Multi-output Multi-buck 20W Power Supply for Xilinx Zynq FPGA Applications Reference Design

(ACTIVE) PMP9335.1

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Key Document

- PMP9335 Test Results (PDF 1408 KB)
  28 Sep 2015 15 views

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PMP9335.1 Multi-output Multi-buck 20W Power Supply for Xilinx Zynq FPGA Applications Board Top View

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

Description

PMP9335 is designed for Xilinx Zynq FPGA applications utilizing the TPS84A20 and TPS84320. This design uses an external timer to synchronize the switching frequency to 300 kHz. It also employs a controlled power up and power down sequence.

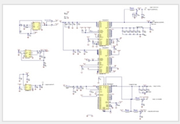
Features

- Designed for Xilinx Zynq FPGA applications
- Compact solution and easy-to-use design with TPS84A20 and TPS84320 buck regulator modules
- Controlled power up and power down sequence
- To be used as a "plug in" module, the use of extra bulk capacitance on external pcb is assumed

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

Schematic/Block Diagram

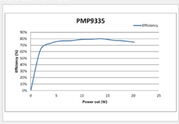
Quickly understand overall system functionality.



Download Schematic

Test Data

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



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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

	PMP9335.1
Vin (Min) (V)	12
Vin (Max) (V)	12
Vout (Nom) (V)	1
Iout (Max) (A)	3.7
Output Power (W)	3.7
Isolated/Non-isolated	Non-isolated
Input Type	DC
Topology	Buck- Synchronous
Designed for FPGA	Y

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
LMC555	Low power 555 Timer for Generating Accurate Time Delays and Oscillation	Clock and Timing	Sample & Buy	Not Available
LP2951	Single Output LDO, 100mA, Adjustable, Wide Vin Range, RESET Flag	Linear Regulator (LDO)	Sample & Buy	Not Available
LP38855	1.5A Fast-Response High-Accuracy LDO Linear Regulator with Enable	Linear Regulator (LDO)	Sample & Buy	Not Available
TPS84320	4.5-V to 14.5-V Input, 3-A Synchronous Buck, Integrated Power Solution	Non-isolated Module	Sample & Buy	Not Available

Show More

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
LP2951	SOIC (D) | 8	Download	Download
	VSSOP (DGK) | 8	Download	-
LP38855	TO-220 (NDH) | 5	Download	-
TPS84320	B1QFN (RUQ) | 47	Download	-
TPS84A20	B3QFN (RVQ) | 42	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	TI Recommends
PMP9335 Test Results		PDF	1408	28 Sep 2015	15	✓

Design files (6)

Title	Abstract	Type	Size (KB)	Date	Views
PMP9335 Gerber		ZIP	299	28 Sep 2015	9
PMP9335 CAD Files		ZIP	557	28 Sep 2015	9
PMP9335 PCB		PDF	1516	28 Sep 2015	10
PMP9335 Assembly Drawing		PDF	168	28 Sep 2015	14
PMP9335 BOM		PDF	121	28 Sep 2015	13
PMP9335 Schematic		PDF	446	28 Sep 2015	35

Related Tools & Software

Reference Designs (2)

Name	Part Number	Tool Type
Multi-output Multi-buck 20W Power Supply for Xilinx Zynq FPGA Applications Reference Design	PMP9335	TI Designs
Multi-output Multi-buck 20W Power Supply for Xilinx Zynq FPGA Applications Reference Design	PMP9335.2	TI Designs

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