



PRODUCT SPECIFICATION FOR APPROVAL 产品规格书

CUSTOMER NAME (客户名称): 微安 WEIAN

CUSTOMER ITEM (产品名称): 车载磁吸无线充电器
wireless charging

PRODUCT MODEL (产品型号): DS6357 V00

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1 概述：

DS6357 V1.0 磁吸无线充电发射模块，采用SOC主控芯片+全桥芯片，安全高效的为设备提供充电功率其中主控芯片支持软件重复烧写，支持灯光及其他功能定义。
完美兼容市场上绝大多数适配器/车充，如QC2.0/3.0，，AFC、普通5V/2A等（PD2.0/3.0选配）。

该模块可以直接为iphone12/13系列手机完美充电，功率最大可输出7.5W。

在手机等设备充满后，无线发射系统会以保护电芯的模式下，涓流充电；

无线充电发射模块具有完善的保护功能，包含过压、过流、过温、过幅、金属异物等；
模块输入接口类型：Type-c
模块灯光显示：无

DS6357 V1.0 magnetic absorption wireless charging and transmitting module adopts SOC master chip + full bridge chip to provide charging power for the device safely and efficiently. The master chip supports repeated software writing, lighting and other function definition.
Perfectly compatible with most adapters/car charges in the market, such as QC2.0/3.0, AFC, ordinary 5V/2A, etc. (PD2.0/3.0 optional).
The module can directly charge the iPhone 12/13 series phones perfectly, with a maximum power output of 7.5W.
After a device such as a mobile phone is fully charged, the wireless transmitter system will charge in a trickle while protecting the cell.
The wireless charging emission module has perfect protection function, including over-voltage, over-current, over-temperature, over-amplitude, metal foreign bodies, etc.
The input interface Type is Type-c

2 输入输出特征 Input& Outrut Characteristics

2.1 输入特性Input Characteristics

序号 No	项 目 Item	技术要求 Spec	单位 Unit	备 注 Comments
1	额定输入电压 INPUT Voltage	5/9	V	DC
2	输入电压范围 INPUT Voltage Range	4.75-5.25/8.55-9.45	V	DC
3	输入电流范围 INPUT Current Range	0-2	A	DC

2.2 输入待机功耗 stand-by power consumption

输入端适配器 INPUT Adapter	待机功耗 stand-by power consumption	备注 Comments
Anker A2633	9.0V/0.06A	PD 20W
Apple A1443	5.0V/0.05	5W

2.3 输出特征 Outrut Characteristics

序号 No	项 目 Item	技术要求 Spec	单位 Unit	备 注 Comments
1	输出功率 OUTPUT Power	15W (Max)	W	
2	效率 efficiency	80%	%	RX: IDT-P9221
3	输出协议标准 Output protocol standard	QI		
4	充电距离 Charge Distance	3-6	Mm	包含外壳厚度

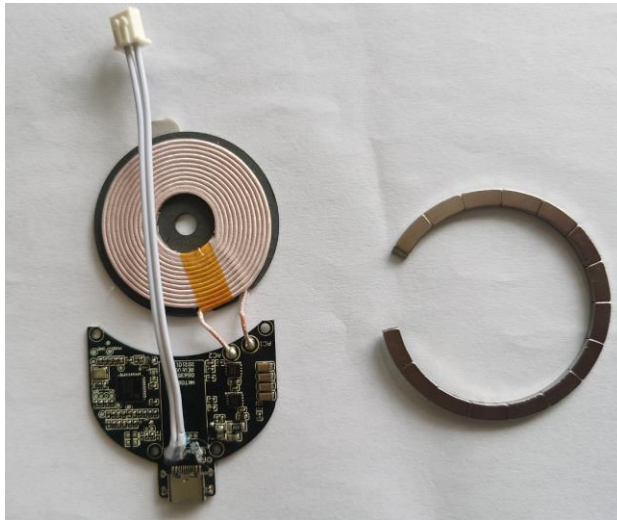
3 手机&适配器兼容性测试 compatibility testing

测试条件：选取QC/AFC/5V_3A车载适配器+4芯数据线+无线充电发射模块

Test conditions: select QC/AFC/5V_3A car adapter + 4-core data cable + wireless charging and transmitting module

手机型号 Phone Model	手机充电状态 Charge Status	结论 Conclusion
Iphone13pro max	7.5W	Pass
Iphone13 Pro	7.5W	Pass
Iphone13	7.5W	Pass
Iphone12	7.5W	PASS
Iphone 12 Mini	7.5W	PASS

4模块实物图 graphical representation



5 保护特性 Protection Characteristics

5.1 过温保护 over-temperature protection

当发射端的工作温度超出系统 OTP 设定温度, 过温保护功能会自动启动, 暂停功率输出。
3-5min 后系统解除保护重启。

- (1) 重启后如 PCBA 温度低于系统 OTP 设定温度, 系统会正常输出;
- (2) 重启后如 PCBA 温度仍超出 OTP 设定温度, 系统会重新进入 OTP 保护。

When the operating temperature of the transmitter exceeds the set temperature of the system OTP, the over-temperature protection function will automatically start and pause the power output.

- (1) After 3-5min, the system is deprotected and restarted.
- (2) After restart, if the PCBA temperature is lower than the set temperature of system OTP, the system will output normally;
- (3) If the PCBA temperature still exceeds the set temperature of OTP after restart, the system will re-enter the OTP protection.

5.2 欠压、过压过流保护 Over/Low-Voltage, Over/Low-Current Protection

当 RX 设备检测到输入欠压、过压、过流等, RX 设备发出 END 指令给 TX, TX 停止输出。当接收设备的过电流故障排除后, 发射端重启并恢复正常工作。

5.3 金属异物保护

当发射端线圈充电区域检测到金属异物 (硬币、金属卡片、钥匙等) 时, 发射器会停止能量输出; 异物移除, 发射端会解除保护状态;

When RX devices detect input undervoltage, overvoltage, overcurrent, etc., RX devices issue END instructions to TX, TX stops output. When the overcurrent fault of the receiving device is eliminated, the transmitter is restarted and resumes normal work.

5.3 Metal foreign body protection

When metal foreign bodies (coins, metal cards, keys, etc.) are detected in the charging area of the coil at the transmitter end, the transmitter will stop the energy output. When the foreign body is removed, the transmitter will release the protection state;

5.3 . Charge completion 完成充电：

当收到来自接收设备的“充电完成”指令数据包，发射端进入浮充状态。（取决与手机端是否发充饱指令）

When receiving the "charge completion" instruction packet from the receiving device, the transmitter enters the floating charge state. (Depends on whether the phone sends a full command)

6 可靠性要求Reliability Requirements

6.1. 可靠性测试 Reliability Test

测试项目 Item	测试条件 test condition	
高温储存 high- temperature storage	+60℃	24H
低温储存 low- temperature storage	-20℃	24H
高温带载测试 high- temperature Load Test	35℃	2H
低温带载测试 Low- temperature Load Test	-5℃	2H

6.2. 老化测试 Aging Test

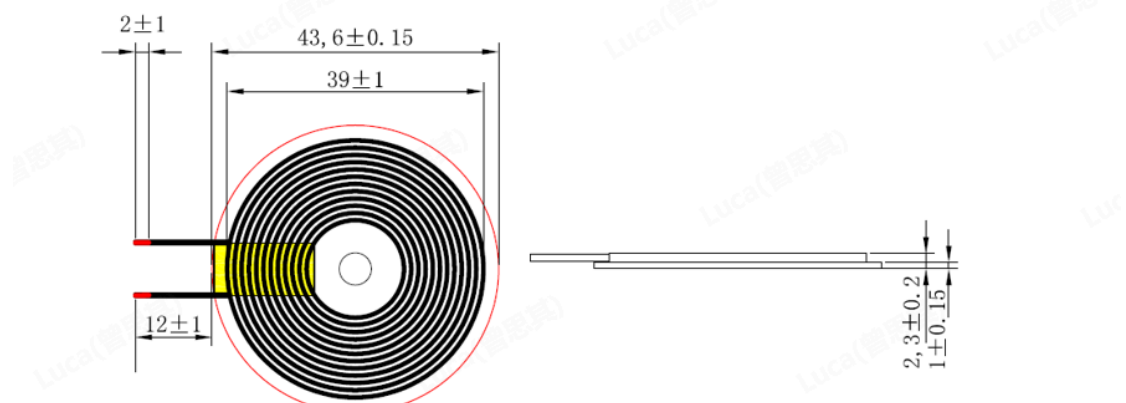
在 26℃ (±5℃) 的环境下, 额定输入电压, 额定负载, 老化 1 小时。

At 26 ° C (±5 ° C), rated input voltage, rated load, aging for 1 hour.

7 环境要求 Environment Requirement

序号 No	项 目 Item	技术指标 Spec	单 位 Unit	备 注 Comment
1	工作温度 Work Temperature	-5 - +30	℃	满载 Full Load
2	储存温度 Storage Temperature	-20 - +85	℃	
3	相对湿度 humidity	5% - 95%		无冷凝 No condensation
4	散热方式 heat- dissipating method	自然冷却 natural cooling		
5	海拔高度 altitude	≤3000	m	正常工作 Normal Working

8 Coil Module



Comments:

1. Diameter :0.08x105P
2. Number of turns:12
3. Inductance: $6.3\text{Uh} \pm 10\%$
4. Way of winding: Anticlockwise
5. Measurement frequency: 1.0KHZ/1V
6. All materials meet ROHS Requirement
7. 0.05 Double-slide gum