

# 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-0502000

制定日期:

Date: 2014-08-07

客户承认(CUSTOMER APPROVE):

编 制 (PREPARED)	审 核 (CHECKED)	批 准 (APPROVAL)

腾达兴电子

批 准 (APPROVAL)	审 核 (CHECKED)	编 制 (PREPARED)
	李进宝	卜忠建

深圳市腾达兴电子有限公司

Shenzhen teng da xing Electron Co.,Ltd

地址： 深圳市宝安区西乡镇固戍航城大道福森科技园 3 栋 3 楼

电话： 0755-29970440      传真： 0755-27844972

网址： [www.sztdx618.com](http://www.sztdx618.com)



ANUFACTURER 承制方	深圳市腾达兴电子有限公司 Shenzhen teng da xing Electron Co.,Ltd	PAGE 页码	2 of 11	REV 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.Schematic/线路图 .....	7
11.PCB 板图 .....	8
12. Mach. Outline Drawing/外观示意图 .....	9
13.DC Cord/DC 线 .....	9
14.Package Drawing/包装示意图 .....	10
15.I/O Marking Drawing/铭牌示意图 .....	10

## 1、SCOPE

The document detail the electrical, mechanical and environmental specifications of a adaptor, the power supply provide 10W continuous output power.

资料详细描述了一款 10W(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

0.6Arms. @ 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 /在 25 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

0.3 W MAX

### 2.5 Efficiency/效率

67% min. @ at input 230Vac & Full load/在 230Vac 输入&满载时效率最小为 67%

## 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 输出电压范围	R+N 纹波+噪声 Max	Remark 备注
Rate	Min. Load	Max. Load	4.75V ~ 5.25V	100mVp-p	
+5.0V	0.0A	2A			

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 线性调整率	Load Regulation 负载调整率	Remark 备注
Rate	Min. Load	Max. Load	± 2%	± 5%	
+5.0V	0.0A	2A			

### 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<4A

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 4A 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 to +45

10%RH to 90%RH

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

-40 to +85

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 ±5 .

产品至少要在 40 ±5 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 , Full load and normal input condition.

平均间隔故障时间:至少 40,000 小时,25 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**

**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 4kV,line to earth 4kV
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: 3000Vac 10mA Max / 60 seconds(3 seconds for production)

初级对次级: 3000Vac 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

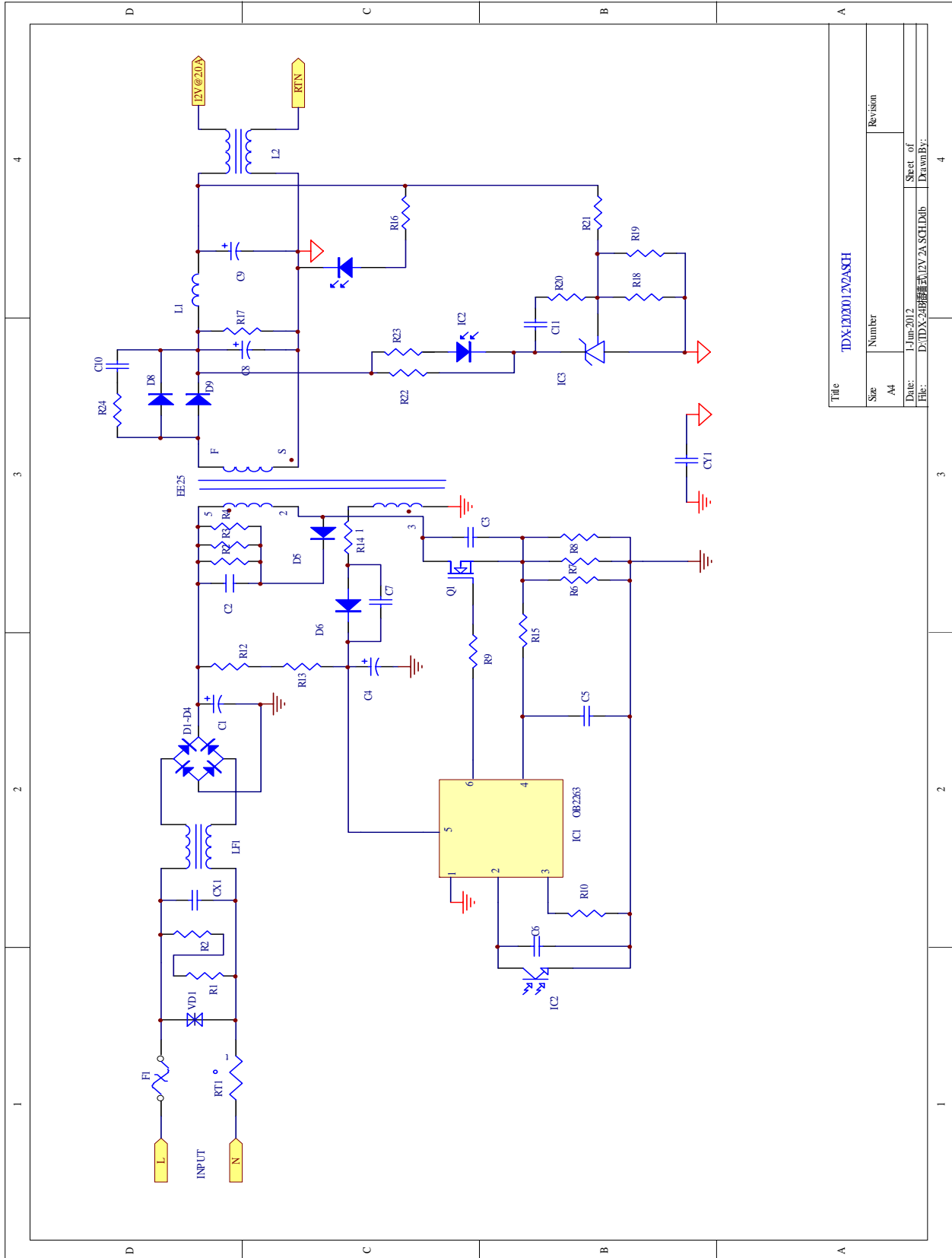
Type/安规	Country/国家	Standard/标准	State/状况	
CCC UL GS	China/USA/EU	GB4943/EN60950	符合	

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

About 350g Max Per Unit.

每个低于 350g.

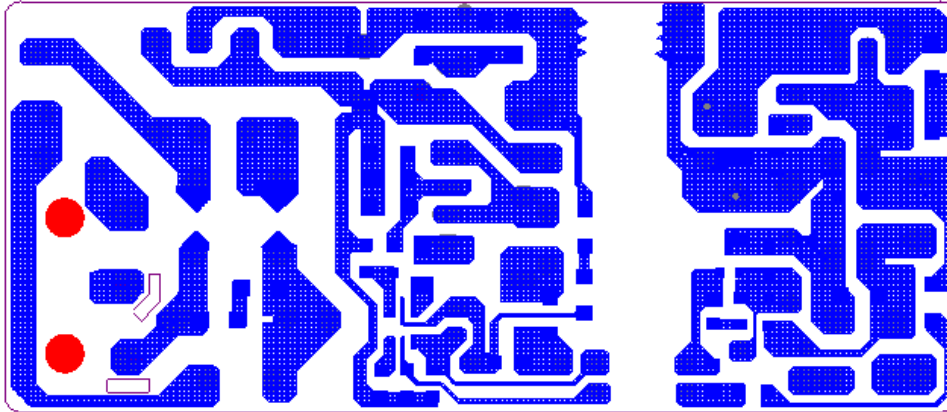
### 10、Schematic/线路图(仅供参考，以实物为准)



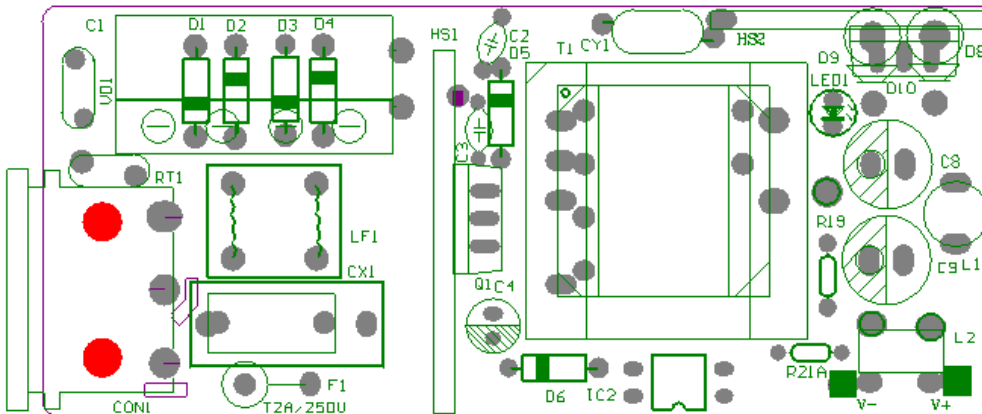
Title		TDX12001.2V2ASCH	
Size	Number	Revision	
A4			
Date:	1-Jun-2012	Sheet of	4
File:	D:\TDX\24\册式\2V2ASCH.Dtb	Drawn By:	



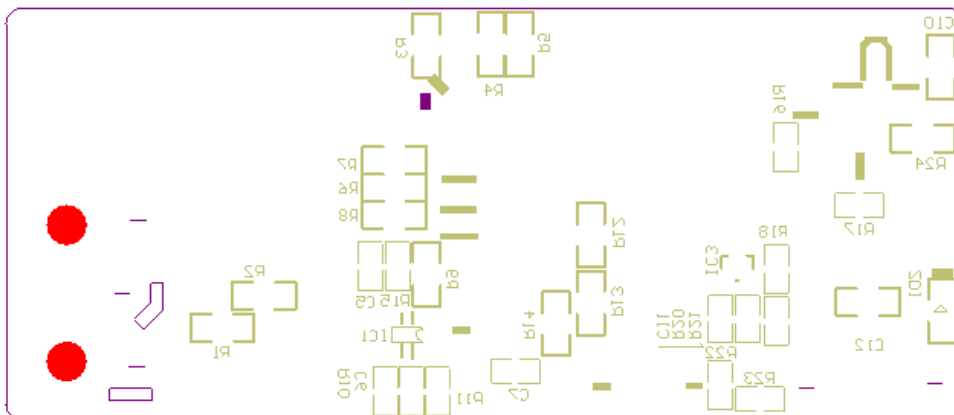
# 11、PCB



**Bottom Layer**

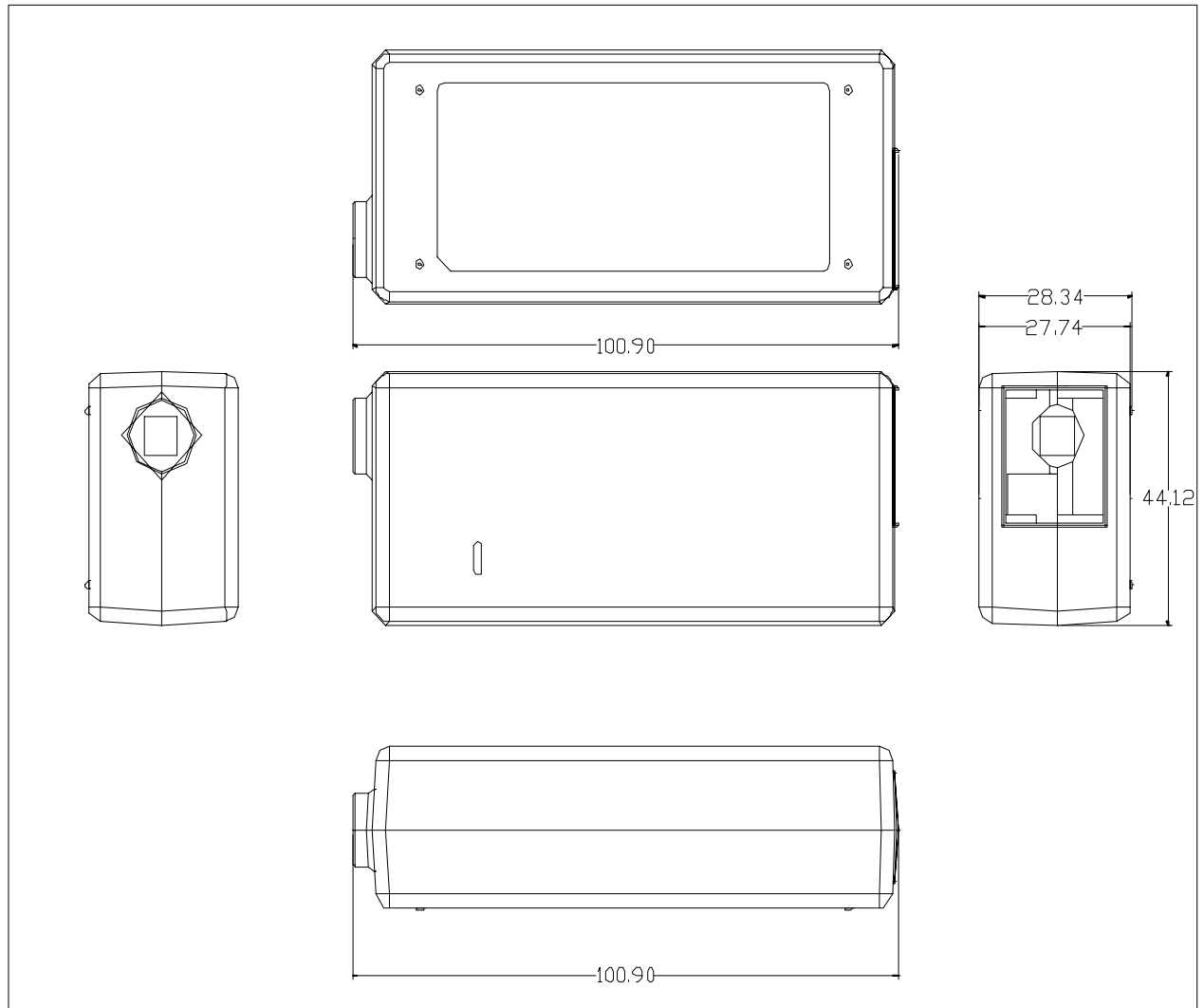


**Top Overlay**



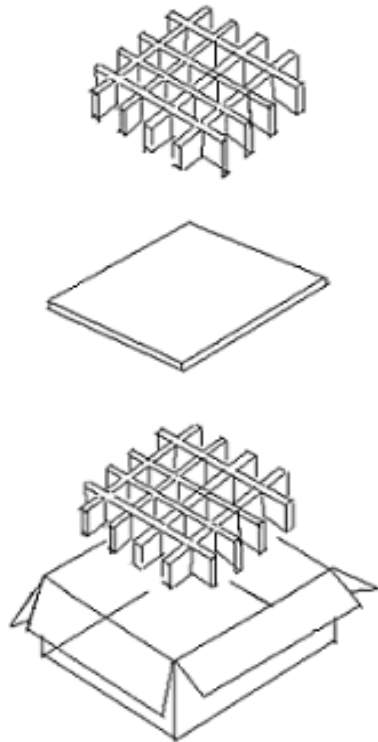
**Bottom Overlay**

### 12、Mach. Outline Drawing/外壳图



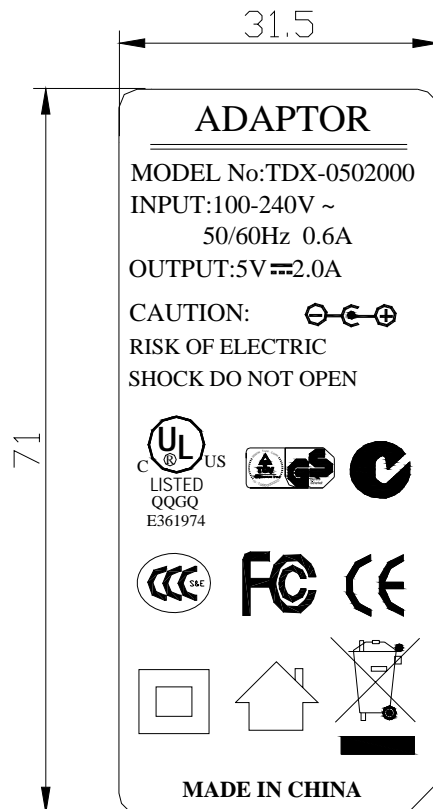


### 14、Packing/产品包装:



### 15 标签

黑底白字



备注：

- 1.黑底白字
- 2.材质：亚银龙，94-V0
- 3.处理：永久背胶