



CCFL BACKLIGHT SPECIFICATION

客户

HQ-2U-24010A

机 型 名 称

CCFL 背光板

型号描述

REV1.0

版本

DATE:

日期

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Approved By (批准)



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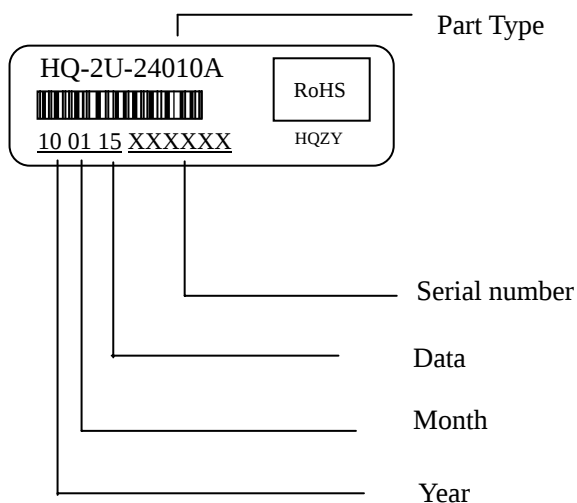
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一. Revision History (版本展演) :

Revision 版 本	Date 日 期	Modify Item 修 改 内 容	Modify Reason 修 改 原 因	Prepared 修 改 者	Approved 确 认 者
REV: 1.0	10/3/26	Original issue 初次发行		张宁强	张 刚
REV: 1.1	10/3/28	更改地线走向	抗干扰	张宁强	张 刚

2. Label(标签)





3.0 Application & Notice (注意事项)

This DC to AC Backlight is designed for the backlight of CCFL Panel with U lamps. And used In17-24Panel or others low profile application.

此背光源板产品适用于17-24寸U型灯 面板或同规格的其它方案。

Notice:

3.1 For Safety Issue, please keep 4.0mm at least from the metal parts of the system to the CCFL backlight.

基于安全问题, 请在组装CCFL 背光板时, 确保CCFL 背光板和系统金属材料间保持至少4mm 以上的距离。

3.2 Don't twist , deform , drop or knock the CCFL backlight during assembly.

请于组装背光板时, 确实避免扭曲, 弯折, 大力碰撞及掉落产生。

3.3 Guarantee to offer pearl wool to protect the product from electrostatic or magnetic interference during delivery .but due to the inverter is usually designed without the case. please take care about ESD at anytime .

在产品交付的整个过程中均保证采用珍珠棉包装处理。然而, 因为无外壳保护, 请在任何时候务必注意防静电处理。

3.4 Due to the characteristic of Panels, the brightness is sensitive about Temperature. You must measure it in the same condition and waiting for power on 10~30 minutes.

基于Panel 的特性, 其辉度易受温度影响. 量测时, 请用同样的条件, 并于开机10~30 分钟后读值。

3.5 Clean and slinky surface, jointing firmly, No issue can cause acting up or affecting the reliability of the product, such as dilapidate, weighty nick ... etc.

产品表面清洁, 美观大方, 焊锡完整可靠, 外观检查无可能影响到产品使用或可靠性方面的明显问题存在, 如: 破损, 严重划痕等

4.0 General Requirements(电性规格)

4.1 Input characteristics(输入特性)

PARAMETER 参数	SYMBOL 符号	MIN 最小值	TYPICAL 典型值	MAX 最大值	UNIT 单位	REMARK 备注
INPUT VOLTAGE 输入电压	Vin	10.8	12.0	13.2	V	
INPUT CURRENT 输入电流	Iin	---	2.2	3	A	Vin=12V,Von/off=5V Adj=0V,RL= PANEL
INPUT POWER 输入功率	Pin	---	24	35	w	Vin=12V,Von/off=5V Adj=0V,RL= PANEL
INPUT VOLTAGE 开关电压	Von/off	--	0	1.0	v	Off State
		1.5	5.0	5.5		On State
INPUT VOLTAGE ADJ 电压	Vadj	0	--	3	v	
EFFICIENCY 效率	Eff	90	--	--	%	Vin=12V,Von/off=5V Adj=0V,RL= PANEL

4.2 Output Characteristics(输出特性)

PARAMETER 参数	SYMBOL 符号	MIN 最小值	TYPICAL 典型值	MAX 最大值	UNIT 单位	REMARK 备注
LCD CURRENT CCFL 电流(亮)	IL	---	11	12	mA	Vin=12V,Von/off=5V Adj=3V, RL= PANEL (单路 CCFL 电流)
LCD CURRENT LCD 电流(暗)	IL	5	7	--	mA	Vin=12V,Von/off=5V Adj=0V, RL= PANEL (单路 CCFL 电流)
LCD Array VOLTAGE LCD 工作电压	Vp		1000	1050	Vrms	Vin=12V,Von/off=5V Adj=3V,RL= PANEL
OPEN VOLTAGE 开路电压	Vs	--	1000	1250	Vrms	Vin=12V,Von/off=5V RL=∞K Ω
Striking time 启动时间	Tscp		1	1.5	Sec	Vin=12V Von=5V Vbrit=3V (NO LOAD)不 接负载
Frequency 工作频率	Fpwm	40	50	70	KHZ	Vin=12V Von=5V Vbrit=3V



4.3 I/P Pin Assignments(输入输出端子定义)

DC Input(直流输入):

Location(位置): CN1

Connector type(端子型号): KJ-2001WR-6P or equivalent

Pin	No (引脚号)	Symbol (符号)
1, 2	+12V	Supply
3	On/off	On/off
4	Adj	Brightness
5, 6	Gnd	Ground

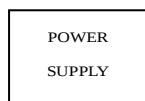
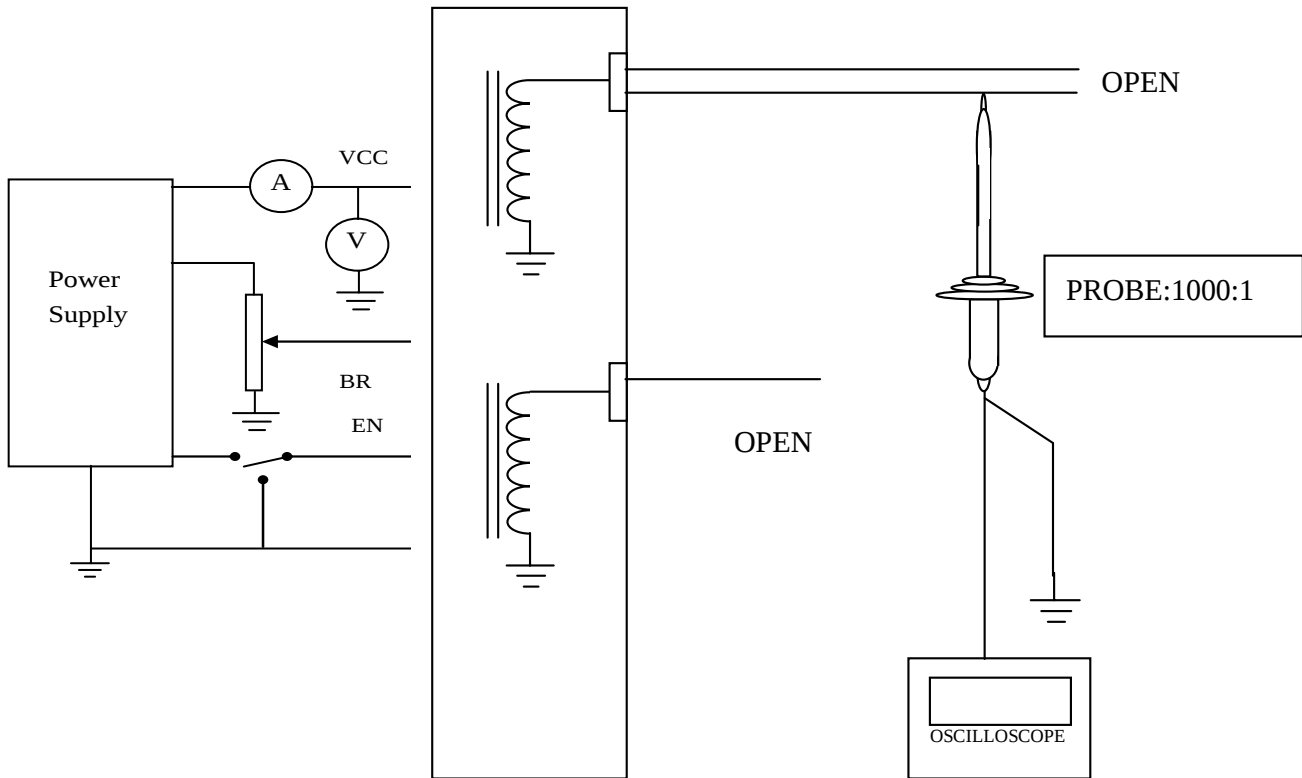
AC Output(交流输出):

Location(位置): CN2-CN3

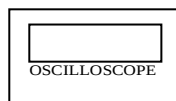
Connector type(端子型号): KJ-2001WR-2P or equivalent

PIN	SYMBOL	DESCRIPTION	VOLTAGE
1	H-V	High voltage	VOUT
2	H-V	High voltage	VOUT

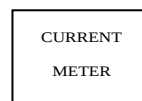
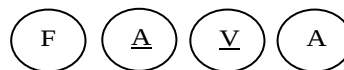
5.0 Test Circuit Diagram (测试电路图)



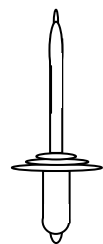
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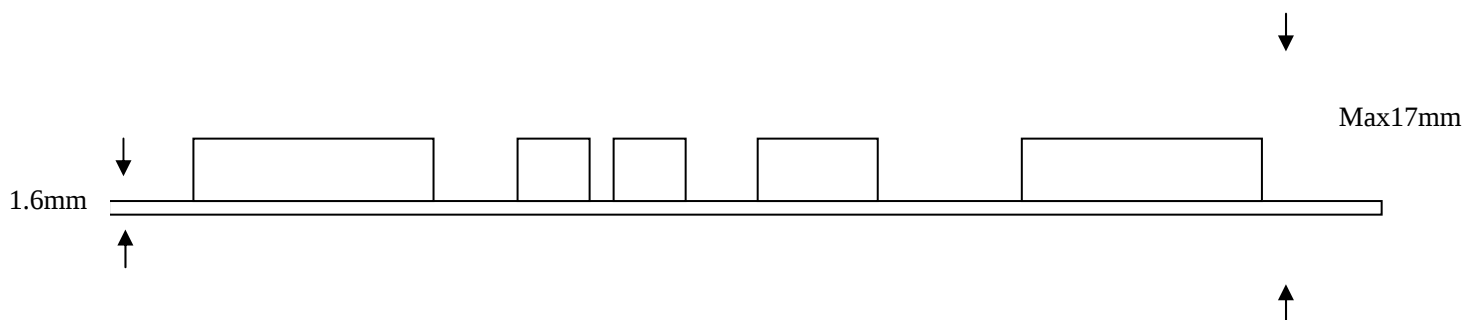
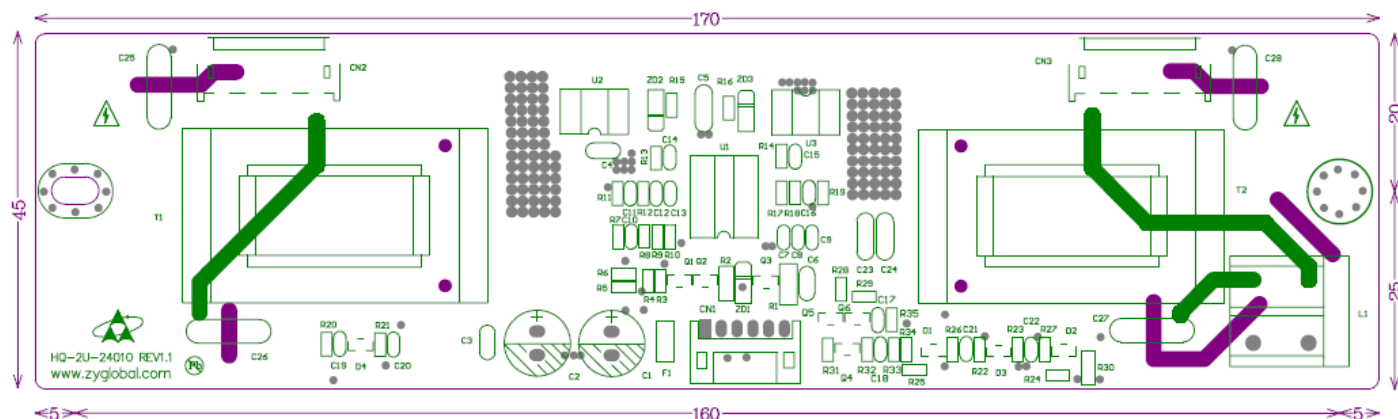


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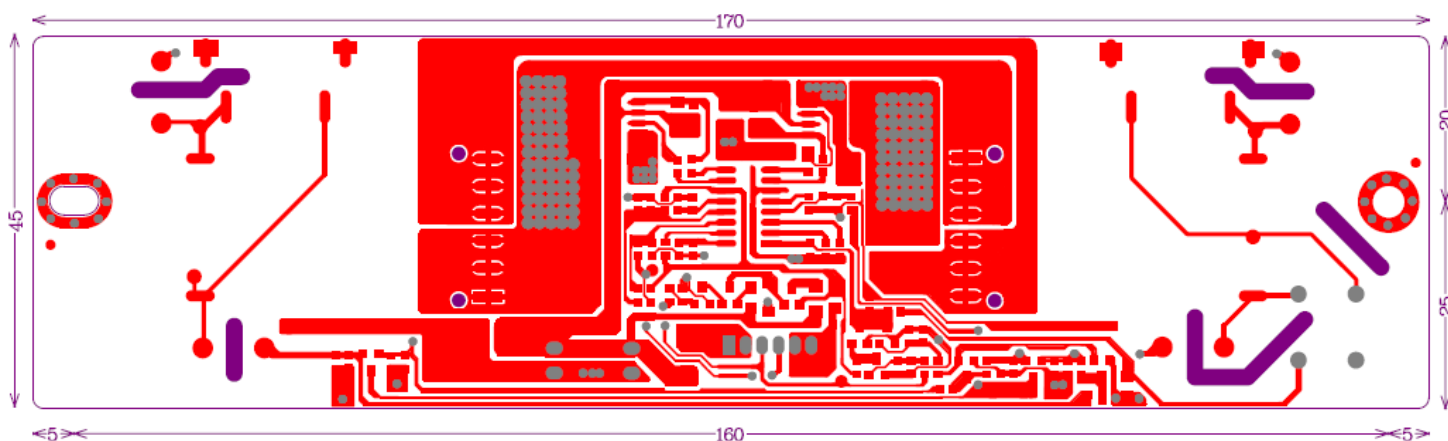
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6.0 Mechanical Characteristics(结构尺寸图) 尺寸公差: $\pm 0.3\text{mm}$

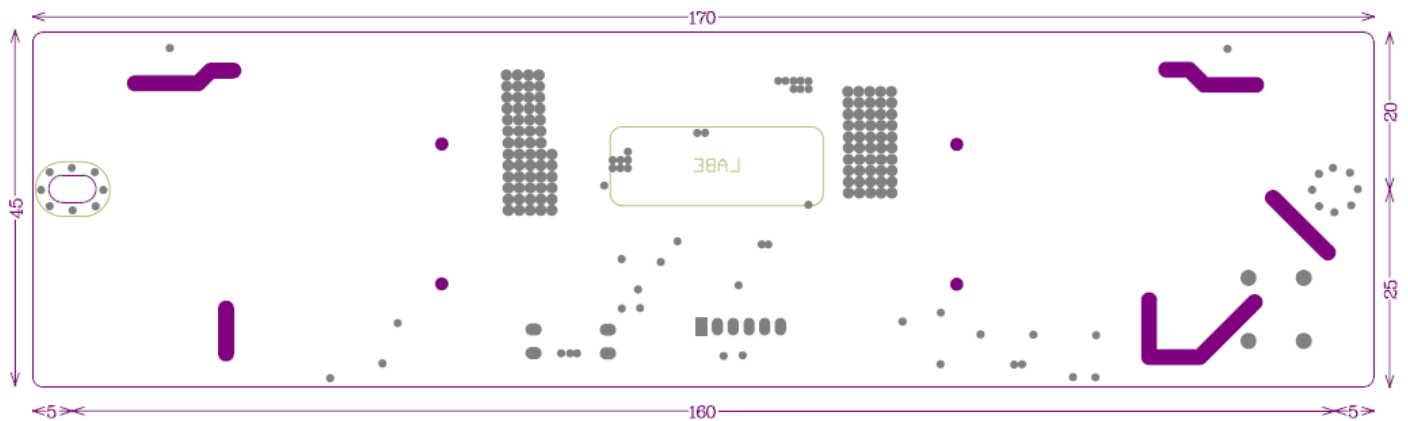
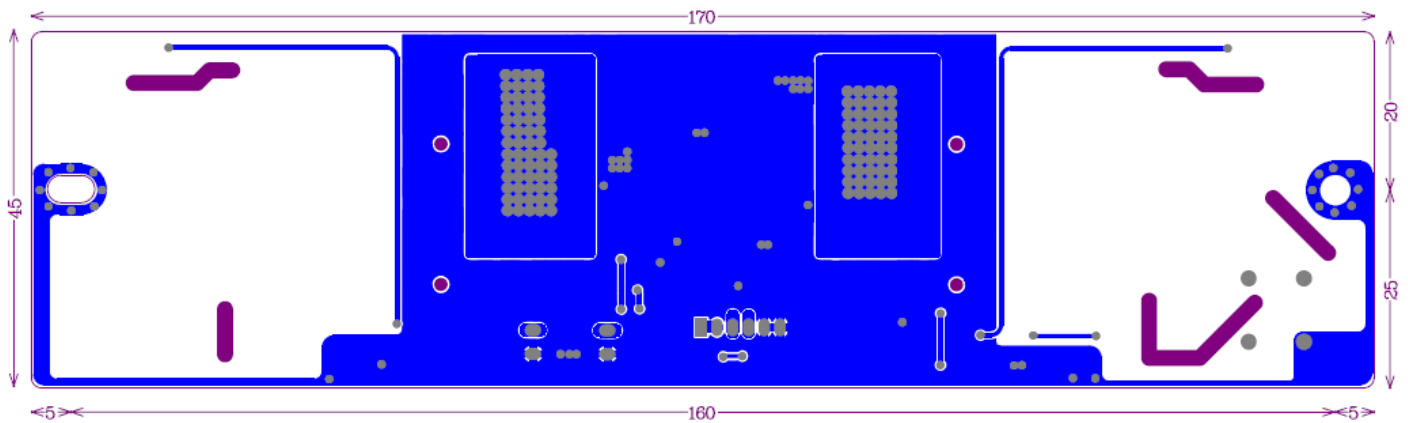


7.0 PWB LAYOUT DIAGRAM (PCB 板图)

7.1 TOP View



7.2 Bottom View





8.0 Environment Characteristics(环境特性要求)

8.1 Temperature(温度):

Storage(储存) : -5°C ~ 50°C

Operating(工作) : -25°C ~ 70°C

8.2 Humidity(湿度):

Storage(储存) : 10% ~ 95% RH , non-condensing

Operating(工作) : 10% ~ 95% RH , non-condensing

8.3 High Temperature & Storage(高温负荷与存储)

Test method & condition Please refer to GB2423.2 "Test Bd & Bb"

测试方法和测试条件参见GB2423.2 "试验Bd & Bb"之说明

8.4 Low Temperature & Storage(低温负荷与存储)

Test method & condition Please refer to GB2423.1 "Test Ad & Ab"

测试方法和测试条件参见GB2423.1 "试验Ad & Ab"之说明

8.5 Humidity & Temperature Test(潮热试验)

Test method & condition Please refer to GB2423.3 "Test Ca" & GB2423.22 "Test Nb"

测试方法和测试条件参见GB2423.3 "试验Ca" 和GB2423.22 "试验Nb" 之说明

8.6 vibration Test(振动试验)

Test method & condition Please refer to GB2423.10 "Test Fc"

测试方法和测试条件参见GB2423.10 "试验Fc" 之说明

8.7 Drop Test(跌落试验)

Test method & condition Please refer to GB4857.5 Item 3.5.2 a

测试方法和测试条件参见GB4857.5 中3.5.2 条a 的之说明

After all the test from item 8.3 to 8.7, The product must be meet all the requirements on this Specification

通过上述8.3 至8.7 项的所有测试后, 本品仍应符合本规格书中规定的各项电性与机械强度要求.

8.8 MTBF(平均无故障时间): 60'000 Hrs at full Load.@ 25°



9.0. SAFETY PART LISTED (器件安规号)

ITEM	DESCRIPTION		MATERIAL	TYPE	MANUFACTURER	SAFETY NO
1	PCB	HQ-2U-24010REV 1.1	FR-4/94V-0 (E315391)	FR-4	SHENZHEN WEIDEXIN ELECTRONICS CO.LTD..	E304272
2	Bobbin	Transformers	E4008(j)(f2)	V-0	Sumitomo Chemical	E54705
3	Copper Wire	Transformers	UEW/U	130℃	Pacific electric wire&cable	E201757
4	Copper Wire	Transformers	UEW-F	155℃	Dalian fuji fine	E193774
5	Connector	WH1-000D1-072N	PA9T/ E90350	G2330-9	SONG FU ELECTRONICS	E204211
		CQ3502P0230T-1	NY-9T-V0/ CH230N	3.5mm	LAND WIN ELECTRONIC CORP	E159426
6	Connector	WH1-00020-0518	PA6T/ E52579	CH230W	FULLCONN INDUSTRY	E204211
7	Fuse	F1	433*		LITTELFUSE INC	E10480
			F1206		AEM INC	E232989
			S1206 -NN		SART ENTERPRISE (HK) LTD	E245449