Space Optimized Wide Vin Triple-Output Power Module Reference Design

(ACTIVE) TIDA-00783.3

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Key Document

- TIDA-00783 Test Results (PDF 402 KB)
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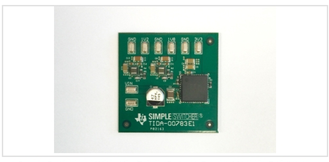

Space Optimized Wide Vin Triple-Output Power Module Reference Design Top of Board

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

Description

The TIDA-00783.3 reference design is a triple output wide Vin power module design. It provides 3.3V, 1.8V and 1.2V output, at 6W total power. The layout is optimized for space constrained applications.

Features

- LMZ36002 wide Vin power module with integrated inductor, 4.5V to 60V input, 2A output
- LMZ20502 nano module with integrated inductor
- 4.5V to 40V wide input range
- Power module design with minimum external components
- 400 sq. mm compact solution size
- This circuit board is tested, and the design files and test report are included

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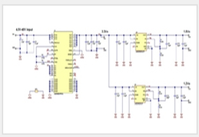
Schematic/Block Diagram

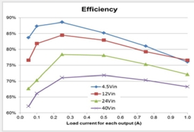
Quickly understand overall system functionality.



Download Schematic

Test Data

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



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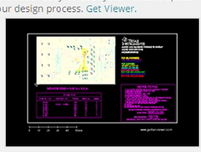
Design Files

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

	TIDA-00783.3
Vin (Min) (V)	4.5
Vin (Max) (V)	40
Vout (Nom) (V)	1.2
Iout (Max) (A)	1
Output Power (W)	1.2
Isolated/Non-Isolated	Non-Isolated
Input Type	DC
Topology	Buck- Synchronous

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
LMZ20502	SIMPLE SWITCHER® 2.7V to 5.5V, 2A High Density Nano Module	Non-Isolated Module	Sample & Buy	View Design Kits & Evaluation Modules
LMZ36002	SIMPLE SWITCHER 4.5V to 60V, 2A Power Module in QFN Package	Non-Isolated Module	Sample & Buy	View Design Kits & Evaluation Modules

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
LMZ20502	uSiP (SIL)| 8	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	TI Recommends
TIDA-00783 Test Results		PDF	402	19 Oct 2015	36	✓

Design files (4)

Title	Abstract	Type	Size (KB)	Date	Views
TIDA-00783 Gerber		ZIP	261	19 Oct 2015	16
TIDA-00783 PCB		PDF	286	19 Oct 2015	21
TIDA-00783 BOM		PDF	100	19 Oct 2015	41
TIDA-00783 Schematic		PDF	127	19 Oct 2015	65

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