■ **Preliminary Specifications**

☐ **Final Specifications**

Title	Backlight Driving Board
Model Name	DB-LD1B-14
Version	Rev.1

Customer _____ Approved by Date _____ _____
Notice : This Specification is subject to change without notice.

Approved By	Prepared By
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Revised Record

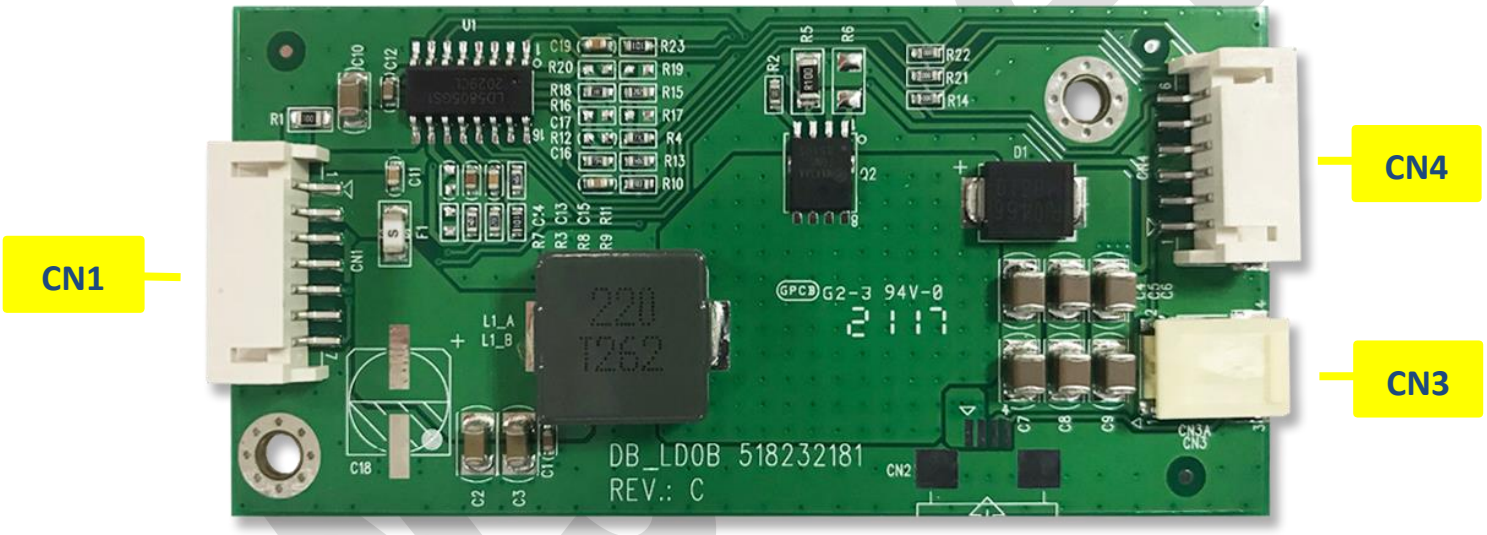
Version	Date	Revised Content/Summary	Page	Remark
0	2021/07/21	Final Specification was first issued	All	
1	2022/05/18	Update PCB Rev.B => Rev.C	4	
		Update Mechanical Characteristics	7	

1.General Function

This is a high efficiency LED backlight driver board which is capable to driving up to 4 channels merged into two LED string. This board provides the user with OVP and OCP features.

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

2.Interface



2-1. CN1 : Input Connector
2-2. CN4 : Output Connector
2-3. CN3 : Output Connector

3.Electrical Characteristics

Parameter		Min.	Typ.	Max.	Unit	
Iput Voltage	Vin	10.8	12.0	26	V	
Input Current	Iin	---	3	---	A	
Output Voltage	Vout	---	---	61	V	***
Efficiency	Eff.	---	80	---	%	
Sub Current	Iout	---	75	---	mA	***
Total Current	Iout	---	150	---	mA	***
LED ON/OFF	Von	2.5	---	5.0	V	
	Voff	---	---	0.5		
Dimming	PWM High Level	2.5	---	5.0	V	
	PWM Low Level	---	---	0.5	V	
	PWM Duty Cycle	5	---	100	%	
	PWM Frequency	0.1	---	20	KHz	

*** Depend on panel type

4.Interface Characteristics

4.1. Input Connector

Location – CN1 : 7pin wafer，pitch 2.0mm R/A，STM MS24267R or equiv

Pin Assign and Definition

Pin No.	Symbol	Pin No.	Symbol	Pin No.	Symbol
1	+12 V	4	GND	7	ADJ
2	+12 V	5	ON/OFF		
3	GND	6	NC		

4.2. Output Connector

Location – CN4 : 6pin wafer，pitch 2.0mm R/A，STM MS24266R or equiv

Pin Assign and Definition

Pin No.	Symbol	Pin No.	Symbol
1	IRLED_1	4	VLED+
2	IRLED_1	5	IRLED_2
3	VLED+	6	IRLED_2

Location – CN3 : 2pin wafer，PH=2.0mm R/A，CP0502P1ML0 or equiv

Pin Assign and Definition

Pin No.	Symbol
1	VLED+
2	IRLED_1

5.Mechanical Characteristics

Dimension: 84(L) *40.8(W) *8.5(H) mm

Weight: MAX. 20g