

☐ Preliminary Specifications☒ Final Specifications

| | |
|------------|---------------------------|
| Title | (DC/DC) LED Driving Board |
| Model Name | D2625014G1PA |
| Version | Rev. 1 |

Customer

_____Approved by

_____Date

Notice : This Specification is subject to change without notice.

| | |
|-------------|-------------|
| Approved By | Prepared By |
| Frank Kuo | Tony Chiu |

| Modification records | |
|----------------------|------------|
| 1 | 2023.09.01 |
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[illegible]

Description

D26 series is a high voltage Boost driver with 1~4 channels adjustable constant current regulators for LED backlight applications.

The D26 series eliminates the audio noise by maintaining constant LED current regulation during PWM dimming. It could output the lowest dropout voltage among used channels to Boost Driver in order to maintain the output voltage in optimal level.

An OVP circuit is built for open-loop protection when any string becomes open.

Analog dimming control(option), built in DC to PWM (Pulse Width Modulation) module, signal for the dimming control function allows users to set LED brightness smoothly.

Applicable

Input voltage: +11V~+32V.

Output LED voltage:+18V~+60V.(@Vin=12V)

1~4 constant-current output channels.

Feature

Wide input voltage range.

External PWM dimming control.(PWM Input frequency Range 240Hz ~ 30kHz)

External DC (0V ~ +3.3V) dimming control.(Option).

External power On/Off control.

Output LED String Open Protection.

Output LED String Short Protection.

Output LED String Over Current Protection.

Thermal protection function protects IC from over temperature damage.

Operating Condition

| Item | Min. | Typ. | Max. | Units |
|-------------------------------|------|-------------------------|--------|-------|
| Input Voltage | 11 | 12 | 32 | Volt |
| Input Current | - | TBD | - | A |
| Output Voltage | 18 | ~ | 60 | Volt |
| Output Current(rms) | -10% | 200 (50mA * 4string) | +10% | mA |
| Over voltage Protection (OVP) | - | - | 60 | Volt |
| Controll Voltage (On) | 2 | 5 | 7 | Volt |
| PWM Dimming Control | 240 | 1000 | 30,000 | Hz |
| Efficiency | 85 | 88 | 90 | % |
| Operating Temperature | -20 | 25 | 70 | °C |
| Storage Temperature | -50 | 25 | 125 | °C |

I/O Connector

Input connector

CN1_(JST-S6B-2.0mm) or compatible

| Pin No. | Symbol | Description |
|---------|-------------|-----------------------|
| CN1-1 | VIN | DC power input |
| CN1-2 | VIN | DC power input |
| CN1-3 | ON/OFF | 0.7V(off) , 2V~5V(on) |
| CN1-4 | PWM Dimming | 0%(3mA)~100%(50mA) |
| CN1-5 | GND | Ground |
| CN1-6 | GND | Ground |

Output connector

CN6_(JST-S6B-2.0mm) or compatible

| Pin No. | Symbol |
|---------|--------------------------|
| CN6-1 | IRLED (current out 50mA) |
| CN6-2 | IRLED (current out 50mA) |
| CN6-3 | VLED (voltage in) |
| CN6-4 | VLED (voltage in) |
| CN6-5 | IRLED (current out 50mA) |
| CN6-6 | IRLED (current out 50mA) |

Mechanical Specification

Dimension (L x W x H): 80mm x 35mm x 10mm

