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17VDC-32VDC Input, 3.3V/10W Active Clamp Forward

(ACTIVE) PMP7357

Description & Features

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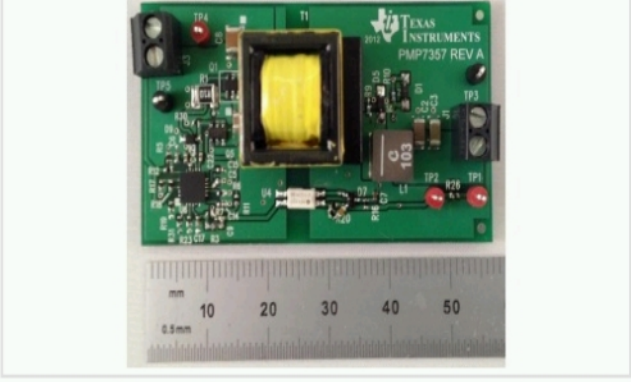
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Description

This reference design creates a 3.3V/3.5A isolated output from a 17Vdc to 32Vdc input using the UCC2897A to control an active clamp forward converter. Only ceramic capacitors are used in this design, ensuring a very high reliability rate. Two CSD16409Q3 NexFETs are used for synchronous rectification for improved efficiency.

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



Top View

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.

[Download BOM](#)

Parametrics

	PMP7357
Vin (Max) (V)	32
Vin (Min) (V)	17
Vout (Nom) (V)	3.3
Iout (Max) (A)	3.5
Output Power	11.55
Isolated/Non-Isolated	Isolated
Input Type	DC
Topology	Forward- Active Clamp Forward- Synchronous

TI Devices (2)

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Part Number	Name	Product Family	Sample & Buy	Design Kits & Evaluation Modules
CSD16409Q3	N-Channel NexFET™ Power MOSFET	Power MOSFET	Sample & Buy	Not Available
UCC2897A	Advanced Current-Mode Active Clamp PWM 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)
CSD16409Q3	VSON-CLIP (DQG) 8	Download	-
	VSON-CLIP (DQV) 8	Download	-
UCC2897A	TSSOP (PW) 20	Download	Download
	VQFN (RGP) 20	Download	-

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Step 1: Download and install the Ultra Librarian software [ZIP: 62MB](#)

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Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP7357 Test Results		PDF	2386	12 Apr 2012	28

Design Files (4)

Title	Abstract	Type	Size (KB)	Date	Views
PMP7357 PCB		PDF	271	01 May 2012	19
PMP7357 Gerber		ZIP	272	01 May 2012	15
PMP7357 Schematic		PDF	76	12 Apr 2012	28
PMP7357 Bill of Materials		PDF	29	12 Apr 2012	23

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