Reference Design for 2A Single Input I2C/Standalone Switch-Mode Li-Ion Battery Charger

TIDesigns

(PREVIEW) TIDA-00048

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Description

This reference design contains highly integrated single cell Li-Ion battery chargers targeted for space-limited, portable applications with high capacity batteries. The solution includes a single cell charger with a single input that operates from either a USB port or AC wall adapter for a versatile solution. BC1.2 compliant D+/D detection allows for recognition of CDP, DCP, SDP, and non-standard USB adapters. The use of an accessory dead battery provision (DBP) pin allows for the system to sync a dead battery state in order to enable/disable the BC1.2 detection in the case of an external USB-PHI. The user's guide includes board specifications, the schematic diagram, bill of materials, and board layout.

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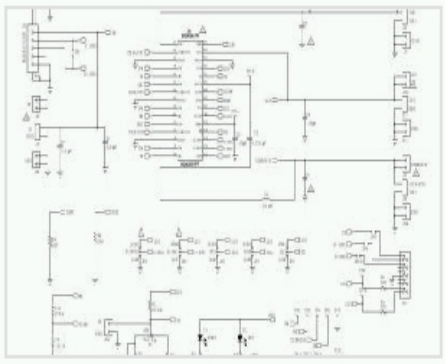
Features

- # Series Cells: 1S
- Max Input Volts: 10.5V
- Max Charge Current: 2A
- Topology: Switch mode
- Communication: I2C
- Features: USB Detection

Schematic/Block Diagram

Quickly understand overall system functionality.



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Test Data

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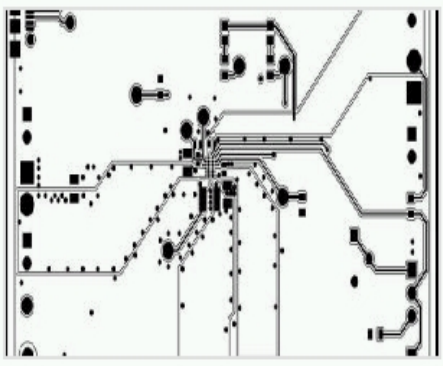

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Part Number	Status
TIDA-00048: Reference Design for 2A Single Input I2C/Standalone Switch-Mode Li-Ion Battery Charger	PREVIEW

TI Devices (1)

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

Part Number	Name	Product Family
BQ24250	2A Single Input I2C/Standalone Switch-Mode Li-Ion Battery Charger	Battery Management Products

Bill of Materials

Find the complete list of components in this reference design.

Download BOM

Technical Documents

User Guides (2)

Title	Abstract	Type	Size (KB)	Date	Views
TIDA-00048 PCB		PDF	269	27 Aug 2013	60
TIDA-00048 Test Results		PDF	922	27 Aug 2013	45

More Literature (2)

Title	Abstract	Type	Size (KB)	Date	Views
TIDA-00048 BOM		PDF	26	27 Aug 2013	51
TIDA-00048 Schematic		PDF	44	27 Aug 2013	65

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