8V to 36V Current Mode Boost Controller driven SEPIC

(ACTIVE) PMP3002

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Description

The design implements a TPS40210. The TPS40210 and TPS40211 are wide-input voltage (4.5 V to 52 V), non-synchronous boost controllers. They are suitable for topologies which require a grounded source N-channel FET including boost, flyback, SEPIC and various LED Driver applications. The device features include programmable soft start, overcurrent protection with automatic retry and programmable oscillator frequency. Current mode control provides improved transient response and simplified loop compensation. The main difference between the two parts is the reference voltage to which the error amplifier regulates the FB pin.

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Bill of Materials (BOM)

Find the complete list of components in this reference design.

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Parametrics

	PMP3002
Vin (Min) (V)	8
Vin (Max) (V)	36
Vout (Nom) (V)	12
Iout (Max) (A)	3
Output Power	36
Isolated/Non-Isolated	Isolated
Input Type	DC
Topology	Sepic- CCM

TI Devices (1)

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Part Number	Name	Product Family	Sample & Buy	Design Kits & Evaluation Modules
TPS40210	Wide Input Range Current Mode Boost Controller	Controller (External Switch)	Sample & Buy	View Design Kits & Evaluation Modules

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
TPS40210	HVSSOP (DGQ) | 10	Download	Download
	VSON (DRC) | 10	Download	-

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Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP3002 Test Results		PDF	470	14 Jun 2013	25

Design Files (2)

Title	Abstract	Type	Size (KB)	Date	Views
PMP3002 Bill of Materials		PDF	18	14 Jun 2013	27
PMP3002 Schematic		PDF	47	14 Jun 2013	65

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