Product Specifications

LED Driving Board

LED-284155

Product Version: A1.x

RoHS Compliance

Issue Date: Aug-19-2013
Document Version: 1.3

Revision History

Version		Date	Page	Section	Description
Product	**Document**				
A1.x	1.3	2013/8/19	1,3,4,5	1,2,5,8,9-1~2	Revice Genral, PWM Frequency, Swing voltage, ENA
A1.x	1.2	2012/9/27			First Release

<Remarks>

1. General

The LED-284155 driving board is designed to drive LED backlight module. It is a constant frequency and current mode controller applied to drive various LED rails. In constant current LED applications, the LED-284155 provides wide dimming feature through PWM or DC voltage control to allow users to adjust brightness smoothly. Additional power protection feature protects LED module from damage by overcurrent or overvoltage.

2. Features

Applicable to 8 LED Strings
Low Profile and Compact Design
Costant LED Current (55mA) / Per String
PWM/or DC Dimming Control
Short Circuit and Overload Protection
External Power On/Off Control

3. Mechanical Characteristics

	L	W	H
Dimension	100mm	40mm	12mm
Weight	MAX. 21g		

4. Connectors

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

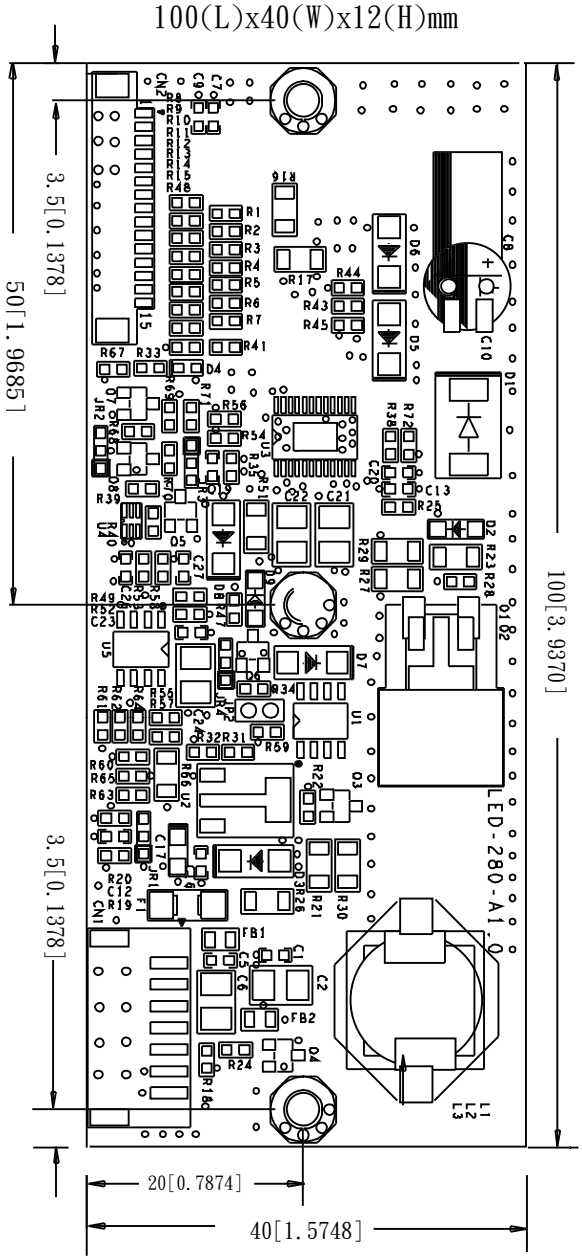
5. Pin Number

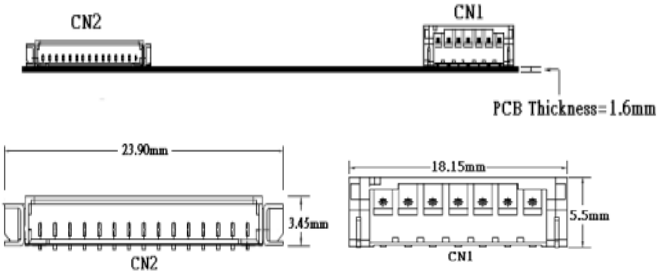
CN1 (pin1)

CN2 (pin1)

Mechanical Specifications

Board Dimension:
100(L)x40(W)x12(H)mm





6. LCD Application

LCD Model	LCD Model	Remark

7. Operating Conditions

Item	Symbol	Conditions	MIN	MAX	Unit	Remark
Input Voltage	Vin		11	13.2	V	
Operating Temperature	Top	Ha≦90%RH	-30	80	℃	
Storage Temperature	Tstg	Ha≦95%RH	-40	100	℃	
Operating Humidity	Hop	Ta=0~55℃	-	90	%RH	
Storage Humidity	Hstg	Ta=20~80℃	-	95	%RH	

8. Operating Characteristics

T=25℃

Item	Symbol	MIN	TYP	MAX	Unit	Remark
Input Voltage	Vin	11	12	13.2	V	
Output Voltage / Per String	V-led	26	-	37	V	
Dimming Ratio				100:1		
Output Current / Per String	I-out	-	-	55	mA	
PWM Control Duty Ratio		1	-	100	%	
PWM Control Frequency		200	-	27K	HZ	
PWM Swing Voltage (High)		3.0	-	5.5	V	
DC Voltage Dimming Control		0		5	V	0V: High Brightness +5V: Low Brightness

9. Pin Definition

9-1. (CN1) Input Connector

Pin No.	Symbol	Description	Remark
1	BKLT	VDD Input	
2	BKLT	VDD Input	
3	GND	Ground	
4	GND	Ground	
5	ENA	Enable (ON=2.2V~5V ; OFF=0V~1V)	
6	Dimming	PWM/or DC voltage	
7	AR	NC	

9-2. (CN2) Output Connector

Pin No.	Symbol	Description	Remark
1	HV1	Anode	
2	HV2	Anode	
3	HV3	Anode	
4	HV4	Anode	
5	HV5	Anode	
6	HV6	Anode	
7	LV1	Cathode1	
8	LV2	Cathode2	
9	LV3	Cathode3	
10	LV4	Cathode4	
11	LV5	Cathode5	
12	LV6	Cathode6	
13	LV7	Cathode7	
14	LV8	Cathode8	
15	Reserve	NC	

10. Picture