



Specifications and Applications

LED Driving Board

LED-252280

Product Version: V3.0S



RoHS Compliance

Issue Date: 3rd-Nov-2009

Document Version: 1.0S

1. General

The LED-252280 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-252280 provides an especially wide PWM dimming range, which allows PWM pulse widths as short as several converter switching periods. 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(280mA)
 PWM 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		

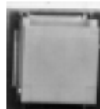
4. Connectors

Conn. No.	Brand	Parts No
CN1	JST	S7B-PH-K
CN8	JST	SM02B

5. Pin Number

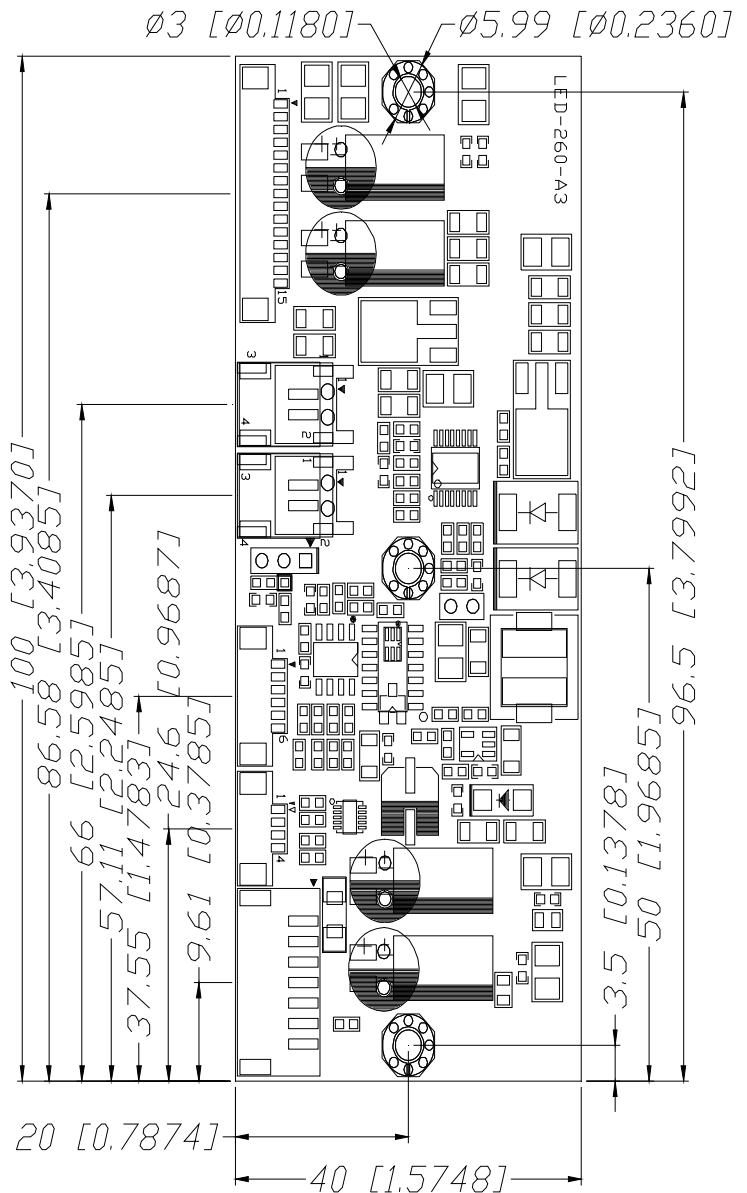


CN1 (pin1)



CN8(pin1)

Mechanical Specifications



LED-260 Rev:A3

Max.H=10.5mm

6. LCD Application

LCD Model	LCD Model	Remark
PRIMEVIEW-PD080SL3		

7. Operating Conditions

Item	Symbol	Conditions	MIN	MAX	Unit	Remark
Input Voltage	V _{in}		3.3	15	V	
Operating Temperature	Top	Ha ≤ 90%RH	-20	85	°C	
Storage Temperature	T _{stg}	Ha ≤ 95%RH	-30	100	°C	
Operating Humidity	H _{op}	Ta=0~55°C	20	90	%RH	
Storage Humidity	H _{stg}	Ta=20~80°C	-	95	%RH	

8. Operating Characteristics

Unless otherwise noted V_{in}=12 Volts DC and T=25°C

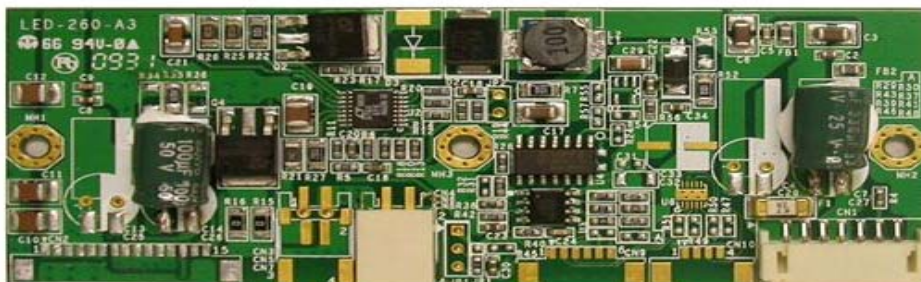
Item	Symbol	MIN	TYP	MAX	Unit	Remark
Input Voltage	V _{in}	3.3	12	15	V	
Output Voltage	V _{led}	-	11	-	V	
Dimming Ratio			3000:1			
Output Current	I _{out}	-	280	-	mA	
PWM Control Duty Ratio		10	-	100	%	
PWM Control Frequency		180	-	25K	HZ	
PWM Swing Voltage		2.0	-	5.5	V	
Brightness Control		5		0	V	

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	PWM	Brightness Control (0V-MAX, +5V-MIN)	
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	PWM	PWM	
15	VCC	VCC	

10. Driving Board Picture



LED-252280