



# Product Specification

DB-LD0C

☐ Preliminary Specifications

☒ Final Specifications

Product	LED Driver Board
Model Name	DB-LD0C
Document Version	Rev.01

Customer

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Approved by

Date

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Notice: This Specification is subject to change without notice.

Approved By	Prepared By
	



# **Product Specification**

DB-LD0C

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Revised Record				
Version	Date	Revised Content/Summary	Page	Remark
01	2018/04/23	First Edition	All	

## 1. General Description

This Product Specification is made to be the standard of Elite manufactured LED Driving Board such a standard will be followed in Taiwan Screen production, shipment, and quality inspection.



## 2. Feature

- 50W LED Driver
- Constant-Current Control
- Support PWM Dimming

## 3. Protection

Item	Max.	Remark
Over current protection (OCP)	Depending on LED B/L	
Over voltage protection (OVP)	56V(Note1)	

**Note :** When the LED string is opened, over voltage protection will limit the output to approximately 56V

## 4. Optional Backlight Driving Condition (Depends on panel)

Item	Symbol	Min.	TYP.	Max.	Unit	Remark
LED Voltage	$V_{LED}$		-		V	
LED Current	$I_{LED}$		-		mA	

## 5. Absolute maximum ratings

Parameter	Symbol	Min.	TYP	Max.	Unit	Remark
Input Voltage	$V_{in}$	10.8	12	15	V	
Output Voltage	$V_{out}$			50	V	
Output Current	$I_{out}$			1000	mA	



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## 6. Interface Characteristics

Parameter	Symbol	Min.	TYP.	Max.	Unit	Remark
Backlight ON Voltage	INVON	1.25	5	V <sub>in</sub>	V	
Backlight OFF Voltage	INVON			0.4	V	
PWM Control	PWM	3.3	5		V	
PWM Control Frequency	PWM	85	100		Hz	
PWM Control Duty	PWM	0		100	%	

## 7.Environmental

Item	Symbol	Conditions	MIN	MAX	Unit	Remark
Operating Temperature	Top	Ha=90%RH	-20	70	°C	
Storage Temperature	Tstg	Ha=95%RH	-20	85	°C	

## 8. Connector Socket

### 8.1 Connector Type

Connector (J1)

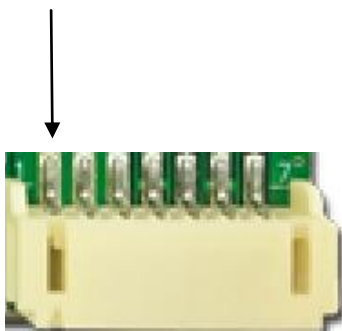
Connector Name / Designation	For Signal Connector
Manufacturer	JST or compatible
Type / Part Number	S7B-PH-SM4-TB or compatible
Mating Housing / Part Number	PHR-7 or compatible

Connector (J2 & J3)

Connector Name / Designation	For Signal Connector
Manufacturer	JST or compatible
Type / Part Number	S2B-PH-SM4-TB or compatible
Mating Housing / Part Number	PHR-2 or compatible

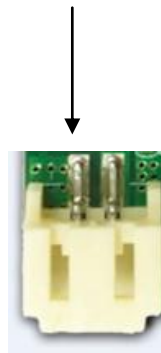
J1 S7B-PH-SM4-TB

(Pin 1)



J2 & J3 S2B-PH-SM4-TB

(Pin 1)





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## 8.2 Pin Definition

Connector (J1)

PIN No.	Symbol	Description
1	Vin	Power Input (+12V)
2	Vin	Power Input (+12V)
3	Vin	Power Input (+12V)
4	GND	Ground
5	PWM	PWM Brightness Control
6	GND	Ground
7	EN	Backlight on/off Control (5V / 0V)

Connector (J2 & J3)

PIN No.	Symbol	Description
1	V_LED+	LED Power +
2	V_LED-	LED Power -



## 9. Mechanical Characteristics

Dimension: 75(L) \*30(W) \*8.5(H) mm

Weight: MAX. 20g

