



Multi-Purpose LED TV
Control Board Specification
Model: BTP-30U01V1.0

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1. General Description (整体概述)

BTP-30U01V1.0 is a highly efficient ultra-thin LED backlight constant current source, Maximum output power 30W .It fits to a LED backlight TFT panel under 39” .

BTP-30U01V1.0 是一种高效超薄 LED 背光恒流源，最大输出功率 30W。它适用于 39” 以下的 LED 背光液晶屏。

2. Power supply overview (电源性能指标)

2.1 Input characteristics (输入特性)

Parameter	Symbol	Min	Type	Max	Unit	Remark
Input voltage 输入电压	Vin	10.8	12	13.2	V	--
Input current 输入电流	Iin	--	--	3.3	A	--
Input power 输入功率	Pin	--	--	35	W	--
enable voltage 使 能电压	EN	2.0	--	5.0	V	Enable
		0	--	1	V	Disable
Input dimming voltage (暗调电压)	PWM	5	25	50	KHz	--

2.2 Output characteristics (输出特性)

Parameter	Symbol	Min	Type	Max	Unit	Remark
Led current(Max Br) 最大电流	1L	--	--	600	mA	--
Led current(Min Br) 最小电流	1L	180	--	--	mA	--
Led voltage 电压	VL	18	--	60	V	--
Frequency 频率	F	--	120	--	KHz	--
Open voltage 开路电压	LED+	--	--	72	V	--

Note: Total output power must not exceed 30 w.

注：总输出功率不得超过 30W.

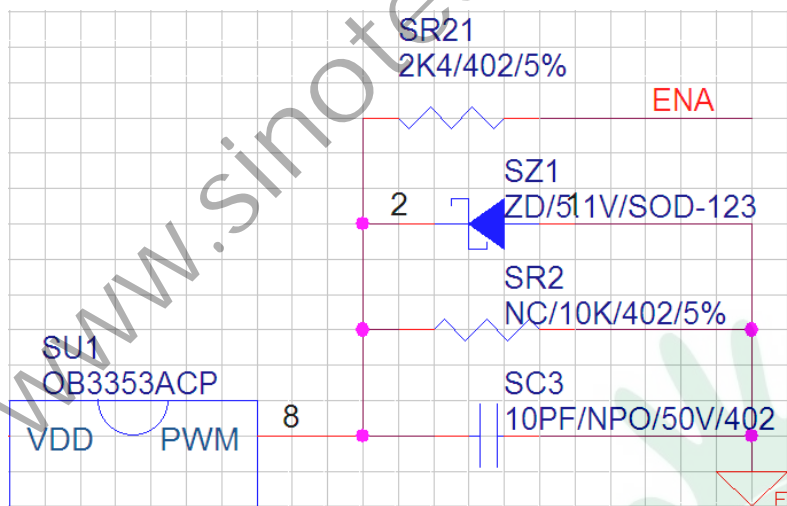
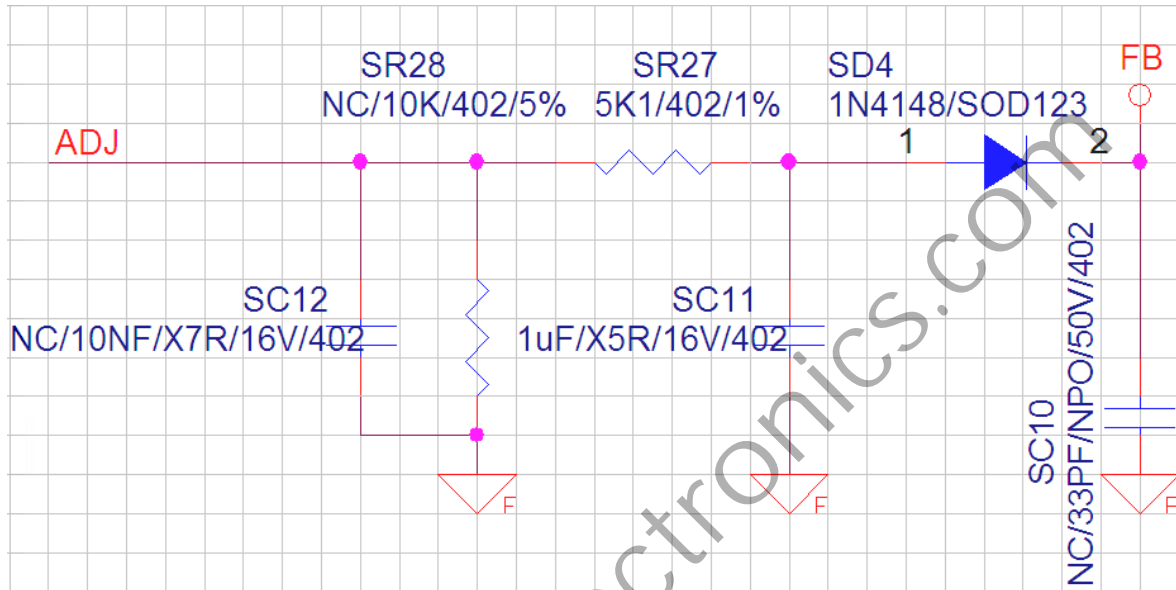
2.3 Backlight Current(背光电流)

Current(mA)	JP1	JP2	JP3
180	X	X	X
240	2-1	X	X
300	2-1	X	2-1



360	2-1	2-3	X
420	2-1	2-3	2-1
480	2-3	2-3	X
500	X	2-3	2-3
540	2-3	X	2-3
600	2-3	2-1	2-3

2.4 Interface Circuit(接口电路)



3. Environmental Requirement (工作环境)

3.1 环境温度 (Temperature)

- * Operating (操作温度) : -30℃ to +80℃.
- * Store (储存温度) : -40℃ to +80℃.



3.2 环境湿度 (Humidity)

* Operating: From 10%to90% relative humidity (non-condensing).

*操作：相对湿度从 10%至 90%（不凝结）。

* Store: From 5 to 95% relative humidity (non-condensing).

*储存：相对湿度为 5%至 95%（不凝）。

3.3 海拔高度 (Altitude)

* Operating: to10,000 ft.

* Store: to 20,000ft.

3.4 冷却方式 (Cooling Method)

*自然冷却 Ventilation cooling .

3.5 振动耐受 (Vibration)

* 10-55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis.

*10-55 赫兹，19.6 米/秒²（2G），3 分钟周期，沿 X、Y 和 Z 轴各 60 分钟。

3.6 冲击耐受 (Impact)

* 49m/s² (5G),11ms, once each X, Y and Z axis.

*49 米/秒²（5G），11 毫秒，每个 X、Y 和 Z 轴一次。

4. Weight (重量)

25g

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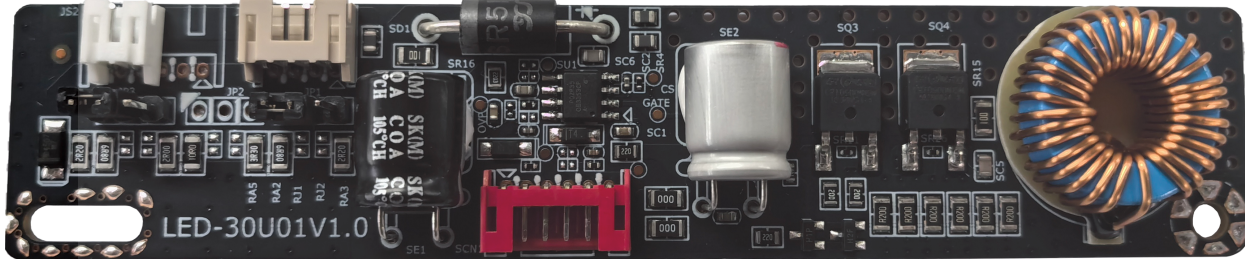




5. Port Configuration (端口配置)

All of pictures below are only for reference. Please take the actual objects as a standard.

(以下图片仅供参考,请以实物为准)



6. Pin Connection (连接器脚位定义)

Pin-SCN1 Connection and Function

Pin NO	Symbol	Function
1、 2	+12V	Power Supply 输入电压
3	ENA	Enable Control 使能控制
4	ADJ	Dimming Control 调光控制
5、 6	GND	Power Ground 电源地

Note: SCN1-XH CONNEETION,TYPE:pitch2.0mm

Pin-JS2 Connection and Function

6PIN	Symbol	Description
1	-	Led feedback side LED 负极
2	-	Led feedback side LED 负极
3	+	Led input side LED 正极
4	+	Led input side LED 正极
5	-	Led feedback side LED 负极
6	-	Led feedback side LED 负极

Note: JS2—XH CONNEETION,TYPE:pitch2.0mm

Pin-JS1 Connection and Function

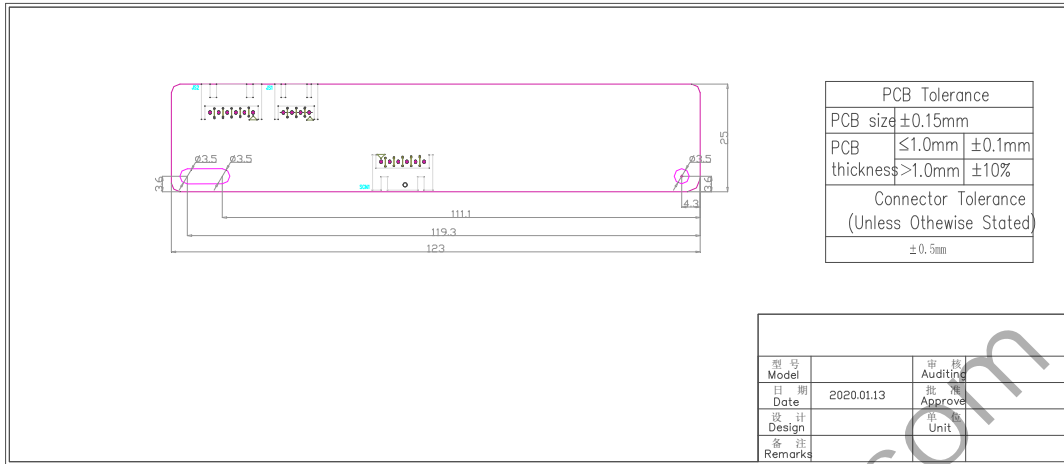
4PIN	Symbol	Description
1	+	Led input side LED 正极
2	+	Led input side LED 正极
3	-	Led feedback side LED 负极
4	-	Led feedback side LED 负极

Note: JS1—XH CONNEETION,TYPE:pitch2.0mm



7. Power Supply Mounting (安装尺寸)

CAD DIMENSIONS (CAD 尺寸)



8. SAFETY PART LISTED (安规器件)

PCB	MEI ZHOU HENG HUI TECHNOLOGY CO LTD	HH-2	V-0, 130 °C	--	UL (E312177)
Alt.	MEIZHOU DINGTAI P C B CO LTD	DT-2	V-0, 130 °C	--	UL (E320008)
Alt.	MILLION SOURCES CO LTD HK	MS-1	V-0, 130 °C	--	UL (E198407)
Alt.	MEIZHOU KEJIE INTEGRATED CIRCUIT CO.,LTD	KJ-2	V-0, 130 °C	--	UL (E255694)
Alt.	MEIZHOU WORLDTONG ELECTRONIC CO.,LTD	SY02	V-0, 130 °C	--	UL (E326265)
Alt.	GUANG DONG HONG TAI ELECTRONIC INC CO.,LTD	HH-2	V-0, 130 °C	--	UL (E315852)
Alt.	XINFENGLIYUDA ELECTRONIC TECHNOLOGY CO.,LTD	XFLYD-1	V-0, 130 °C	--	UL (E488191)
Alt.	XINFENG WENFENG ELECTRONIC TECHNOLOGY CO.,LTD	XFWF-01	V-0, 130 °C	--	UL (E472087)
Alt.	HONGYU TECHNOLOGY CO.,LTD	HYT-1	V-0, 130 °C	--	UL (E319031)



Alt.	HUBEI LONGTENG ELECTRONIC TECHNOLOGY CO.,LTD	ZLHSL004	V-0, 130 °C	--	UL (E467745)
Alt.	MEIZHOU CHINA UNITE ELECTRONIC CO.,LTD	CU-1	V-0, 130°C	--	UL (E320267)
Alt.	WASHENG (MEIZHOU) PRINTED CIRCUIT BOARD CO.,LTD	WA-D	V-0, 130 °C	--	UL (E302752)
Alt.	GUANGDONG CHAMPION ASIA ELECTRONICS CO.,LTD	F-D	V-0, 130 °C	--	UL (E342828)
Alt.	SHENZHEN BRIGHTPCB CO.,LTD	BR-DL-1	V-0, 130 °C	--	UL (E331251)
Alt.	SHENZHEN RUOMEI ELECTRONICS CO.,LTD	RM-01	V-0, 130 °C	--	UL (E214887)
Alt.	GANZHOU ZHONGSHENGLONG ELECTRONIC CO.,LTD	ZSL-1	V-0, 130 °C	--	UL (E476721)
Alt.	JIANGMEN BENLIDA PRINTED CIRCUIT CO.,LTD	BLD-B	V-0, 130 °C	--	UL (E203640)
Alt.	Interchangeable	Interchangeable	V-0, 130°C	--	UL

9. PART LISTED((元件清单)

ITEM	PARTS	TYPE	MANUFACTURER
SQ3,SQ4	MOSFET	NCEP1520K	NCE
SU1	IC	OB3353	On-Bright
SE1	Capacitance	100V/47uF	Chang
SE2	Capacitance	35V/330uF	Chang
SD1	Diode	SB5100	PY