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SPECIFICATION

产品承认书

Customer 客户名称			
Product No. 产品型号	T02 15W		
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CUSTOMER APPROVED

客户确认栏

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产品规格书

Model Name: 产品名称:	Wireless charging base 无线充底座
Model: 产品编号:	T02 15W
Version: 版本:	A0

Amendment Records 修改记录

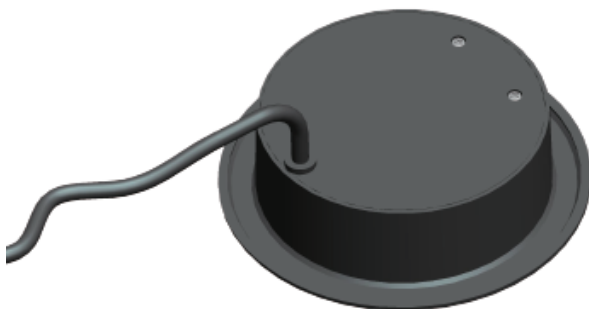
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Indes 目 录

Cover 产品承认书封页	1
Second Page 产品规格封页	2
Indes 目录	3
一、Overviews 概述	4
1、Product Image 产品图片	4
2、Product introduction 产品简介	4,5
3、Main Product Features 产品主要特征	5
4、Basic Performance 基本性能	5,6,7
二、Environmental Suitability 环境适应性	7, 8
三、Mechanical properties 机械性能	9
四、Notes 注意事项	10

一、Overviews 概述

1、Product Image 产品图片



2、Product introduction 产品简介

本无线充底座产品专为手机及移动数码产品设计的智能充电器，是您娱乐、外出旅行的最佳伴侣；精美外观，舒适手感。智能主板，智能充电，即插即用；完美兼容市场上 98% 的数码设备，如：MP3、MP4、Cellphone、IPHONE、IPAD、GPS、PSP、Bluetooth 、Digital camera 等。

This Wireless charging base is designed for the restaurant and mobile digital products use.

It's so lovely, smoothly and intelligent make it be your best partner for resting and traveling. It can compatible with the 98% digital devices on the market,

such as: MP3, MP4, Cellphone, IPHONE, IPAD, GPS, PSP, Bluetooth, camera, etc..

3、Main Product Features 产品主要特征

1、轻巧塑胶外壳，防火(94-V1)耐高温,外观精美，手感舒适；

1, light plastic shell; fireproofing(94-V1)high temperature resistance;none conductivity; elegance appearance; smoothly touch;

2、智能化多功能芯片，具有输入过压,输出过压、过载、短路等安全保护功能。

2, intelligent multi-function chip, make it with output overvoltage, overload, short circuit and other security functions.

3、无线充输出最大 15W 功率，1 个 USB 输出最大 5V/2A。

3, Wireless charging out 15W power max , one USB output 5V/2A max.

5、充电自动识别，无线充放电功率转换效率 70%~75%。

5, automatically charge, and wireless charging discharge conversion rate highly to 70% ~ 75%.

6、红绿色高亮 LED 灯显示待机和工作状态。

6, Red and green LED display for standby mode and working.

7、适用于市场上大多数 USB 接口类数码产品充电,应用广，通用性强。

7, Suite for most of the USB interface digital products on the market, can be extensive used.

8、功耗低：芯片自身功耗低于 0.01W，整机系统待机功耗≤30mA，工作稳定可靠。

8, Low power consumption: chip power consumption is less than 0.01W, the whole system of standby power consumption is less than or equal to 30mA, stable and reliable.

4、Basic Performance 基本性能

a, Electronic performance standard 电子性能标准	
Input voltage 输入电压	5V/9V/12V
Input current 输入电流	2000mAh±200mAh

Self consume time 输出空载电压	5V±0.25V			
Output voltage current 输出电压电流	USB 输出：5V/1A-2A			
	无线充输出：5V/2A,9V/1.67A,12V/1.25A			
self consumption 自耗电	≤30mA			
Power Efficiency 功率效率	无线充效率：70% ~ 75% USB 输出效率：90%-95%			
output ripple 输出纹波	≤100mV			
Scope of application 适用范围	Iphone/Ipad/all smart phone laptop 各品牌手机，无线充手机，平板电脑			
D-	短接			
D+				
b, reliability performance 可靠性性能				
Ambient temperature 使用环境温度	-10℃~45℃			
Temperature characteristic 温度特性	discharge temperature 放电温度 (that is, power bank charging phone related date for temperature) (即对手机充电时各环境温度可放电量)			
	-10℃	0℃	25℃	45℃
	≥60%	≥70%	≥100%	≥95%
Temperature rise characteristic 温升特性	Charging for phone, product surface temperature cannot over 55℃ 对手机充电时，产品外壳表面不应当超过 55℃			

c、Environmental Condition 环境条件

NO. 序号	Items 项目	Performance measure 工作指标	Unit 单位
1	Operating temperature 工作温度	-10—45	℃
2	Storage temperature 储存温度	-40-75	℃
3	Relative humidity 相对湿度	20%—80%	RH
4	Heat-dissipating method 散热方式	natural cooling 自然冷却	

d、Lights indicator specification 电量指示灯说明

LED display and button function description LED 灯显示及按键功能说明

Led display for power 电量 LED 显示	Button control 按键控制	This goods no button and led capacity disply 本机无按键，LED 电量显示说明
	stand by 待机状态 USB charging USB 充电 Wireless charging 无线充电	Red LED long bright 红灯长亮 Red LED long bright 红灯长亮 Green LED long bright 绿灯长亮
	Wireless FOD 无线充异物检测	Green LED twinkle 绿灯闪烁

e、Basic Operation 基本操作

3.1 接入操作 join up operation

3.11 请使用额定输出电压 5V-9V-12V，输出电流 $\geq 2A$ ，符合相关认证的充电器。

3.11 please use the output voltage 5V-9V-12V, output current $\geq 2A$, relevant certification charger.

3.12 接通充电器电源后，即开启给手机充电功能，同时相应电量指示灯亮。

3.12 Open the charger power using charger, when the power is on then mobile is charging, and at the same time, the corresponding indicator light flashes.

3.13 充电完成充满电后，请尽快拔出 USB 充电线或电源，请在充满电后不要长时间将输入电源与产品连接。

3.13 when power bank is fully charged, please cut off USB charging cable or power supply as soon as possible, and please do not keep power input for product for a long time.

二、Environmental Suitability 环境适应性

number 序号	Test items 试验项目	Test conditions 试验条件	Check items 检验项目
1	high	under 75℃, 6 hours,	1、外观 apperance



	temperature storage 高温存储	75℃条件下，6 小时	2、电气性能 electrical performance (常温恢复 2 小时，正常工作) come back to normal condition, 2hours, normal work
2	Low temperature storage 低温存储	-40℃±2℃ 6hours -40℃±2℃，6 小时	1、外观 apperance 2、电气性能 electrical performance (常温恢复 2 小时，正常工作) come back to normal condition, 2hours, normal work
3	high temperature working 高温工作	Under 45℃±2℃，2hours 45℃±2℃条件下，2 小时	1、开关机输出电压 output voltage for turn on/off 性能正常 normal performance
4	low temperature working 低温工作	Under -10℃±2℃ 4hours -10℃±2℃条件下，4 小时	1、开关机输出电压 output voltage for turn on/off 2、性能正常 normal performance
5	ESD static Discharge ESD 静电放电	±4KV contact discharge 10 times; ± 8KV air discharge performance of each of the 10 products ±4KV 接触放电各 10 次; ±8KV 空气放电各 10 次	normal performance 产品性能正常
6	constant temperature and humidity 恒定湿热	40 degrees C±2 °C , relative humidity 90%~95%, constant temperature and humidity for 48 hours 40℃±2℃,相对湿度 90%~95%，恒温恒湿 48 小时	Remove to 23 °C ±2 °C environment test discharge capacity 2 hours later 取出在 23℃±2℃环境搁 2 小时后测放电容量
7	cycle temperature 温度循环	75℃±2℃ for 6 hours to -40℃±2℃ for 6 hours, 10 cycles, the conversion time ≤30 minutes 75℃±2℃ 保持 6 小时转至-40℃±2℃ 保持 6 小时，循环 10 次，转换时间≤30 分	normal performance 产品性能正常

三、Mechanical properties 机械性能

number 序号	Test items 试验项目	Test conditions 试验条件	Check items 检验项目
1	vibration 振动	Can withstand 5-500Hz random vibration in three perpendicular directions, of which the 5-10Hz frequency range of the acceleration spectral density is $10 \text{ m}^2/\text{s}^3$, 10-200Hz frequency range of the acceleration spectral density is $3 \text{ m}^2/\text{s}^3$ 3200-500Hz frequency range of the acceleration spectral density is $1 \text{ m}^2/\text{s}^3$, every 10 minutes. 在三个互相垂直的方向上能经受 5-500Hz 的随机振动, 其中 5-10Hz 频率范围的加速度谱密度为 $10 \text{ m}^2/\text{s}^3$, 10-200Hz 频率范围的加速度谱密度为 $3 \text{ m}^2/\text{s}^3$, 200-500Hz 频率范围的加速度谱密度为 $1 \text{ m}^2/\text{s}^3$, 每方向 10 分钟。	1、器件外观 device appearance 2、性能正常 normal performance
2	fall 跌落	在六个互相垂直的方向上能经受 1m 的随机跌落	3、器件外观 device appearance 4、性能正常 normal performance
3	CE FCC 认证	设计通过 CE FCC 认证	
4	充电接口插拔力	插入力不大于 30N, 拔出力不小于 8N	插拔寿命次数不低于 5000 次
5	放电接口插拔力	插入力不大于 35N, 拔出力不小于 10N	插拔寿命次数不低于 5000 次
6	充电 TYPE-C 口插拔力	无	无
7	按键寿命次数	无	无
8	环保	符合 ROHS 要求、UL 认证	
9	FOD 功能	有	
10	外壳阻燃, 耐高温	防火(94-V1)耐高温 80℃	
11	外壳材料及表面工艺	ABS+PC、晒纹	
12	安全等级	整个产品符合国标 GB31241	
13	QI 认证	设计通过 QI 认证	

四、Notes 注意事项

1、严禁将产品放入水中或用湿布进行清洁，以免造成漏电、短路或其它故障；

1, please do not place product into water or clear it with a wet cloth, to prevent leakage, short circuit or other fault;

2、严禁将产品短路，自行拆解或将产品抛入火中，否则会导致设备起火或爆裂，造成事故；

2, Please do not throw short-circuit the product, throw self dismantling or product into the fire, otherwise it will cause the device on fire or burst, causing accidents;

3.请勿将产品长期暴露在阳光或潮湿、雨水环境之中，同时应尽量避免在此类环境中使用。

3 Please do not place product in the sun or wet, rain environment for a long time, and use of such environments should try to avoid.

4.请使用额定输出符合输入指标的充电器（由正规厂商生产并通过相关认证），否则会造成产品损坏、充不进电或因超负荷引发冒烟、起火等危险；

4 please use the charger which is meet input/output (from the legal manufacturers and the relevant certification), otherwise it will cause product damage , not charge or due to overload will cause smoke, fire etc.;

5.请勿将产品放在密闭的环境中给手机充电，以免因散热不良导致产品和手机发烫，降低产品和手机的使用寿命、导致损坏、甚至引发冒烟、起火等危险。如果在产品的使用过程中发现有异味、发烫、变色、变形等异常情况，请立即停止使用。

5 Please do not use product in a closed environment, to avoid product and mobile phone over hot, decrease product and mobile use time, causing damage, even dangerous smoke, fire etc.. If there is smell, hot, discoloration, deformation and other abnormal situations in using, please stop using immediately.

6.正常使用过程中有可能使本产品局部发热，属正常现象。

6 Whne goods is normal use is likely to make the local fever, is a normal phenomenon.

7.本规格书中标明的数据均为实验室测定值，实际使用会根据具体情况略有不同。

7 the data shown in this specification are all laboratory measured dates, the actual use will be slightly different according to the specific circumstances.

8.任何此规格书没有涉及的条件应在客户和恒科泰电源科技有限公司间协商确定。

8 any of the conditions which is not involved in this specification does should be determined in consultation with customers and Hopepower technology Co. Ltd.

FCC Statement

This equipment has been tested and found to comply with the limits , pursuant to Part 18 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 18 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.