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Flat Panel Display Solutions LLC.
info@FPDSolutions.com
skype: sunlight.fpd
Phone: 503-992-1242



Premium Optical Lamination of Clear and Matte Anti-Reflection Films
Optical Bonding AR and AG Glass, Touch Panels, Optical Filters and Shields
2D/3D Glass, Mirrors, and Support Polarizer and Backlight Repair
Display Optimization and Contract Assembly
Consulting and Design Guidance



LITEMAX LID12A01

Inverter

(1st Edition 8/7/2007)

All information is subject to change without notice.

Approved by	Checked by	Prepared by
David	Sharline	Eric

LITEMAX Electronics Inc.
8F-2, No.133, Lane 235, Bau-chiau Rd.,
Shin-dian City, Taipei County, Taiwan R.O.C.
Tel : 886-2-8919-1858
Fax: 886-2-8919-1300
Homepage: <http://www.litemax.com.tw>

General

The LID12A is designed to power High White LED Light Bar to a nominal power level of 18W.

Intensity control (0-100%) is accomplished by the user providing a variable dc level of 0.3V (full-on) to 4.8V (off) at pin7 of LJ1.

Enable control is accomplished at pin8 of LJ1 (5V=on, 0V=off)

Specifications:

- $V_{in}=+10V$ to $+14V \pm 10\%$
- Constant current and voltage function.
- No load voltage=30V
- LED Light Bar output Voltages=18V
- LED Light Bar output current=1A @100%
- Nominal LED Light Bar working frequency=125KHz $\pm 5KHz$
- Nominal PWM frequency=200Hz $\pm 5\%$
- PWM duty cycle range=0 to 100%
- Average electrical efficiency > 90%
- External PWM signal input pi7 of LJ1(LID12B) can be synchronized

LED Application

This specification is applied to LED converter unit for 12 " 60pcs LED backlight
Operating Characteristics

Item	Symbol	Conditions	MIN.	TYP.	MAX.	Unit	Remark
Input Voltage	Vin		10.0	12.0	14.0	V	
Input Current (Low Brightness)	IinL	VIN=12V,Vadj=5V	0.0	-----	-----	mA	
Input Current (High Brightness)	IinH	VIN=12V,Vadj=0V	1.20	1.50	1.84	A	
LED Current (Low Brightness)	IoutL	VIN=12V,Vadj=5V	0.0	-----	-----	Arms	
LED Current (High Brightness)	IoutH	VIN=12V,Vadj=0V	860	920	980	mA	
Working	Freq	VIN=12V,Vadj=0V	120	125	130	Hz	
PWM Frequency	Freq	VIN=12V	190	200	210	HZ	
Brightness Control	Vadj	Connection of Voltage	5.0	-----	0.0	V	
ON/OFF Control	Von/off	Normal Operation	2	-----	5	V	
Output Voltage	Vout	VIN=12V,Vadj=0V	16.2	18.0	19.8	V	
Efficiency	η	VIN=12V,Vadj=0V	90	-----	-----	%	

Environment

Operation Temperature	-20 ~ 70°C
Operation Humidity	90% Max.RH
Storage Temperature	-40 ~ 85°C
Storage Humidity	90% Max.RH

Connector Socket

Input Connector :LJ1(JST B2B-PH-K-S or Compatible)

PIN No	Symbol	Description
1	Vin	DC+12V
2	Vin	DC+12V
3	Vin	DC+12V
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	Brightness	Brightness Control 5V~0V
8	Control	ON/OFF Control 0.8V(OFF) 2~5V(ON)

Output Connector :LJ2,LJ3 (JST S2B-EH or Compatible)

PIN NO	Symbol	Description
1	Output	LED High Voltage(+)
2	Output	LED Low Voltage (-)

Mechanical Characteristics

Dimension: 124mm*50mm*15mm

INPUT CONNECTOR
 LJ1:
 PIN1:VIN
 PIN2:VIN
 PIN3:VIN
 PIN4:GND
 PIN5:GND
 PIN6:GND
 PIN7:BRIGHTNESS
 PIN8:ON/OFF

