

## PRODUCT SPECIFICATION

### 产品规格书

PRODUCT / 产品名称: LED DRIVER / LED 恒流板

SAQCN P/N / 型号: SQD-715A-A

DESCRIPTION / 描述: 36-80V/1600mA\*2 路

CUSTOMER / 客户:

CUSTOMER P/N / 客户编码:

DATE / 日期: 2022. 3. 28

| APPROVED BY/客户确认栏              | NOTE / 备注             |
|--------------------------------|-----------------------|
| CUSTOMER SIGNATURE (S)<br>客户签章 | RoHS Available<br>环保品 |

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## Revision record / 变更记录表

| No.<br>序号 | Date<br>变更日期 | Version<br>版本 | Reason of<br>revision<br>变更原因 | Content of revision<br>变更内容 | Prepared<br>by<br>变更人 | Approved<br>by<br>确认人 |
|-----------|--------------|---------------|-------------------------------|-----------------------------|-----------------------|-----------------------|
|           |              |               |                               |                             |                       |                       |
|           |              |               |                               |                             |                       |                       |
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|           |              |               |                               |                             |                       |                       |
|           |              |               |                               |                             |                       |                       |
|           |              |               |                               |                             |                       |                       |

The information given in this document is carefully checked and believed to be reliable. SAQCN reserves the right to make changes in product or specification at any time and without further notice.

此文件经过仔细检查和核对，内容真实，赛其创新有权根据需要，在不另行通知情况下，改进产品或规格书。

## 1. General description / 概述

This product is the LED driver, has the constant pressure constant flow multi groups outputs, is suitable in the LED lamp's application.

本产品为 LED 驱动器, 具有恒压恒流多路输出, 适用于 LED 灯的应用。

## 2. Features / 特性

High performance, low consumption / 具有高能低耗特点。

Opening protection function(each) / 开路保护功能(每一组)

Short protection function(each) / 短路保护功能(每一组)

Over current function / 过电流保护功能

## 3. Application / 适用范围

This product for each kind of LED display unit design, applies each kind of LED demonstration!

本产品为各类 LED 显示部件设计, 应用各类 LED 显示!

## 4. Suitable load / 适用负载

LED backlight LCD panel.

LED 显示屏

## 5. Environmental condition / 适用环境条件

Operating temperature / 工作温度 :  $-5^{\circ}\text{C} \sim 50^{\circ}\text{C}$

Storage temperature / 贮存温度 :  $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$

Operating humidity / 工作湿度 : 10% -- 80%RH

Storage humidity / 贮存湿度 : 10% -- 93%RH

## 6. Abnormal operating testing / 非正常工作测试

Damage to the inverter must not occur such as fire, high temperature, breakdown, and molten metal etc, in equipment.

非正常工作条件下, 不可出现起火、高温、击穿、出现熔化金属等现象。

## 7. Input electrical characteristics / 输入参数

| Item<br>项目           | Symbol<br>符号 | Min<br>最小值  | Type<br>规格值 | Max<br>最大值 | Unit<br>单位 |
|----------------------|--------------|-------------|-------------|------------|------------|
| Input Voltage / 输入电压 | Vin          | 22          | 24          | 26         | V          |
| Input Current / 输入电流 | Iin          | $\leq 12.7$ |             |            | A          |
| Input Power / 输入功率   | Pin          | $\leq 280$  |             |            | W          |

## 8. Input connector pin assignments / 输入插座引脚定义

### CN1: 14P-2.0mm

| Pin No.<br>引脚 | Symbol<br>符号 | Description<br>描述                       | Parameter<br>参数                                            |
|---------------|--------------|-----------------------------------------|------------------------------------------------------------|
| 1,2,3,4,5     | VCC          | DC power supply 直流供电                    | 22~26V                                                     |
| 6,7,8,9,10    | GND          | Ground 接地                               | 0V                                                         |
| 11            | NC           | NC 空脚                                   | 空                                                          |
| 12            | ENA          | The backlight On/Off control<br>背光开关机控制 | ON: 2-5V<br>Off: 0-1V                                      |
| 13            | ADJ          | Adjust Backlight Brightness<br>背光亮度调节   | DC 0V Brightness Max 亮度最大<br>DC 5V Brightness Min 亮度最小     |
| 14            | PWM          | Adjust Backlight Brightness<br>背光亮度调节   | PWM 100% Brightness Max 亮度最大<br>PWM 0% Brightness Min 亮度最小 |

### CN2: 12P-2.0mm

| Pin No.<br>引脚 | Symbol<br>符号 | Description<br>描述    | Parameter<br>参数 |
|---------------|--------------|----------------------|-----------------|
| 1,2,3,4,5     | VCC          | DC power supply 直流供电 | 22~26V          |
| 6,7,8,9,10    | GND          | Ground 接地            | 0V              |
| 11,12         | NC           | NC 空脚                | 空               |

## CN3: 2P-2.0mm (温控接口)

| Pin No.<br>引脚 | Symbol<br>符号 | Description<br>描述 | Parameter<br>参数 |
|---------------|--------------|-------------------|-----------------|
| 1             | W-           | Ground/接地         | 接温控开关           |
| 2             | W+           | Supply voltage/供电 | 接温控开关           |

## CN4: 2P-1.25mm (感光接口)

| Pin No.<br>引脚 | Symbol<br>符号 | Description<br>描述 | Parameter<br>参数 |
|---------------|--------------|-------------------|-----------------|
| 1             | G-           | 反馈                | 接光感二极管负极        |
| 2             | G+           | 供电                | 接光感二极管正极        |

## CN5,CN6: 5P-1.25mm (同步接口)

| Pin No.<br>引脚 | Symbol<br>符号 | Description<br>描述                       | Parameter<br>参数 |
|---------------|--------------|-----------------------------------------|-----------------|
| 1             | ADJ          | Adjust Backlight Brightness<br>背光亮度调节   | 应用于同时使用两个或多个恒流板 |
| 2             | ENA          | The backlight On/Off control<br>背光开关机控制 | 应用于同时使用两个或多个恒流板 |
| 3             | GM           | Dimming control / 感光控制                  | 应用于同时使用两个或多个恒流板 |
| 4             | PWM          | Adjust Backlight Brightness<br>背光亮度调节   | 应用于同时使用两个或多个恒流板 |
| 5             | GND          | Ground / 接地                             | 应用于同时使用两个或多个恒流板 |

## 9. Input dimming signal selection / 输入调光信号选择

### J1: 3 位拨码开关

| Symbol<br>符号 | Input signal<br>输入信号 | 拨码开关 1 | 拨码开关 2 | 拨码开关 3 |
|--------------|----------------------|--------|--------|--------|
| GM           | 光敏调光                 | ON     | OFF    | OFF    |
| PWM          | PWM 正调光              | OFF    | ON     | OFF    |
| ADJ          | DC 负调光 / PWM 负调光     | OFF    | OFF    | ON     |

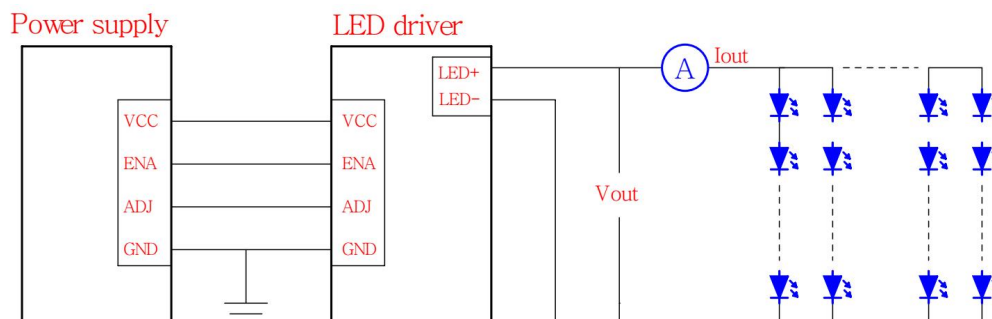
## 10. Output electrical characteristics / 输出电气参数

| Item<br>项目            | Symbol<br>符号     | Test Conditions<br>测试条件        | Min<br>最小值 | Type<br>规格值 | Max<br>最大值 | Unit<br>单位 |
|-----------------------|------------------|--------------------------------|------------|-------------|------------|------------|
| Output Current / 输出电流 | I <sub>out</sub> | ADJ=0V<br>V <sub>in</sub> =24V | 1500*2     | 1600*2      | 1700*2     | mA         |
| Output Voltage / 输出电压 | V <sub>out</sub> | V <sub>in</sub> =24V           | 36         | ---         | 80         | V          |
| Efficiency / 效率       | η                | V <sub>in</sub> =24V           | ---        | 90          | ---        | %          |

## 11. Output connector pin assignments / 输出插座引脚定义

| Pin No.<br>引脚 | CN7<br>2.0mm-12Pin | CN8A<br>2.0mm-12Pin | CN8B<br>2.0mm-12Pin | CN10A<br>2.0mm-4Pin | CN10B<br>2.0mm-4Pin |
|---------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| 1             | LED-               | LED-                | LED-                | LED+                | LED+                |
| 2             | LED+               | LED+                | LED+                | LED+                | LED+                |
| 3             | LED-               | LED-                | LED-                | LED-                | LED-                |
| 4             | LED+               | LED+                | LED+                | LED-                | LED-                |
| 5             | LED-               | LED-                | LED-                |                     |                     |
| 6             | LED+               | LED+                | LED+                |                     |                     |
| 7             | LED-               | LED-                | LED-                |                     |                     |
| 8             | LED+               | LED+                | LED+                |                     |                     |
| 9             | LED-               | LED-                | LED-                |                     |                     |
| 10            | LED+               | LED+                | LED+                |                     |                     |
| 11            | LED-               | LED-                | LED-                |                     |                     |
| 12            | LED+               | LED+                | LED+                |                     |                     |

## 12. Testing circuit diagram / 测试回路示意图

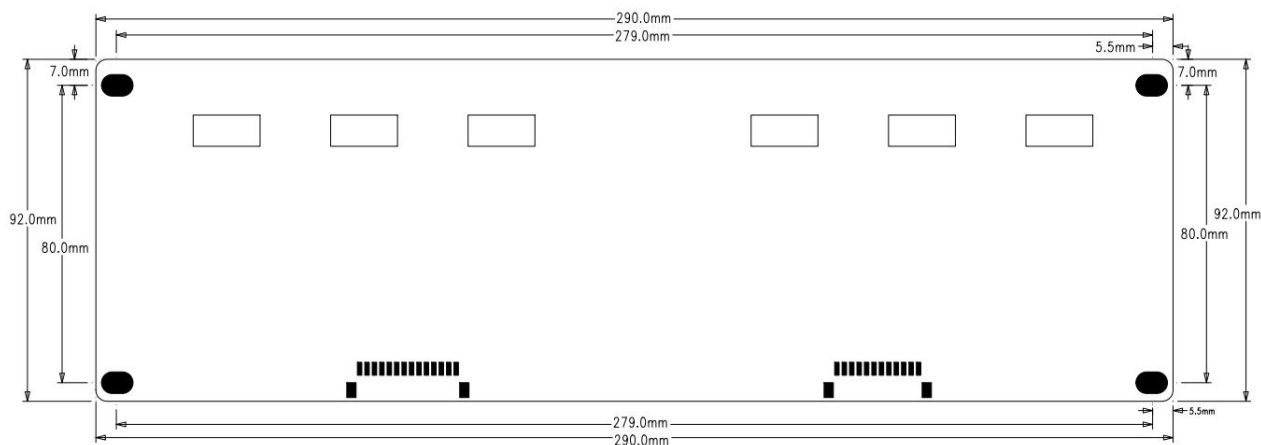


## 13. Mechanical dimension / 结构示意图

Dimension of PCB. / PCB 机械尺寸

Unit/单位: mm Tolerance/公差:  $\pm 0.2\text{mm}$

长: 290 宽: 92 高: 9 MAX(板上高度) 椭圆螺丝孔径: 3.8\*6.5





## 15. Notice / 注意事项

A.Please in the crosspiece extension wiring with the high temperature contact, like this do not cause the board to be unable to use normally, also cannot join the wire, so will affect electric circuit's performance.

请勿在联接板的转接线上用高温接触, 这样会造成板子无法正常使用, 也不能联接导线, 如此会影响电路的性能。

B.Based on the security problem, please when assembles this product, do guarantee that in this product and between the complete machine metallic material maintains at least the 4mm above distance, or the use enough insulation grade's insulation material carries on the isolation, avoids the static electricity creating the direct damage to the electric circuit chip.

基于安全问题, 请在组装本产品时, 确保本产品和整机中的金属材料间保持至少 4mm 以上的距离, 或者使用足够绝缘等级的绝缘材料进行隔离, 避免静电对电路芯片造成直接的损坏。

C.Don't twist , deform , drop or knock the inverter during assembly.

请在组装本产品时, 避免扭曲, 弯折, 大力碰撞及跌落产生损害。

D.Guarantee to offer ESD shield bag to protect the product from electrostatic or magnetic interference during delivery. Due to the inverter is usually designed without the enclosure. please take care about ESD at anytime .

在产品交付的整个过程中均保证采用 ESD 屏蔽袋包装处理, 因为该产品无外壳保护, 请务必随时注意防静电措施。

E.This products are not intended for use in systems in which failures of product could result in personal injury.

请勿将本产品使用在非适用范围的产品上, 以免造成意外伤害。

F.Don't pull out and insert the connector when the power supply is ON

请勿带电拔插插头



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