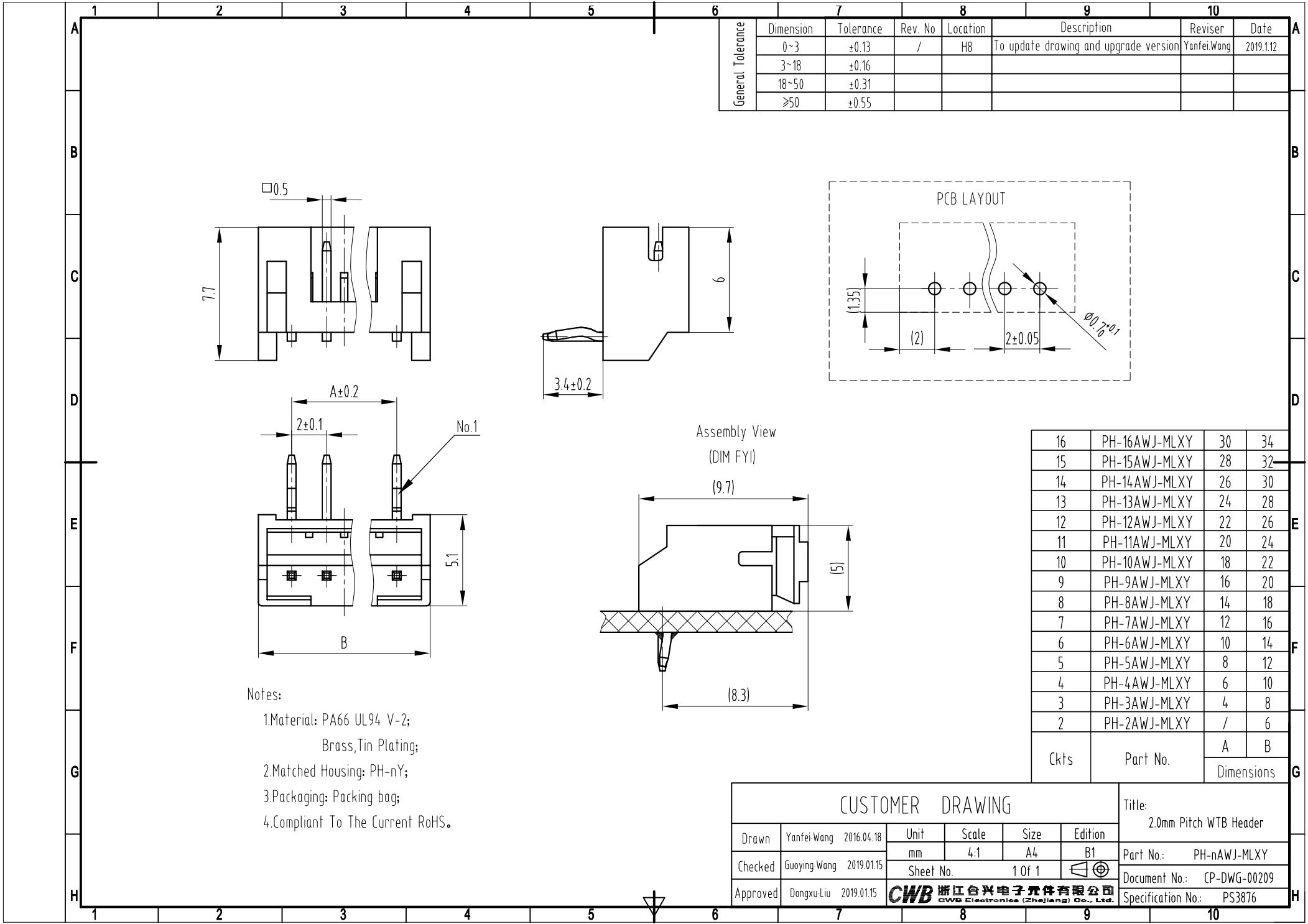
Assembly View
(DIM FYI)



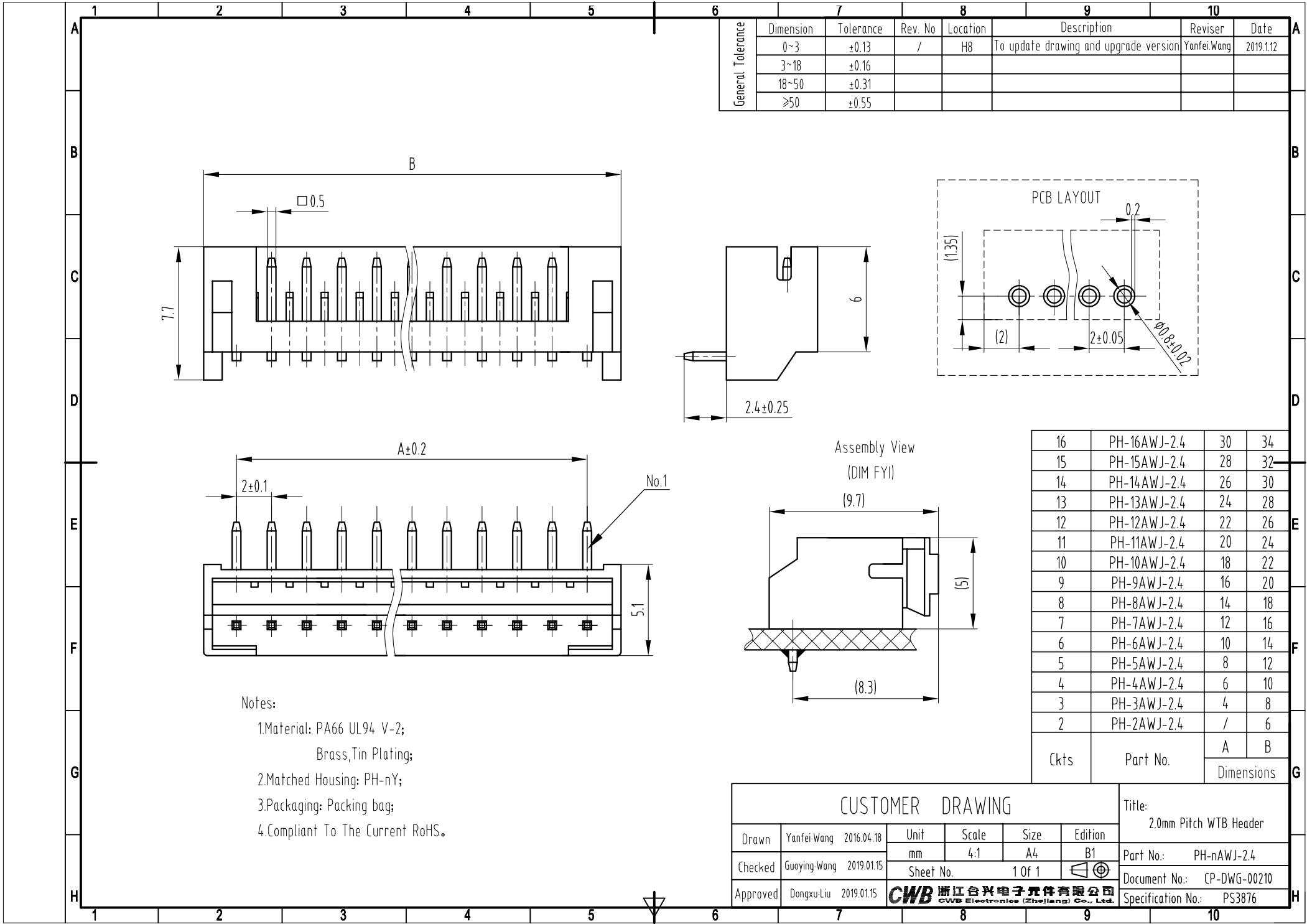
16	PH-16A-MLXY	30	34
15	PH-15A-MLXY	28	32
14	PH-14A-MLXY	26	30
13	PH-13A-MLXY	24	28
12	PH-12A-MLXY	22	26
11	PH-11A-MLXY	20	24
10	PH-10A-MLXY	18	22
9	PH-9A-MLXY	16	20
8	PH-8A-MLXY	14	18
7	PH-7A-MLXY	12	16
6	PH-6A-MLXY	10	14
5	PH-5A-MLXY	8	12
4	PH-4A-MLXY	6	10
3	PH-3A-MLXY	4	8
2	PH-2A-MLXY	/	6
Ckts	Part No.	A	B
		Dimensions	

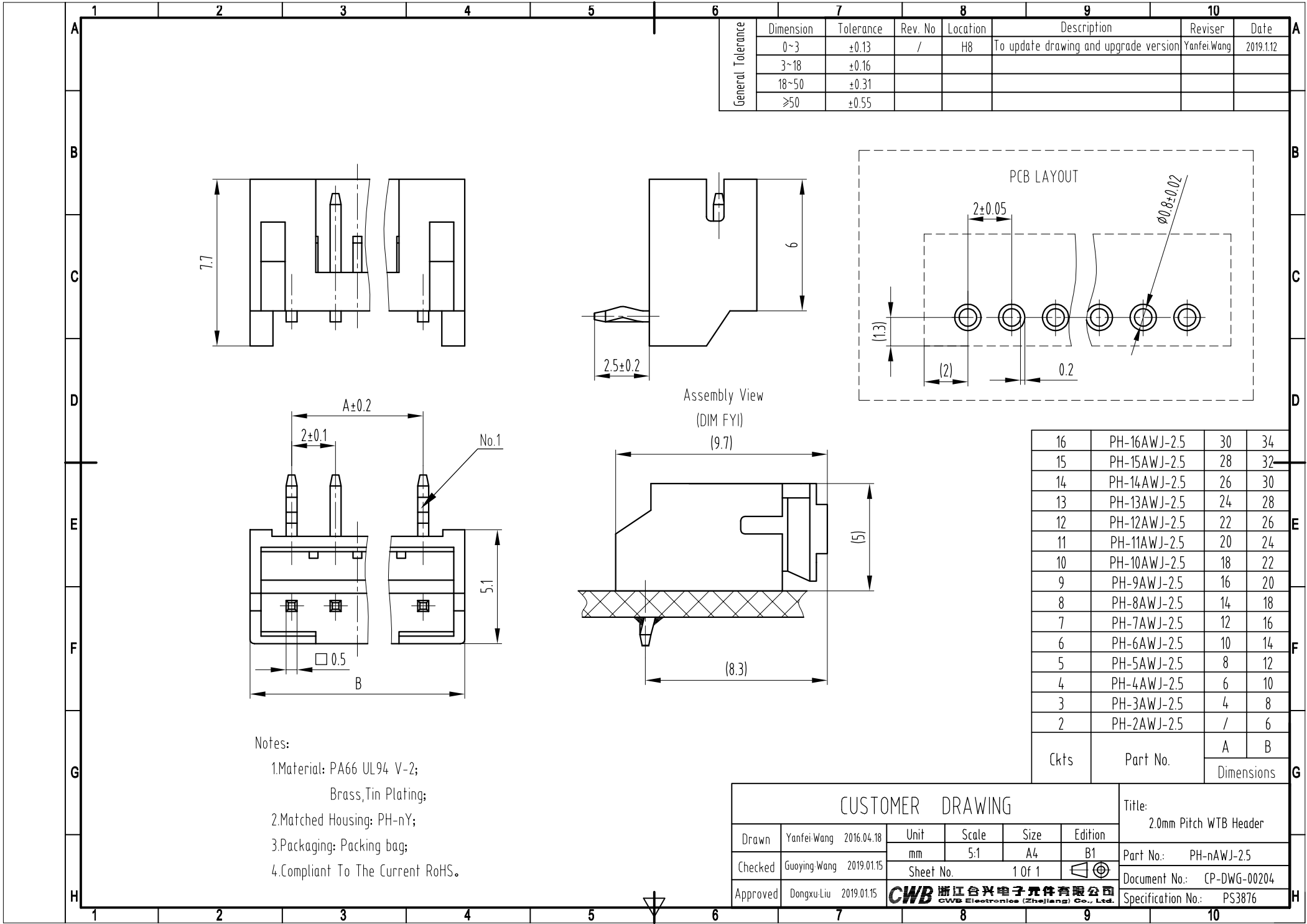
- Notes:
- 1.Material: PA66 UL94 V-2;
Brass,Tin Plating;
 - 2.Matched Housing: PH-nY;
 - 3.Packaging: Packing bag;
 - 4.Compliant To The Current RoHS.

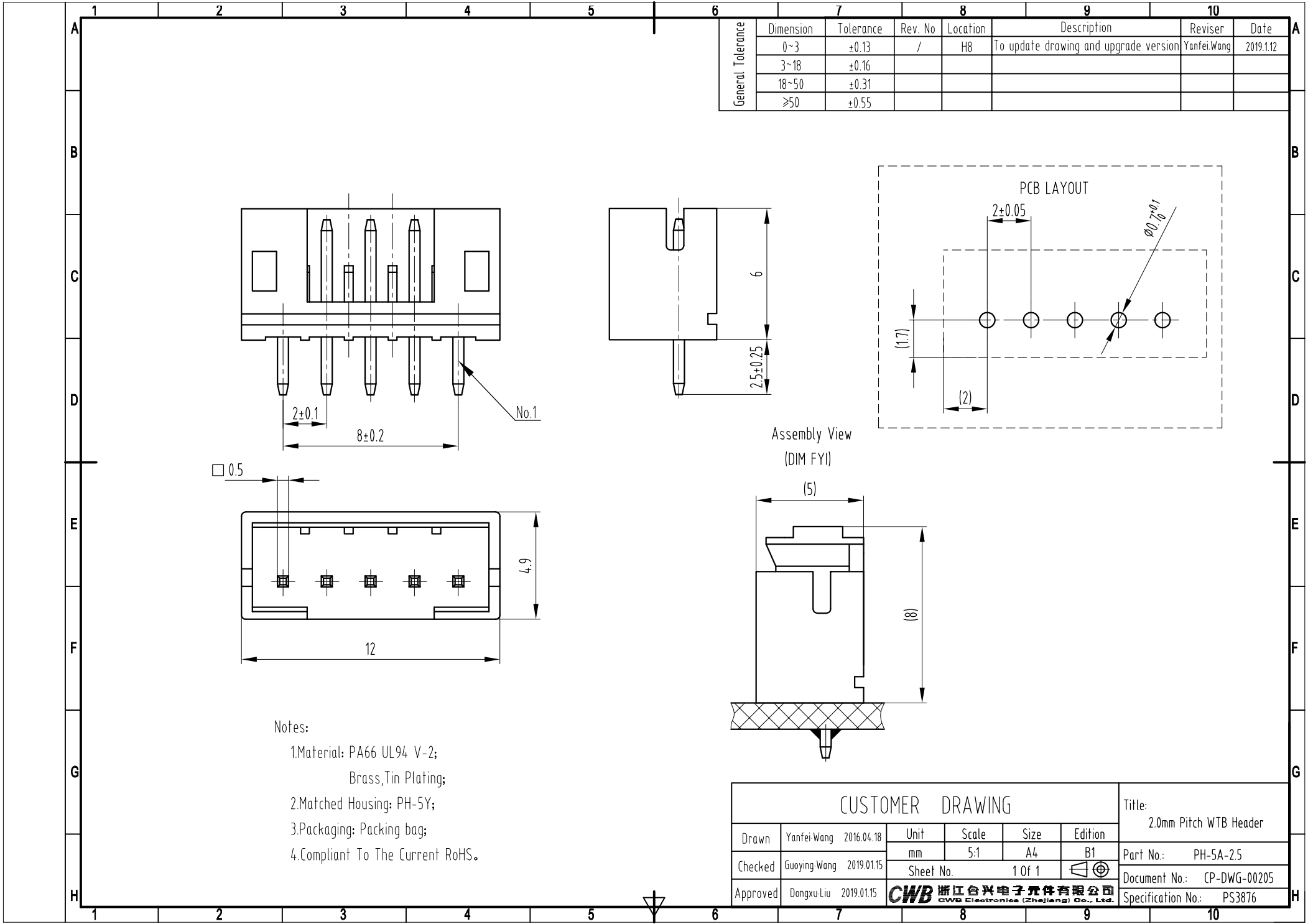
CUSTOMER DRAWING						Title:	
Drawn	Yanfei Wang	2016.04.18	Unit	Scale	Size	Edition	2.0mm Pitch WTB Header
Checked	Guoying Wang	2019.01.15	mm	4:1	A4	B1	Part No.: PH-nA-MLXY
Approved	Dongxu Liu	2019.01.15	Sheet No.	1 Of 1			Document No.: CP-DWG-00208
CWB 浙江台兴电子元件有限公司						Specification No.: PS3876	
CWB Electronics (Zhejiang) Co., Ltd.							



CUSTOMER DRAWING						Title:	
Drawn	Yanfei Wang	2016.04.18	Unit	Scale	Size	Edition	2.0mm Pitch WTB Header
Checked	Guoying Wang	2019.01.15	mm	4:1	A4	B1	Part No.: PH-nAWJ-MLXY
Approved	Dongxu Liu	2019.01.15	Sheet No.	1 Of 1	Document No.: CP-DWG-00209		Specification No.: PS3876
CWB 浙江台兴电子元件有限公司						CWB Electronics (Zhejiang) Co., Ltd.	





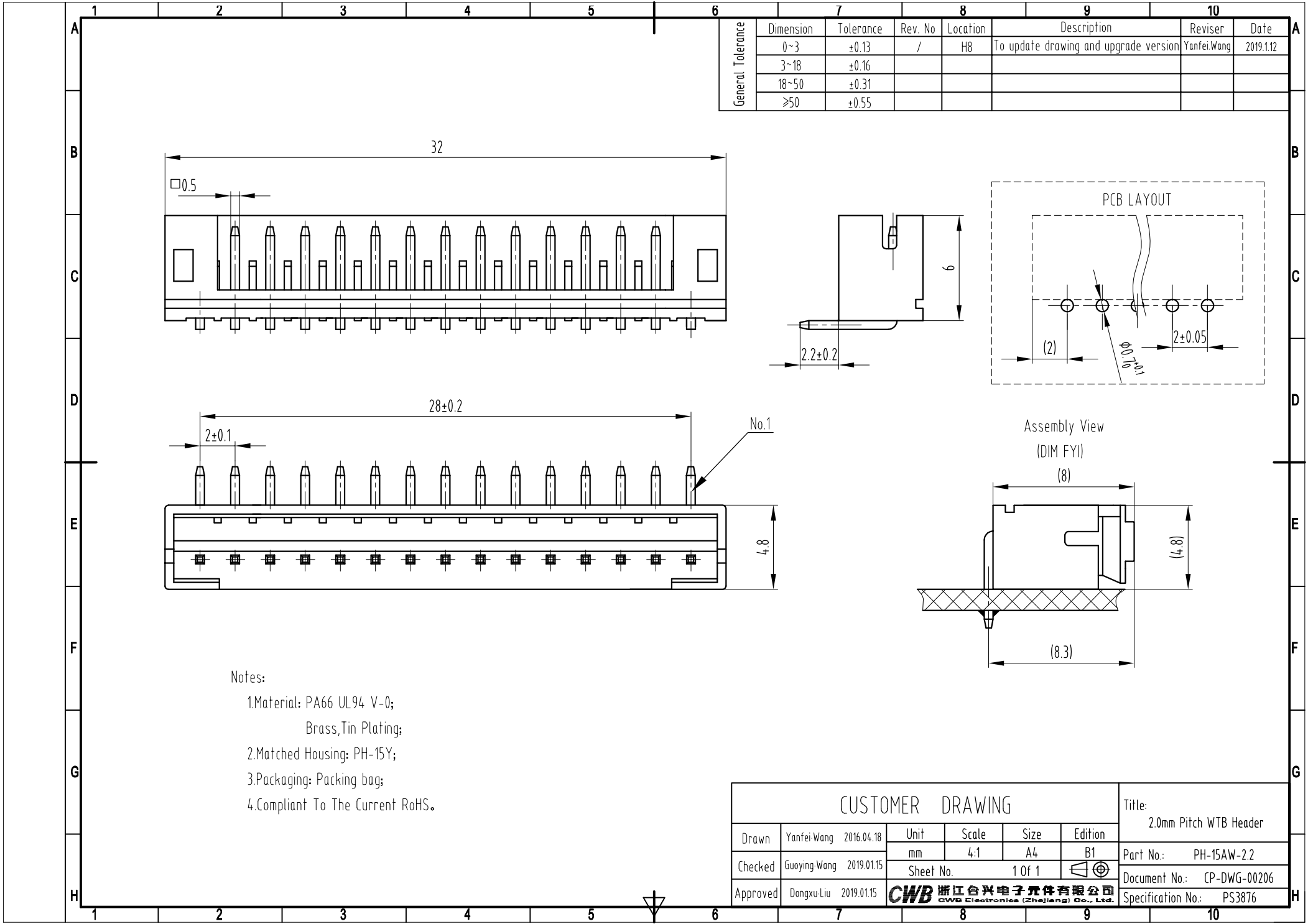


General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12
	3~18	±0.16					
	18~50	±0.31					
	≥50	±0.55					

Notes:

- 1.Material: PA66 UL94 V-2;
Brass,Tin Plating;
- 2.Matched Housing: PH-5Y;
- 3.Packaging: Packing bag;
- 4.Compliant To The Current RoHS.

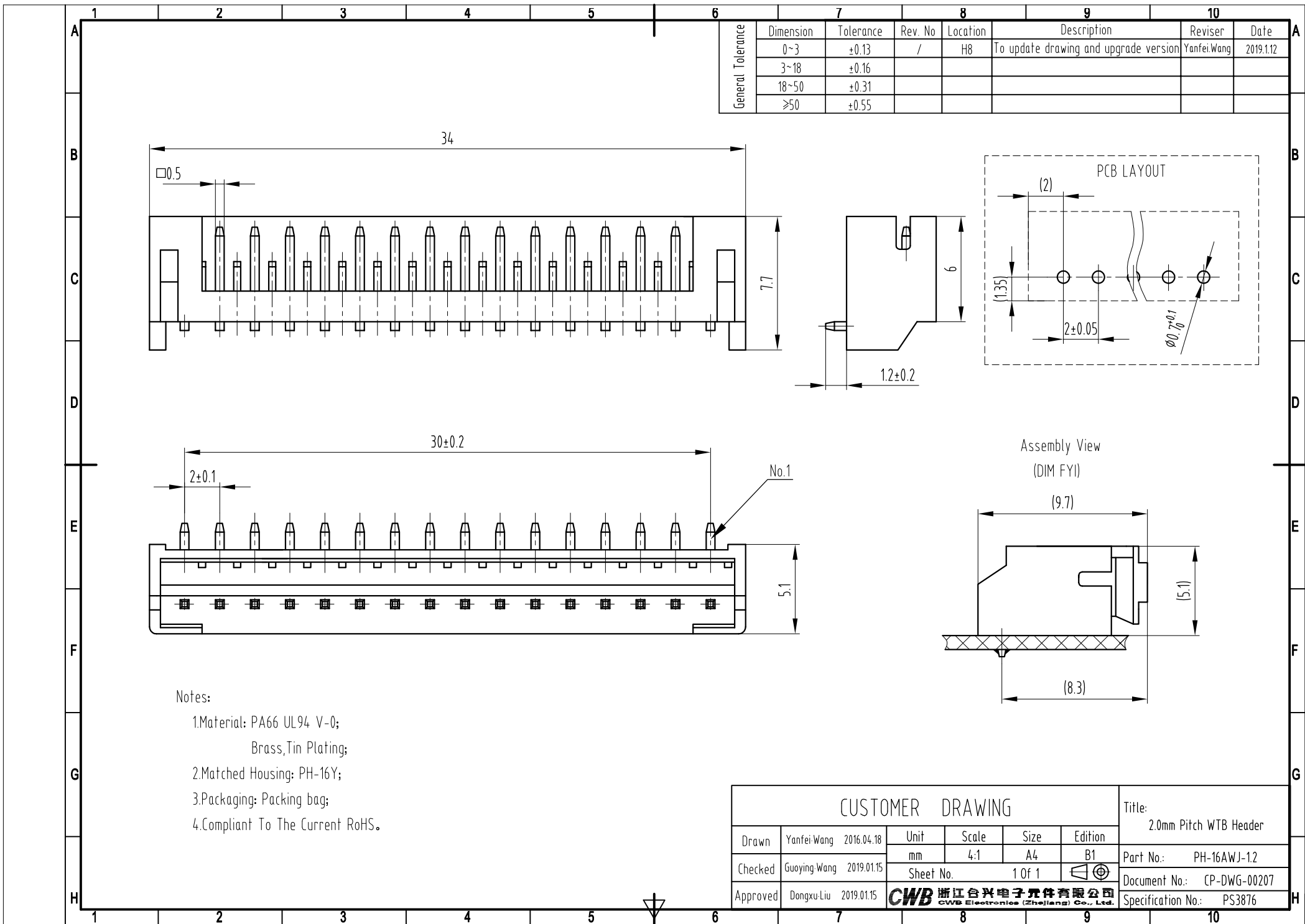
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Checked	Guoying Wang	2019.01.15	mm	5:1	A4	B1		
			Sheet No.		1 Of 1		Document No.: CP-DWG-00205	
Approved	Dongxu Liu	2019.01.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.					

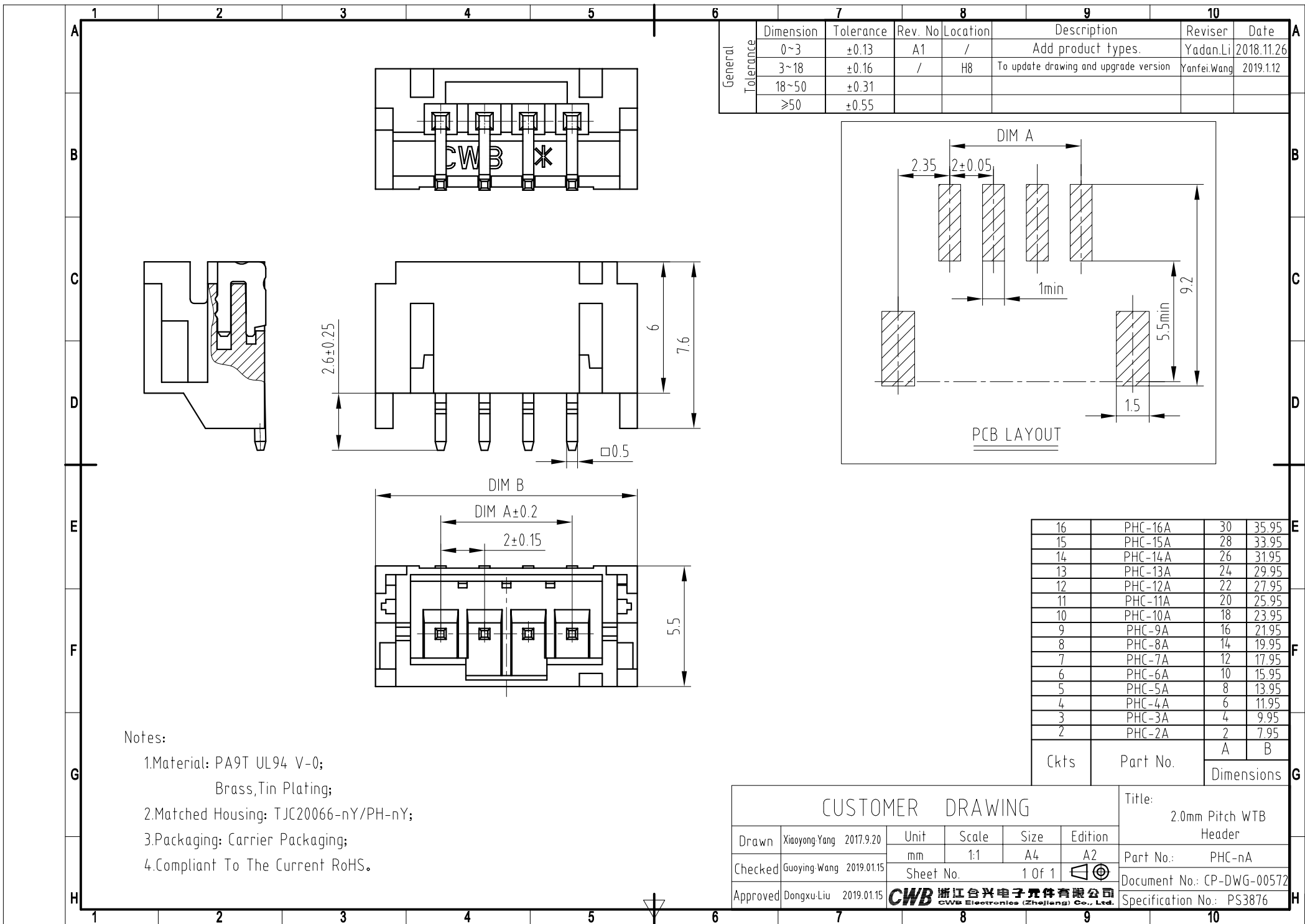


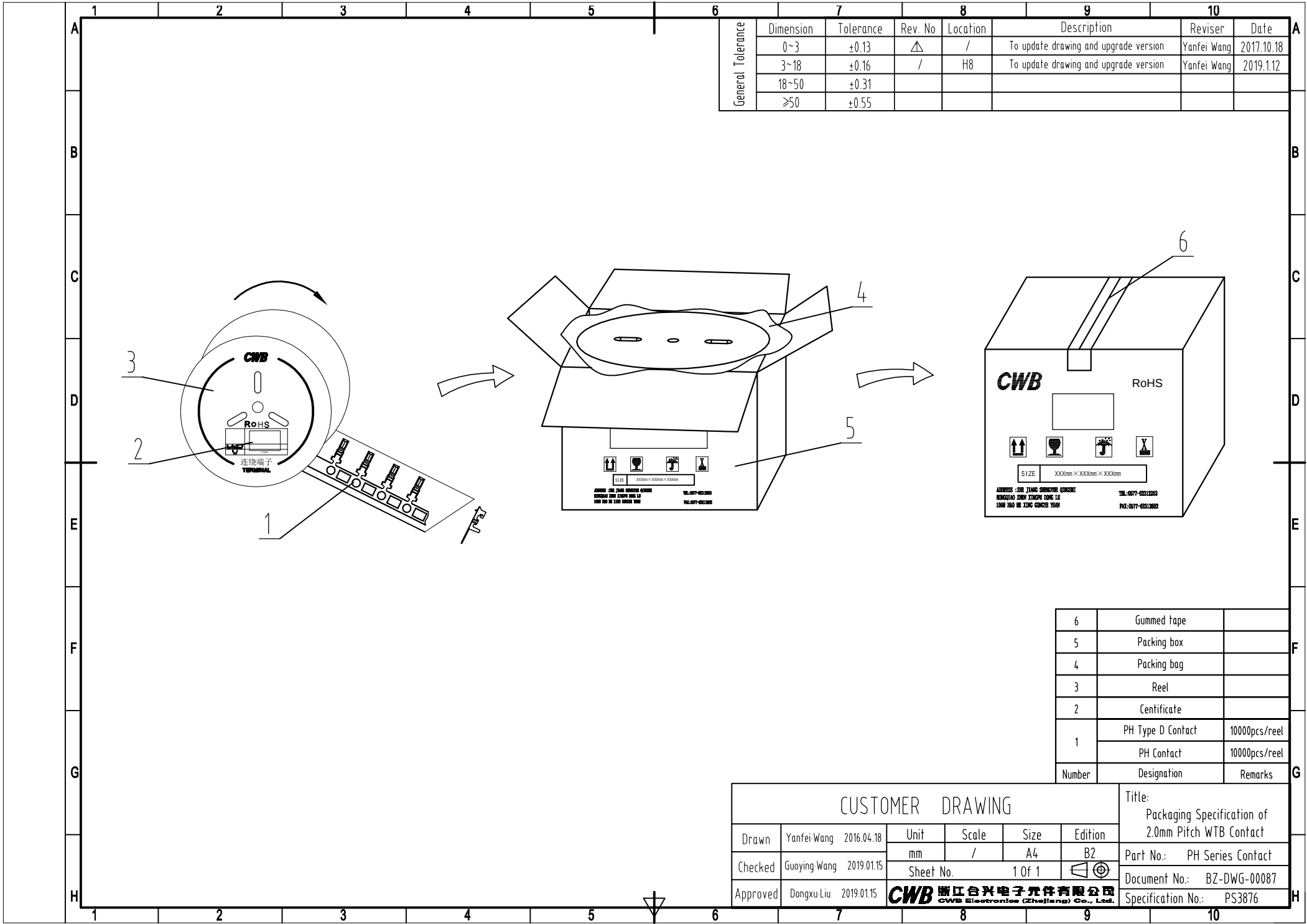
Notes:

- 1.Material: PA66 UL94 V-0;
Brass,Tin Plating;
- 2.Matched Housing: PH-15Y;
- 3.Packaging: Packing bag;
- 4.Compliant To The Current RoHS.

CUSTOMER DRAWING						Title:	
Drawn	Yanfei Wang	2016.04.18	Unit	Scale	Size	Edition	2.0mm Pitch WTB Header
Checked	Guoying Wang	2019.01.15	mm	4:1	A4	B1	Part No.: PH-15AW-2.2
Approved	Dongxu Liu	2019.01.15	Sheet No.	1 Of 1			Document No.: CP-DWG-00206
CWB 浙江台兴电子元件有限公司							Specification No.: PS3876



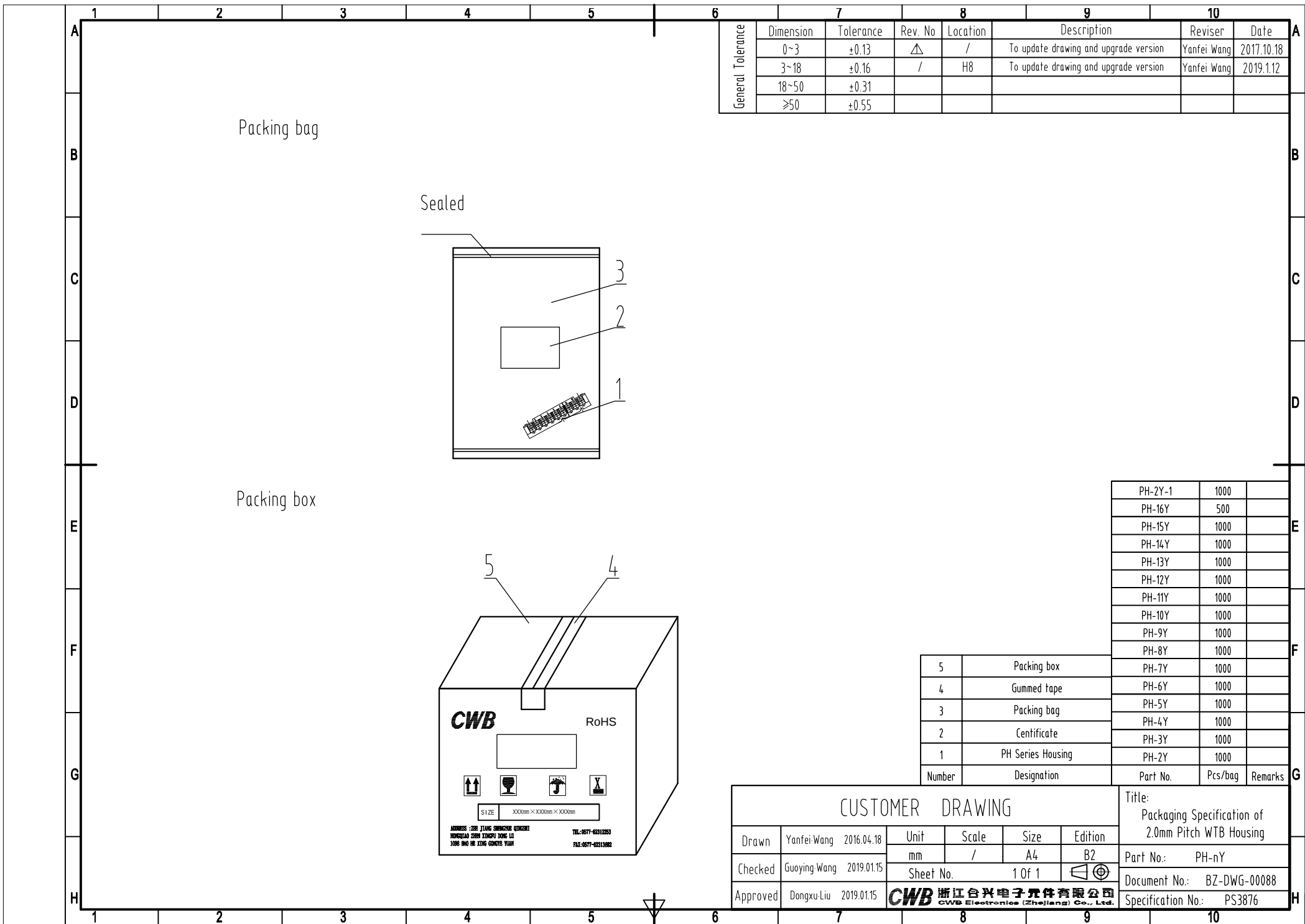


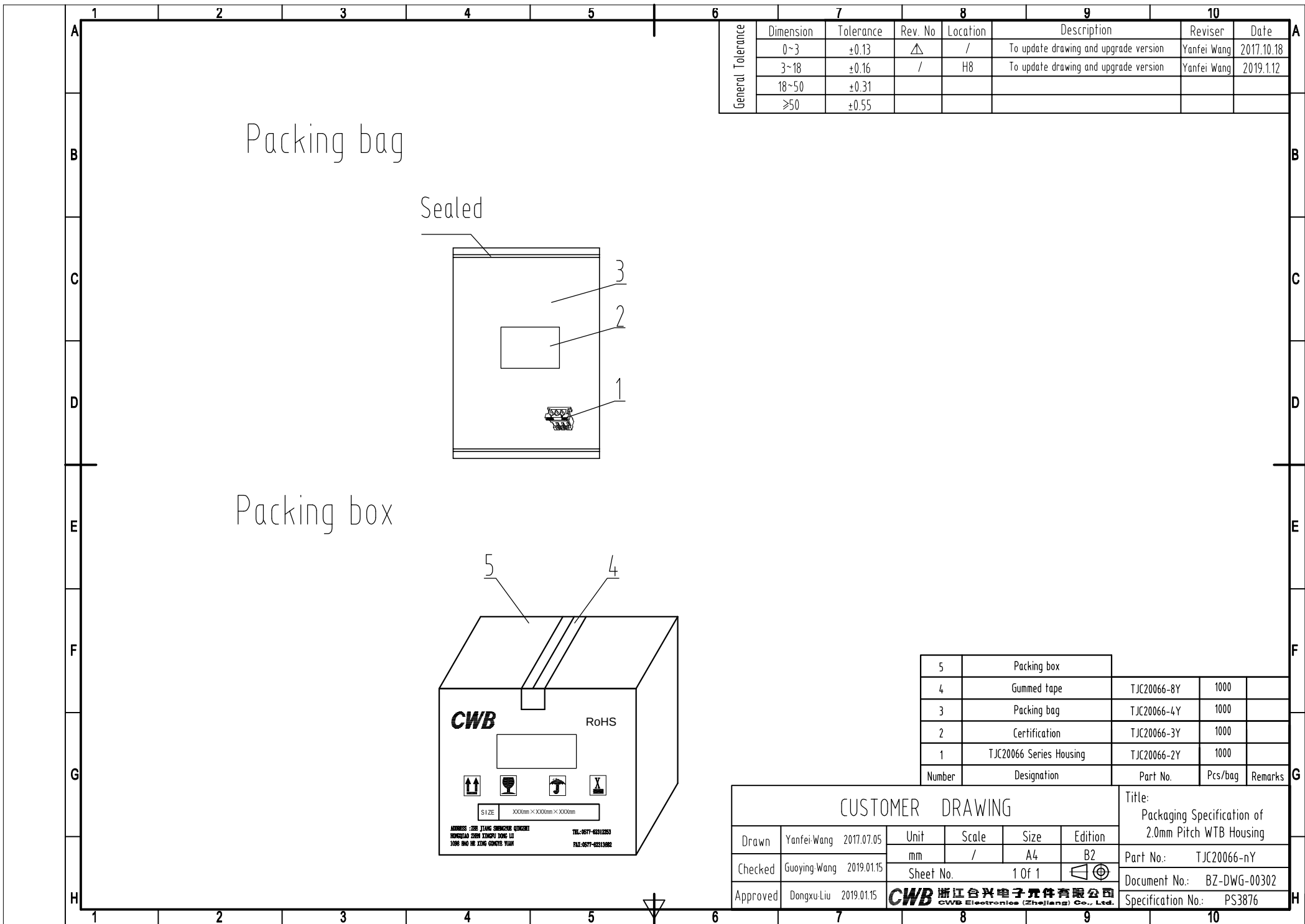


General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	△	/	To update drawing and upgrade version	Yanfei Wang	2017.10.18
	3~18	±0.16	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12
	18~50	±0.31					
	≥50	±0.55					

6	Gummed tape	
5	Packing box	
4	Packing bag	
3	Reel	
2	Certificate	
1	PH Type D Contact	10000pcs/reel
	PH Contact	10000pcs/reel
Number	Designation	Remarks

CUSTOMER DRAWING							Title: Packaging Specification of 2.0mm Pitch WTB Contact	
Drawn	Yanfei Wang	2016.04.18	Unit	Scale	Size	Edition	Part No.: PH Series Contact	
Checked	Guoying Wang	2019.01.15	mm	/	A4	B2		
			Sheet No.		1 Of 1			
Approved	Dongxu Liu	2019.01.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.				Document No.: BZ-DWG-00087	
							Specification No.: PS3876	





	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	△	G3,F9	Increase 5P, 7P	Li.Qin	2017.12.15	
								3~18	±0.16	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12	
								18~50	±0.31						
								≥50	±0.55						
B															B
C															C
D															D
E															E
F															F
G															G
H															H

Packing bag

Sealed

3

2

1

Packing box

4

5

2

			TJC20046-8YS	1000	
5	Packing box	TJC20046-7YS	1000		
4	Gummed tape	TJC20046-5YS	1000		
3	Packing bag	TJC20046-4YS	1000		
2	Certification	TJC20046-3YS	1000		
1	TJC20046 Series Lock Plate	TJC20046-2YS	1000		
Number	Designation	Part No.	Pcs/bag	Remarks	

CUSTOMER DRAWING

Drawn	Yanfei Wang	2017.07.05	Unit	Scale	Size	Edition
Checked	Guoying Wang	2019.01.15	mm	/	A4	B1
Approved	Dongxu Liu	2019.01.15	Sheet No.		1 Of 1	

Title: Packaging Specification of 2.0mm Pitch WTB Lock Plate

Part No.: TJC20046-nYS

Document No.: BZ-DWG-00303

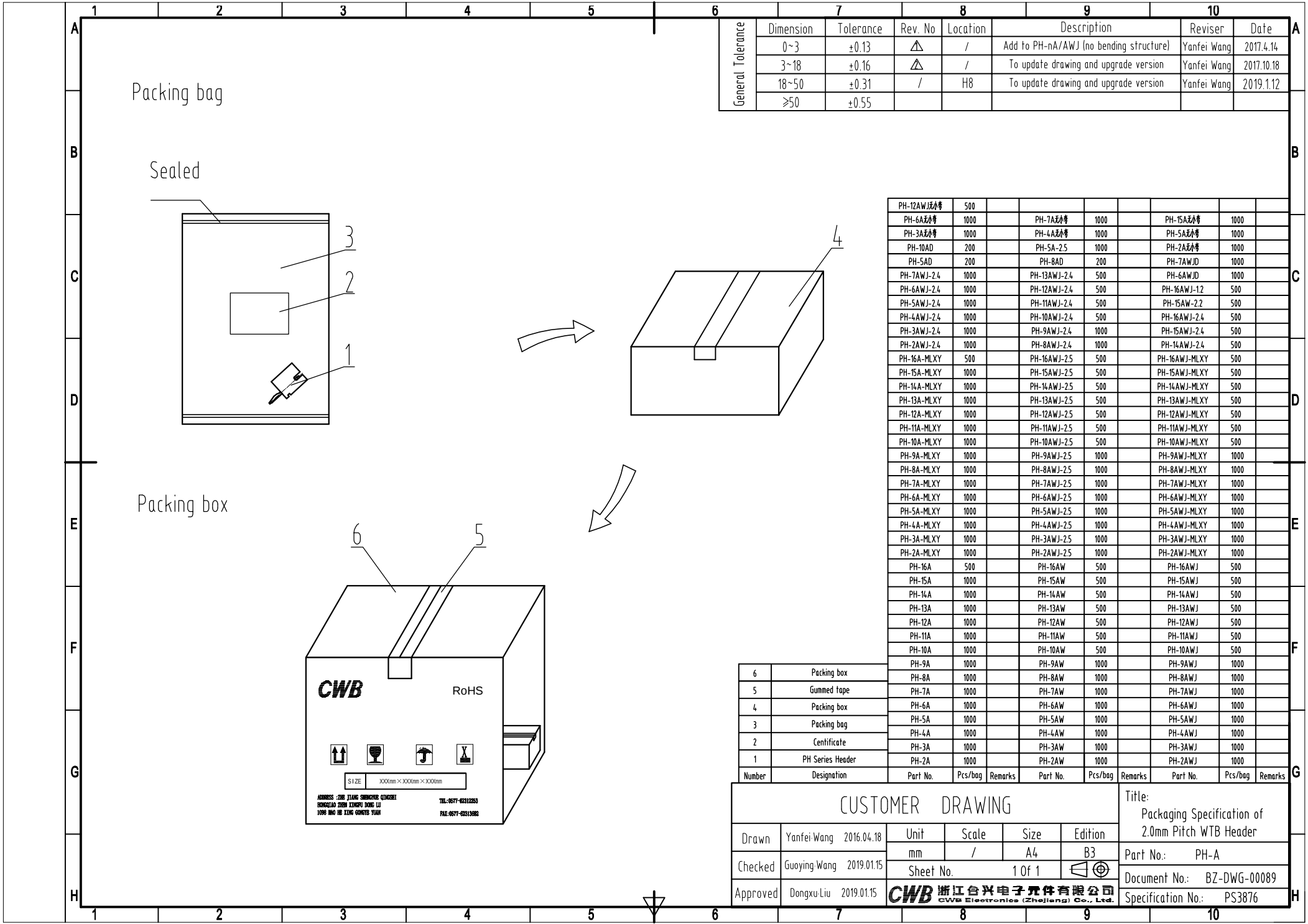
Specification No.: PS3876/PS3980

浙江台兴电子元件有限公司

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General Tolerance	Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
	0~3	±0.13	△	/	Add to PH-nA/AWJ (no bending structure)	Yanfei Wang	2017.4.14
	3~18	±0.16	△	/	To update drawing and upgrade version	Yanfei Wang	2017.10.18
	18~50	±0.31	/	H8	To update drawing and upgrade version	Yanfei Wang	2019.1.12
	≥50	±0.55					

PH-12AW	500						
PH-6A	1000		PH-7A	1000		PH-15A	1000
PH-3A	1000		PH-4A	1000		PH-5A	1000
PH-10A	200		PH-5A-2.5	1000		PH-2A	1000
PH-5AD	200		PH-8AD	200		PH-7AWJ	1000
PH-7AWJ-2.4	1000		PH-13AWJ-2.4	500		PH-6AWJ	1000
PH-6AWJ-2.4	1000		PH-12AWJ-2.4	500		PH-16AWJ-12	500
PH-5AWJ-2.4	1000		PH-11AWJ-2.4	500		PH-15AWJ-2.2	500
PH-4AWJ-2.4	1000		PH-10AWJ-2.4	500		PH-16AWJ-2.4	500
PH-3AWJ-2.4	1000		PH-9AWJ-2.4	1000		PH-15AWJ-2.4	500
PH-2AWJ-2.4	1000		PH-8AWJ-2.4	1000		PH-14AWJ-2.4	500
PH-16A-MLXY	500		PH-16AWJ-2.5	500		PH-16AWJ-MLXY	500
PH-15A-MLXY	1000		PH-15AWJ-2.5	500		PH-15AWJ-MLXY	500
PH-14A-MLXY	1000		PH-14AWJ-2.5	500		PH-14AWJ-MLXY	500
PH-13A-MLXY	1000		PH-13AWJ-2.5	500		PH-13AWJ-MLXY	500
PH-12A-MLXY	1000		PH-12AWJ-2.5	500		PH-12AWJ-MLXY	500
PH-11A-MLXY	1000		PH-11AWJ-2.5	500		PH-11AWJ-MLXY	500
PH-10A-MLXY	1000		PH-10AWJ-2.5	500		PH-10AWJ-MLXY	500
PH-9A-MLXY	1000		PH-9AWJ-2.5	1000		PH-9AWJ-MLXY	1000
PH-8A-MLXY	1000		PH-8AWJ-2.5	1000		PH-8AWJ-MLXY	1000
PH-7A-MLXY	1000		PH-7AWJ-2.5	1000		PH-7AWJ-MLXY	1000
PH-6A-MLXY	1000		PH-6AWJ-2.5	1000		PH-6AWJ-MLXY	1000
PH-5A-MLXY	1000		PH-5AWJ-2.5	1000		PH-5AWJ-MLXY	1000
PH-4A-MLXY	1000		PH-4AWJ-2.5	1000		PH-4AWJ-MLXY	1000
PH-3A-MLXY	1000		PH-3AWJ-2.5	1000		PH-3AWJ-MLXY	1000
PH-2A-MLXY	1000		PH-2AWJ-2.5	1000		PH-2AWJ-MLXY	1000
PH-16A	500		PH-16AW	500		PH-16AWJ	500
PH-15A	1000		PH-15AW	500		PH-15AWJ	500
PH-14A	1000		PH-14AW	500		PH-14AWJ	500
PH-13A	1000		PH-13AW	500		PH-13AWJ	500
PH-12A	1000		PH-12AW	500		PH-12AWJ	500
PH-11A	1000		PH-11AW	500		PH-11AWJ	500
PH-10A	1000		PH-10AW	500		PH-10AWJ	500
PH-9A	1000		PH-9AW	1000		PH-9AWJ	1000
PH-8A	1000		PH-8AW	1000		PH-8AWJ	1000
PH-7A	1000		PH-7AW	1000		PH-7AWJ	1000
PH-6A	1000		PH-6AW	1000		PH-6AWJ	1000
PH-5A	1000		PH-5AW	1000		PH-5AWJ	1000
PH-4A	1000		PH-4AW	1000		PH-4AWJ	1000
PH-3A	1000		PH-3AW	1000		PH-3AWJ	1000
PH-2A	1000		PH-2AW	1000		PH-2AWJ	1000

6	Packing box
5	Gummed tape
4	Packing box
3	Packing bag
2	Certificate
1	PH Series Header

CUSTOMER DRAWING

Drawn

Yanfei Wang

2016.04.18

Checked

Guoying Wang

2019.01.15

Approved

Dongxu Liu

2019.01.15

Unit

mm

Scale

/

Size

A4

Edition

B3

Sheet No.

1 Of 1

CWB 浙江台兴电子元件有限公司

CWB Electronics (Zhejiang) Co., Ltd.

Title:

Packaging Specification of 2.0mm Pitch WTB Header

Part No.:

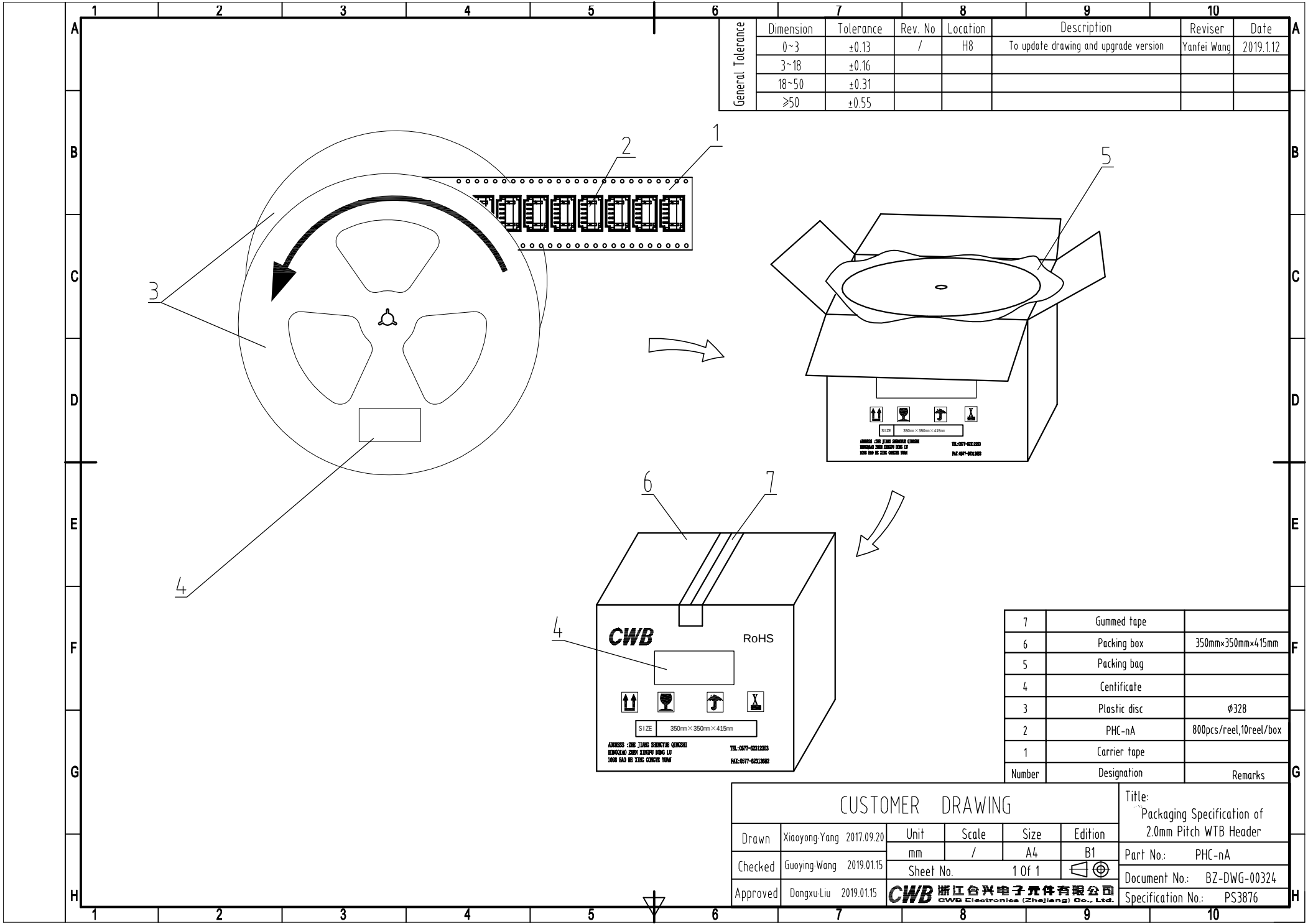
PH-A

Document No.:

BZ-DWG-00089

Specification No.:

PS3876



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					

7	Gummed tape	
6	Packing box	350mm×350mm×415mm
5	Packing bag	
4	Certificate	
3	Plastic disc	φ328
2	PHC-nA	800pcs/reel,10reel/box
1	Carrier tape	
Number	Designation	Remarks

CUSTOMER DRAWING						Title: Packaging Specification of 2.0mm Pitch WTB Header	
Drawn	Xiaoyong-Yang	2017.09.20	Unit	Scale	Size	Edition	Part No.: PHC-nA Document No.: BZ-DWG-00324 Specification No.: PS3876
Checked	Guoying Wang	2019.01.15	mm	/	A4	B1	
			Sheet No.		1 Of 1		
Approved	Dongxu-Liu	2019.01.15	CWB 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.				