Specifications and Applications

LED Driving Board

LED-265210

Product Version: V3.01S

RoHS Compliance

Issue Date: Oct-20-2010
Document Version: 1.0

Version		Date	Page	Section	Description
Product	Document				
V3.01S	1.0	2010/10/20			First Release

<Remarks>

1. General

The LED-265210 driving board is designed to drive LED backlight module. It is a constant frequency and current mode controller especially applied for LED arrays. In constant current LED applications, the LED-265210 provides an especially wide PWM dimming range and DC voltage dimming control feature which allow users to adjust brightness smoothly. Additional power protection feature is able to protect LED module from damage by overcurrent and overvoltage.

2. Features

High Dimming Ratio (3000:1)
Low Profile and Compact Design
Constant LED Current
PWM/Or DC Voltage Dimming Control
Short Circuit and Overload Protection
External Power On/Off Control

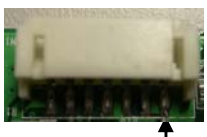
3. Mechanical Characteristics

	L	W	H
Dimension	100mm	40mm	10.5mm
Weight	MAX. 24g		

4. Connectors

Conn. No.	Brand	Parts No
CN1	JST	S7B-PH-K
CN2	Molex	53261-15

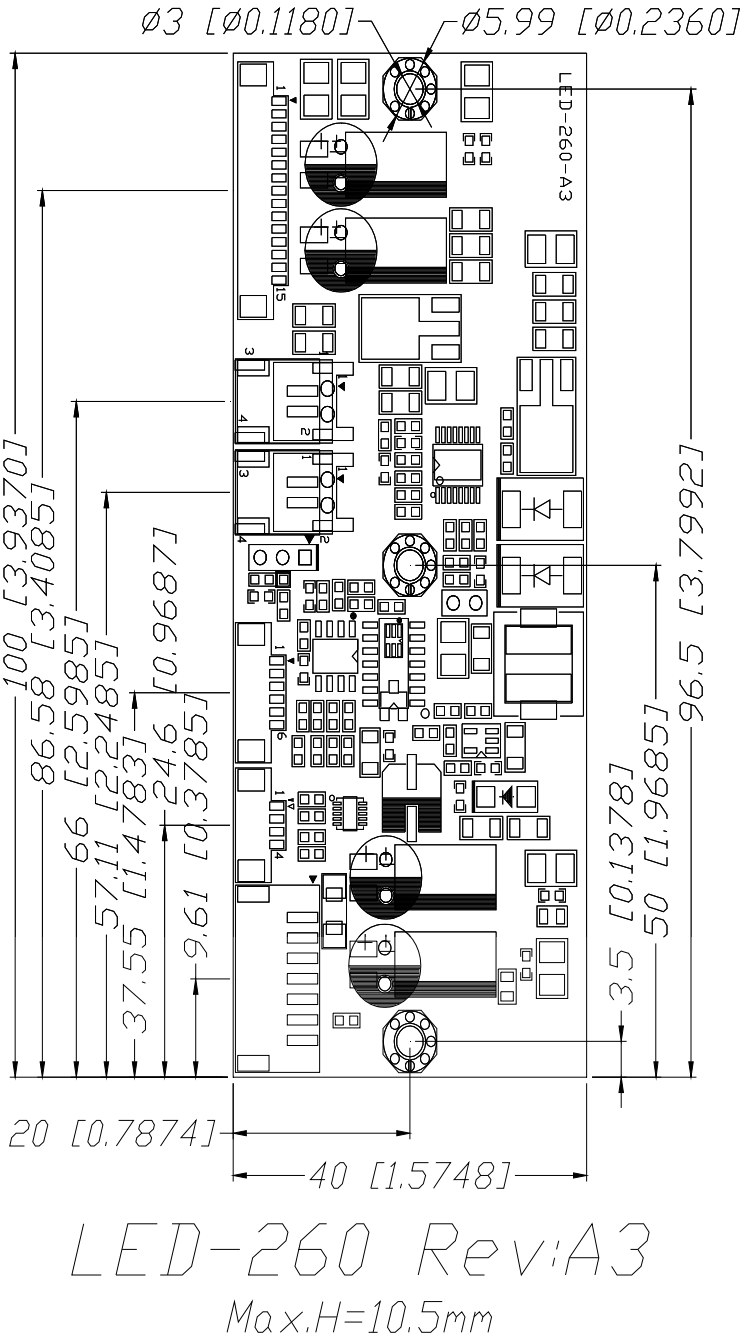
5. Pin Number



CN1 (pin1)

CN2(pin1)

Mechanical Specifications



6. LCD Application

LCD Model	LCD Model	Remark
NEC NL6448BC20-30C		
NEC NL8060BC21-11C		

7. Operating Conditions

Item	Symbol	Conditions	MIN	MAX	Unit	Remark
Input Voltage	Vin		-	15	V	
Operating Temperature	Top	Ha≦90%RH	-20	85	℃	
Storage Temperature	Tstg	Ha≦95%RH	-30	100	℃	
Operating Humidity	Hop	Ta=0~55℃	20	90	%RH	
Storage Humidity	Hstg	Ta=20~80℃	-	95	%RH	

8. Operating Characteristics

Unless otherwise noted Vin=12 Volts DC and T=25℃

Item	Symbol	MIN	TYP	MAX	Unit	Remark
Input Voltage	Vin	-	12	15	V	
Output Voltage	V-led	-	29.7	34.2	V	
Dimming Ratio				3000:1		
Output Current	I-out	-	210	-	mA	
PWM Control Duty Ratio		10	-	100	%	
PWM Control Frequency		180	-	25K	HZ	
PWM Swing Voltage	High Level	2.0	-	5.5	V	
	Low Level	0	-	0.8	V	
DC Voltage Dimming Control		0		5	V	0V: High Brightness +5V: Low Brightness

9. Connector pin description

9-1. (CN1) Input Connector

Pin No.	Symbol	Description	Remark
1	BKLT	VDD	
2	BKLT	VDD	
3	GND	Ground	
4	GND	Ground	
5	ENA	Enable (ON=+5V ; OFF=0V)	
6	Brightness	PWM/DC Voltage	
7	AR	NC	

9-2. (CN2) Output Connector

Pin No.	Symbol	Description	Remark
1	LEDIN1	Anode1	
2	LEDIN2	Anode2	
3	LEDIN3	Anode3	
4	LEDIN4	Anode4	
5	LEDIN5	Anode5	
6	LEDIN6	Anode6	
7	LEDO1	Cathod1	
8	LEDO2	Cathod2	
9	LEDO3	Cathod3	
10	LEDO4	Cathod4	
11	LEDO5	Cathod5	
12	LEDO6	Cathod6	
13	ENA	Enable	
14	Brightness	Dimming Control	
15	VCC	VCC	

10. Driving Board Picture