Class 2 Dual Output High Efficiency Non-Isolated Synch Flyback Conv for PoE Apps Reference Design

(ACTIVE) PMP9012 No reviews yet. Add your review and give us feedback

Description & Features | Technical Documents | Support & Community | Order Now

View the Important Notice for TI Designs covering authorized use, intellectual property matters and disclaimers.

Description

This reference design is an IEEE802.3af, type 1 compliant powered device. The synchronous flyback converter provides good efficiency with dual outputs (5V/580mA, 3.3V/900mA), non-isolated. It can be used in PoE applications such as a video or VoIP phones. The TPS23785BPWP contains both the PoE powered device and the PWM controller functions.

Features

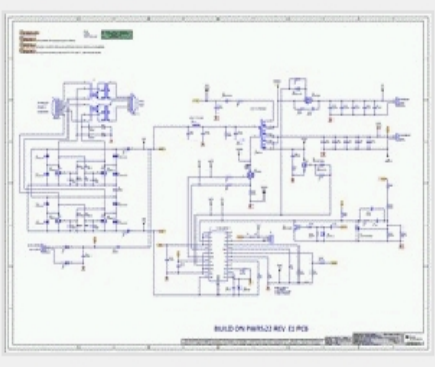
- Good efficiency, non-isolated, synchronous flyback design
- 34V to 57V adapter input capability
- IEEE 802.3af Type 1 hardware classification
- 5V @ 580mA and 3.3V @ 900mA output
- IEEE802.3af, Type 1 compliant

Synchronous Flyback Converter for PoE Applications

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

Design Files

Download ready-to-use system files to speed your design process. Get Viewer.

Download Design Files

Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

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
TLV431A	Low Voltage Adjustable Precision Shunt Regulator	Voltage Reference	Sample & Buy	Not Available

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
TLV431A	SOT (DBZ) | 3	Download	Download
	TO-92 (LP) | 3	Download	Download
	SIP (PK) | 3	Download	-
	SOT (DBV) | 5	Download	Download
	SOT (DCK) | 6	Download	Download
	SOIC (D) | 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
PMP9012 Test Results		PDF	787	03 Jun 2014	32

Design Files (5)

Title	Abstract	Type	Size (KB)	Date	Views
PMP9012 Gerber		ZIP	1191	03 Jun 2014	21
PMP9012 PCB		PDF	1461	03 Jun 2014	25
PMP9012 Assembly Drawing		PDF	255	03 Jun 2014	25
PMP9012 BOM		PDF	140	03 Jun 2014	34
PMP9012 Schematic		PDF	261	03 Jun 2014	63

Applications

- Power Over Ethernet (PoE)

Support & Community

TI E2E™ community

TI E2E™ Community

As a member of my.TI you can join the TI E2E™ Community where you can ask questions, share ideas and collaborate with fellow engineers and TI experts

Contents are provided "AS IS" by the respective TI and Community contributors and do not constitute TI specifications. See Terms of use.

Engage in the Community

- Amplifiers
- Broadband RF/IF & Digital Radio
- Clocks & Timers
- Data Converters
- DLP® & MEMS
- Interface
- Logic
- Power Management
- Wireless Connectivity

Wikis

Visit the TI Wiki

Videos

Leading source for power reference designs

TI's industry leading PowerLab™ reference design library has now evolved into TI Designs. This video explains how to use the enhanced selection tool within TI Designs to quickly

Posted: 08-Oct-2014
Duration: 1:00
Views: 412
Tags: power management, power reference design, power management solutions, powerlab, power management designs, power design solutions, ti designs-power, ti designs, portable powerline power

Click here to jump start your design with TI Designs for Power Management

Related Videos

Now Playing

Leading source for power reference designs

Other Support

- TI E2E Community
- Contact Technical Support

Customer Reviews BETA

No reviews yet. Add your review and give us feedback

Your History

Products You Recently Viewed

- VIRTEX-5-FXT-MINI-REF
- PMP10520.3
- PR2047
- PR2048
- PR1061

TI is a global semiconductor design and manufacturing company. Innovate with 100,000+ analog ICs and embedded processors, along with software, tools and the industry's largest sales/support staff.

© Copyright 1995-2014 Texas Instruments Incorporated. All rights reserved.
Trademarks | Privacy policy | Terms of use | Terms of sale