



## 承 认 书

### SPECIFICATION FOR APPROVAL

客 户：

CUSTOMER: 优 特 普

客户型号：

CUSTOMER P/N: \_\_\_\_\_

公司型号：

OUR MODEL NO: TDX-5402230

制定日期：

Date: 2016-01-07

客户签章栏：

| 编 制<br>(PREPARED) | 审 核<br>(CHECKED) | 批 准<br>(APPROVAL) |
|-------------------|------------------|-------------------|
|                   |                  |                   |

腾达兴签章栏：

| 批 准<br>(APPROVAL) | 审 核<br>(CHECKED) | 编 制<br>(PREPARED) |
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| ANUFACTURER<br>承制方 | 深圳市腾达兴电子有限公司<br>Shenzhen teng da xing Electron Co.,Ltd | PAGE<br>页码 | 2 of 11 | REV<br>版本 | A |
|--------------------|--|------------|---------|-----------|---|

## Table Of Content/目录

|   |    |
|---|----|
| 1、SCOPE.....  | 3  |
| 1.1 Description.....  | 3  |
| 2、Input Characteristics/输入特性.....                             | 3  |
| 2.1 Input Voltage & Frequency/输入电压与频率.....                    | 3  |
| 2.2 Input AC Current/AC 输入电流.....                             | 3  |
| 2.3 Inrush Current (Cold Start)/浪涌电流(冷启动).....                | 3  |
| 2.4 Unload Standby Power/空载待机功耗.....                          | 3  |
| 2.5 Efficiency/效率.....  | 3  |
| 3、Output Characteristics/输出特性.....                            | 3  |
| 3.1 Static Output Characteristics <Vo & R+N >/静态输出特性.....     | 3  |
| 3.2 Line/Load Regulation/线性/负载调整率.....                        | 4  |
| 3.3 Turn - on Delay Time/开机延迟时间.....                          | 4  |
| 3.4 Hold up Time/关机维持时间.....                                  | 4  |
| 3.5 Rise Time/上升时间.....                                       | 4  |
| 3.6 Output Overshoot/Undershoot/输出过冲/欠冲.....                  | 4  |
| 3.7 Dynamic Load/动态负载测试.....                                  | 4  |
| 3.8 Brownout & Brownout recovery/电压跌落与恢复.....                 | 4  |
| 4、Protection Requirements/保护要求.....                           | 4  |
| 4.1 Over Current Protection/过流保护.....                         | 4  |
| 4.2 Short Circuit Protection/短路保护.....                        | 4  |
| 4.3 Over Voltage Protection/过压保护.....                         | 4  |
| 5、Environment Requirements/环境要求.....                          | 4  |
| 5.1 Operating Temperature and Relative Humidity/操作温/湿度要求..... | 4  |
| 5.2 Storage Temperature and Relative Humidity/存储温/湿度要求.....   | 5  |
| 6、Reliability Requirements/可靠性要求.....                         | 5  |
| 6.1 Burn-in/煲机.....   | 5  |
| 6.2 MTBF Qualification/平均间隔故障时间估算.....                        | 5  |
| 6.3 Drop Test/跌落测试.....                                       | 5  |
| 6.4 Vibration/振动.....   | 5  |
| 7、EMI/EMS Standards/EMI/EMS 标准.....                           | 5  |
| 7.1 EMI Standards/EMI 标准.....                                 | 5  |
| 7.2 EMS Standards/EMS 标准.....                                 | 5  |
| 8、Safety Standards/安规标准.....                                  | 6  |
| 8.1 .Dielectric Strength(Hi-pot)/介电耐压强度(高压).....              | 6  |
| 8.2. Insulation Resistance/绝缘阻抗.....                          | 6  |
| 8.3. Regulatory Standards/安规标准.....                           | 6  |
| 9、Product Net Weight/产品净重.....                                | 6  |
| 10 Mach. Outline Drawing/外观示意图.....                           | 7  |
| 11. PCB.....  | 8  |
| 12. SCH.....  | 9  |
| 13. DC Cord/DC 线.....   | 10 |
| 14. Package Drawing/包装示意图.....                                | 11 |
| 15. I/O Marking Drawing/铭牌示意图.....                            | 12 |

## 1、SCOPE

The document detail the electrical, mechanical and environmental specifications of a adaptor, the power supply provide 120W continuous output power.

资料详细描述了一款 120W(连续输出功率)适配器电源的电气性, 结构性及环境等要求.

The power supply shall meet the RoHS requirement.

此款电源符合 RoHS 要求.

### 1.1 Description

- SMPS Adaptor (Wall mount)/插墙式适配器       SMPS Adaptor (Desk-top)/桌面型适配器  
 Open Frame/开放式结构       SMPS Unit (With Case)/带铁壳型  
 Others/其他

## 2、Input Characteristics/输入特性

### 2.1 Input Voltage & Frequency/输入电压与频率

The range of input voltage is from 100Vac to 240Vac single phase.

输入电压范围: 从 100Vac 到 240Vac, 单相输入.

|                      | Minimum/最小 | Normal/额定值    | Maximum/最大 |
|----------------------|------------|---------------|------------|
| Input Voltage/输入电压   | 90Vac      | 100Vac~240Vac | 264Vac     |
| Input Frequency/输入频率 | 47Hz       | 60Hz/50Hz     | 63Hz       |

### 2.2 Input AC Current/AC 输入电流

2Arms. @ 90Vac 60Hz input voltage and full load.

### 2.3 Inrush Current (Cold Start)/浪涌电流(冷启动)

50Amax. @ 264Vac 50Hz input at 25°C/在 25°C 输入电压为 264V 时浪涌电流 50Amax s 最大

### 2.4 Unload Standby Power/空载待机功耗

0.5 W MAX

### 2.5 Efficiency/效率 (EFFICIENCY LEVEL:V)

87% min. @ at input 230Vac & Full load/在 230Vac 输入&满载时效率最小为 87%

## 3、Output Characteristics/输出特性

### 3.1 Static Output Characteristics <Vo & R+N >/静态输出特性

| Output | Rated Load/额定负载 |           | Output Range<br>输出电压范围 | R+N<br>纹波+噪声 Max | Remark<br>备注 |
|--------|-----------------|-----------|------------------------|------------------|--------------|
| Rate   | Min. Load       | Max. Load | 51.3V~54.8V            | 540mVp-p         |              |
| +54.0V | 0.0A            | 2.23A     |                        |                  |              |

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 output)

纹波与噪声:量测时示波器选用 20 MHz 带宽限制,输出端要并联一颗 0.1uF 的陶瓷电容和一颗 10uF 的电解电容.(在额定输入及输出的条件下检测)

:

### 3.2. Line/Load Regulation/线性/负载调整率

| Output | Load Condition/负载条件 |           | Line Regulation<br>线性调整率 | Load Regulation<br>负载调整率 | Remark<br>备注 |
|--------|---------------------|-----------|--------------------------|--------------------------|--------------|
|        | Min. Load           | Max. Load | ±2%                      | ±5%                      |              |
| +54.0V | 0.0A                | 2.23A     |                          |                          |              |

### 3.3. Turn - on Delay Time/开机延迟时间

2S max @220Vac 60Hz input & Full load/在 220Vac 60Hz 输入&满载时开机延迟时间 2S MAX

### 3.4. Hold up Time/关机维持时间

7mS min @220Vac 60Hz input & Full load/在 220Vac 60Hz 输入&满载时关机维持时间 7mS Min

### 3.5. Rise Time/上升时间

20mS max @220Vac 60Hz input & Full load/在 220Vac 60Hz 输入&满载时开机上升时间 20mS MAX

### 3.6 Output Overshoot/Undershoot/输出过冲/欠冲

7% max. When the power on or off/当电源开/关机时

### 3.7 Dynamic Load/动态负载测试

Normal input for load step from 25% to 75%, R/S:1A/uS, Frequency:100Hz, Vpp<10%

输入额定电压, 负载变化:从 25%到 75%, 斜率:1A/Us, 频率:100Hz, Vpp 小于 10%

### 3.8 Brownout & Brownout Recovery/电压跌落与恢复

The input voltage decreases from 240Vac/50Hz to zero, or the input voltage increases from zero to 240Vac/50Hz, power no damage

输入电压从 240V 变化到 0V 或从 0V 变化到 240V, 电源不会损坏

## 4. Protection Requirements/保护要求

### 4.1 Over Current Protection/过流保护 OCP<4.46A

the output shall hiccup when the over currents applied to the output rail, and shall be self-recovery when the fault condition is removed.

当输出电流超过 4.46A 时,产品进入打嗝状态,当过流情况解除后,产品将会自动恢复正常

### 4.2 Short Circuit Protection/短路保护

The input power shall decrease when the output rail 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.

### 4.3 Over Voltage Protection/过压保护

Open the sub photocoupler, The power shall have protection ,And the outputs shall not rush over the maximum output voltage

在光电耦合器开路情况下,电源能保护,即输出电压平均值不超过最大输出电压

## 5. Environment Requirements/环境要求

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

-10°C to +45°C

10%RH to 90%RH

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

-40°C to +85°C

5%RH to 85%RH non-condensing @ Sea level shall be low 10000 feet/低于 10000 英尺

**6、Reliability Requirements/可靠性要求**

6.1 Burn-in/煲机

The power supply shall be burn-in for 4 Hours under normal input and full load at 40°C ±5°C.

产品至少要在 40°C ±5°C 的环境及额定输入与满载条件下煲机 4 小时.

6.2 MTBF Qualification/平均间隔故障时间估算

The MTBF shall be at least 40,000 hours at 25°C, Full load and normal input condition.

平均间隔故障时间:至少 40,000 小时, 25°C 环境及额定输入与满载条件下

6.3 Drop Test/跌落测试

0.9M , 20mm board Six Side , Power No Damage

0.9 米高度, 20mm 厚木板地 共两次, 无损伤, 电性能正常

6.4 Vibration/振动

10 to 300Hz sweep at a constant acceleration of 1.0G (Breadth:3.5mm) for 1 Hour for Each of the perpendicular axes X, Y, Z, The product has to restore to its original situation after power off/on

扫描频率:10 到 300Hz, 加速度:1.0G (位移:3.5mm), X, Y, Z 三垂直坐标轴各振动 1 小时, 在电源重新开关机后能正常工作.

**7、EMI/EMS Standards/EMI/EMS 标准 (不做要求)**

7.1 EMC 标准(EMC Standard):

FCC PART 15 SUBPART B CLASS B, EN55022,EN55013,EN6100-6-1,EN6100-3-2, EN55014-1, EN55014-2,GB13837-2003,GB17625-2003 的 EMC 标准要求.

7.2 EMS Standards/EMS 标准

| Standard     | Test Items   |
|--------------|--|
| EN61000-3-2  | Harmonic current emissions   |
| EN61000-3-3  | Voltage fluctuations & flicker   |
| EN61000-4-2  | Electrostatic discharge(ESD):8kV air discharge,4kV contact discharge   |
| EN61000-4-3  | Radio-Frequency Electromagnetic Field Susceptibility Test-RS   |
| EN61000-4-5  | Surge Immunity Test: AC Power Line: line to line 1kV,line to earth 2kV   |
| EN61000-4-8  | Power Frequency Magnetic Field Test  |
| EN61000-4-11 | Voltage Dips   |
| EN61000-6-1  | Electromagnetic compatibility (EMC)-Part 6-1:Generic standards-immunity for residential, commercial and light-industrial environments          |
| EN61000-6-3  | Electromagnetic compatibility (EMC)-Part 6-3:Generic standards-Emission standard for residential, commercial and light-industrial environments |

## 8、 Safety Standards/安规标准

### 8.1 .Dielectric Strength(Hi-pot)/介电耐压强度(高压)

Primary to Secondary: 1500Vac 10mA Max / 60 seconds(3 seconds for production)

初级对次级: 1500Vac 10mA Max / 60 秒(生产时高压测试时间: 3 秒)

### 8.2. Insulation Resistance/绝缘阻抗

100MΩ min. at primary to secondary add 500Vdc Test voltage

在初级与次级间加 500VDC 进行测试

### 8.3. Regulatory Standards/安规标准

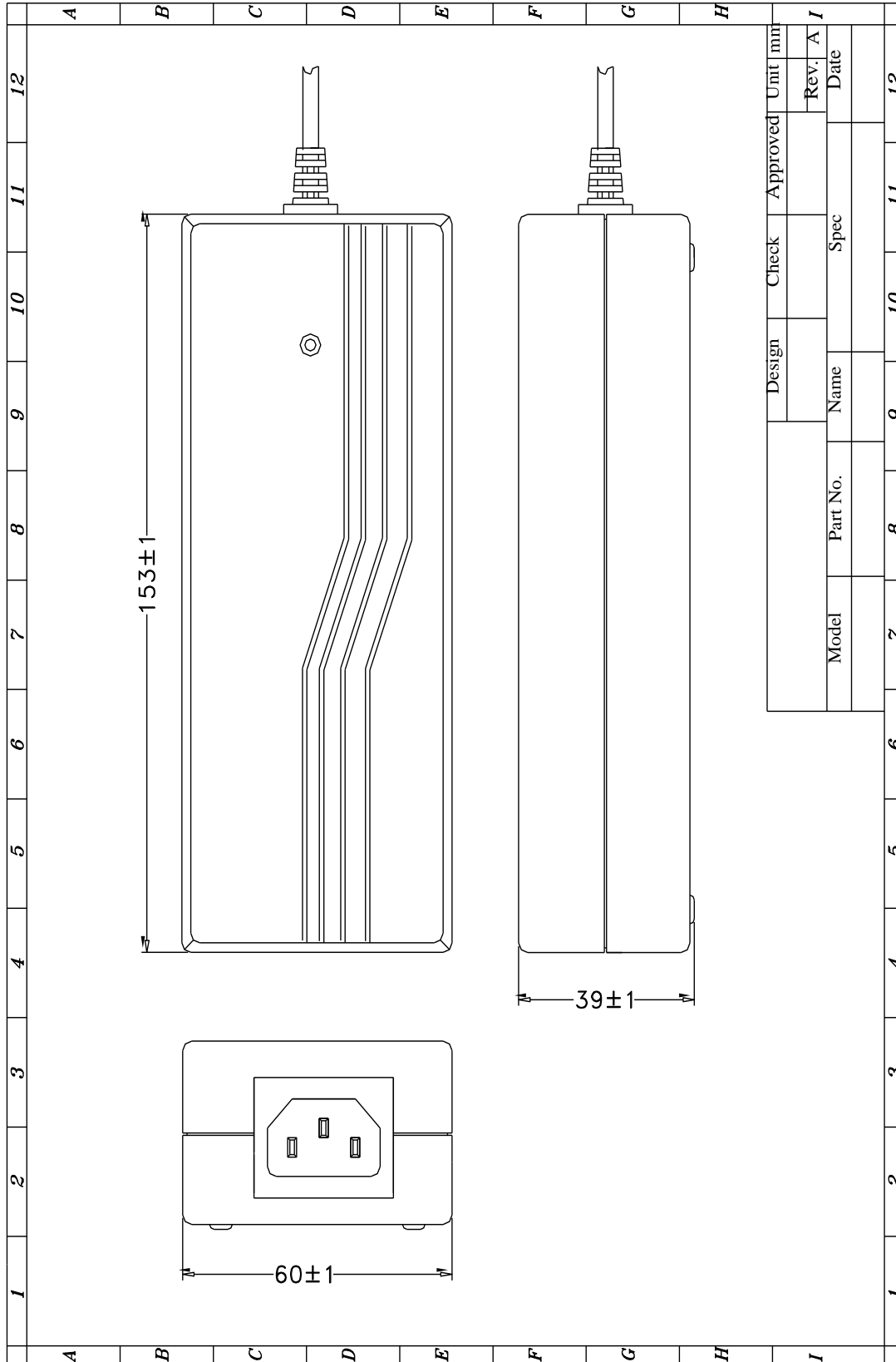
| Type/安规 | Country/国家 | Standard/标准 | State/状况 |  |
|---------|------------|-------------|----------|--|
|         |            |             |          |  |

## 9、 Product Net Weight(Without Packing)/产品净重

About 500g Max Per Unit.

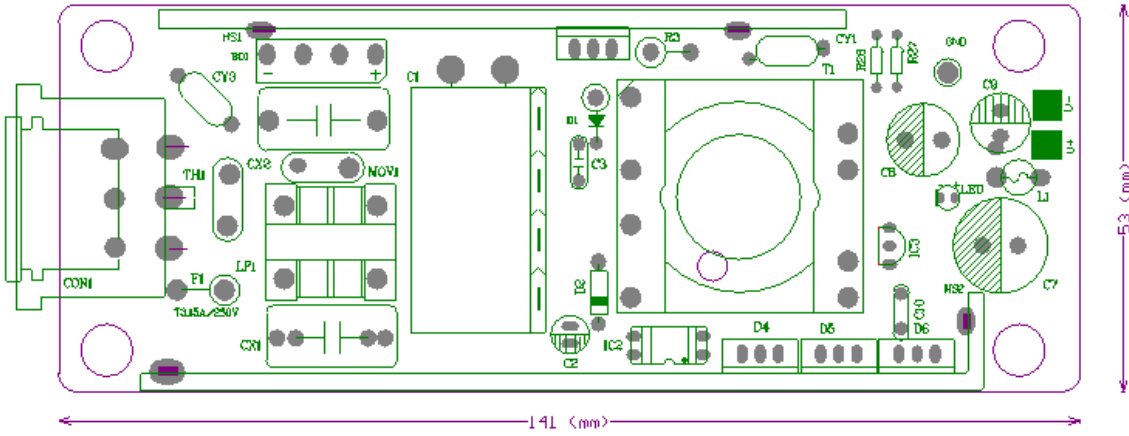
每个低于 500g.

### 10、Mach. Outline Drawing/外观示意图



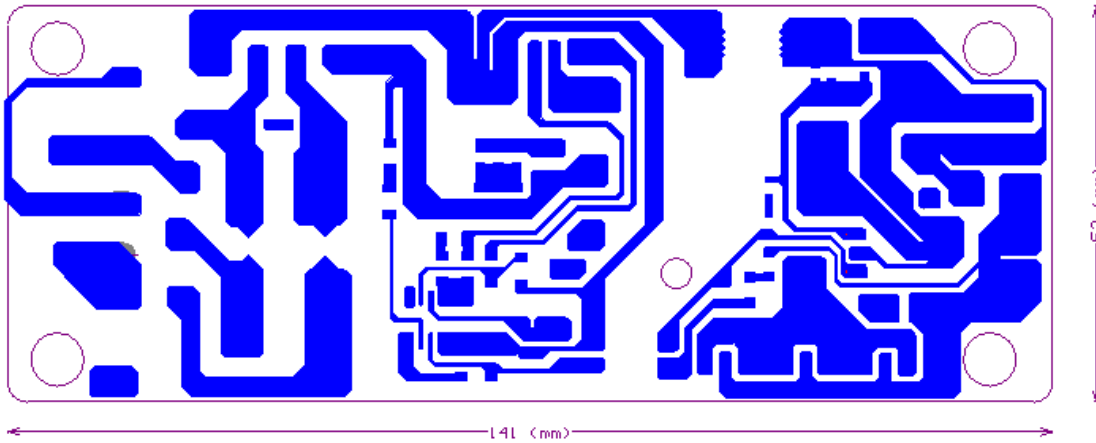


# 11 PCB



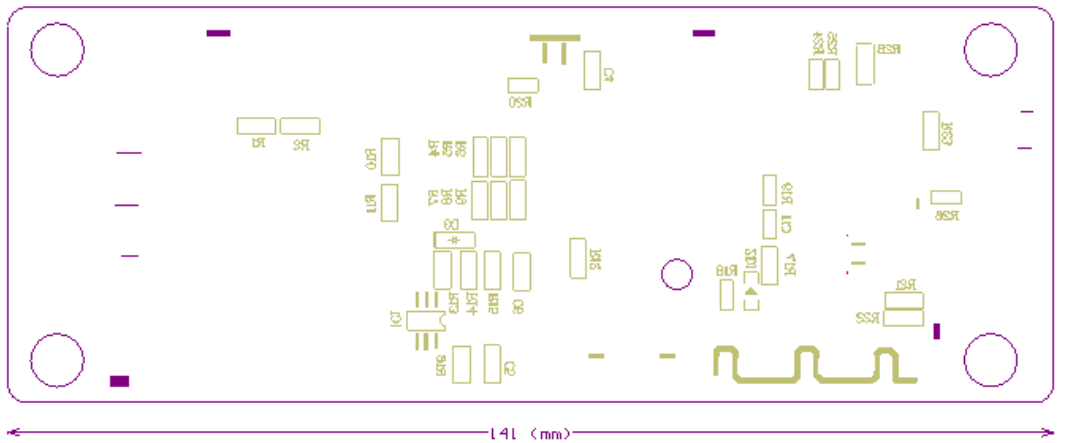
141\*53\*1.6mm 10/2 22F

Top Overlay



141\*53\*1.6mm 10/2 22F

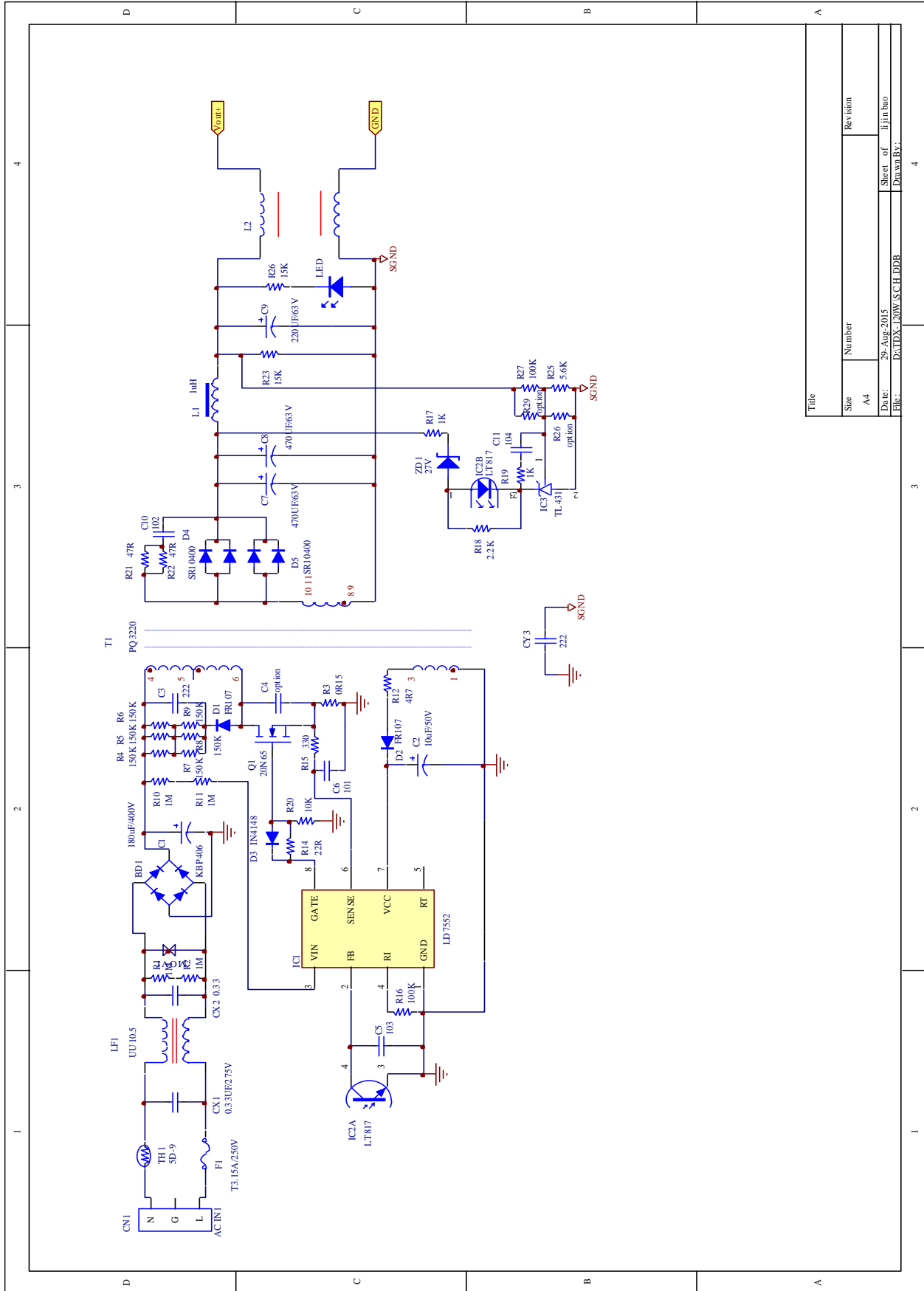
BottomLayer



141\*53\*1.6mm 10/2 22F

Bottom Overlay

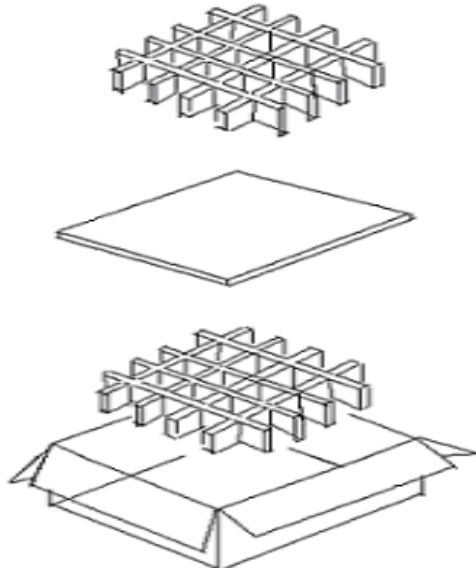
12 SCH (仅供参考, 以实物为准)



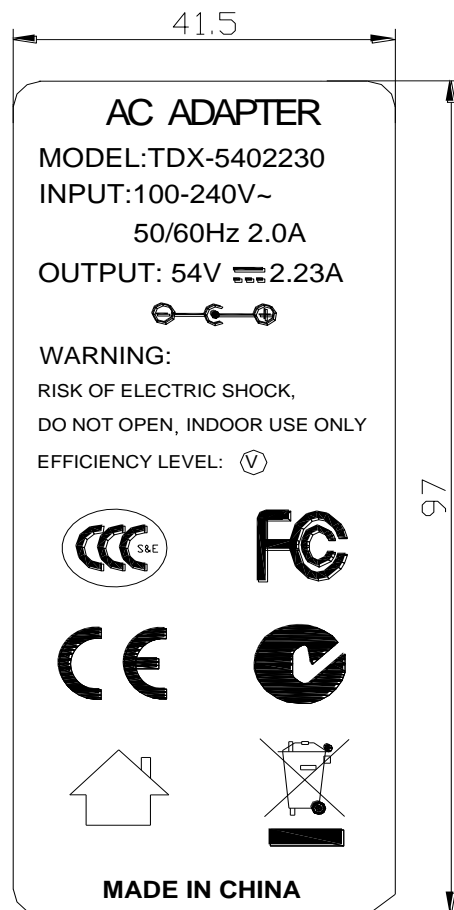
|                           |           |
|---------------------------|-----------|
| Title                     |           |
| Size                      | Number    |
| A4                        |           |
| Date:                     | Revision  |
| 29-Aug-2015               |           |
| Sheet of                  | Drawn By: |
| 1                         | Ejiaobao  |
| File: D:\TDX\120W\SCH.DDB |           |



### 14、Packing/产品包装:



### 15 标签图 黑底白字



备注:

黑底白字

2.材质: 亚银龙, 94-V0

3.处理: 永久背胶