

☒ Preliminary Specifications

☐ Final Specifications

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|------------|-------------------------|
| Title | Backlight Driving Board |
| Model Name | DB-LD0H-02 |
| Version | Rev.0 |

| | |
|--|-------|
| Customer | |
| <hr/> | |
| Approved by | Date |
| <hr/> | <hr/> |
| Notice : This Specification is subject to change without notice. | |

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|---------------------------------------|---------------------------------------|
| Approved By | Prepared By |
| Tony Chiu 2022/05/18 | Frank Kuo 2022/05/18 |

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Revised Record

| Version | Date | Revised Content/Summary | Page | Remark |
|---------|------------|--------------------------------------|------|--------|
| 0 | 2022/05/18 | Final Specification was first issued | All | |
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1.General Function

This is a high efficiency LED backlight driver board which is capable to driving up to 4 channels merged into one 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. CN2 : Output Connector

3.Electrical Characteristics

| <u>Parameter</u> | | <u>Min.</u> | <u>Typ.</u> | <u>Max.</u> | <u>Unit</u> |
|------------------|------------|-------------|-------------|-------------|-------------|
| Input Voltage | Vin | 10.8 | 12.0 | 20 | V |
| Input Current | Iin | --- | 1 | --- | A |
| Output Voltage | Vout | --- | --- | 40 | V |
| Efficiency | Eff. | --- | 80 | --- | % |
| Sub Current | Iout | --- | 220 | --- | mA |
| Total Current | Iout | --- | 220 | --- | mA |
| LED ON/OFF | Von | 2.5 | --- | 5.0 | V |
| | Voff | 0 | --- | 0.5 | |
| Dimming | PWM Level | 2.5 | --- | 5.0 | V |
| | Duty Ratio | 5 | --- | 100 | % |
| | Frequency | 0.2 | --- | 20 | KHz |

*** Depend on panel type

4.Interface Characteristics

4.1. Input Connector

Location – CN1 : 8pin wafer , pitch 1.0mm SMD , ACES 50224-008 or equivalent

Pin Assign and Definition

| Pin No. | Symbol | Pin No. | Symbol | Pin No. | Symbol |
|---------|--------|---------|--------|---------|--------|
| 1 | GND | 4 | ADJ | 7 | +12 V |
| 2 | GND | 5 | ON/OFF | 8 | +12 V |
| 3 | GND | 6 | +12 V | | |

4.2. Output Connector

Location – CN2 : 6pin wafer , pitch 1.0mm SMD , ACES 50224-006 or equivalent

Pin Assign and Definition

| Pin No. | Symbol | Pin No. | Symbol |
|---------|--------|---------|--------|
| 1 | VLED+ | 4 | IRLED |
| 2 | VLED+ | 5 | IRLED |
| 3 | IRLED | 6 | IRLED |

Dimension: 50(L) *30(W) *4.02(H) mm