# Single LED with High Current 20A Application using TPS92641

(ACTIVE) PMP8016

Description & Features | Technical Documents | Support & Community

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## Description

The main purpose of this reference design is to demonstrate a high performance, high current and easy to use, synchronous buck LED driver based on TPS92641. This LED driver is designed for application with using high power single LED within 20A.The operating conditions and performance of the reference design are as follows:

- •12V to 20V Input Voltage
- •2.6V to 4.9V LED Voltage
- •20A high power LED Current
- •>75% System Efficiency
- •Input UVLO and output OVP
- •Low Power Shutdown Mode and Thermal Shutdown

Synchronous Buck (Step-Down) Converter IC Board | LED Applications

## TI Devices (1)

Get more information on the TI products in this reference design.

| Part Number | Name | Product Family |
|---|---|---|
| TPS92641 | Synchronous Buck Controllers for Precision Dimming LED Drive | LED Driver |

## Bill of Materials

Find the complete list of components in this reference design.

Download BOM

## Technical Documents

### User Guides (2)

| Title | Abstract | Type | Size (KB) | Date | Views |
|---|---|---|---|---|---|
| PMP8016 PCB | | PDF | 226 | 19 Apr 2013 | 99 |
| PMP8016 Test Results | | PDF | 315 | 19 Apr 2013 | 102 |

### More Literature (2)

| Title | Abstract | Type | Size (KB) | Date | Views |
|---|---|---|---|---|---|
| PMP8016 BOM | | PDF | 34 | 19 Apr 2013 | 87 |
| PMP8016 Schematic | | PDF | 117 | 19 Apr 2013 | 98 |

## Related Tools & Software

### Software (1)

PMP8016 Gerber
(ZIP, 588 KB) 72 views, 19 Apr 2013

## Support & Community

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### Wikis

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### Videos

**How to simplify your LED Lighting Lamp Designs**

TI marketing engineer, John Perry discusses how the new TPS92411 Floating Switch for Offline AC Linear Direct Drive of LEDs can be used to simplify your LED lamp design by eliminating the need for inductors or transformers, allowing for a lower BOM cost and smaller solution size.

**Posted:** 01-Nov-2013
**Duration:** 2:13
**Views:** 1605
**Tags:** power, power management, led lighting, led bulb design, led lamps, led bulb replacement, tps92411, led driver,

Learn more about the TPS92411 - Click here!

Related Videos

How to simplify your LED Lighting Lamp Designs

Power Tip 58: Power supply grounding; which camp are you in?

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- PMP7766
- PMP7965
- PMP7772
- PMP5609
- PMP7877.3



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