

LED-CONVERTER UNIT

PS-LPL0801-01(S) (9 W)

(PRELIMINARY INFORMATION)

DESCRIPTION :

This low profile LED-Converter is developed for max. 8 LED-lines

APPLICABLE:

- 1~8 LED lines (Serial Mode)
- Pout max. 1,125 Watt per line, total max. 9 Watt
- LED Voltage max. 40V
- Lamp Current 15 to 240mA programmable



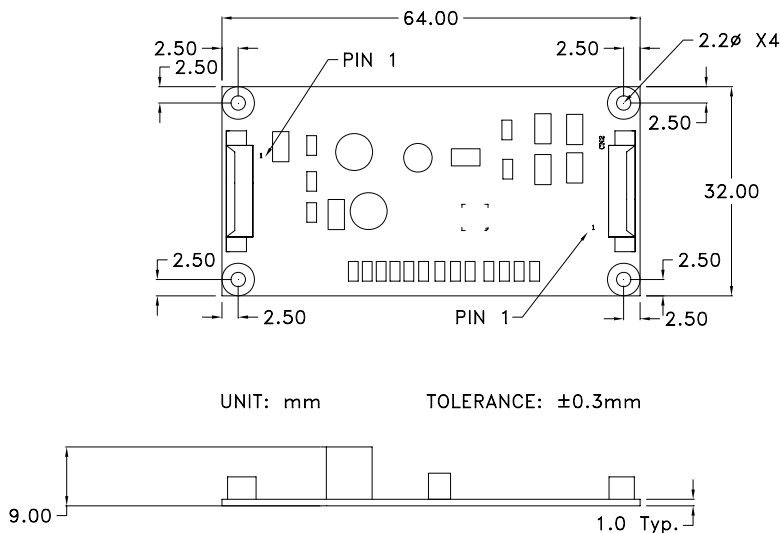
FEATURES :

- Ext. PWM Dimming
- 1000:1 dimming ratio with external PWM
- Remote ON / OFF
- Programmable LED current
- RoHS compliant (S)

TEMPERATURE & HUMIDITY :

- Operating Temperature Range -10°C ~ +60°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

DIMENSIONS : L x W x H **64 x 32 x 9 mm**



Weight :8 (g) typ.

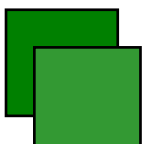
Components

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
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Input side CN1

Pin No.	Symbols	Ratings
CN 1-1	Vin	10.8 ~ 13.2 Vdc
CN 1-2	Vin	10.8 ~ 13.2 Vdc
CN 1-3	Vrmt	0 ~ 0.8 = OFF / 2.5 ~ 5.5 = ON
CN 1-4	Ext. PWM	0 ~ 0.5 = LOW / 2.5 ~ 5 = HIGH (activ)
CN 1-5	Adj 1	
CN 1-6	Adj 2	
CN 1-7	Adj 3	
CN 1-8	Adj 4	
CN 1-9	GND	-
CN 1-10	GND	-

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 (-)	LED LINE 6 RETURN
CN2-7	RTN7 (-)	LED LINE 7 RETURN
CN2-8	RTN8 (-)	LED LINE 8 RETURN
CN2-9	Vhigh (+)	max. 40 Vdc
CN2-10	Vhigh (+)	max. 40 Vdc

CURRENT SELECTION:

Output Current Select Control

Connection	GND	GND	GND	GND	Output Current
Adj 1	X				+1 mA
Adj 2		X			+2 mA
Adj 3			X		+4 mA
Adj 4				X	+8 mA

Example:

15mA (Output Current Min.) + 1mA (Adj1 to GND) = 16mA

15mA (Output Current Min.) + 8mA (Adj4 to GND) = 23mA

Adj1 ~ Adj4 OPEN = 15mA

ELECTRICAL CHARACTERISTICS :

Parameters	Symbols	Conditions		Specification			Unit	Note
		Vin (V)	Tu (°C)	Min.	Typ.	Max.		
Output Current	Iout	10.8 ~ 13.2	-10~+60	13	15	17	mAdc	Duty 100% max current
Output Current	Imin	10.8 ~ 13.2	-10~+60	-	1	-	%	duty cycle
Input Current	Iin	10.8 ~ 13.2	-10~+60	0.4	-	1.8	Adc	
Open Load Shutdown	Vbias	10.8 ~ 13.2	-10~+60	-	-	42	Vdc	
PWM Frequency	f(PWM)	10.8 ~ 13.2	-10~+60	150	-	300	Hz	Note 4
Output Power	Pout	10.8 ~ 13.2	-10~+60	TBD	9	TBD	Watt	Tu: -10~+60degC
Output Power	Pout	10.8 ~ 13.2	-10~+60	TBD	1.125	TBD	Watt	For one line

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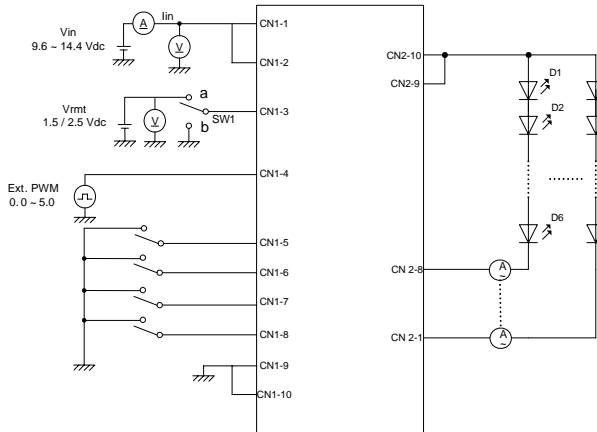
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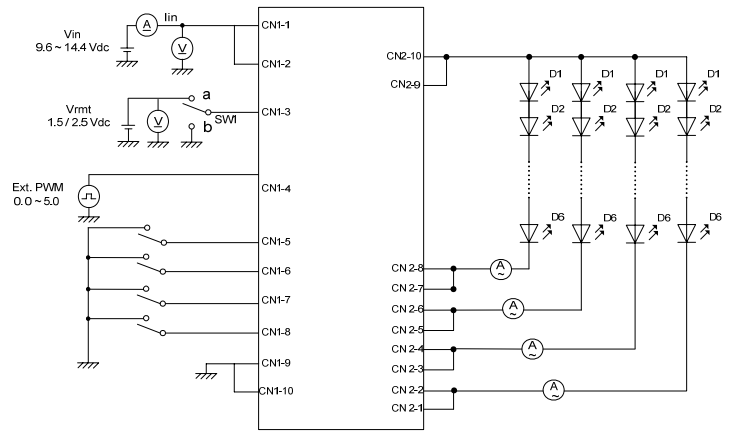
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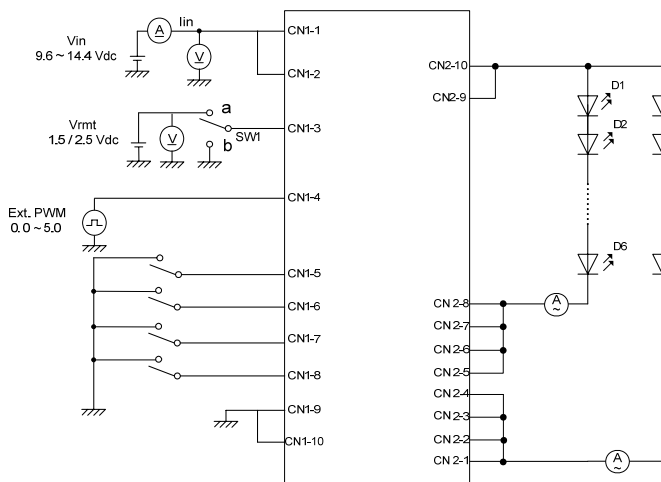
TEST CIRCUITS :



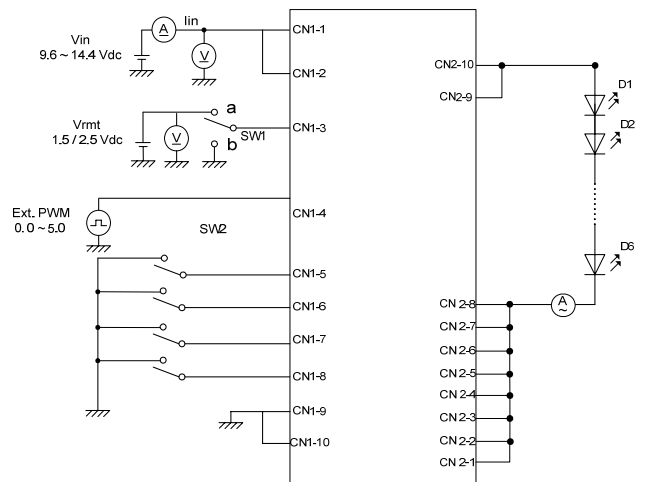
15~30mA for each line by 8 LED Raid



30~60mA for each line by 4 LED Raid



60~120mA for each line by 2 LED Raid



120~240mA for each line by 1 LED Raid

- Note 1 : External PWM Signal 2.5~5V (max. 6V)
- Note 2 : Above output current is the default value. Correct output current is to be selected by user and under his responsibility. Exceeding currents will damage the LED backlight.
- Note 3 : External PWM-signal is LOW active.
- Note 4 : For other external PWM frequency, please ask factory.

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>

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