

High-power (250-W) boost DC-DC solution for 48-V output Industrial and Telecom applications

TI Designs

{ACTIVE} PMP7118

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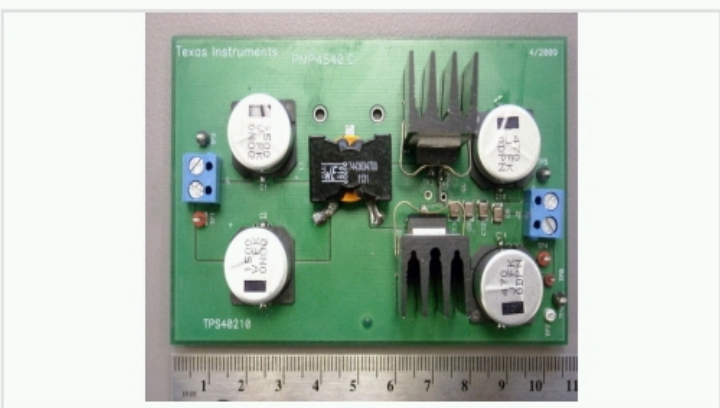
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Description

This high power step-up DC-DC employs a controller with a low gate charge external MOSFET to supply 48V output for loads up to 250 W from a 24-V source.

Features

- TPS40210 control IC with integrated low-side gate driver
- Low gate charge (Qg) NexFETs minimize power losses
- Fixed frequency current-mode control with internal slope compensation
- Hiccup over-current protection
- Built and tested circuit design

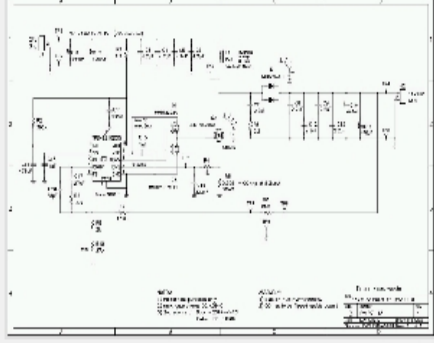


High-power boost DC-DC solution for 48-V output Industrial and Telecom applications

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

Schematic/Block Diagram

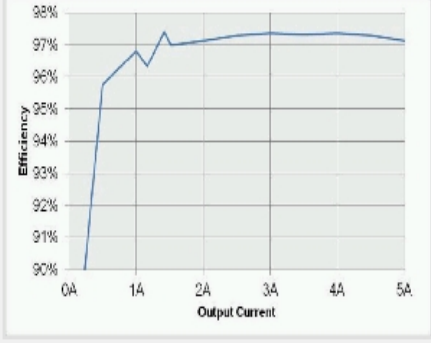
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Test Data

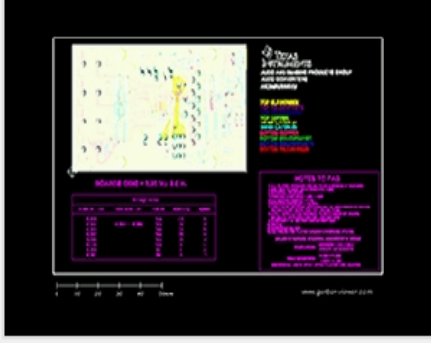
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Design Files

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

	PMP7118
Vin (Max) (V)	26.4
Vin (Min) (V)	21.6
Vout (Nom) (V)	48
Iout (Max) (A)	5
Output Power	240
Isolated/Non-Isolated	Non-Isolated
Input Type	DC
Topology	Boost- Non Sync

TI Devices (2)

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
CSD18533KCS	60V N-Channel NexFET™ Power MOSFET ..	Power MOSFET	Sample & Buy	Not Available
TPS40210	Wide Input Range Current Mode Boost Controller	Controller (External Switch)	Sample & Buy	View Design Kits & Evaluation Modules

CAD/CAE symbols

Part #	Package Pins	CAD File (.bxl)	STEP Model (.stp)
TPS40210	HVSSOP (DGQ) 10	Download	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.

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Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP7118 Test Results		PDF	266	10 Oct 2014	17

Design Files (4)

Title	Abstract	Type	Size (KB)	Date	Views
PMP7118 Gerber		ZIP	105	10 Oct 2014	7
PMP7118 PCB		PDF	97	10 Oct 2014	7
PMP7118 BOM		PDF	23	10 Oct 2014	7
PMP7118 Schematic		PDF	69	10 Oct 2014	44

Applications

- [Point of Sale](#)

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