

# EN6338QI

Intel® Enpirion® Power Solutions

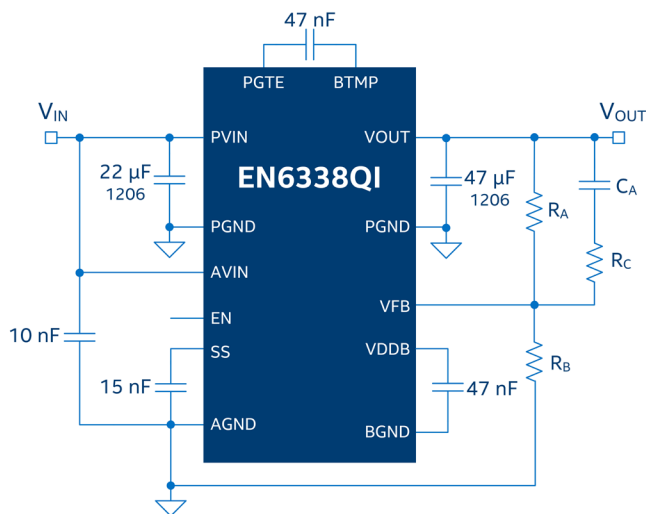
## Technical Details

- High power density
- Light Load Mode operation (LLM)
- Excellent conversion efficiency up to 96%<sup>†</sup>
- Only 45 mm<sup>2</sup> optimized total solution size
- 1.5% output voltage accuracy over load and temperature<sup>†</sup>
- Programmable soft-start
- Power OK indicator
- Excellent ripple and electromagnetic interference (EMI) performance (CISPR 22 Class B compliant)
- Thermal, over-current, short circuit, and under-voltage protections

## EN6338 3 A High Efficiency, Tiny PowerSoC

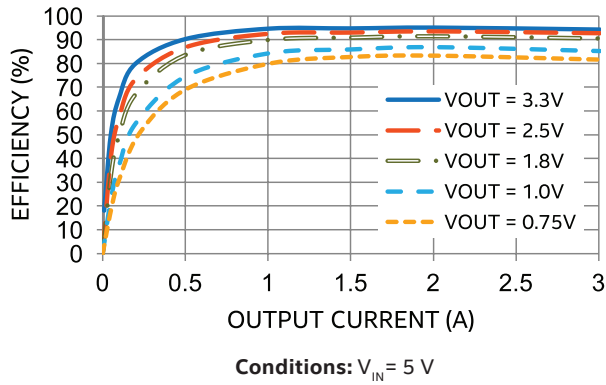
The Intel® Enpirion® EN6338QI is an ultra-small 3 A high efficiency DC-DC step-down converter with integrated inductor that delivers an outstanding combination of power density and conversion efficiency. By integrating power switches, inductor, gate drive, controller, and compensation in a tiny 3.75 x 3.75 x 1.9 mm Land Grid Array (LGA) package, the EN6338QI device achieves a total solution footprint of only 45 mm<sup>2</sup>.

The EN6338QI device delivers higher efficiency and a 45% area reduction versus the prior generation 3 A PowerSoC<sup>†</sup>. Excellent conversion efficiency enables the EN6338QI device to deliver 3 A continuous operating current across the full industrial operating temperature range with no thermal derating required.

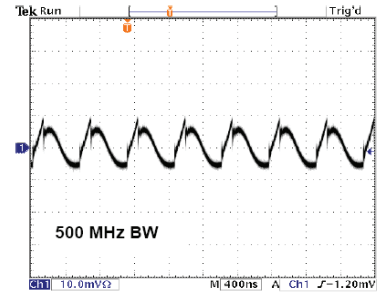


Simplified Applications Circuit

## High Conversion Efficiency, Including at Full Load

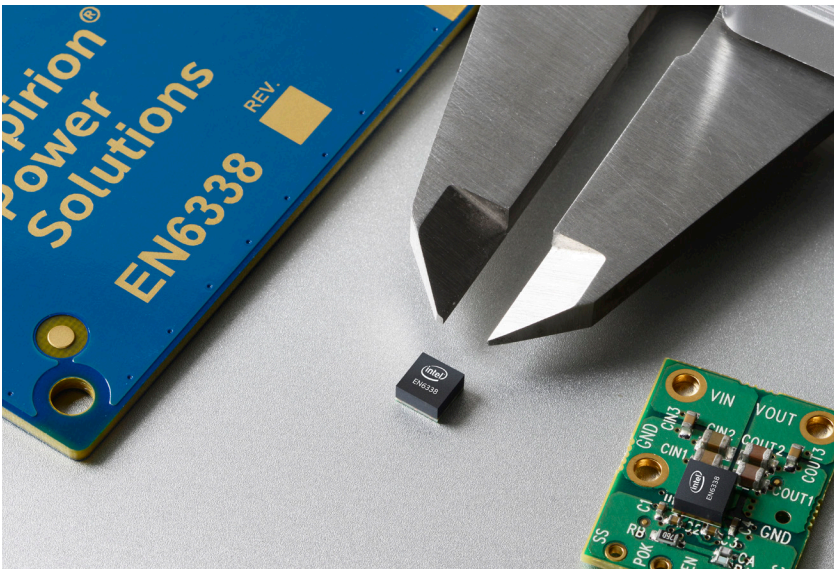


## Low Output Voltage Ripple



Conditions: 500 MHz bandwidth,  
 $V_{IN} = 5\text{ V}$ ,  $V_{OUT} = 1\text{ V}$ ,  $I_{OUT} = 3\text{ A}$

## Small 45 mm<sup>2</sup> Solution Size



EN6338QI PowerSoC: [www.intel.com/en6338](http://www.intel.com/en6338)

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† Tests measure performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit [www.intel.com/benchmarks](http://www.intel.com/benchmarks).

EN6338QI efficiency and solution size performance compared versus the Intel® Enpirion® EN6337QI 3A PowerSoC module.

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