

## MCP1643 Synchronous Boost LED Constant Current Regulator Evaluation Board

Part Number: ADM00435

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The MCP1643 Synchronous Boost LED Constant Current Regulator Evaluation Board is used to evaluate and demonstrate Microchip Technology's MCP1643 device. This board demonstrates the MCP1643 in a boost converter application supplied by one AA battery, or from an external voltage source, which drives an LED with three selectable currents. This evaluation board was developed to help engineers reduce the product design cycle time.

Four output currents can be selected: 25, 50, 75 and 100mA. The output current can be changed with a dual switch that changes the external LED current sense equivalent resistance. An enable switch is used to enable and disable the converter. When enabled, the MCP1643 will regulate the output current; when disabled, the MCP1643 disconnects the path from input to output for "true-disconnect". In this state, the current consumed from the battery is 1  $\mu$ A, typically.



Devices Supported: MCP1643



### Features

### Package Contents

- It can be powered by one-cell Alkaline, NiCd, or NiMH batteries, or by external power supply
- Input voltage range, VIN: 0.35V to 2.5V, with VIN < VOUT
- Start-up voltage: 0.65V
- Fixed output current: 25 mA 50 mA, 75 mA or 100 mA, selected using a mini-dip switch on board
- PWM Switching Frequency: 1 MHz
- Enable state selectable using mini-dip switch on board
- 1.6A Peak Input Current Limit
- Over-temperature Protection (if the die temperature exceeds 150°C, 25°C hysteresis)
- Mechanical battery reverse polarity protection

## Documentation & Software

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Documents	Last Updated	Size	
<a href="#">MCP1643 Synchronous Boost Current Regulator User's Guide</a>	9/3/2013 7:26:07 AM	449KB	
<a href="#">MCP1643 Data Sheet</a>	8/20/2013 4:34:24 PM	727KB	



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