# TPS92314 - 220VAC, 120VLED, 21W Non-isolated LED Driver with PFC for T8 Tube Application

(ACTIVE) PMP8007

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## Description

The main purpose of this reference design is to demonstrate a very high performance offline LED driver with PFC based on TPS92314. This LED driver is designed for converting an AC input to a regulated LED current. The operating conditions and performance of the reference design are as follows: •198VAC to 264VAC, 50Hz Input Voltage •110V to 130V LED Voltage •160mA Regulated LED Current •92% Typical System Efficiency •High Power Factor > 0.9 •Output Short-Circuit and Open-Circuit Protection

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Fully assembled board (shown above) developed for testing and performance validation only, not available for sale.

## Bill of Materials (BOM)

Find the complete list of components in this reference design.

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## Parametrics

| | PMP8007 |
|---|---|
| Vin (Max) (V) | 264 |
| Vin (Min) (V) | 198 |
| Vout (Nom) (V) | 120 |
| Iout (Max) (A) | .16 |
| Output Power | 19.2 |
| Isolated/Non-Isolated | Non-Isolated |
| Input Type | AC |
| Topology | Boost- PFC |

## TI Devices (1)

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| TPS92314 | Off-Line Primary Side Sensing Controller with PFC in 8-SOIC | LED Driver | Sample & Buy | View Design Kits & Evaluation Modules |

## Technical Documents

## User Guides (1)

| Title | Abstract | Type | Size (KB) | Date | Views |
|---|---|---|---|---|---|
| PMP8007 Test Results | | PDF | 239 | 26 Oct 2012 | 27 |

## Design Files (5)

| Title | Abstract | Type | Size (KB) | Date | Views |
|---|---|---|---|---|---|
| PMP8007 PCB (Bottom) | | PDF | 29 | 26 Oct 2012 | 26 |
| PMP8007 PCB (Top) | | PDF | 37 | 26 Oct 2012 | 21 |
| PMP8007 Gerber | | ZIP | 242 | 26 Oct 2012 | 20 |
| PMP8007 BOM | | PDF | 147 | 26 Oct 2012 | 52 |
| PMP8007 Schematic | | PDF | 26 | 26 Oct 2012 | 82 |

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