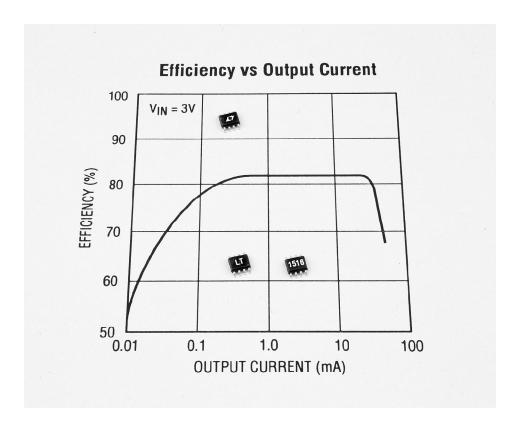
LTC1516

- 2V to 5V input range
- Output current: 20mA (V_{IN} > 2V), $50mA (V_{IN} > 3V)$
- Regulated 5V ±4% output
- Ultra low power: typical operating $I_{cc} = 12uA$
- Short circuit/thermal protection
- No inductors
- I_{cc} in shutdown: <1µA
- Shutdown disconnects load from V_{IN}
- Internal oscillator: 600KHz
- Ultra-small application circuit (0.1 square inches)

The LTC1516 is a micropower charge pump DC/DC converter that delivers a regulated 5V ±4% from supply voltages ranging from 2V to 5V. With extremely low supply current of 12µA typical under no load and shutdown current of just 1µA, the LTC1516 is ideal for battery-operated applications which need a voltage generator for 5V-powered flash memory. The LTC1516 can provide 50mA when V_{IN} is greater than 3V and 20mA output current for V_{IN} between 3V and 2V. Typical efficiency ($V_{IN} = 3V$) exceeds 70% with load currents as low as 50µA.

A 600KHz switching frequency minimizes the size of the four external capacitors and reduces interference in communications systems which utilize a 455KHz IF frequency. Two 0.22µF capacitors and two 10µF capacitors are all that are required for operation. The total solution covers just 0.1 square inches of board area. The LTC1516 provides compact voltage conversion for all Intel Flash memory devices that are powered from 5V.

During shutdown, the LTC1516 disconnects the load from V_{IN}, eliminating current drain. Important protection features of the LTC1516 include continuous output short circuit protection and thermal overload protection. The LTC1516 is ideal for powering 5V logic in PCMCIA applications where only a 3.3V supply is available. Other applica-



tions include two-cell to 5V conversion, Lithium-Ion battery backup supplies and local 3.3V to 5V conversion for Intel Flash memory and logic supplies. For applications requiring 5V to 12V inductorless DC/DC conversion for V_{PP} programming at 12V, contact Linear Technology for information on the LTC1262.

INTEL FLASH MEMORY SUPPORTED:

28F010, 28F001BX, 28F020, 28F002BC, 28F002BL, 28F002BV, 28F002BX, 28F200BL, 28F200BV, 28F200BX, 28F200CV, 28F004BE, 28F004BL, 28F004BV, 28F004BX, 28F004SC,

28F400BL, 28F400BV, 28F400BX, 28F400CE, 28F400CV, 28F008BE,

28F008BV, 28F008SA, 28F008SC.

28F800BV, 28F800CE, 28F800CV, 28F016SA, 28F016SC, 28F016SV,

28F016XD, 28F016XS, 28F032SA, Series 2 Cards, Series 2+ Cards, Value

Series 100 Cards, Series 100 Miniature Cards

AVAILABILITY:

Now

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