

# LED-CONVERTER UNIT

PS-LD0609-049(S) (22 W)

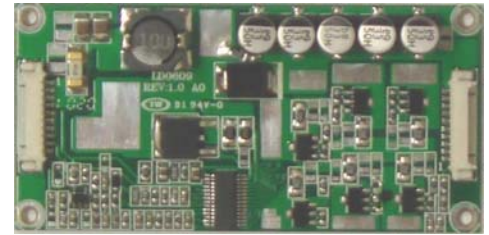
(PRELIMINARY INFORMATION)

## DESCRIPTION :

This low profile LED converter is optimized for Sharp Display LQ121X3LG02

## APPLICABLE:

1~5 LED lines (Serial Mode)  
 Pout max. 3,5 Watt per line, total max. 22 Watt  
 LED Voltage max. 38Vdc  
 Lamp Current max. 70 mAdc per line



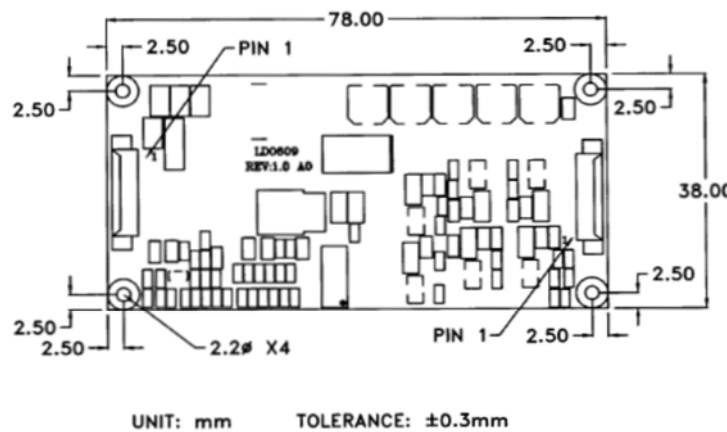
## FEATURES :

Internal Open LED Detection for every Line  
 Analog Dimming with int. PWM  
 1000:1 dimming ratio  
 Remote ON / OFF  
 RoHS compliant (S)  
 High output voltage

## TEMPERATURE & HUMIDITY :

Operating Temperature Range -20°C ~ +85°C  
 Storage Temperature Range -20°C ~ +85°C  
 Humidity 95 %RH max

**DIMENSIONS :** L x W x H 78 x 38 x 9.0 mm



Weight :9 (g) typ.

## Components

| No. | Part Description | Qty. | Material                | Note    |
|-----|------------------|------|-------------------------|---------|
| 1   | PCB              | 1    | UL94V-0 (FR-4 or CEM-3) | t=1.0mm |
| 2   | Connector CN1    | 1    | 53261-1090              | Molex   |
| 3   | Connector CN2    | 1    | 53261-1090              | Molex   |

**Power Systems – The Power Solution**

Web: [www.Power-Systems.de](http://www.Power-Systems.de)  
 Email: [Info@Power-Systems.de](mailto:Info@Power-Systems.de)

Address: Hauptstr. 48 ; 74360 Ilsfeld-Auenstein / Germany  
 Tel. : + 49 / 70 62 / 67 59 - 6  
 Fax: + 49 / 70 62 / 67 59 - 800

# LED-CONVERTER UNIT

PS-LD0609-049(S) (22 W)

(PRELIMINARY INFORMATION)

## Input side CN1

| Pin No. | Symbols          | Ratings                                    |
|---------|------------------|--------------------------------------------|
| CN 1-1  | V <sub>in</sub>  | 10.8 ~ 13.2 Vdc                            |
| CN 1-2  | V <sub>in</sub>  | 10.8 ~ 13.2 Vdc                            |
| CN 1-3  | V <sub>in</sub>  | 10.8 ~ 13.2 Vdc                            |
| CN 1-4  | V <sub>in</sub>  | 10.8 ~ 13.2 Vdc                            |
| CN 1-5  | GND              | -                                          |
| CN 1-6  | GND              | -                                          |
| CN 1-7  | GND              | -                                          |
| CN 1-8  | GND              | -                                          |
| CN 1-9  | V <sub>rmt</sub> | 0 ~ 0.8 = OFF / 2.5 ~ V <sub>in</sub> = ON |
| CN 1-10 | V <sub>br</sub>  | 0 ~ 5.0 Vdc                                |

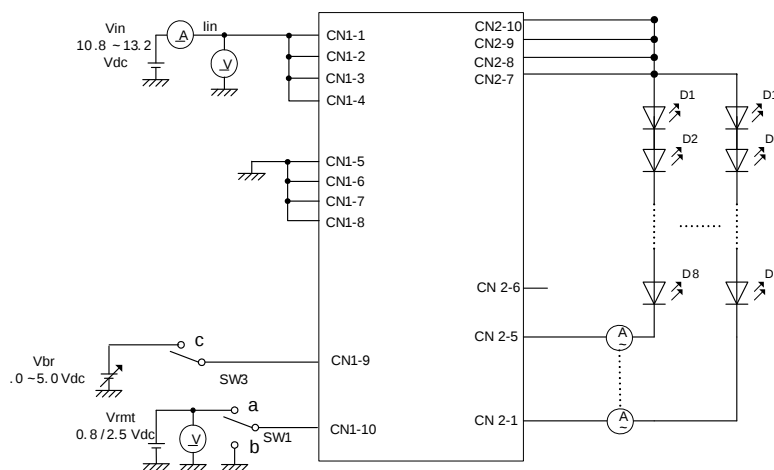
## Output side CN2

| Pin No. | Symbols               | Ratings           |
|---------|-----------------------|-------------------|
| CN2-1   | RTN1 (-)              | LED LINE 1 RETURN |
| CN2-2   | RTN2 (-)              | LED LINE 2 RETURN |
| CN2-3   | RTN3 (-)              | LED LINE 3 RETURN |
| CN2-4   | RTN4 (-)              | LED LINE 4 RETURN |
| CN2-5   | RTN5 (-)              | LED LINE 5 RETURN |
| CN2-6   | RTN6 (-)              | N.C               |
| CN2-7   | V <sub>high</sub> (+) | max 38Vdc         |
| CN2-8   | V <sub>high</sub> (+) | max 38Vdc         |
| CN2-9   | V <sub>high</sub> (+) | max 38Vdc         |
| CN2-10  | V <sub>high</sub> (+) | max 38Vdc         |

## ELECTRICAL CHARACTERISTICS :

| Parameters         | Symbols           | Conditions          |                     |                     | Specification |      |      | Unit              | Note                         |
|--------------------|-------------------|---------------------|---------------------|---------------------|---------------|------|------|-------------------|------------------------------|
|                    |                   | V <sub>in</sub> (V) | V <sub>br</sub> (V) | T <sub>u</sub> (°C) | Min.          | Typ. | Max. |                   |                              |
| Output Current     | I <sub>out</sub>  | 10.8 ~ 13.2         | 0                   | -20~+85             | 65            | 70   | 75   | m A <sub>dc</sub> | V <sub>br</sub> = 0Vdc       |
| Output Current     | I <sub>min</sub>  | 10.8 ~ 13.2         | 5                   | -20~+85             | -             | 10   | -    | %                 | V <sub>br</sub> = 5Vdc       |
| Input Current      | I <sub>in</sub>   | 10.8 ~ 13.2         | 0                   | -20~+85             | 0.3           | -    | 2.5  | A <sub>dc</sub>   |                              |
| Open Load Shutdown | V <sub>bias</sub> | 10.8 ~ 13.2         | 0                   | -20~+85             | -             | 35   | -    | Vdc               |                              |
| PWM Frequency      | f(PWM)            | 10.8 ~ 13.2         | 0                   | -20~+85             | 150           | -    | 300  | Hz                |                              |
| Output Power       | P <sub>out</sub>  | 10.8 ~ 13.2         | 0                   | -20~+85             | TBD           | 22   | TBD  | Watt              | T <sub>u</sub> : -20~+85degC |

## TEST CIRCUIT :



## CABLES :

for input: 500 mm, stripped and tinned ends, order key <input cable #6>  
for output: 500 mm, stripped and tinned ends, order key <input cable #6>