

规格书
Electrical Specification

Description/产品名称: USB charger/USB 充电器

Model No./产品型号: LS-UA15/UA15-AA

Specification/产品规格: DC5V2.1A/9V1.2A/12V0.8A

Revision/版本: A0



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| Prepared By | Check BY | Approve By |
|-------------|----------|------------|
| | | |

E. C. LIST/变更履历表

| Rev. 版本 | Description of Change/变更内容描述 | | Changde Date/日期 | ECN No. |
|------------|--------------------------------|-----------|--------------------|---------|
| | Before/变更前 | Afret/变更后 | | |
| A0 | Original Release (初次发行) | --- | 2016.05.30 | --- |
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** Table Of Content/目录 **

| | | |
|-----|---|-----|
| 1 | Scope /简述 | 4 |
| 2 | Specification/规格表 | 4 |
| 3 | Electrical characteristics/电气特性 | 4 |
| 3.1 | No-load power consumption (no conversion head)/空载功耗（无转换头时） | 4 |
| 3.2 | Efficiency/转换效率..... | 4 |
| 4 | Charging time contrast figure/充电时间对比图..... | 5 |
| 5 | Environment Requirements/环境要求 | 5,6 |
| 5.1 | Operating Temperature and Relative Humidity/操作温/湿度要求 | 5 |
| 5.2 | Storage Temperature and Relative Humidity/存储温/湿度要求 | 5 |
| 5.3 | Vibration/振动 | 5 |
| 5.4 | Drop-Test/跌落测试..... | 5 |
| 6 | Reliability Requirements/可靠性要求 | 6 |
| 6.1 | Burn-in/煲机 | 6 |
| 6.2 | MTBF Qualification/平均间隔故障时间估算 | 6 |
| 7 | EMI/EMS Standards/EMI/EMS 标准 | 6 |
| 7.1 | EMI Standards/EMI 标准 | 6 |
| 7.2 | EMS Standards/EMS 标准 | 6 |
| 7.3 | Safety Standards/安规标准 | 6 |
| 8 | Mach. Outline Drawing/外观示意图 | 7 |
| 9 | Product figure frame picture/产品轮廓框架图..... | 7 |
| 10 | Optional accessories diagram /可选附件图..... | 8 |
| 11 | I/O Marking Drawing/铭牌示意图..... | 8 |
| 12 | Package Drawing/包装示意图..... | 8 |

1. SCOPE 适用范围

This product is an ultra small USB DC-DC port charger, using high pass fast charging QC2.0 technology, support for Samsung NOTE4/S6/S7, One M8 HTC, millet Mi4, SHARP Zeta Aquos, Fujitsu NX Arrows and other mobile phone fast charge. 本产品是一款超小型 DC-DC USB 端口充电器，采用高通快速充电 QC2.0 技术，支持三星 NOTE4/S6/S7, HTC One M8, 小米 Mi4, 夏普 Aquos Zeta, 富士通 Arrows NX 等手机的快充。

2. Specification sheet 规格表

Table 1 Specifications/表 1 规格表

| NO. | ITEM/项目 | Specifications/规格 | Note/备注 |
|-----|-------------------------------|--|------------|
| 1 | power input/电源输入 | DC5V2.4A | |
| 2 | Output /输出端口 | DC5V2.1A/9V1.2A/12V0.8A | QC2.0 |
| 3 | Human-computer interface/人机界面 | / | LS-UA15 |
| | | Digital tube display output voltage /数码管显示输出电压 | LS-UA15-AA |
| 4 | Outline dimension/外形尺寸 | 53.3*23*12mm | LS-UA15 |
| | | 53.3*23*17mm | LS-UA15-AA |
| 5 | Color/颜色 | Black / white 黑色/白色 | |
| 6 | Weight/重量 | 13g | LS-UA15 |
| | | 16.5g | LS-UA15-AA |

3. Electrical characteristics/电气特性:

3.1 No-load power consumption /空载功耗:

Input current/输入电流 $\leq 20\text{mA}$

3.2 Efficiency/转换效率

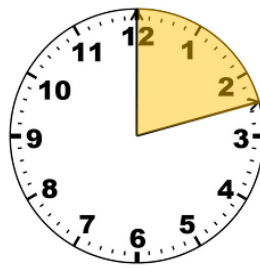
| NO. | PORT/端口 | SPEC/规格 | NO LOAD/空载电压 | FULL LOAD/负载能力 | Efficiency/转换效率 | Ripple and noise/纹波与噪声 |
|-----|-----------------|---------|--------------|----------------|----------------------------|------------------------|
| 1 | Output/ 输出端口 | 5V | 4.9-5.3V | 4.7-5.3V | $\geq 94\%$ (板端), VIN=5.0V | $\leq 300\text{mV}$ |
| 2 | | 9V | 8.7-9.6V | 8.4-9.6V | $\geq 92\%$ (板端), VIN=5.0V | |
| 3 | | 12V | 11.7-12.6V | 11.4-12.6V | $\geq 87\%$ (板端), VIN=5.0V | |

4. Charging time contrast figure/充电时间对比图

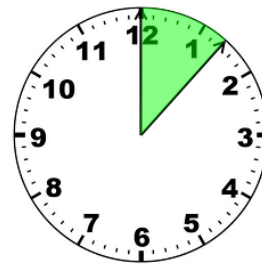
Full Charge (0%~90%) Comparison 3300mAH Smartphone Battery



Conventional
Charging



Quick Charge 1.0



Quick Charge 2.0

5.Environment Requirements/环境要求

5.1 Operating Temperature and Relative Humidity/操作温/湿度要求

0°C to +40°C

20%RH to 80%RH

5.2 Storage Temperature and Relative Humidity/存储温/湿度要求

-20°C to +70°C

10%RH to 90%RH non-condensing @ Sea level shall be low 10,000 feet/低于 10,000 英尺

5.3 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

扫描频率:10 to 300Hz, 加速度:1.0G (位移:3.5mm), X,Y,Z 三垂直坐标轴向各振动 1 小时

5.4 Drop-Test/跌落测试

The height of the drop shall be 1000 mm ± 10 mm ,all supported on a concrete or equivalent non-resilient hardwood floor.

跌落高度为 1000 mm ± 10 mm , 跌落地为混泥土或相等硬木地面。

6 Reliability Requirements/可靠性要求

6.1 Burn-in/煲机

The power supply shall under go a minimum of 4 Hours burn-in test at 40°C ± 5°C in line with The 3.3 condition 产品至少要在 40°C ± 5°C 的环境下及符合 3.3 条件下煲机 4 小时

6.2 MTBF Qualification/平均间隔故障时间估算

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

7. EMI/EMS Standards/EMI/EMS 标准**7.1 EMI Standards/EMI 标准**

| |
|--------------------------------------|
| EN55022 (CISPR22) Class B |
| FCC Part 15 (CFR 47) Class B |
| VCCI Class B CNS |
| IEC61000-3.2:2009 |
| GB 9254-2008 信息技术设备的无线电骚扰限值 and 测量方法 |
| |

7.2 EMS Standards/EMS 标准

| Test Item | Test Specification | IEC Standards |
|-----------|--|---------------|
| ESD | Contact +/-8KV | 61000-4-2 |
| ESD | Air +/-15KV | 61000-4-2 |
| RS | FR: 26MHz-1.0GHz Field Strength: 3V/M | 61000-4-3 |

7.3 Regulatory Standards/安规标准

| |
|------------------------|
| EN60950-1: 2006 |
| UL60950-1: 2007 |
| IEC60950-1: 2005 |
| GB4943.1-2011 信息技术设备安全 |

8. Mach. Outline Drawing/外观示意图

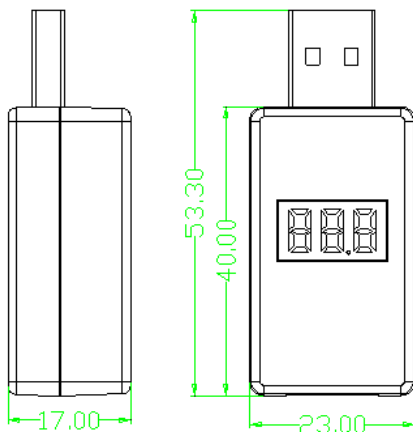


Model: LS-UA15-AA

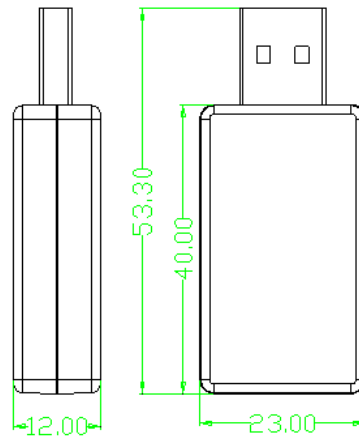


Model: LS-UA15

9. Product figure frame picture/产品轮廓框架图 (Unit: mm)



重量: 16.5g LS-UA15-AA



LS-UA15 重量: 13g

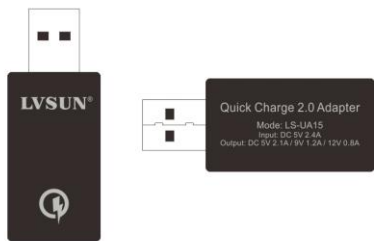
10.Optional accessories diagram /可选附件图

11.I/O Marking Drawing/铭牌示意图

LVSUN UA15英文丝印效果图 16D1版

版号(No.): 160407

颜色(Color):  Cool Gray 4 C  Cool Gray 7 C



12.Package Drawing/包装示意图

