Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

This specification is only referred to the 6350 series connector

索引【INDEX】

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

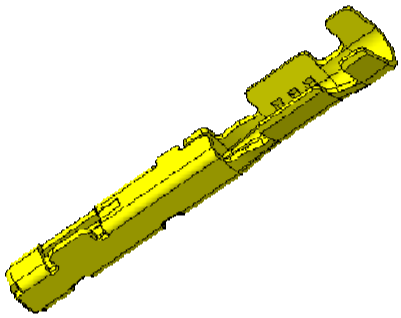
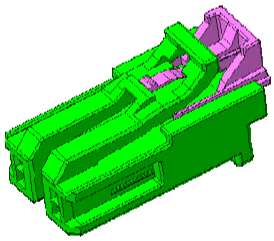
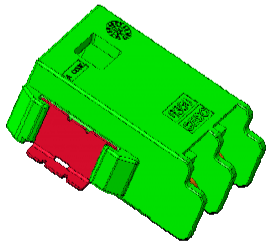
【1.适用范围 Scope】

此规格包括 6.35mm Pitch 6350 Series 连接器规格说明.

This Specification includes the 4.10mm Pitch 4100 Series Connector Specification.

东莞市思索技术股份有限公司 www.SESO.cn APPROVED 研发中心 Dongguan SESO Technology Co.,Ltd

【2.产品型号描述 Product Description】

产品名称 Part Name	产品料号 Part No.	产品图示 Picture
端子/Terminal	6350TX-H0600	
胶壳/Housing	6350A-MXX05-FXX	
针座/Wafer	6350W-BXX02-02FXX	

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

【3.材质与表面处理 Material and surface treatment】

规格内容 Specification		材 质 Materials	颜色/表面处理 Color/Surface treatment
端子/Terminal		铜合金/Copper alloy	Top plating: Sn (1~3μm) overall
胶壳/Housing		PA66-GF30 (UL 94V-0)	橙色 Orange
二次止锁/CPA		PA66-GF30 (UL 94V-0)	橙色 Orange
二次锁/TPA		PA66-GF30 (UL 94V-0)	橙色 Orange
针座 Header	Housing	PA9T-GF30 (UL 94V-0)	橙色 Orange
	Pin	铜合金/Copper alloy	Underplated: Ni (1~3μm)overall; Top plating: Sn (2~5μm) overall
	Solder tab	铜合金/Copper alloy	Underplated: Ni (1~3μm)overall; Top plating: Sn (2~5μm) overall

(上述参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

【4. 额定等级 Ratings and applicable wires】

项 目 Item	规 格 Specification	
额定电压 Rated Voltage	1500V	[AC/DC]
额定电流 Rated Current	7.5A 0.5mm2 Max	
使用温度范围 Ambient Temperature Range	-40℃~+125℃	

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

【5.测试方法及要求 Test Methods and Requirements】

5-1. 外观检查 Examination of product.

测试内容 Item		规格要求 Specification requirements	参考标准 Reference standard
5-1-1	产品外观检查 Visual Inspection	借助 10 倍放大镜对每一个试验样品进行检查，详细记录所有制造或材料的瑕疵，如：裂缝、变色、毛刺等。 Inspect each sample with a 10x magnification,recording all defects in all process or material defects such as cracks, discoloration,flash,etc.	USCAR-2 Rev.8 5.1.8

5-2. 电气性能 Electrical Performance.

测试内容 Item		规格要求 Specification requirements	参考标准 Reference standard
5-2-1	电路连贯性监控 Circuit Continuity Monitoring	电流的连续性监控间断不能超过 1us 不允许任何端子电阻超过 7 欧的时间大于 1us 的情况发生 There must be no loss of electrical continuity for more than 1 microsecond There must be no instance in which the resistance of any terminal pair exceeds 7.0 Ω for more than 1 microsecond	USCAR-2 Rev.8 5.1.9
5-2-2	干电路电阻 Dry Circuit Resistance	在环境后≤20mΩ Final≤20mΩ	USCAR-2 Rev.8 5.3.1
5-2-3	电压降 Voltage Drop	在环境后≤50mV Final≤50mV	USCAR-2 Rev.8 5.3.2
5-2-4	最大试验电流能力 Maximum test current capacity	在无风的封闭场所内搭建一个电路 温度：23±5℃(室温) 时间：等待 15 分钟（电流在输出时，电路的温度达到稳定） 温升：55℃ Create a circuit in a draft free environment Temperature :23±5℃(room temperature) Time: Wait at least 15 minutes for the circuit temperature to reach Steady State Temperature Rise：55℃	USCAR-2 Rev.8 5.3.3

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

5-2-5	电流循环 Current Cyclir~	1.测试电流为最大试验电流 90%（测试项 5-2-4） 2.通电 45 分钟，断电 15 分钟，完成 1008 个循环 3.任何端子温升不超过 55℃ 4.干电路电阻≤20mΩ 1.The test current is 90% of the maximum test current （Item:5-2-4） :.45 minutes of power on ,15 minutes of power off ,and .008 cycles are completed. 3.The temperature rise must not exceed 55℃ at any time luring the test for any terminal 4.Dry circuit resistance is less than or equal 20mΩ	USCAR-2 Rev.8 5.3.4
5-2-6	绝缘电阻 Insulation Resistance	将试验样品的所有接端交错连接成两组，再施加 1000 VDC 电压测量绝缘电阻。绝缘电阻>100 MΩ Apply 1000 VDC voltage (desiccation bound) between all contacts connected together and a metal foil surrounding the housing. In addition, apply the voltage a different test sample to every two adjacent contacts. Insulation resistance >100 MΩ	USCAR-2 Rev.8 5.5.1

5-3. 机械的性能 Mechanical Performance.

测试内容 Item		规格要求 Specification requirements	参考标准 Reference standard
5-3-1	连接器/端子循环 Connector and/or Terminal Cycling	完成每一对连接器或端子 10 次插拔 Completely mate and un-mate each connector or terminal pair 10 times	USCAR-2 Rev.8 5.1.7
5-3-2	端子到端子啮合/分离力 Terminal to Terminal Engage/Disengage Force	以不超过 50mm/min 的均匀速度插入-分离对配端子 注意接触面的任何磨损，不应暴露基材 Engage and disengage the mating terminals at a uniform rate not to exceed 50 mm/min No base material should be exposed	USCAR-2 Rev.8 5.2.1
5-3-3	连接器至连接器的配合/分离力（无机械辅助） Connector-Connector Mating/Unmating/ Retention Forces (non-assist)	组装所有适配组件，以 50mm/min 的均匀速度配合连接器，插入力≤75 N 以不超过 50mm/min 的均匀速度拔出配合的主锁被完全分离/禁用的连接器，拔出力≤75N Completely assemble all connector halves using all applicable components, mating the connectors at a uniform rate 50mm/min, Mating Force≤75N Disengage the mating connectors that primary lock completely disengaged/disabled at a uniform rate not to exceed 50mm/min. Unmating Force≤75N 注：组装所有适配组件，以 50mm/min 的均匀速度卡扣保持力（不含端子）不依 5.4.2.4 要求的>110N 标准。该项标准	USCAR-2 Rev.8 5.4.2 LV214-1 TG7 （Table 5）

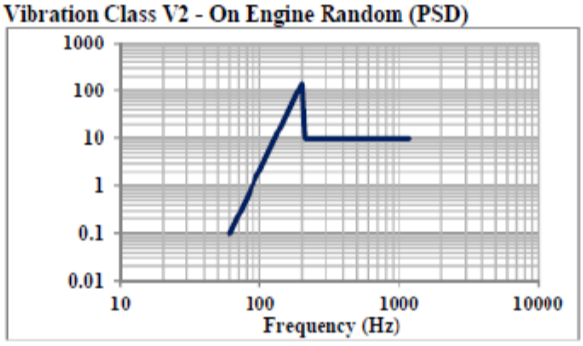
Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

<table>
<tr>
<td></td>
<td></td>
<td>依 LV214-1 TG7 执行（下表）。
Note: All adaptive components shall be assembled, and the retaining force of the buckle (excluding terminals) shall not comply with 5.4.2.4 at a uniform speed of 50mm/min. 110 n. This standard is implemented according to LV214-1 TG7 (Table below).

Table 5 – Positive-locking contact housing holding forces
<table>
<tr><th colspan="4">Positive-locking contact housing holding forces</th></tr>
<tr><th rowspan="2">Contact size in mm</th><th colspan="3">Number of pins</th></tr>
<tr><th>1 to 2 pins</th><th>3 to 6 pins</th><th>> 6 pins</th></tr>
<tr><td>0.5</td><td>> 40 N</td><td>> 50 N</td><td>> 60 N</td></tr>
<tr><td>0.63 to 1.2</td><td>> 60 N</td><td>> 80 N</td><td>> 100 N</td></tr>
<tr><td>> 1.2 to 2.8</td><td>> 80 N</td><td>> 100 N</td><td>> 100 N</td></tr>
<tr><td>> 2.8 to 6.3</td><td>> 100 N</td><td>> 100 N</td><td>> 100 N</td></tr>
<tr><td>> 6.3</td><td>> 150 N</td><td>> 150 N</td><td>> 150 N</td></tr>
</table>
</td>
<td></td>
</tr>
<tr>
<td>5-3-4</td>
<td>端子至连接器插入/保持力
Terminal-Connector Insertion/Retention Force</td>
<td>端子以不超过 50mm/min 的均匀速度插入连接器
端子插入力≤15N
端子以不超过 50mm/min 的均匀速度拉出连接器
端子保持力(一次锁+二次锁)≥55N
The terminal straight into the connector at a uniform rate not to exceed 50 mm/min
Insertion Force≤15N
Pull the terminal straight back from the connector at a uniform rate not to exceed 50mm/min, until pullout occurs.
Retention Force (Primary+Secondary Lock)≥55N</td>
<td>USCAR-2 Rev.8
5.4.1</td>
</tr>
<tr>
<td>5-3-5</td>
<td>混合组件的啮合分离力
Miscellaneous Component Engage/Disengage Force</td>
<td>15N≤啮合力≤60N
分离力：18N≤锁定到预锁≤60N
15N≤Engagement Force≤60N
Removal Force：18N≤Lock to pre-set≤60N</td>
<td>USCAR-2 Rev.8
5.4.5</td>
</tr>
</table>

东莞市思索技术股份有限公司 www.SESO.cn APPROVED 研发中心 Dongguan SESO Technology Co.,Ltd.

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

5-3-6	震动/机械冲击 Vibration/Mechanical Shock	冲击：1.加速度 35g、脉宽 5~10ms、半正弦 2.每轴 10/次、6 个轴向 振动：三个相互垂直的轴中各进行 8 小时振动测试，使用 60-1200HZ 12.1grms 没有任何端子对的电阻在 1 微秒内超过 7.0Ω的情况发生 Shock : 1. Acceleration 35 g, Duration 5~10 ms,Half Sine Wave 2.Each axis 10/times ,6 axes. Vibration :8 hours of vibration test in each of the three vertical axes, using 60-1200 HZ 12.1grms Does not occur when the resistance of any terminal pair exceeds 7.0Ω within 1 microsecond.  	USCAR-2 Rev.8 5.4.6
5-3-7	极性特征有效性 Polarization Feature Effectiveness	以错误的方向将公连接器插入母连接器,公母端子间不通电 Insert the male connector into the female connector in the wrong direction, and the male and female terminals are not electrical contact	USCAR-2 Rev.8 5.4.4
5-3-8	端板 Pin 针保持力 Header Pin Retention	保持力≥15N Retention force≥15 N	USCAR-2 Rev.8 5.7.1

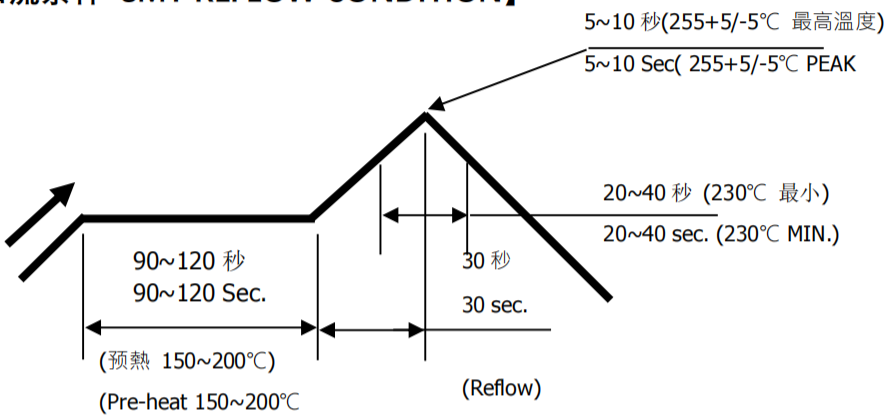
Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

5-4. 环境性能及特殊要求 Environmental Performance and Special Requirments.

测试内容 Item		规格要求 Specification requirements	参考标准 Reference standard
5-4-1	热冲击 Thermal Shock	低温-40℃，高温+125℃ 低温保持 30 分钟，高温保持 30 分钟，高低温转换小于 30 秒，100 次循环，不能有任何端子电阻超过 7 欧的时间大于 1us 的情况发生 干电路电阻≤10mΩ；电压降≤50mV Min.temperature:-40℃,Max.temperature:+125℃ Cold soak for 30 min,Heat soak for 30 min,Transfer time<30s, Cycles 100 times,There must be no instance in which the resistance of any terminal pair exceeds 7.0 Ω for more than 1 microsecond Dry Circuit Resistance≤10mΩ; Voltage Drop≤50mV	USCAR-2 Rev.8 5.6.1
5-4-2	温度/湿度循环 Temperature/Humidity Cycling	温度变化幅度：-40℃ to 125℃ 时间：温室内 5 小时内不能进行泄漏 湿度：(80-100)% 干电路电阻≤10mΩ;电压降≤50mV 绝缘电阻>1000 MΩ 端子插入力≤15N 端子保持力(一次锁+二次锁)≥50N Time: No leakage within 5 hours of greenhouse Temperature range :-40℃ to 125℃ Humidity :(80-100)% Dry Circuit Resistance≤10mΩ; Voltage Drop≤50mV Insulation resistance>1000 MΩ Insertion Force≤15N Retention Force (Primary+Secondary Lock)≥50N	USCAR-2 Rev.8 5.6.2
5-4-3	高温暴露 High Temperature Exposure	时间：1008H，温度：125℃ 干电路电阻≤10mΩ;电压降≤50mV 端子插入力≤15N 端子保持力(一次锁+二次锁)≥50N Time: 1008H，Temperature :125℃ Dry Circuit Resistance≤10mΩ; Voltage Drop≤50mV Insertion Force≤15N Retention Force (Primary+Secondary Lock)≥50N	USCAR-2 Rev.8 5.6.3
5-4-4	焊锡耐热性 Resistance to Soldering Heat	焊接时间: 5~10 秒. 焊接温度: 255+5/-5℃. Soldering time:5~10 sec solder. Temperature:255+5/-5℃.	EIA-364-56

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

【6. SMT 回流条件 SMT REFLOW CONDITION】



温度条件曲线图/ 基板上温度

TEMPERATURE CONDITION GRAPH/ (TEMPERATURE ON BOARD PATTERN SIDE)

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.

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.

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

【7.测试组 Test Group】

流程图		端子机械测试	电气性能	连接器机械测试				
参考标准	测试序列	端子至端子的啮合/分离力	最大电流/电流循环	端子至连接器的插入/保持力	混合部件的啮合/分离力	连接器至连接器的配合/分离力	极性特征	板端Pin 针保持力
USCAR-2	序列 ID	A	B	C	D	E	F	G
	测试样品	10	10	10	10	15	10	10
5.1.7	连接器/端子循环		2					
5.1.8	外观检查	1、3	1、5	1、3	1、3	1、3	1、3	1、3
5.2.1	端子至端子的啮合/分离力	2						
5.3.3	最大试验电流能力		3					
5.3.4	电流循环		4					
5.4.1	端子至连接器的插入/保持力			2				
5.4.2	连接器至连接器的配合/分离力（无机械辅助）					2		
5.4.4	极化特征效果						2	
5.4.5	混合部件的啮合/分离力				2			
5.7.1	板端 Pin 针保持力							2

说明:

准备的样品应与适用于生产的说明一致，应随机从当前生产中选取

东莞市思索技术股份有限公司 www.SESO.cn APPROVED 研发中心 Dongguan SESO Technology Co.,Ltd

Product Specification【产品规格书】	Document No.	PS-6350-01
Product Name 【产品名称】: 6.35mm Pitch 6350 Series Connector	Date Issued	2024/09/27
	Date Revised	/
	Version	X0

流程图		连接器系统电性能测试顺序				
参考标准	测试序列	振动冲击	热冲击	温度/湿度循环	高温暴露	焊锡耐热性
USCAR-2 或 EIA-364	序列 ID	H	I	J	K	L
	测试样品	10	10	10	10	5
5.1.8	外观检查	1、7	1、7	1、8	1、7	1、3
5.1.7	连接器/端子循环	2	2	2	2	
5.1.9	电路连贯性监控	4	4			
5.3.1	干式电路电阻	3、5	3、5	3、5	3、5	
5.3.2	电压降	6	6	6	6	
5.4.1	端子至连接器的插入/保持力			9	8	
5.4.6	振动/机械冲击	4				
5.5.1	绝缘电阻			7		
5.6.1	热冲击		4			
5.6.2	温度/湿度循环			4		
5.6.3	高温暴露				4	
EIA-364-56	焊锡耐热性					2

注释:

(1) 环境温度等级 T3: -40℃ to 125℃。

(2) 振动等级 V2

(3) 本产品适用于线缆选用 AWG 22~20 (0.35~0.5mm²) Max。

东莞市思索技术股份有限公司 www.SESO.cn APPROVED 研发中心 Dongguan SESO Technology Co.,Ltd.