Altera Arria V™ SoC FPGA Power Solution Reference Design

(ACTIVE) PMP9360

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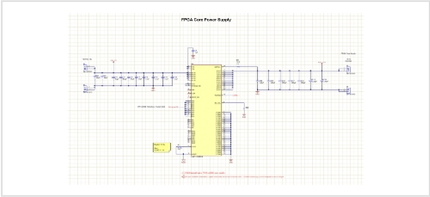
Description

The PMP9360 reference design is a complete power solution for Altera's Arria V™ SoC devices. This design uses several LMZ3 series modules , an LDO, and a DDR termination regulator to provide all the necessary rails to power the SoC chip. This design also shows correct power up sequencing.

Features

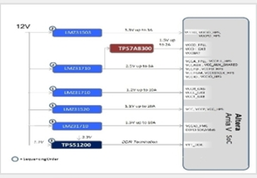
- Provides all the power rails needed to power an Altera Arria V™ SoC
- Design optimized to support a 12V input
- Ease of use with integrated LMZ3 series power modules
- Optimum combination of switching regulators and LDOs provides the best power distrubution tree
- Supports DDR3 memory device
- This design is tested and ready to power up an Arria V™ SoC



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

Schematic/Block Diagram

Quickly understand overall system functionality.



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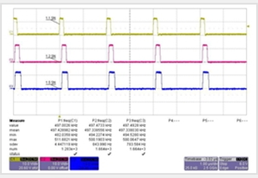

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Design Files

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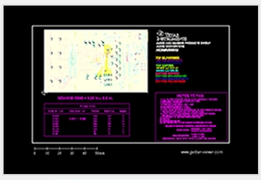

Download Design File

Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

TI Devices (5)

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
LMZ31503	3A SIMPLE SWITCHER® Power Module with 4.5V-14.5V Input in QFN package	Non-Isolated Module	Sample & Buy	View Design Kits & Evaluation Modules
LMZ31520	20A SIMPLE SWITCHER® Power Module with 3.0V-14.5V Input in QFN package	Non-Isolated Module	Sample & Buy	View Design Kits & Evaluation Modules
LMZ31710	10A SIMPLE SWITCHER® Power Module with 2.95V-17V Input in QFN package with Current Sharing	Non-Isolated Module	Sample & Buy	View Design Kits & Evaluation Modules

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CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
LMZ31503	B1QFN (RUQ) | 47	Download	-
LMZ31520	B4QFN (RLG) | 72	Download	-
LMZ31710	B3QFN (RVQ) | 42	Download	-
TPS51200	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
PMP9360 Test Results		PDF	2151	24 Feb 2014	282

Design Files (2)

Title	Abstract	Type	Size (KB)	Date	Views
PMP9360 BOM		PDF	104	24 Feb 2014	329
PMP9360 Schematic		PDF	1123	24 Feb 2014	372

Related Tools & Software

Software (1)

PMP9360 Design File
(ZIP, 274 KB) 120 views, 13 May 2014

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