

(ACTIVE) PMP9637

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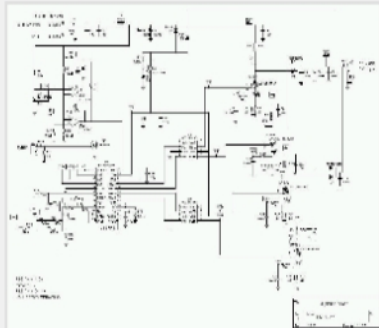
The PMP9637 4-phase boost power supply enables high-efficiency boost dc/dc conversion of an 8.5V to 18V input Automotive battery voltage to 44V output at 17 Amperes in a compact form factor for Audio applications. The TPS4090 4-phase PWM controller is used with two (2) UCC27324D 4A dual FET drivers and CSD18534Q5A 60V NexFETs to deliver 748W output power in only 120mm x 70mm.

- >95% Efficiency at 14VIN, 44Vout/7A.
- 120mmx70mm total power supply area
- 200mV pk-to-pk output voltage load transient response
- 10mV pk-pk output voltage
- Smooth monotonic start up
- 4-phase interleaving enables lower input and output ripple current, faster load transient response, improved power handling capability, improved thermal performance, and higher reliability

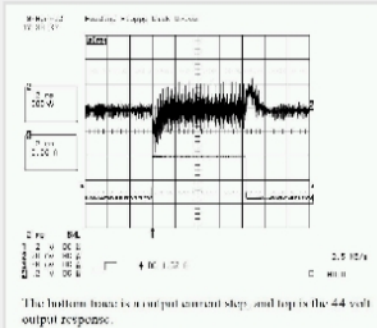


i Fully assembled board (shown above) developed for testing and performance validation only, not available for sale.

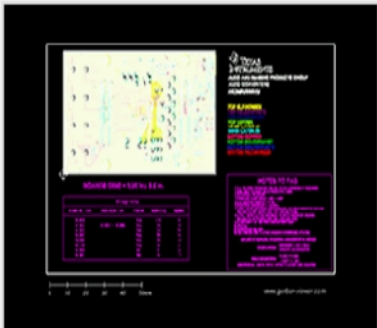
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Part Number	Status
PMP9637: Automotive Boost Power Supply for Audio Applications	ACTIVE

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Part Number	Name	Product Family	Sample & Buy	Design Kits & Evaluation Modules
CSD18534Q5A	60V N-Channel NexFET Power™ MOSFET	Power MOSFET	Sample & Buy	Not Available
TPS40090	4 Channel Multiphase Buck DC/DC Controller	Controller (External Switch)	Sample & Buy	View Design Kits & Evaluation Modules
UCC27324	Dual 4 A Peak High Speed Low-Side Power MOSFET Drivers	AC/DC and Isolated DC/DC Power Supply	Sample & Buy	View Design Kits & Evaluation Modules

Part #	Package Pins	CAD File (.bxd)	STEP Model (.stp)
TPS40090	TSSOP (PW) 24	Download	Download
	VQFN (RHD) 28	Download	-
UCC27324	SOIC (D) 8	Download	Download
	HVSSOP (DGN) 8	Download	Download
	WSON (DSD) 8	Download	-
	PDIP (P) 8	Download	Download

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User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
 PMP9637 Test Results		PDF	1057	27 Oct 2014	12

Title	Abstract	Type	Size (KB)	Date	Views
PMP9637 Altium		ZIP	114	27 Oct 2014	6
PMP9637 PCB		ZIP	98	27 Oct 2014	10
PMP9637 Gerber		ZIP	157	27 Oct 2014	3
PMP9637 BOM		PDF	19	27 Oct 2014	10
PMP9637 Schematic		PDF	61	27 Oct 2014	39

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