Triac Dimmable AC-DC LED Driver Reference Design

(ACTIVE) PMP6013

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Description

This reference design provides a high-brightness LED driver based on the TPS92310 configured as a power factor corrected flyback regulator that is triac dimmable. It is designed to operate with an input voltage in the range of 90VAC to 135VAC with a 120VAC nominal input voltage. This design is set up for a default output current of 340mA with an output voltage range of 21V to 27V or approximately 6 to 8 LEDs depending on the forward voltage of each.

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Bill of Materials (BOM)

Find the complete list of components in this reference design.

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Parametrics

	PMP6013
Vin (Min) (V)	90
Vin (Max) (V)	135
Vout (Nom) (V)	27
Iout (Max) (A)	.34
Output Power	9.18
Isolated/Non-Isolated	Isolated
Input Type	AC
Topology	Flyback- PFC

TI Devices (1)

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Part Number	Name	Product Family	Sample & Buy	Design Kits & Evaluation Modules
TPS92310	Off-Line Primary Side Sensing LED Driver with PFC	LED Driver	Sample & Buy	View Design Kits & Evaluation Modules

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
TPS92310	VSSOP (DGS) | 10	Download	Download

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Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP6013 Test Results		PDF	404	25 Feb 2013	34

Design Files (2)

Title	Abstract	Type	Size (KB)	Date	Views
PMP6013 BOM		PDF	16	25 Feb 2013	30
PMP6013 Schematic		PDF	105	25 Feb 2013	32

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