



# 深圳市明星通电子科技有限公司

地 址：深圳宝安区光明新区白花社区第一工业区华尔特工业园 D 栋 5 楼

TEL:0755-23199592 FAX:0755-23199593

## 承 认 书

### SPECIFICATION FOR APPROVAL

CUSTOMER NAME/客户名称: 金沃德

CUSTOMER ITEM/客户料号: 5V2A TYPEC 弯头 线长 3.5 米 22AWG P

带 FM 为 A8B8

PRODUCTION MODEL/产品型号: F67A

PRODUCTION ITEM/产品料号: 01.14.00031

客户承认后盖章 APPROVAL STAMP	客户负责人签名（日期） APPROVAL SIGNATURE

批准 APPROVED	品管 QUALITY ASSURE	工程 ENGINEERI NG	样机制作员 SAMPLE BY	业务 SALES BY

Please return to us one copy of "SPECIFICATION FOR APPROVAL" with you approved signature.(客户确认签字，盖章后请回传一份承认书给我司).

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## 1. Scope (描述)

1.1. The purpose of the document is to specify the functional requirements of a 10W Car Charger. /本规格书适应于 SW-MXT5V2ANDP1335 型号的车载充电器.

1.2. The power supply shall meet the RoHS requirement.  
此款电源符合 RoHS 要求.

## 2. Input Characteristics (输入特性)

2.1. Input Voltage (输入电压)

Voltage	Minimum	Nominal	Maximum
Input Voltage	8Vdc	12V~24Vdc	28Vdc

2.2. Input DC Current (DC 输入电流)

1.5A max. Full load & Charger Input voltage at 12-24V DC

2.3. Input Fuse (输入保险管)

Fuse: T 3A / 250V

## 3. Output Requirements (输出参数)

3.1. Output Voltage and Current (输出电压和电流)

Output Voltage	Minimum Voltage(V)	Maximum Voltage(V)	Output Current
			Continuous
+5Vdc	+4.75Vdc	+5.25Vdc	2A (10Watts)

说明：根据客户不同的线材要求,输出电压范围有一定的变化.

3.2. Output Voltage Regulation (输出电压范围)

The total output voltage regulation shall be  $\pm 5\%$ ,

3.3. Ripple and Noise (输出纹波)

Output	Rated Load	Ripple and Noise
+5Vdc	2A	75mV (限制带宽)

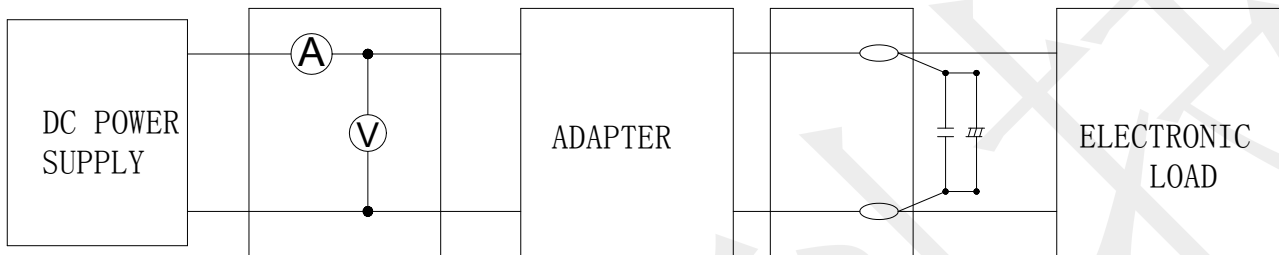
Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolysis capacitor. (test under the condition of rated input and rated output)

3.4. Efficiency (效率)

The efficiency shall be 70% or better under maximum load.



### 3.5. Test Measures (测试措施)



## 4. Protection (保护功能)

### 4.1. Over Current Protection (过流保护)

The power supply will be auto recovered when over current faults remove.

2.1-2.5A 的过流点

### 4.2. Short Circuit Protection (短路保护)

The power supply will be auto recovered when short circuit faults remove.

### 4.3. Over Voltage Protection (过压保护)

30V 保护

## 5. Environment Requirements (环境要求)

### 5.1. Temperature (温度)

Operating:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$

Storage :  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

### 5.2. Humidity (湿度)

Operating: 10% to 90% non-condensing

Storage. : 5% to 95% non-condensing

### 5.3. Altitude (海拔高度)

Operating: 2000 meters

Non-operating: 2000meters



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5.4 ESD. +/-4Kv 接触, +/- 8Kv

## 6. Reliability Requirements(可靠性要求)

### 6.1. Reliability Test(可靠性试验)

Test Items(试验项目)	Test conditions(试验条件)	Test quantity(数量)
Storage at high temperature test(高温储存)	+80°C 16Hrs	2 Pcs
Storage at low temperature (低温储存)	-30°C 16Hrs	2 Pcs
Operating at high temperature test(高温工作)	+60°C 24Hrs	2 Pcs
Operating at low temperature test(低温工作)	-20°C 24Hrs	2 Pcs
Low Temperature turn on test(低温启动试验)	EUT should start-up normally after storage at 0°C of 2 hours under minimum input voltage and maximum load.	2 Pcs
thermal circle test (热循环试验)	0°C (30min)——40°C (30min)——0°C (30min) Continually work 4 cycles	2 Pcs
Constant temperature and humidity test (恒温恒湿试验)	+40°C 90%RH, continually operating 24 hours	2 Pcs

### 6.2. Burn-in(老化)

4 hours at 35°C (+/-5°C), Nominal input voltage , Nominal load.

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

The MTBF shall be at least 30,000hours at 25°C, Full load and nominal input condition

### 6.4. Vibration(振动)

10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth: 3.5mm) for 1Hour for each of the perpendicular axes X, Y, Z

### 6.5. Drop test (跌落实验)

Height: 1m; the product should be fell off on the hardwood with the thickness of 20mm, and the hardwood should be put on the base of the cement or on the ground without flexibility. Apply two times on all surface.



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## 7. Certificate Standards (认证标准)

### 7.1. EMC Standards (EMC 标准)

EN55022: 2006 EN55024: 1998+A1: 2001+A2: 2003 (EN61000-4-2: 2001,  
EN61000-4-3: 2006, EN61000-4-4: 2004, EN61000-4-5: 2006, EN61000-4-6: 2007,  
EN61000-4-8: 2001)  
FCC Rules and Regulations Part 15 Subpart B Class B August 2006  
FCC / ANSI C63.4-2003  
CEC R10  
72/245/EEC ,2006/96/EC  
ISO 7637-2: 2004

### 7.2. Certificate (证书)

Certificate	Country	Certified Status	Standard
CE	Europe(欧洲)	NA	-
FCC	USA(美国)	NA	-
E4	-	NA	CEC R10
e4	-	NA	72/245/EEC ,2006/96/EC

## 8. Mechanical Features: (外形尺寸)

### 8.1. Dimensions (Case Size )(尺寸)

Length: 90mm

Width : 30mm

### 8.2. Weight (重量)

Weight about: 35g (大概重量 35 克)



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## 9. Outline Drawing(外观示意图)



线材 wire rod: 22AWG OD3.5 SR TYPEC elbow 3.5 m with FM

外壳 enclosure: ABS Formosa Plastics

PCB: Dual-panel FR 4 is fire-resistant

主控 Master control: NDP1335

线圈 COIL: 40125 0.5MM 40125 magnet ring

滤波电容 Filter capacitors: 100U 35V + 470U 10V high frequency and low resistance

FM ANT Gina: 0dBi

## 10. Rating label Drawing(铭牌示意图) 根据客人需要定做.

## 11. Package Drawing(包装示意图) (可根据客人要求订制)

默认包装是每箱 300 个，外包厢尺寸：30\*35\*40CM





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## 12. Inspection Standards(出货检验标准)

NO.	Test project (检查项目)	Test standard (检验标准)	Sample Level (抽样水准)	Test standard (检验水准)
1	Performance (电气性能)	GB2828-2003	II	Serious defect: CR=0 (严重缺点): CR=0
2	Size(尺寸)			Main defect: AQL=0.65 (主要缺点): AQL=0.65
3	Shell , Package (外观、包装)			Petit defect: AQL=1.0 (次要缺点): AQL=1.0

## 13. Major Test Equipment(主要测试设备)

- 13.1.DC POWER SUPPLY(直流电源)
- 13.2.POWER METER(电源功率计)
- 13.3.ELECTRONIC LOAD(电子负载)
- 13.4.OSCILLOSCOPE(示波器)
- 13.5.MULTIMETER(万用表)
- 13.6.Multi-ROUTES TEMPERATURE TEST INSTRUMENT (多路温度测试仪)
- 13.7.LOW AND HIGH TEMPERATURE ENVIRONMENT ALTERNATION TEST CHAMBER  
(冷热交变箱)

## 14. Statement(声明)

- 14.1.All rights reserved by SHENZHEN MINGXINGTONG ELECTRONIC TECHNOLOGICAL CO.,LTD. for all of this specification for approval. 本承认书解释权归深圳市明星通电子科技有限公司。
- 14.2.This specification for approval is provided in duplicate, one for customer, and the other for supplier. It comes into effect after approval this specification by customers. 本承认书一式两份，客户一份，供应商一份，自双方确认签字之日起生效。
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