High voltage Flyback with two outputs: 25V @ 0.5A & 6.5V @ 3A Reference Design

TIDesigns

(ACTIVE) PMP5725.1

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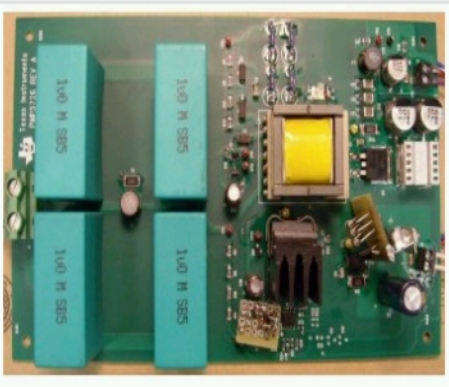
Description

This design is a high voltage flyback for 200Vdc...1000Vdc input voltage which provides 6.5V/3A regulated and 23V/0.5A unregulated (clamped to 27V). TIs UCC28610 Quasi Resonant controller enables a high efficiency, even at high input voltage.

Features

- Provides 25V and 6.5V outputs Non-Isolated
- Over 84% efficiency at full load
- Ultra wide high voltage range 200Vdc to 1000Vdc

TI's Standard Terms and Conditions for Evaluation Modules apply.

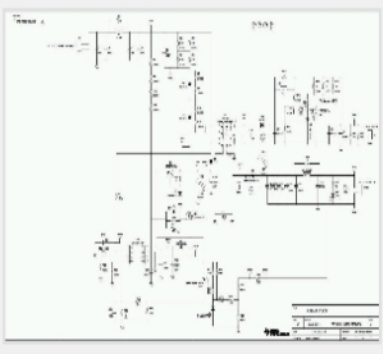


High voltage Flyback with two outputs: 25V @ 0.5A & 6.5V @ 3A Reference Design (top view)

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

Schematic/Block Diagram

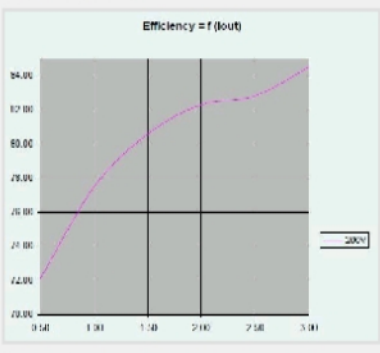
Quickly understand overall system functionality.



Download Schematic

Test Data

Get results faster with test and simulation data that's been verified.



Download Test Data

Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

Parametrics

	PMP5725.1
Vin (Min) (V)	200
Vin (Max) (V)	1000
Vout (Nom) (V)	25
Iout (Max) (A)	.5
Output Power	12.5
Isolated/Non-Isolated	Non-Isolated
Input Type	DC
Topology	Flyback- Quasi Resonant

TI Devices (1)

Order samples, get tools and find more information on the TI products in this reference design.

Part Number	Name	Product Family	Sample & Buy	Design Kits & Evaluation Modules
UCC28610	12-65W Green-mode Flyback Power Supply Controller	AC/DC and Isolated DC/DC Power Supply	Sample & Buy	View Design Kits & Evaluation Modules

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
UCC28610	SOIC (D) | 8	Download	Download
	PDIP (P) | 8	Download	Download

Texas Instruments and Accelerated Designs Inc. have collaborated together to provide TI customers with schematic symbols and PCB layout footprints for TI products.

Step 1: Download and install the Ultra Librarian software ZIP: 62MB

Step 2: Download the Symbol and Footprint .bxl file.

- read more -

Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP5725 Test Results		PDF	314	24 Oct 2014	32

Design Files (2)

Title	Abstract	Type	Size (KB)	Date	Views
PMP5725 BOM		PDF	25	24 Oct 2014	19
PMP5725 Schematic		PDF	113	24 Oct 2014	62

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