5.3V 2A Mobile Phone Charger Reference Design

TIDesigns

(ACTIVE) PMP4432

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Description

PMP4432 is fully verified 5V2A adapter solution which passes EMI test. The primary side regulator UCC28713 is used in the primary side with diode rectifier in the secondary side. The solution achieves high efficiency and meets DOE-6 standard requirement. The overall form factor is limited in 37mmx31mmx15mm. No load power <30mW over range.

5.3V 2A Mobile Phone Charger Reference Design (top view)

Features

- High efficiency meets DOE-6 standard
- Low standby power with integrated start up FET
- Primary side regulation with diode rectifier
- Precise CC&CV control
- Cable compensation
- Meet EMC and Safety certification

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

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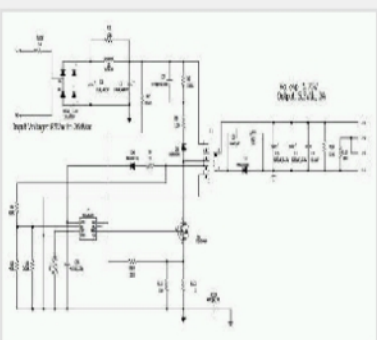
Schematic/Block Diagram

Quickly understand overall system functionality.



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Test Data

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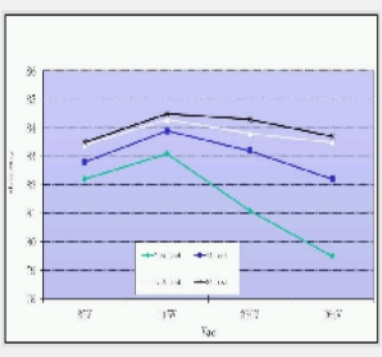

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Design Files

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

	PMP4432
Vin (Min) (V)	90
Vin (Max) (V)	264
Vout (Nom) (V)	5.3
Iout (Max) (A)	2
Output Power	10.6
Isolated/Non-Isolated	Isolated
Input Type	AC
Topology	Flyback- Non Sync

TI Devices (1)

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
UCC28713	Constant-Voltage, Constant-Current Controller with Primary-Side Regulation	AC/DC and Isolated DC/DC Power Supply	Sample & Buy	View Design Kits & Evaluation Modules

Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP4432 Test Results		PDF	807	24 Nov 2014	23

Design Files (3)

Title	Abstract	Type	Size (KB)	Date	Views
PMP4432 Gerber		ZIP	47	24 Nov 2014	11
PMP4432 BOM		PDF	28	24 Nov 2014	10
PMP4432 Schematic		PDF	29	24 Nov 2014	34

Applications

- Handset: Smartphone

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