



产品规格书

PRODUCT SPECIFICATION

产品描述: TR2.8G1、TR2.8×0.5G2、CY364 连接器

Product Description: TR2.8G1、TR2.8×0.5G2、CY364 Self-Locking Receptacle

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 浙江合兴电子元件有限公司 CWB Electronics (Zhejiang) Co., Ltd.	制定 Edit: 杨培 2019.01.23	产品名称 Product Name: TR2.8G1、TR2.8×0.5G2、 CY364
	审核 Check: 王国英 2019.01.23	编号 Document No.: PS3924
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: 86-577-62313682	批准 Approval: 刘冬旭 2019.01.23	版本 REVISION: 2



产品规格书

PRODUCT SPECIFICATION

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	旧版规格书 PS2666/PS3251	新版规格书 PS3924	2016.12.28
2	2	/	更改图纸商标 LOGO	2019.01.23
3				
4				
5				
6				
7				

产品名称 Product Name:	TR2.8G1、TR2.8× 0.5G2、CY364	编号 Document No.	PS3924	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 TR2.8G1、TR2.8×0.5G2 自锁插簧和 CY364 孔座，产品名称：TR2.8G1、TR2.8×0.5G2 自锁插簧,CY364。

This product specification covers the requirements for **Receptacle Terminal and Housing**, which is designed and manufactured by CWB Electronics(ZheJiang) Co.,LTD. P/N: **TR2.8G1、TR2.8×0.5G2 self-locking receptacle ,CY364.**

3 产品描述 Product Description

TR2.8G1、TR2.8×0.5G2 系列产品为家电连接器产品，产品部件组成如下：

TR2.8G1、TR2.8×0.5G2 series of products for electrical products, product components are as follows:

Name	Part name	Notes
端子 Self-Locking Receptacle	TR2.8G1	Brass, Tin over nickel plated
端子 Self-Locking Receptacle	TR2.8×0.5G2	Brass, Tin over nickel plated
孔座 Housing	CY364	PA66, UL94V-0

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.

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5 参数范围 Parameter Ratings:

额定电流 Rated Current	5A
额定电压 Rated Voltage	250V [AC(有效值 rms)/DC]
使用温度范围 Operating temperature range	-25°C~+85°C(含温度上升)
TR2.8G1 适用线型 Applicable wires	Wire Size: AWG 20~AWG 18 (0.52 mm ² -0.83 mm ²) Insulation Diameter: 1.8mm-2.75mm
TR2.8×0.5G2 适用线型 Applicable wires	Wire Size: AWG 24~AWG 22 (0.21 mm ² -0.33 mm ²) Insulation Diameter: 1.4mm-1.6mm

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	<p>1 塑料件表面应无明显疤痕、凹陷、开裂及影响使用的变形, 按压塑件倒钩, 无损伤。 Plastic part: smooth and flat surface without discolor, broken, crack, and distortion, the hook can work when it is pressed.</p> <p>2 金属件表面无锈蚀、氧化、无明显的机械损伤等缺陷。 Metal part: bright and even surface without rust, oxide, fog and obvious physical damage, etc.</p>	
6.1.2	插入力与拔出力 Insertion and Withdrawal Force of Receptacle	固定带孔插片(2.8×0.5)和测力计, 在连接器轴线方向插入和拔出; 速度25±3mm/min. Apply axial insert and withdraw on the tab with a hole (2.8×0.5) in the receptacle at a rate of 25±3 mm/ min. GB/T 5095.7 Method 13b / EIA-364-13B	插入力 (Insertion) Max	拔出力 (Withdrawal) Min
			40N	20N

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产品规格书

PRODUCT SPECIFICATION

6.1.3	端子的插入力 与固定力 Insertion force and Retention Force for Contact	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. Axial Insert and withdraw force on the receptacle in the housing of 25mm per minute. GB/T 5095.8 Method 15d / EIA-364-29B	插入力 (Insertion) Max	固定力 (Retention) Min.
			10N	50N
6.1.4	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25±3mm/min; Fix the crimped receptacle, Axial pull out force on the receptacle in the wire at a rate less than 25±3 mm/ min. GB/T5095.8 Method 16d / EIA-364-08B	AWG 24#: 30N Min. AWG 22#: 40N Min. AWG 20#: 60N Min. AWG 18#: 89N 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 Low Level Contact Resistance	插入 2.8×0.5 插片,用小功率电路进行测试 Insert and withdraw standard tab (2.8×0.5) and measure by dry circuit. 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) 800 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 2200V AC (有效值),漏电流 1mA 的电压作用,时间 1min。 Apply a voltage of AC 2200V 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	

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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 96 小时, 再回到室温中放置 1-2 小时测定. Mated connectors exposed to the condition of $105\pm 2^{\circ}\text{C}$ for 96 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.										
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 96 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 96 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.										
6.3.3	恒定湿热 Humidity	温度 $40\pm 2^{\circ}\text{C}$, 相对湿度(90~95)% 搁置时间 96h, 取出恢复 1~2h 后检查. Mated connectors exposed to the condition of $40\pm 2^{\circ}\text{C}$ (90~95) % Humidity for 96 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: $800\text{ M}\Omega$ Min. Insulation Resistance : $800\text{ M}\Omega$ Min. 耐电压: 无击穿和飞弧现象. Withstand Voltage: No Breakdown or flashover.										
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 $(-55\pm 2)^{\circ}\text{C}$ 的恒温条件下放置 0.5h; b) 在 $+25^{\circ}\text{C}$ 常温条件下放置不超过 5min, c) 在 $(85\pm 2)^{\circ}\text{C}$ 的恒温条件下放置 0.5h; d) 在 $+25^{\circ}\text{C}$ 常温条件下放置不超过 5min. 从 a)到 d)为一个循环周期, 共进行 5 个循环,恢复 2h 后检查. Mated connectors shall be tested under the following conditions <table border="1"> <thead> <tr> <th>Temperature $^{\circ}\text{C}$</th> <th>Duration (Minutes)</th> </tr> </thead> <tbody> <tr> <td>a -55</td> <td>30</td> </tr> <tr> <td>b +25</td> <td>5Max.</td> </tr> <tr> <td>c +85</td> <td>30</td> </tr> <tr> <td>d +25</td> <td>5Max.</td> </tr> </tbody> </table> Step a to d is one cycle,5 cycles shall be tested. Recovery time 2 hours. GB/T 5095.6 method 11d / EIA-364-32C	Temperature $^{\circ}\text{C}$	Duration (Minutes)	a -55	30	b +25	5Max.	c +85	30	d +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: $800\text{ M}\Omega$ Min. Insulation Resistance : $800\text{ M}\Omega$ Min. 耐电压: 无击穿和飞弧现象. Withstand Voltage: No Breakdown or flashover.
Temperature $^{\circ}\text{C}$	Duration (Minutes)												
a -55	30												
b +25	5Max.												
c +85	30												
d +25	5Max.												

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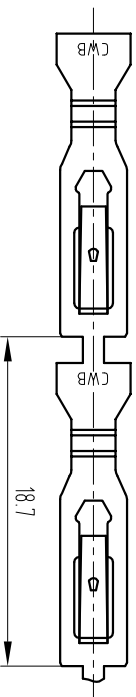
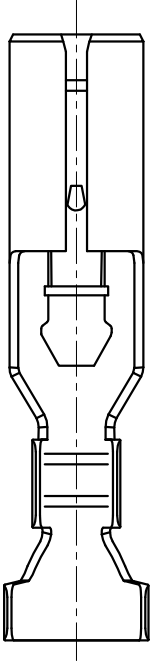
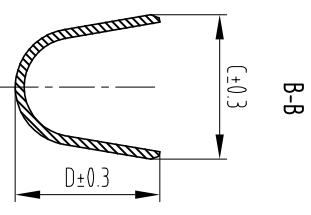
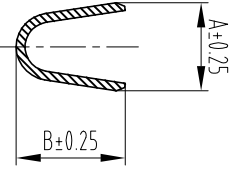
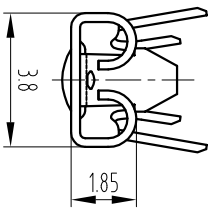
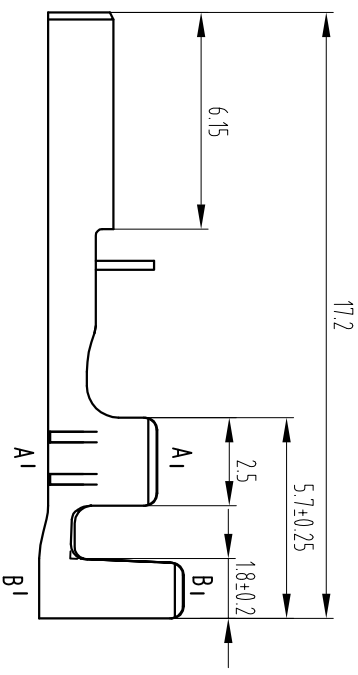
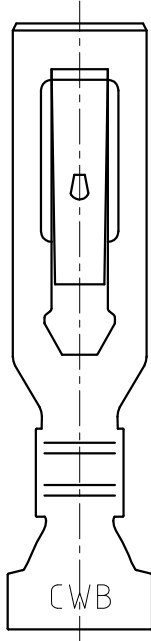
6.3.5	盐雾 Salt Spray	<p>把试验样品从试验箱顶悬挂下来，采用浓度为(5±1)% (质量百分比)的氯化钠溶液，在(35±2)℃温度下连续雾化 24h, 试验后用流动的蒸馏水轻轻洗去表面沉积物。在常温常湿条件下恢复 1~2h</p> <p>24 hours spray, at temp (35±2)°C, Salt NaCl mist (5±1)% After test wash parts and return to room temperature for 1~2 hours</p> <p>GB/T 5095.6 Method 11f /EIA-364-26B</p>	<p>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。)</p> <p>Appearance: No Damage (No erosion with material exposed. And with plating material, slight erosion on the cutting surface is acceptable)</p> <p>接触电阻: 0.02Ω Max.</p> <p>Contact resistance: 0.02Ω Max.</p>
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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
外观 Appearance	1	1	1	1,5	1,5	1,5	1,7	1,7	1,5
插入力与拔出力 Insertion and Withdrawal Force of Receptacle	2								
端子固定力 Withdrawal Force for Contact and Housing		2							
压着部位抗张强度 Crimping Pull Out Force			2						
接触电阻 Low Level Contact Resistance				2	2,4	2,4	2,4	2,4	2,4
绝缘电阻 Insulation Resistance				3			5	5	
耐电压 Withstand Voltage				4			6	6	
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

产品名称 Product Name:	TR2.8G1、TR2.8×0.5G2、CY364	编号 Document No.	PS3924	版本号 VersionNo.	2
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General Tolerance				7	8	9	10
Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date	
0~3	±0.13	1	H8	To update the content	Yang Pei	2019.01.23	
3~18	±0.16						
18~50	±0.31						
≥50	±0.55						



Notes:

1. Material: Brass, Thickness=0.25mm; :
2. Surface Finish: Tin over nickel plated;
3. Matched Tab: 2.8x0.5 series tabs;
4. Matched Housing: CY3644;
5. TR2.8G1 Applicable Wires: AWG20 ~ AWG18;
- TR2.8X0.5G2 Applicable Wires: AWG24 ~ AWG22;
6. Compliant To The Current RoHS.

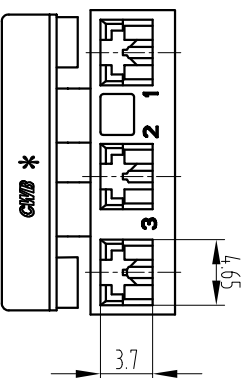
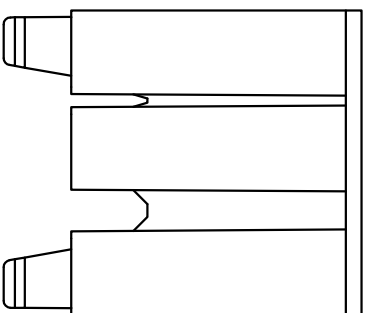
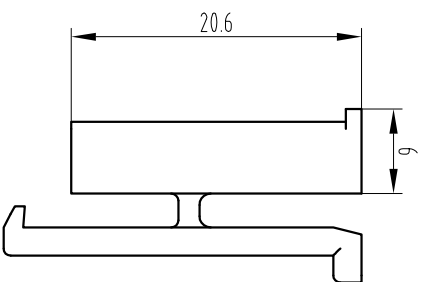
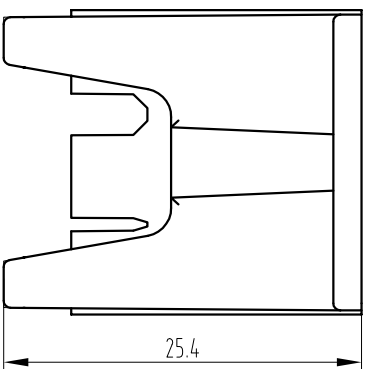
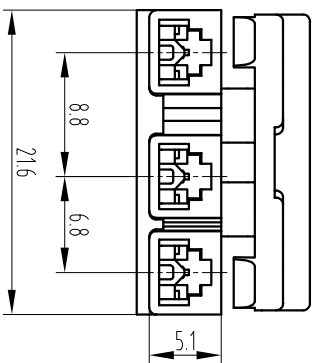
Part No.	Dimensions			
TR2.8X0.5G2	2.1	1.7	3.1	3.0
TR2.8G1	2.5	3.1	4.1	4.1
	A	B	C	D

CUSTOMER DRAWING

Title: 2.8x0.5 Self-locking Receptacle

Drawn	LiJin	2016.12.28	Unit	mm	Scale	5:1	Size	A4	Edition	B1	Part No.:	TR2.8G1, TR2.8X0.5G2
Checked	Guoying Wang	2016.12.28	Sheet No.	1 of 1							Document No.:	CP-DWG-00352
Approved	Dongxuliu	2016.12.28									Specification No.:	PS3924

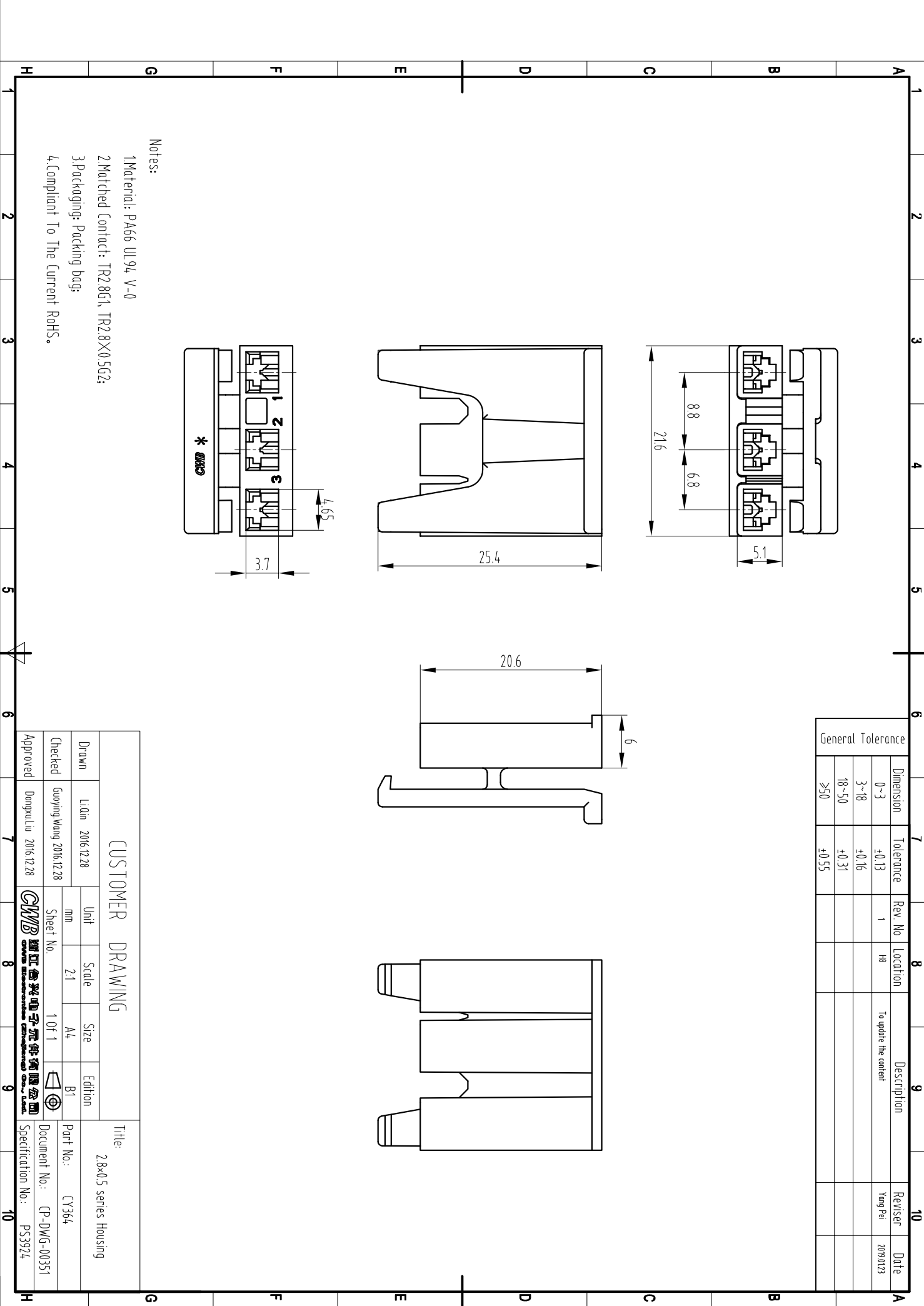
General Tolerance				7	8	9	10
Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date	
0~3	±0.13	1	H8	To update the content	Yang Pei	2018.01.23	
3~18	±0.16						
18~50	±0.31						
≥50	±0.55						



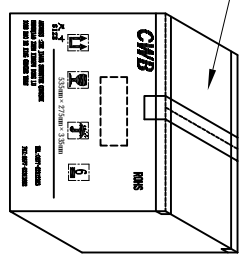
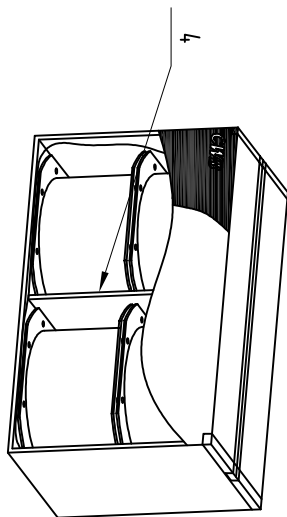
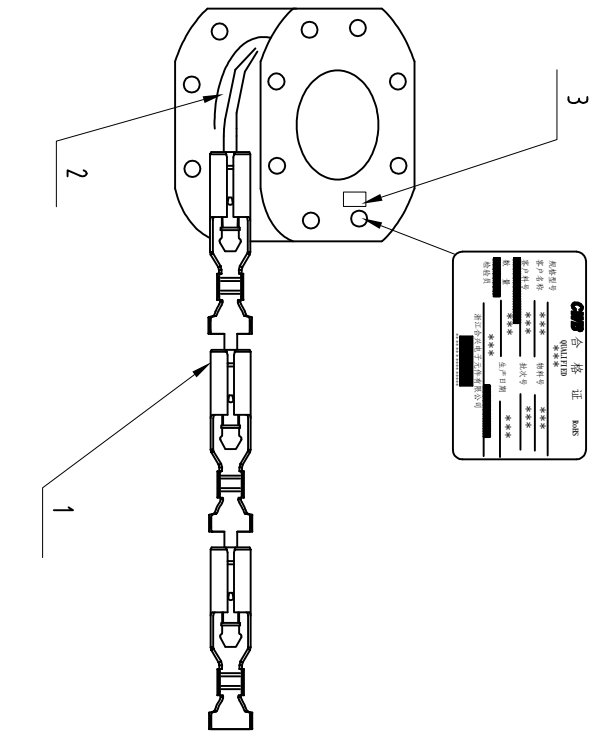
Notes:

- 1.Material: PA66 UL94 V-0
- 2.Matched Contact: TR2.86G, TR2.8X0.5G2;
- 3.Packaging: Packing bag;
- 4.Compliant To The Current RoHS.

CUSTOMER DRAWING				Title: 28x0.5 series Housing	
Drawn	Liam 2016.12.28	Unit	mm	Scale	2:1
Checked	Guoying Wang 2016.12.28	Sheet No.	1 of 1	Size	A4
Approved	Dongxuliu 2016.12.28	Edition	B1	Part No.:	CY364
				Document No.:	CP-DWG-00351
				Specification No.:	PS3924

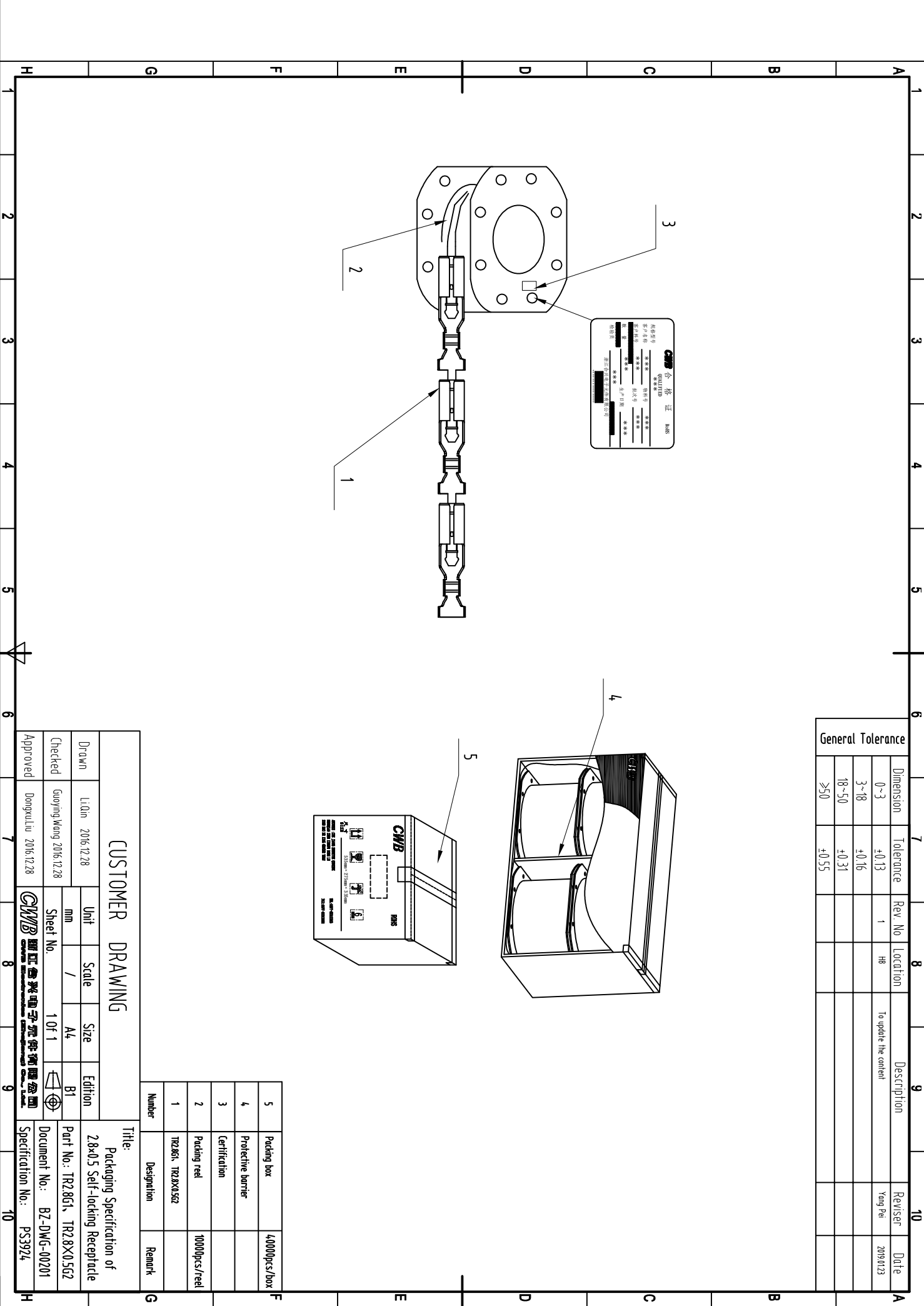


Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
0~3	±0.13	1	H8	To update the content	Yong Pei	2019/1/23
3~18	±0.16					
18~50	±0.31					
≥50	±0.55					



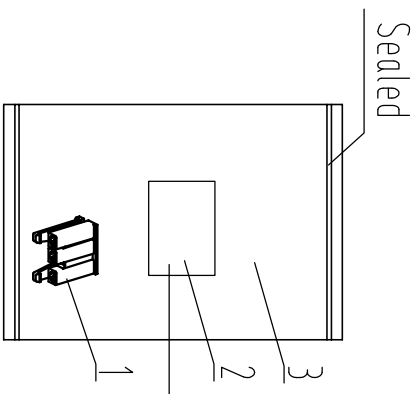
Number	Designation	Remark
5	Packing box	40000pcs/box
4	Protective barrier	
3	Certification	
2	Packing reel	10000pcs/reel
1	TR28G1, TR28X15G2	

CUSTOMER DRAWING				Title:	
Drawn	LiJin	2016.12.28	Unit	Scale	Size
Checked	Guoying Wang	2016.12.28	mm	/	A4
Approved	Dongxuliu	2016.12.28	Sheet No.	1 OF 1	Edition
			B1		
			Part No.: TR28G1, TR2.8X0.5G2		
			Document No.: BZ-DWG-00201		
			Specification No.: PS3924		



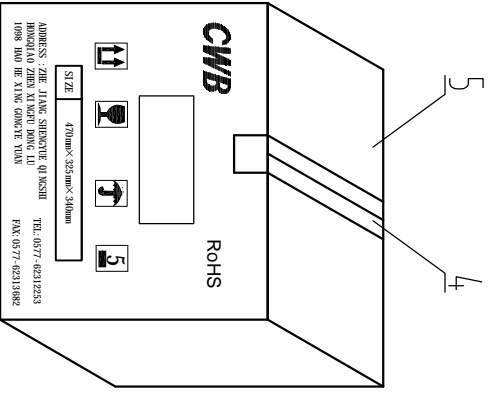
Dimension	Tolerance	Rev. No	Location	Description	Reviser	Date
0~3	±0.13	1	H8	To update the content	Yang Pei	2019.01.23
3~18	±0.16					
18~50	±0.31					
≥50	±0.55					

Packing bag



CWB 合格证书		QUALIFIED	
规格号	品名	规格号	品名
物料号	用途	物料号	用途
数量	生产日期	数量	生产日期
检验员	检验日期	检验员	检验日期

Packing box



Number	Designation	Remarks
5	Packing box	
4	Guimed tape	
3	Packing bag	500pcs/bag
2	Certification	
1	CY364	

CUSTOMER DRAWING				Title:	
Drawn	Li Qin	2016.12.28	Unit	mm	Packaging Specification of Multi Spacing Housing
Checked	Guojing Wang	2016.12.28	Scale	/	
Approved	Dongxuliu	2016.12.28	Size	A4	
			Edition	B	
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