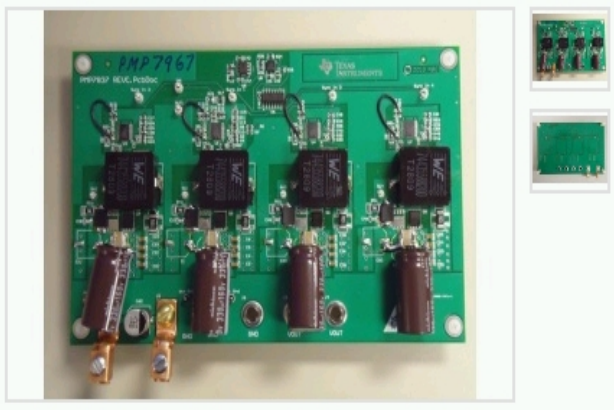
135W Automotive Multi-Phase Boost Converter

(ACTIVE) PMP7967

Description & Features | Technical Documents | Support & Community

Description

PMP7967 is a 4-phase boost converter rated for 90V output at 1.5A from an input voltage of 6V to 42V. This design uses LM5122 boost controllers at a switching frequency of 100 kHz each phase, resulting in 400 kHz input and output ripple. 330µF aluminum electrolytic capacitors are used at the output of each phase, providing hold-up to support large transient currents.



Top of Board | Multi Phase Boost Converter

TI Devices (3)

Get more information on the TI products in this reference design.

Part Number	Name	Product Family
LM5122	Wide Vin Synchronous Boost Controller with Multi-phase Capability	Controller (External Switch)
LMC555	CMOS Timer	Clocks by Function
LP2951	Single Output LDO, 100mA, Adjustable, Wide Vin Range, RESET Flag	Linear Regulator (LDO)

Bill of Materials

Find the complete list of components in this reference design.

Download BOM

CAD/CAE Symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
LP2951	SOIC (D) | 8	Download	Download
	VSSOP (DGK) | 8	Download	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
PMP7967 Test Results		PDF	882	14 Aug 2013	48

More Literature (2)

Title	Abstract	Type	Size (KB)	Date	Views
PMP7967 BOM		PDF	93	14 Aug 2013	55
PMP7967 Schematic		PDF	266	14 Aug 2013	55

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Power Tip 58: Power supply grounding; which camp are you in?

In this power tip video senior applications engineer, Robert Kollman, discusses different methods for grounding power supply.

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