Dual Output Rail Power Supply wiith Inverting Buck Boost Converter Reference Design

TIDesigns

(ACTIVE) PMP10090.2

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Key Document

- PMP10090 Test Results (PDF 938 KB) 29 Apr 2015

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

Description

PMP10090.2 shows a power supply, which provides a positive and a negative voltage rail in an inverting Buck Boost configuration. A 12V input is converted to 15V and -15V output voltages with 700mA load current each.

Features

- Built and tested
- Simple solution for dual rail output voltage
- Perfect for supplying OpAmps

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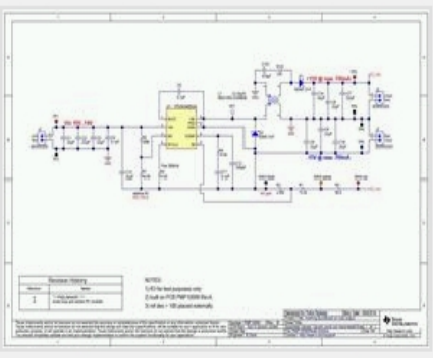
Schematic/Block Diagram

Quickly understand overall system functionality.



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Simulation Data

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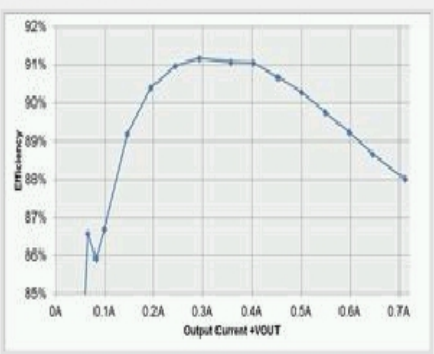

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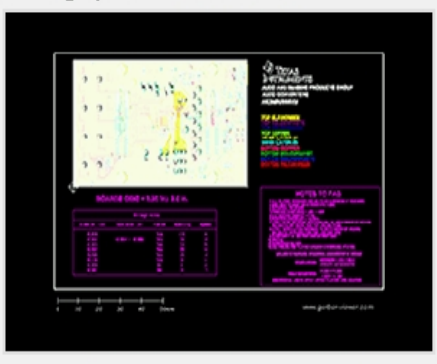
Design Files

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



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Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

Parametrics

	PMP10090.2
Vin (Min) (V)	10
Vin (Max) (V)	14
Vout (Nom) (V)	-15
Iout (Max) (A)	.7
Output Power	10.5
Isolated/Non-Isolated	Non-Isolated
Input Type	DC
Topology	Buck Boost- Inverting

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
TPS54340	42 V Input, 3.5 A, Step-Down DC/DC Converter with Eco-mode™	Converter (Integrated Switch)	Sample & Buy	View Design Kits & Evaluation Modules

Technical Documents

User guides (1)

Title	Abstract	Type	Size (KB)	Date	Views	TI Recommends
PMP10090 Test Results		PDF	938	29 Apr 2015	0	✓

Design files (3)

Title	Abstract	Type	Size (KB)	Date	Views
PMP10090 Gerber (from PMP10088)		ZIP	20	29 Apr 2015	0
PMP10090 BOM		PDF	76	29 Apr 2015	0
PMP10090 Schematic		PDF	112	29 Apr 2015	0

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