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APPLICATION NOTE 1162

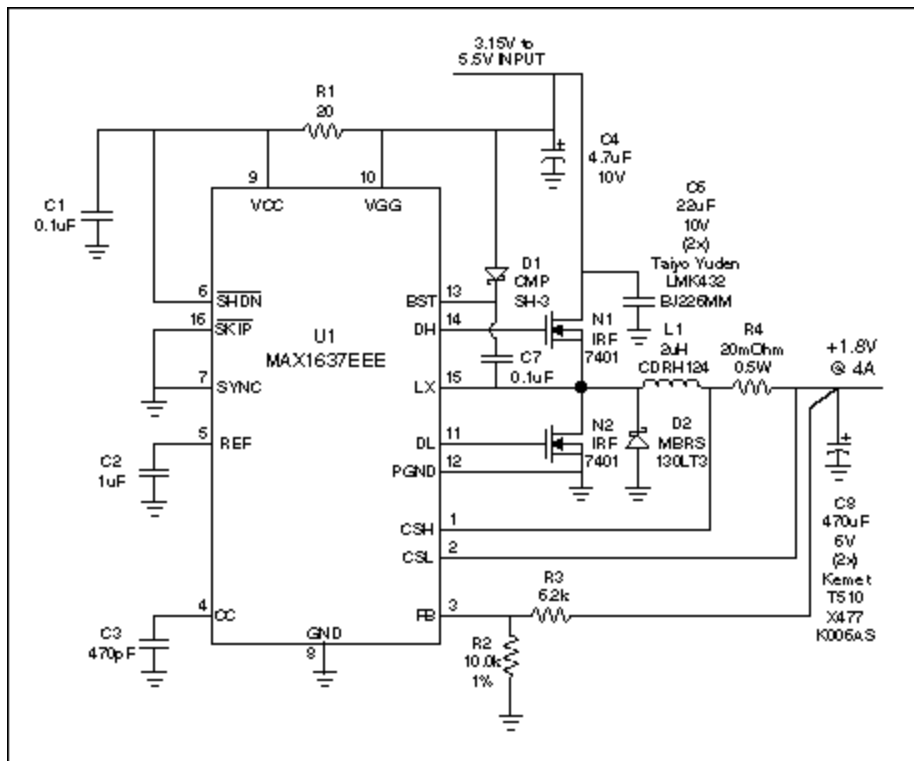
A 3.3V Input Step-Down Converter for CPU Cores

Mar 01, 2001

Abstract: As I/O moves from 5V to 3.3V in microprocessor systems, there is a need for power conversion from 3.3V to a lower core voltage such as 1.8V at appreciable current. Without a higher voltage available, this requires a controller that will operate on less than 3.3V and FETs that are specified at a sub-logic-level gate voltage.

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The MAX1637 step-down controller (shown below) is guaranteed to operate with V_{cc} from 3.15V to 5.5V. The IRF7401 is specified with $V_{gs} = 2.7V$. In addition, the inductor is the tallest part at 4.5mm (max).



3.3V to 1.8V @ 4A

Related Parts

[MAX1637](#)

Miniature, Low-Voltage, Precision Step-Down Controller

[Free Samples](#)

More Information

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