



# 承认书

## SPECIFICATION FOR APPROVAL

<b>CUSTOMER</b> <b>客户</b>	
<b>PRODUCT</b> <b>产品名称</b>	LED Driver Board 恒流源
<b>P/N</b> <b>型号</b>	DZ-LP0632
<b>CUSTOMER P/N</b> <b>客户物料编号</b>	
<b>VERSION P/N</b> <b>版本</b>	Ver : 1.20
<b>CUSTOMER APPROVE</b> <b>承认</b>	请承认后签章回传 201_年_月_日

<b>EXECUTION</b> <b>制作</b>	<b>ISSUE</b> <b>发行</b>	<b>CHECKDE</b> <b>审核</b>	<b>APPROVED</b> <b>批准</b>

## Contents

1. General Description/概述 .....	3
2. Features /特性 .....	3
3. Application /适用范围 .....	3
4. Suitable Load /适用负载 .....	3
5. Environmental Condition /适用环境条件 .....	3
6. Input Electrical Characteristics /输入参数 .....	4
7. Output Electrical Characteristics / 输出电气参数 .....	4
8. Pin Assignments / 插座引脚定义 .....	5
9. Mechanical Dimension / 结构示意图 .....	6
10. Notice / 注意事项 .....	7
11. SAMPLE TEST REPORT/ 样品测试报告 .....	8
12. Revision Record /变更记录表 .....	9



## 1. General Description/概述

This DC-DC LED Inverter was developed for LCD back lighting system witch lighting use LED.  
本产品为直流恒流源，适用于 LED 背光的液晶显示模块。

## 2. Features /特性

High performance, low consumption. / 具有高能低耗特点  
Wide Dimming Range / 宽范围调光  
LED constant current drive/ LED 恒流驱动  
Input current overload protected ( fuse protect )./ 输入过流保护(保险丝保护)

## 3. Application /适用范围

The DC to DC back-light inverter is special designed on any type LCD display in implement (i.e. LCD monitor, notebook、laptop computers etc.) / 本产品专为各 种液晶显示部件设计(广泛用于液晶电视、液晶广告机、液晶显示器、笔记本等)

## 4. Suitable Load /适用负载

26'' to 37'' (LED backlight) display/26 英寸至 37 英寸(LED 背光)显示设备

## 5. Environmental Condition /适用环境条件

Operating temperature /工作温度 :-50C -- 650C  
Storage temperature / 贮存温度 :-200C-- 700C  
Operating humidity / 工作湿度 :10% -- 95%RH  
Storage humidity / 贮存湿度 :10% -- 95%RH

The DC to DC back-light inverter suggested working in the condition of upon. It can be work 300thousand hours at least in the below condition.  
本产品建议在以上条件下工作， 在下列条件下可以工作 30 万小时。

Operating temperature /工作温度： -20——70℃  
Operating humidity /工作湿度： 10%——95%RH



## 6. Input Electrical Characteristics / 输入参数

N0	Item/项目	Symbol	Min	Type	Max	Unit
1	Input Voltage/输入电压	V <sub>in</sub>	11.5	12	13	V
2	Input Current/输入电流	I <sub>in</sub>	0.5	2	2.6	A
3	Input Power/输入功率	P <sub>in</sub>	5.75	24	33.8	W
4	Brightness Voltage/调亮控制电压	V <sub>adj</sub>	5 (dark)	---	0(bright)	V
5	Control Voltage/ 开关机控制电压	Enable	V <sub>on</sub> =1.5--5.0V	Disable	V <sub>off</sub> =0--0.5V	

## 7. Output Electrical Characteristics / 输出电气参数

Item 项目	Symbol 符号	Test Conditions 测试条件	Min 最小值	Type 规格值	Max 最大值	Unit 单位
Output Current (per group) 每组输出电流	I <sub>outpg</sub>	V <sub>in</sub> =12.0V; V <sub>on</sub> =5V; Ta=25°C		500		mA
Output Voltage 输出电压	V <sub>out</sub>	V <sub>in</sub> =12.0V; V <sub>on</sub> =5V; Ta=25°C	50	57	80	V
Efficiency 效率	η	V <sub>in</sub> =12.0V; V <sub>on</sub> =5V;		93.2	---	%
Output total group 输出总组数	G <sub>gp</sub>			1		
The Total Output Current 输出总电流	R	可根据背光参数调节输出电流		-		mA
		1R		200		mA
	R	可根据背光参数调节输出电流			-	mA
		0.5R+2R		500	-	mA

The parameters of upon will change when the LCD module changes/以上参数随屏的不同而有所变化。



## 8. Pin Assignments / 插座引脚定义

Input connector / 输入插座: CN1			
Pin No./引脚	Symbol/符号	Description/ 描述	Parameter /参数
1、 2	+12V	Supply voltage/供电	11.5~13V
5、 6	GND	Ground/接地	0V
4	DIM 0V	Dimming control/亮度控制	0V=Brightness Max 亮度最大 5V=Brightness Min 亮度最小
3	N/F	Standby/Operation/开关控制	On =2--5.0V Off=0-0.5V
	NC	-	空

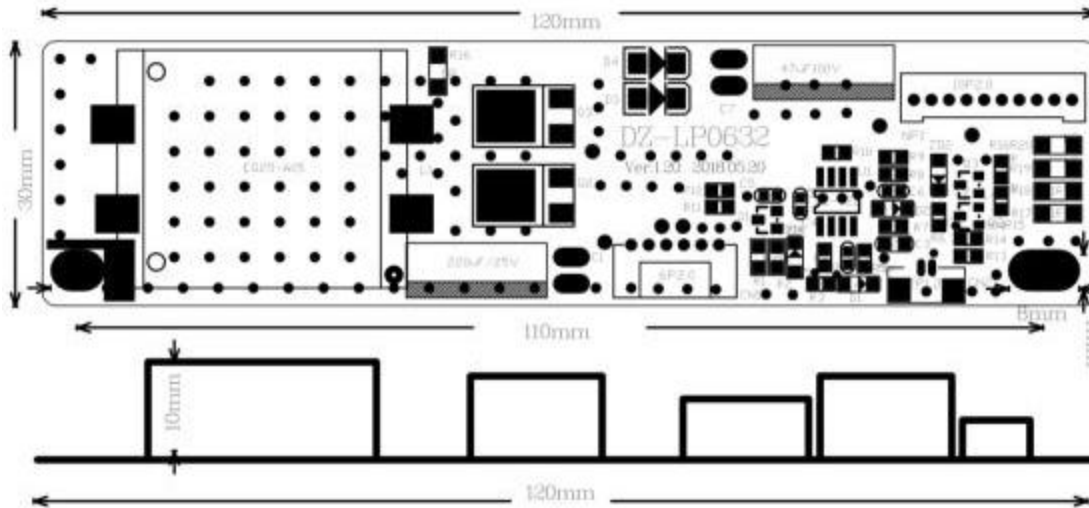
Pin No./引脚					
NP1 10P2.0					
CCCAAACCAA					
Symbol 符号	Description/ 描述	Parameter /参数	定义		
A	+	45V~80V	LED 供电		
C	-	0V	LED 反馈		
B1	+	45V~80V	LED 供电		
C2	-	0V	LED 反馈		
			LED 供电		
			LED 反馈		
N	-		空脚		



## 9. Mechanical Dimension / 结构示意图

Dimension of P.C.B. / PCB 机械尺寸: 13\*30\*10mm

Tolerance/公差:  $\pm 0.5\text{mm}$



## 10. Notice / 注意事项

A. If some one group is not use, Please float the terminal.

如果某一组输出不用，请悬空此路的连接端。

B. For Safety Issue, please keep 4.0mm at least from the metal parts of the system to the inverter. Or put a suitable insulator between the inverter and the metal parts to avoid the situation of breakdown.

基于安全问题,请在组装本产品时,确保本产品和整机中的金属材料间保持至少 5mm 以上的距离, 或者使用足够绝缘等级的绝缘材料进行隔离。

C. Don't twist, deform, drop or knock the inverter during assembly.

请在组装本产品时,避免扭曲,弯折,大力碰撞及跌落产生损害。

D. Guarantee to offer ESD shield bag to protect the product from electrostatic or magnetic interference during delivery. Due to the inverter is usually designed without the enclosure. please take care about ESD at anytime.

在产品交付的整个过程中均保持采用ESD 屏蔽袋包装处理, 因为该产品无外壳保护, 请务必随时注意防静电措施。

E. The products are not intended for use in systems in which failures of product could result in personal injury.

请勿将本产品使用在非适用范围的整机产品上, 以免对产品造成意外损害。



## 11. SAMPLE TEST REPORT/ 样品测试报告

### Note:

- The output current can be matched by adjusting the return resistance according to the parameters (voltage and current) of the LED module.
- Display brightness cd/ m<sup>2</sup> varies depending on the manufacturer of the backlight module structure (light guide plate and glass panel).

SAMPLE TEST REPORT/ 样品测试报告								
CUSTOMER/客户:			PRODUCT NO./产品编号:					
MOOEL NO. 产品型号:			DZ-LP0632			PART NO./物料号:		
1. Input Characteristics/输入特性								
Parameter/参数	Symbol 符号	Min	Typ	Max	Unit 单位	Remark 备注	Ref/Limit 参考标准	Pass/Fail 判定结果
Input Voltage/输入电压	V in	11.5	12	13	V	Input DC	11.5~13V	Pass
Input Current/输入电流	I in	0.5	2	2.6	A	V adj=0V	0.5A~3A	Pass
Input Power/输入功率	P in	5.75	24	38.8	W			Pass
Input Voltage ON/off control /开关电压	Von/Off	2.5~5	2.5~5	2.5~5	V	On	2.5~5V	Pass
		0~0.5	0~0.5	0~0.5		Off	0~0.5V	Pass
Input Current 输入电流	I on /off				uA	On		
Brightness cont or current/调光电流	I adj	1.8	3.3	5	uA	Vadj=0V	3.2	Pass
						Vadj=5V	4.8	Pass
2. Output Characteristics/输出特性								
Parameter/参数	Symbol 符号	Min	Typ	Max	Unit/ 单位	Remark 备注	Ref/Limit 参考标准	Pass/Fail 判定结果
Output Voltage /输出电压	A1	50	57	80	V		35~70	Pass
	B1				V			Pass
Output Current/输出电流	A1		500		mA		300	Pass
	B1				mA			Pass
Panel Brightness/ 亮度	cd/m <sup>2</sup>				lm			Pass
Low temperature test/低温启动试验	0℃ (DC24V±10%) The sample OK							
Burn-in/老化测试	Burn-in test with full load at 60℃±5℃(DC24V), The sample OK							
Appearance/外观目测	OK							
3. Major Measure Equipment/主要测试仪器								
A. OSCILLOSCOPE/示波器: Tektronix TBS 1152				B. Damometryn /功率计: LW9902				
C. DC POWER/直流输入电源: TPR-6410D				D. HI-POT TESTER/耐压测试仪: GOODEILL GPT-605				
E. HYBRID RECORDER/混合记录仪: YOKOGAWA				F. CONS.T/H SIMULATOR/恒温恒湿仪: TH-A4H 1-150				
DATE/		EDITION/		PAGE/				
TEST/测 试		CHECK/审 核		APPR/批准				

