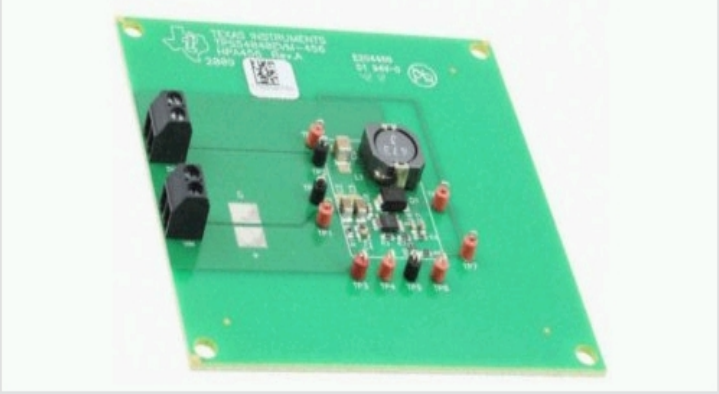
3.3V@0.42A Non-Synchronous Step-Down Converter with Integrated MOSFET Reference Design

TIDesigns

(ACTIVE) PMP10018

Description & Features | Technical Documents | Support & Community

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



Description

The PMP10018 design is a non-synchronous buck converter for automotive applications. It uses the TPS54040-Q1 to deliver an output voltage of 3.3V@0.42A.

Features

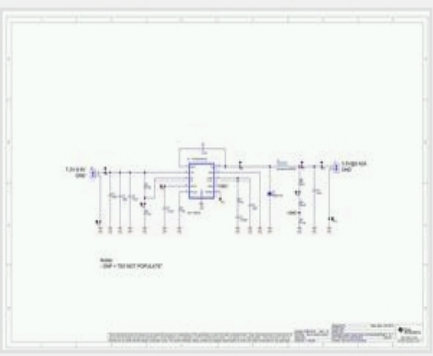
- High Switching Frequency
- Automotive
- This reference design was built and tested, and the test report is included

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

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

Schematic/Block Diagram

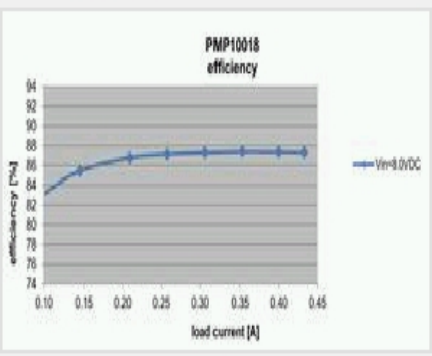
Quickly understand overall system functionality.



Download Schematic

Test Data

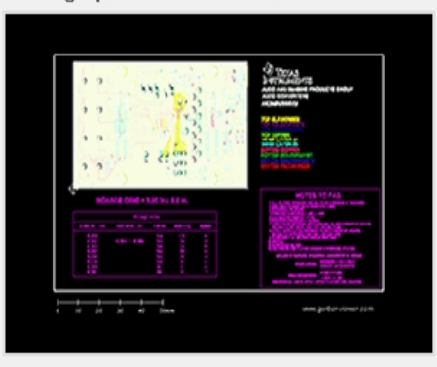
Get results faster with test and simulation data that's been verified.



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

Parametrics

	PMP10018
Vin (Min) (V)	7.2
Vin (Max) (V)	8.8
Vout (Nom) (V)	3.3
Iout (Max) (A)	.42
Output Power	1.386
Isolated/Non-Isolated	Non-Isolated
Input Type	DC
Topology	Buck- Non Sync

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
TPS54040-Q1	Automotive Catalog 3.5V to 42V Input, 0.5 A Step Down SWIFT™ Converter with Eco-Mode™	Converter (Integrated Switch)	Sample & Buy	Not Available

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
TPS54040-Q1	HVSSOP (DGQ) | 10	Download	-
	VSON (DRC) | 10	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
PMP10018 Test Results		PDF	500	14 Apr 2015	0

Design files (3)

Title	Abstract	Type	Size (KB)	Date	Views
PMP10018 Assembly Drawing		PDF	195	14 Apr 2015	0
PMP10018 BOM		PDF	94	14 Apr 2015	0
PMP10018 Schematic		PDF	55	14 Apr 2015	0

Applications

- Surround View

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

Other Support

- TI E2E Community
- Contact Technical Support

Your History

Products You Recently Viewed

- PMP4443
- PMP10503
- PMP10618
- PMP10029
- PMP8750.1

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 1995-2015 Texas Instruments Incorporated. All rights reserved.
Trademarks | Privacy policy | Terms of use | Terms of sale