

产品规格书

Specification

CUSTOMER 客户		RU-SMT	
PRODUCT 产品名称		LED Constant current source LED 恒流源	
P/N 产品型号		DZ-LP0632-3C	
CUSTOMER P/N 客户物料编号		DZ-LP0632-3C for DV215FHM-R10	
VERSION P/N 版本		REV:1.0	
CUSTOMER APPROVE 承 认		请承认后签章回传 202_年_月_日	
EXECUTION 制作	ISSUE 发行	CHECKED 审核	APPROVED 批准



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1. General Description/概述

This DC-DC LED Inverter is developed for LCD Backlighting system for LED Backlight display module.

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(高亮背光)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 : -20°C -- 70°C

Storage temperature / 贮存温度 : -20°C -- 70°C

Operating humidity / 工作湿度 : 10% -- 95%RH

Storage humidity / 贮存湿度 : 10% -- 95%RH

6. Input Electrical Characteristics / 输入参数

NO	Item/项目	Symbol	Min	Type	Max	Unit
1	Input Voltage/输入电压	V _{in}	11.5	12	13	V
2	Input Current/输入电流	I _{in}	1	2	2.5	A
3	Input Power/输入功率	P _{in}	11.5	24	32.5	W
4	Brightness Voltage 调亮控制电压	V _{adj}	5 (dark)	—	0(bright)	V
5	Control Voltage 开关机控制电压	Enable V _{on} =2.5---5V Disable V _{off} =0---2.5V				

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 _{out_pg}	V _{in} =12.0V; V _{on} =5V; T _a =25°C		350		m A	
Output Voltage 输出电压	V _{out}	V _{in} =12.0V; V _{on} =5V; T _a =25°C	35	50	70	V	
Output Power 输出功率	W _{out}	V _{in} =12.0V; V _{on} =5V; T _a =25°C			30	W	
Efficiency 效率	η	V _{in} =12.0V; V _{on} =5V;		93.5	---	%	
Output total group 输出总组数	G _{gp}			1			
The Total Output Current 输出总电流	R	可根据背光参数调节输出电流		-		m A	
		1R		200		m A	
	R	可根据背光参数调节输出电流			-		m A
		1R+2.7R+2.7R			350	-	m A

The parameter 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 (有感光控制功能时此引脚不接输入线)	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--5V Off =0-2.5V
CN2 4P1.25 外置感光接口			
1	+12V	Supply voltage/供电	
2	NC	空	
3	GND	Ground/接地	
4	ADJ	Dimming control/亮度控制	

9. Output socket definition/输出插座定义

Pin No./引脚					
NP1 10P2.0					
AAACCCAAC C					
Symbol 符号	Description 描述	Parameter 参数	定义Definition		
A	+	35V~70V	LED Power Supply		
C	-	0V	LED Feedback		
			LED Power Supply		
			LED Feedback		
			LED Power Supply		
			LED Feedback		
N	-		Empty Pin		



10. Mechanical Dimension / 结构示意图

(1) Dimension of P.C.B. / PCB机械尺寸：长120mm、宽30mm、高11mm

Unit/单位: mm Tolerance/公差: $\pm 0.5\text{mm}$

图1-1 PCB 恒流板机械尺寸

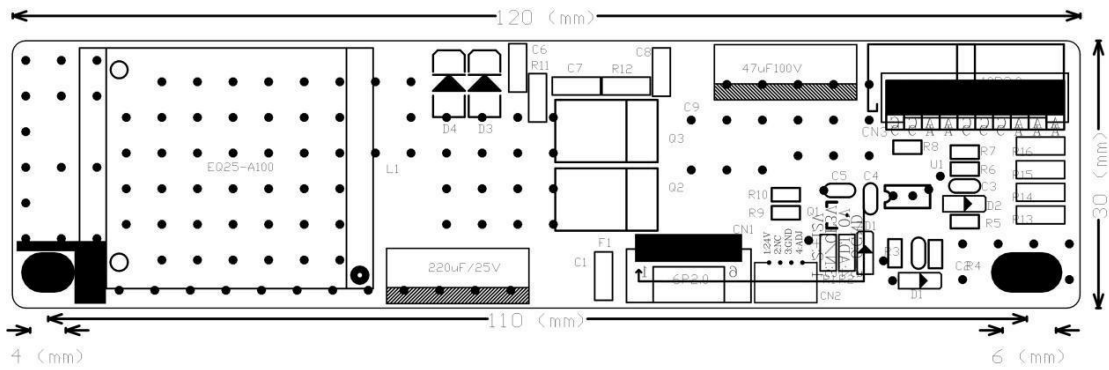
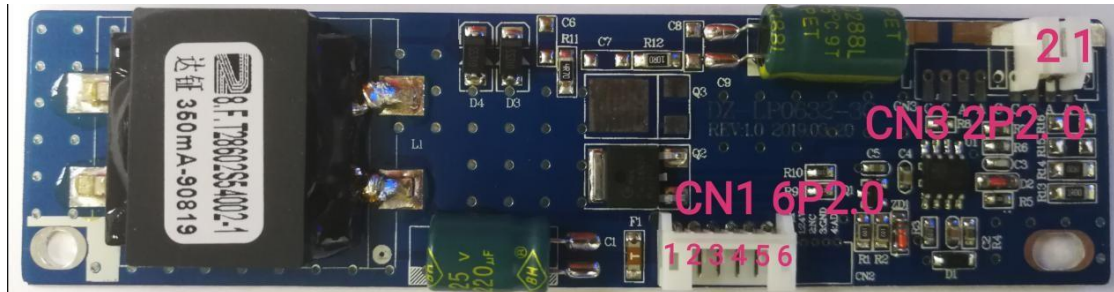


图1-2 全视图 Top View



CN1 (6P2.0:电源输入口)定义如下:

1至2 脚: 电源输入 +12V

5至6 脚: 电源输入 -12V(GND)

3 脚: ON/OFF 开关控制(+3.3V)

4 脚: ADJ 亮度调节(0V 最亮)

CN2(4P1.25外置感光接口):

1脚: +12V、2脚: NC、3脚: GND、4脚: ADJ

CN3(2P2.0灯条接口):

1脚: 正极LED+、2脚: 负极LED-

11. Notice / 注意事项

- If some group output is not in use, please float the related terminal. 如果某一组输出不用, 请悬空此路的连接端。
- For safety issue, please keep at least 4.0mm from the metal parts from the system to the inverter. Or put a suitable insulator between the inverter and the metal part 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。
- Do not 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。
- Guarantee to offer ESD Shield bag to protect the product from electro static or magnetic interference during delivery. Due to the inverter is usually designed without the enclosure, please take care about ESD at any time. 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。
- The product are not intended for using unproper facilities, to avoid accidental 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。



12. SAMPLE TEST REPORT/ 样品测试报告

注：1.输出电流可根据LED模块的参数(电压和电流)的需求，调节回流电阻进行匹配。2.显示亮度 cd/m^2 因背光模组结构(导光板和玻璃面板)的厂家不同而有所差别

SAMPLE TEST REPORT/ 样品测试报告								
CUSTOMER/客户:				PRODUCT NO./产品编号:				
MOEEL NO.产品型号:	DZ-LP0632-3C			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	1	2	2.5	A	V adj=0V	0.3A~3A	Pass
Input Power/输入功率	P in	11.5	24	32.5	W			Pass
Input Voltage ON/off control /开关电压	Von/Off	2.5~5	-	2.5~5	V	On	2.5~5V	Pass
		0~2.5	-	0~2.5		Off	0~2.5V	Pass
Input Current 输入电	I on/off				uA	On		
Brightness control or current/调光电流	I adj	1.8	3.3	5	uA	V adj=0V	3.2	Pass
						V adj=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	35	50	70	V		35~70	Pass
	B1				V			Pass
Output Current/输出电流	A1		350		mA			Pass
	B1				mA			Pass
Panel Brightness/亮度	cd/m^2				lm			Pass
Low temperature test/低温启动试	0°C (DC12V±10%) The sample OK							
Burn-in/老化测试	Burn-in test with full load at 60°C±5°C(DC12V), 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. Dammeier /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 DR130				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				

All above information are provided by Sinotronics BTP Product team. In case of any question, please feel free to contact us:
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