



Optillis

**LPS100A-7**

## **LED Backlight Power Control**

### **Product Description**

The Optillis LPS100A series is a fixed frequency step-up DC/DC converter designed to drive up to 3 strings of LEDs from a 12V supply. This board was designed to work with displays from the Optrex and Mitsubishi TFT-LCD displays.

### **Features**

- Low Cost – Constant Current Led Backlight Driver Board
- Form Factor and Control Interface compatible to existing CCFL Driver Boards
- 3 / 4 wire operation
- 97% efficiency
- RoHs
- Extended Temperature Range
- Power on soft start

### **LCD Support**

- 8.4" Optrex T-55466D084J-LW-A-ACN
- 8.4" Optrex T-55549D084J-LW-A-ACN

### **Specifications**

- 6 – 18 VDC input voltage
- -30 to 85 C operating temperature
- Weight 0.4 oz (10g)
- 0.800"W x 4.35"L x 0.4" H
- (1) SM06B-SHLS-TF LED connectors
- (1) 640457-4 Tyco power / control connector

### **Options**

- 5V input voltage
- Custom form factor, connectors

**Electrical Characteristics (per string)**

**Input**

PIN.	ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	Remarks
1	LED Input Voltage	VCC	6	12	18	Vdc	
2	Ground	GND	0	--	--	V	
3	Vcontrol	VCTL	0	--	18	V	*note 1
4	Enable (on/off)	Enb	0	--	18	V	**note 2

\* note 1 • Brightness Control Input : 0 – 5.0 VDC (0 – 100%)

\*\* note 2 • Enable Input: 0.3V or less=OFF, 2V or greater=ON. Not Connected defaults ON.

**Output**

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	Remarks
LED Voltage	VF	--	(30)	36.6	V	25C
		--		37.9	V	0C
		--		39.6	V	-30C
LED Current	IF	--	100	110	mA	25C

**Mechanical Characteristics**

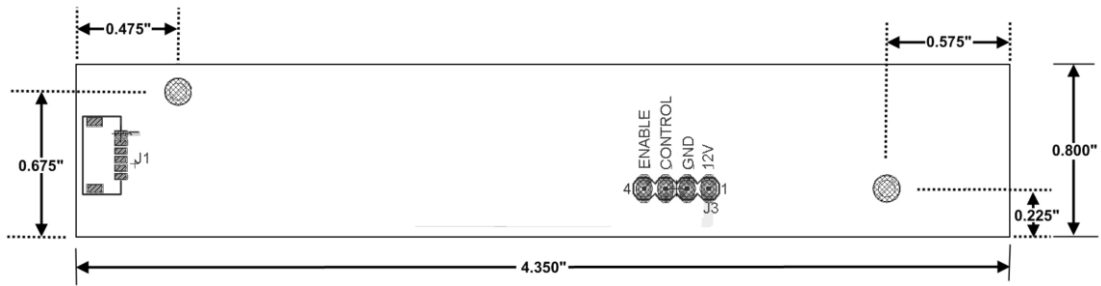
- **J3 (Input)** - Power / Control connector
  - Tyco - 640457-4. (Mating connector Tyco 3-644512-4)

PIN	INPUT
1	12V
2	GND
3	CONTROL
4	ENABLE

- **J1(Output)** - LED connectors
  - JST - SM06B-SHLS-TF. (Mating connector JST SHLP-06V-S-B)

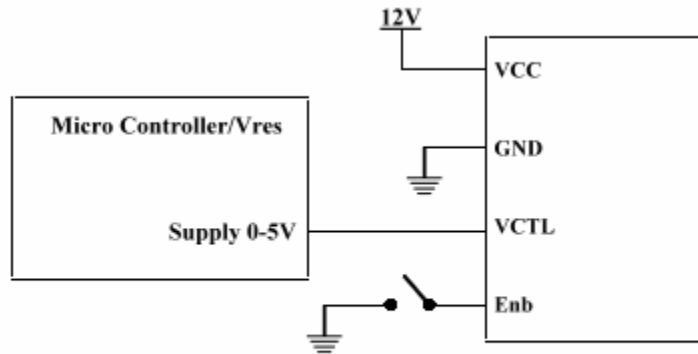
PIN	OUTPUT	PIN	OUTPUT
1	NC	4	Anode 1
2	NC	5	Anode 2
3	Cathode 1	6	Cathode 2

- Dimensions / Connector location for P/N LPS100A-7 (note only 1 connector – J1)



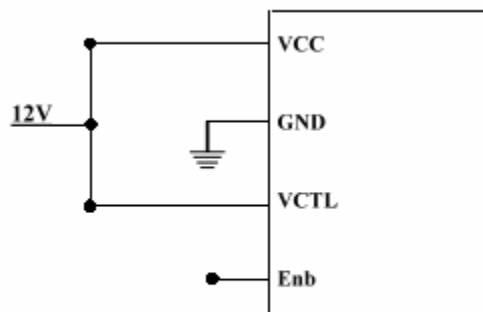
## Dimming

### Typical Application



## Functional Test

### Typical Application



## Part Numbering / Ordering

### LPS100A-xy

x – LCD type

- 7

#### Panel Support

Optrex T-55466D084J-LW-A-ACN

Optrex T-55549D084J-LW-A-ACN

y – Optional

-Blank = Standard Product

- 1 = Custom -2 VDC or greater = Enabled. 1VDC or less = Disabled.