

STARWELL	<b>深圳市星维科技有限公司</b>		<b>REVISION</b> (版本)	A/0
	Shenzhen Starwell Technology CO., LTD.		<b>DATE</b> (日期)	2022-03-24
<b>PART NUMBER</b> (样单编号)	SW-01050200- S04AU	<b>CUSTOMER MODEL</b> (客户型号)		

## APPROVAL SHEET

(承认书)

FOR

**AC/DC ADAPTER**

(适配器)

MODEL NO.

(型号)

SW-01050200-S04AU

MANUFACTURER (制造商)			
EDIT (制订)	CONFIRM (确认)	CHECK (审核)	APPROVAL (批准)
刘明英			

CUSTOMER APPROVAL (客户承认)		
签收:	印章:	日期:

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## 1. General Description(概述)

This specification defines the input, output, performance characteristics, and environment, noise and safety requirements for **10Watts** adaptor. (The environment temperature is 25°C or aging test after 15 minutes).

(本规格详细说明了 **10W** 的适配器输入、输出特性、环境、噪音和安全要求。(环境温度为 25 度或老化 15 分钟后进行测试)

## 2. Environment Protection Laws (环保法规)

ROHS    REACH    CPSIA    EN71    PHTHALATE    HALOGEN

## 3. According with Safety and EMC Criterion (符合的安全及电磁兼容标准)

EN62368-1    EN61558-1    EN60065-1    EN55032  
UL62368-1    UL1310    UL60065-1    EN55024  
GB4943.1    GB9254    GB17625.1    FCC Part15  
J60065    J55013

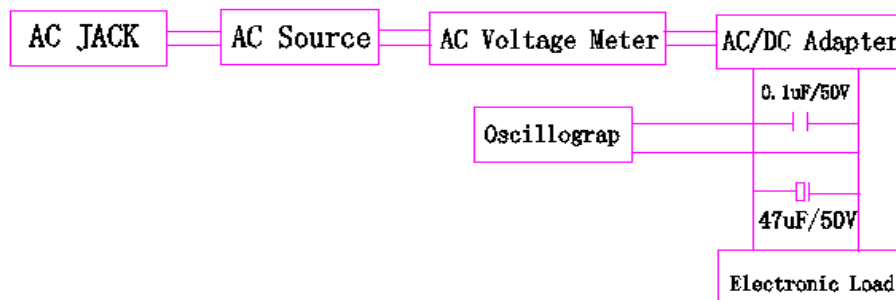
## 4. Safety and EMC Approval (已认可的安全及电磁兼容标准)

CB    TUV/GS    CE    PSE    UL    FCC  
SAA    C-tick    KC    CCC    J TLC    E-mark

## 5. Test Circuit (测试电路)

If the test is to be made on a specified circuit, be sure to use the following circuit.

(无特殊规定的情况下依照下面的电路进行测试.)



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## 6. Input Characteristics (输入特性)

### 6.1 Rated Input Voltage (额定输入电压)

Rated input voltage is from **100Vac** to **240Vac**.

(额定输入交流电压 **100V~240V**)

### 6.2 Rated Frequency (输入频率)

It is normal for **50Hz** or **60Hz** and single phase.

(输入频率 **50Hz/60Hz**)

### 6.3 Steady AC Current (AC 输入电流)

The maximum input current shall be less than **0.32A** at 100~240Vac input

(在额定输入电压 **100V~240V** 时输入电流小于 **0.32A**)

### 6.4 Inrush Current (峰值输入电流)

With cold starting, input AC 240V the inrush current should **30A Max**

(电源启动时最大峰值输入电流小于 **30A**)

### 6.5 Standby (待机功耗)

The input power shall be less than **0.1W** at **110 or 230V**ac input.

(在输入电压 **110V 或 230V** 时待机功耗小于 **0.1W**)

### 6.6 Efficiency (效率)

Measured at 115Vac or 230Vac input voltage, Average efficiency can reach energy star VI (**78.70%**)standard

(在输入电压 115Vac 或 230Vac, 平均效率可达到能效六级(**78.70%**)标准)

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## 7. Output Characteristics (输出特性)

### 7.1 Rated Output Voltage (额定输出电压)

No load voltage (空载输出电压范围): **5V ±5%**

Full load voltage (满载输出电压范围): **5V ± 5%(I=2A)**

### 7.2 Rated Power (额定功率)

This adaptor is capable to support **10Watts** continuously at all specified conditions.

(额定功率为 **10Watts**)

### 7.3 Ripple and Noise (纹波和噪音)

Ripple voltage is **200mV** p-p (Full load **2.0A**) measured methods: Performed by 20MHz bandwidth in oscilloscope Applied 0.1uF ceramic capacitor and 47uF electrolytic capacitor across output connector terminals Measured at the end of DC cable. The environment temperature is 25°C or aging test after 15 minutes.

(输出端并 0.1uF 与 47uF 电容, 限制示波器带宽 20MHz 时, 测得纹波小于 **200mV** p-p, 环境温度 25 度或老化 15 分钟后进行测试)

### 7.4 Protection (保护)

#### 7.4.1 Over Current Protection (过流保护)

OCP Point Limited: **105%~200%** of Max. Load. The output shall hiccup when the over current applied to the output, and shall be self-recovery when the fault condition is removed

过电流点为最大负载的 **1.05~2.0** 倍, 输出将进入打嗝模式, 当过电流情况解除后, 产品将会自动恢复正常。

#### 7.4.2 Short Circuit Protection (短路保护)

The input power shall decrease when the output short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed.

(当输出短路时, 产品输入功率降低且不会损伤, 当短路情况解除后, 产品将会自动恢复正常。)

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## 8. Reliability Items (可靠性项目)

### 8.1 Electrostatic discharge (静电)

At 150pF: 330Ω, for each point, 10 shots of direct discharge or air discharge (1 MΩ/ SHOT), have no malfunction. Direct discharge: **±4kV**, Air discharge: **±8kV**  
(在接触放电**±4kV**和空气中放电**±8kV**模式下,各处分别放电 10 次无误动作)

### 8.2 Hi-Pot Test (高压测试)

Primary to Secondary: **3000Vac / 10mA**Max / 60S (when safety testing)

初级对次级: **3000Vac / 10mA**Max / 60 秒 (安规试验)

Primary to Secondary: **3300Vac / 5mA**Max / 3S (when production)

初级对次级: **3300Vac / 5mA**Max / 3S(生产作业)

### 8.3 Insulation Resistance (绝缘电阻)

100MΩ min. between primary to secondary add 500Vdc test voltage.

在初级与次级间加 **500Vdc** 进行测试, 最小 **100MΩ**。

### 8.4 Leakage Current (泄漏电流)

**0.25mA** maximum, at nominal AC input voltage and frequency

(输入时泄漏电流不得 **0.25mA** max)

### 8.5 Burn-In Test (老化测试)

**4 hours** at **40°C** maximum, Normal input voltage, rated load.

(在高温 **40°C** 工作**四**小时情况下, 输入电压和额定负载正常。)

## 9. Mechanical Requirement (机械要求)

### 9.1 Weight (重量)

**35g ± 10g**

### 9.2 Input plug type (输入插头类型)

Wall-mounted type. **AU-pin**. 2 Conductors, < Live. Neutral > (澳规 AC 输入 2PIN 插头)

### 9.3 Drop Test (跌落试验)

Drop the adaptor from a height of **100cm** onto a hardwood floor, hitting the adaptor for **6** times, no mechanical damages or other failures, no electrical deterioration and other failures comparing to before test condition.

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(制品从 100cm 处落下 6 次，落下的方向任意，落在硬木地板上，实验后与实验前状态比较没有机械破损等不良状况,且不出现电器性能损坏)

## 10. Environmental Performances(环境性能)

### 10.1 Operating temperature range (工作温度范围)

The product should operate at 0~40°C, test of operating for 4 hours at 0°C ±2°C and 40°C ±2°C.

(该产品工作温度范围为 0~40°C,低温 0°C ±2°C 和高温 40°C ±2°C 工作试验各 4 小时)

### 10.2 Storage temperature range(存储温度范围)

The product should be stored at -25~70°C ,test of non-operated for 16 hours at -25°C ±2°C and 70°C ±2°C.

(该产品存储温度范围为-25~70°C, 非工作状态下进行低温-25°C ±2°C 和高温 70°C ±2°C 存储试验各 16 小时)

## 11. 可靠性要求 (Reliability Requirements)

### 4.1. 老化 (Burn-in)

产品至少要在 40°C ±5°C 的环境及 80%额定负载条件下煲机 2-4 小时

The power supply shall be burn-in for 2-4 Hours under normal input and 80% rated load at 40°C ±5°C

### 4.2. 平均间隔故障时间估算 (MTBF Qualification)

平均间隔故障时间：至少 50,000 小时, 25°C 环境及额定输入与满载条件下

The MTBF shall be at least 50,000hours at 25°C, Full load and nominal input condition

## 12. 限功率电源 (LPS)

It is LPS POWER SUPPLY.

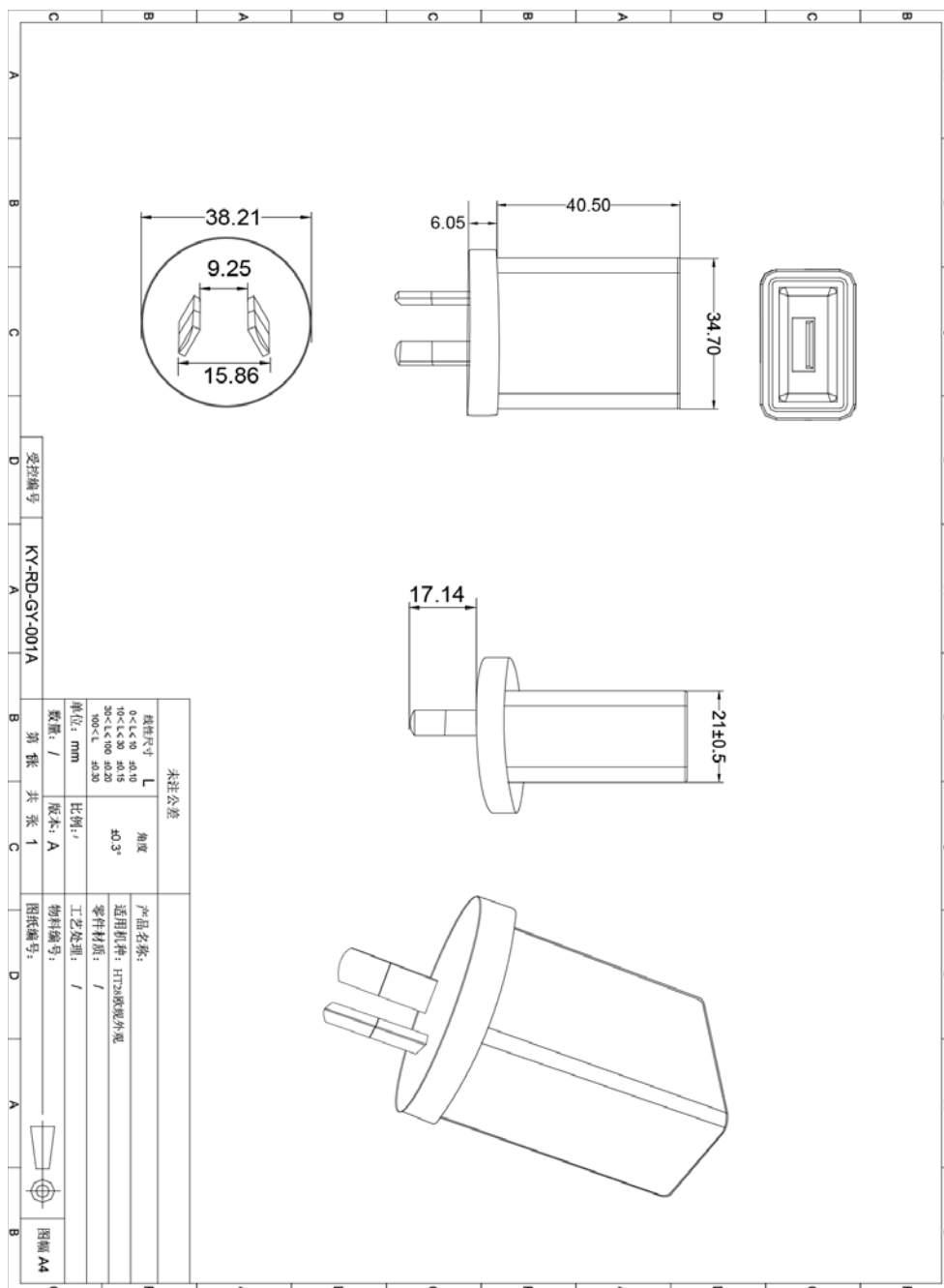
## 13. Client requitement(客户要求):

pin 2 and 3 are short connected together



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### 14. Product Outline Drawing (制品结构尺寸图)

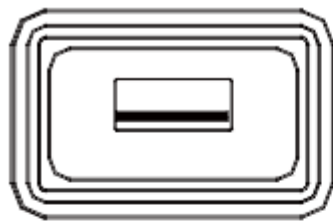


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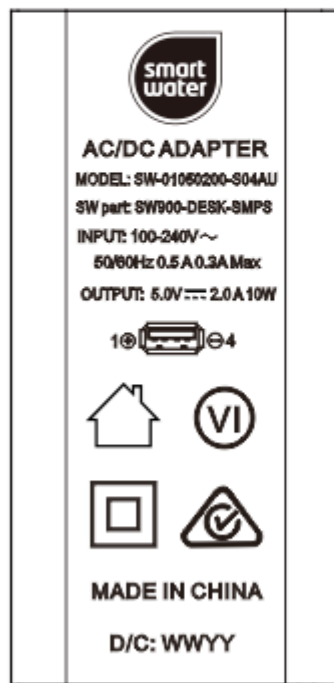
Dimension (尺寸) : 如上图

Color(颜色): 黑色 (black)

### 15. Ratin Label Drawing (标贴纸图)



← 镭射标示位置



注：“D/C:1920” 19 代表生产年份，  
20 代表生产周期，按生产周期更新。

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标贴：镭雕

### 13.Packaging vector diagram (包装矢量图)

1. Customer requirements customer requirements by packaging/客户有要求的按客户要求包装。
2. Customer requirements according to our request package/客户无要求按我司要求包装。