■ **Preliminary Specifications**

☐ **Final Specifications**

Title	Backlight Driving Board
Model Name	DB-LD0B-01
Version	Rev.4

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

Approved By	Prepared By
Tony Chiu **2022/05/16**	**Frank Kuo** **2022/05/16**

Contents

Revised Record

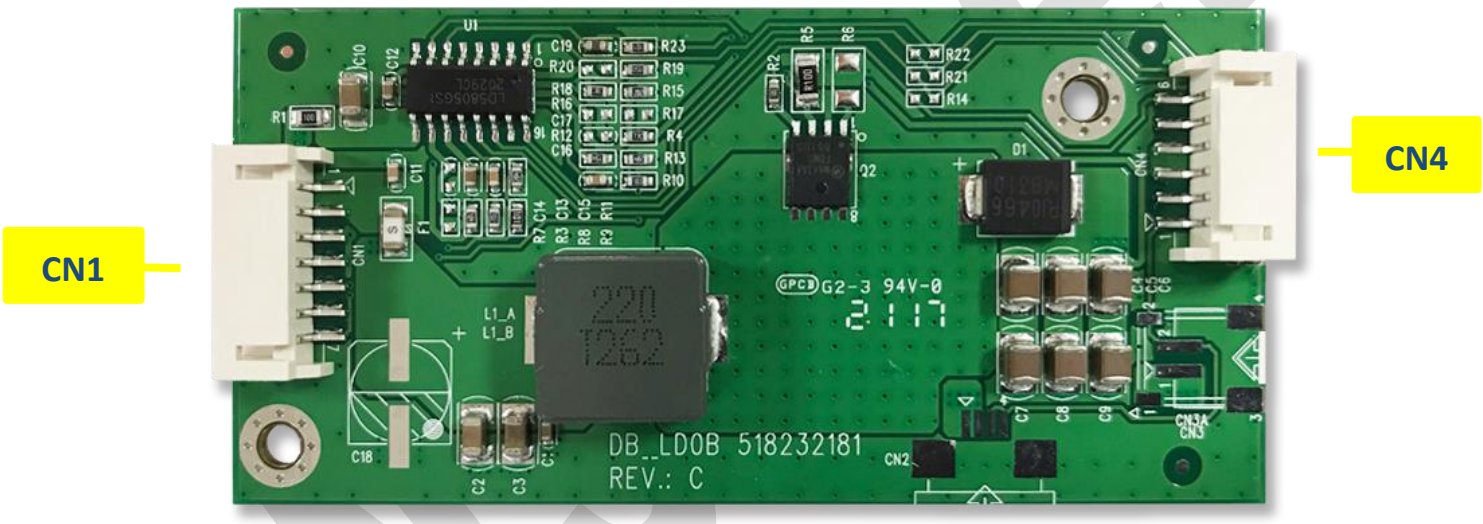
Version	Date	Revised Content/Summary	Page	Remark
0	2020/02/19	Final Specification was first issued	All	
1	2020/03/02	Delete OTP protection	4	
2	2020/07/02	Update 3.Electrical Characteristics a. Voff Min.0V =>Voff Min.--- b. PWM Level =>PWM High Level c. PWM Low Level Max.=0.5V d. Duty Ratio Min.0%=>PWM Duty Cycle Min.5% e. Frequency =>PWM Frequency	5	
3	2020/12/28	Modify data error, 4.1 Input Connector Location – CN1 : STM MS24017R => MS24267R 4.2 Output Connector Location – CN4 : STM MS24016R => MS24266R	6	
4	2022/05/16	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 of 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

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	---	60	---	mA	***
Total Current	Iout	---	240	---	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_2	5	IRLED_3
3	VLED+	6	IRLED_4

5.Mechanical Characteristics

Dimension: 84(L) *40.8(W) *8.5(H) mm
Weight: MAX. 20g