Class 3- Mulitple Output, High Efficiency Flyback Converter for PoE Applications

(ACTIVE) PMP8454.1

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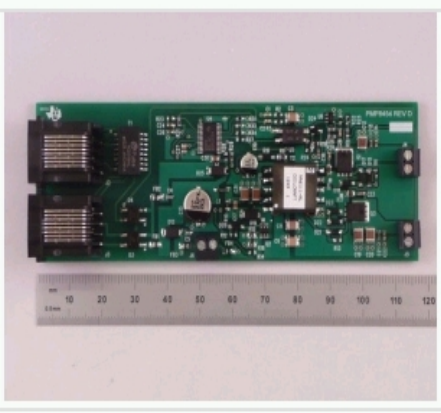

Description

This converter is used for Class 3 PoE applications where high efficiency and multiple outputs are required. PMP8454.1 has an output of 3.3V@2A. The flyback converter with synchronous rectifier provides excellent efficiency and small size for PoE applications such as a IP Phones. The TPS23785B contains both the PoE Powered Device and the PWM controller functions.

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

Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

Parametrics

	PMP8454.1
Vin (Max) (V)	57
Vin (Min) (V)	36
Vout (Nom) (V)	3.3
Iout (Max) (A)	2
Output Power	6.6
Isolated/Non-Isolated	Isolated
Input Type	DC
Topology	Flyback- Synchronous POE

TI Devices (3)

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
CSD17527Q5A	30V, N-Channel NexFET™ Power MOSFETs	Power MOSFET	Sample & Buy	View Design Kits & Evaluation Modules
TLV431A	Low Voltage Adjustable Precision Shunt Regulator	Voltage Reference	Sample & Buy	Not Available
TPS23785B	High-Power, High-Efficiency PoE PD and DC-to-DC Controller	Power Over Ethernet (PoE)/LAN Solutions	Sample & Buy	Not Available

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
CSD17527Q5A	VSONP (DQJ)| 8	Download	-
TLV431A	SOT (DBZ) | 3	Download	Download
	TO-92 (LP) | 3	Download	Download
	SIP (PK) | 3	Download	-
	SOT (DBV) | 5	Download	Download
	SOT (DCK) | 6	Download	Download
	SOIC (D) | 8	Download	Download

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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
PMP8454 Test Results		PDF	614	01 Feb 2013	22

Design Files (4)

Title	Abstract	Type	Size (KB)	Date	Views
PMP8454 Gerber		ZIP	320	01 Feb 2013	10
PMP8454 PCB		PDF	233	01 Feb 2013	16
PMP8454 BOM		PDF	21	01 Feb 2013	24
PMP8454 Schematic		PDF	44	01 Feb 2013	36

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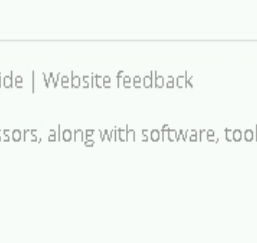

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