

## FEATURES

- VIN Start Up Voltage: 0.9V
  - Output Voltage Range: from 2.7V to 5.25V.
  - Up to 94% Efficiency
  - 1.2MHz Fixed Frequency Switching
  - Built-in current mode compensation
  - Built-in Protection: Over Current, Over Voltage, Over Temperature
  - Optional Automatic PWM/PSM Version (AIC3415) and Forced PWM Version (AIC3415A).
  - Logic Controlled Shutdown: < 1 $\mu$ A
  - Output Disconnect by Shutdown Function
  - Built-in Soft Start
  - Active Anti-ringing Control
  - Small SOT-23-6 Package
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## APPLICATIONS

- Single/Dual Cells Ni-Cd/Ni-Mh/Li-Ion Type Battery
  - Operated Products
  - Wireless Mice
  - PDA
  - Digital Still Cameras
  - Portable Equipment
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## DESCRIPTION

The AIC3415 is a synchronous step-up DC/DC converter.

There are two options for AIC3415: automatic PWM/PSM version (AIC3415), and forced PWM version (AIC3415A). The automatic PWM/PSM version enters PSM from PWM automatically when load decreases. The goal is to improve efficiency and reduce quiescent current; the forced PWM version keeps the same operating frequency even when it operates in light load. This guarantees low output ripple and noise.

The AIC3415 provides a complete power supply solution for products powered by one or two Alkaline, Ni-Cd, Ni-MH or Li-Ion battery cells. It stays in operation with supply voltages down to 0.5V. The implemented boost converter uses an internal synchronous rectifier to obtain maximum efficiency.

A low-EMI mode is implemented to reduce ringing and in effect lower radiated electromagnetic energy when the converter enters the discontinuous conduction mode.

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## TYPICAL APPLICATION

