

Description

The EN6347QI is a Power System on a Chip (PowerSoC) DC-DC converter. It integrates MOSFET switches, all small-signal circuits, compensation, and the inductor in an advanced 4mm x 7mm QFN package.

The EN6347QI is specifically designed to meet the precise voltage and fast transient requirements of present and future high-performance, low-power processor, DSP, FPGA, memory boards and system level applications in distributed power architecture. The device's advanced circuit techniques, ultra high switching frequency, and proprietary integrated inductor technology deliver high-quality, ultra compact, non-isolated DC-DC conversion.

The Enpirion solution significantly helps in system design and productivity by offering greatly simplified board design, layout and manufacturing requirements. In addition, a reduction in the number of vendors required for the complete power solution helps to enable an overall system cost savings.

All Enpirion products are RoHS compliant and lead-free manufacturing environment compatible.

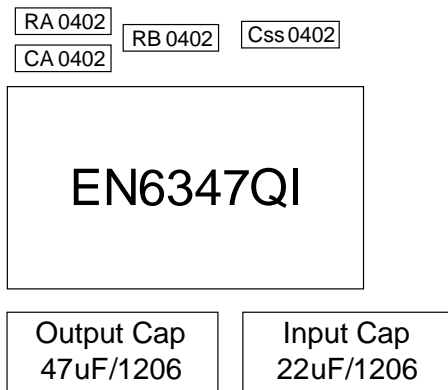


Figure 1: Total Solution Footprint PWM mode
(Not to scale) Total Area $\approx 75 \text{ mm}^2$

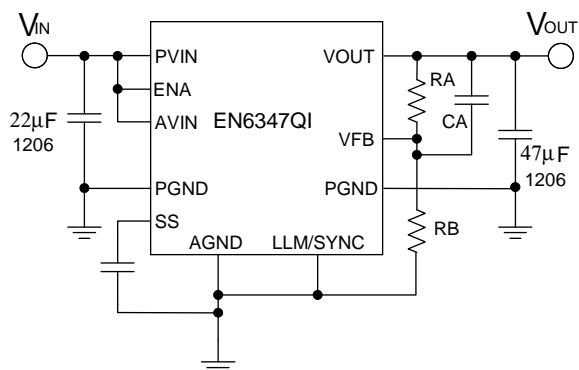
Features

- Integrated Inductor, MOSFETS, Controller
- Minimal external components.
- Up to 4A Continuous Output Current Capability.
- 3 MHz operating frequency. Switching frequency can be phase locked to an external clock.
- High efficiency, up to 95%.
- Wide input voltage range of 2.375V to 6.6V.
- Light Lode Mode with programmable set point.
- Output Enable pin and Power OK signal.
- Programmable soft-start time.
- Under Voltage Lockout, Over Current, Short Circuit and Thermal Protection.
- RoHS compliant, MSL level 3, 260C reflow.

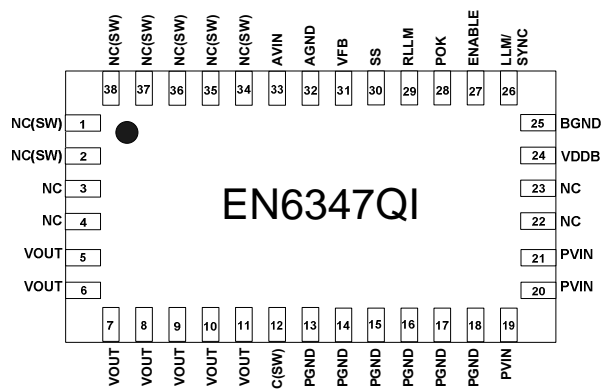
Application

- Point of load regulation for processors, DSPs, FPGAs, and ASICs
- Noise sensitive applications such as A/V, RF and Gbit I/O
- Low voltage, distributed power architectures such as 0.8V, 1.0V, 1.2, 2.5V, 3.3V, 5V rails
- Blade servers, RAID storage systems, LAN/SAN adapter cards, wireless base stations, industrial automation, test and measurement, embedded computing, communications, and multi-function printers.
- Ripple sensitive applications
- Beat frequency sensitive applications

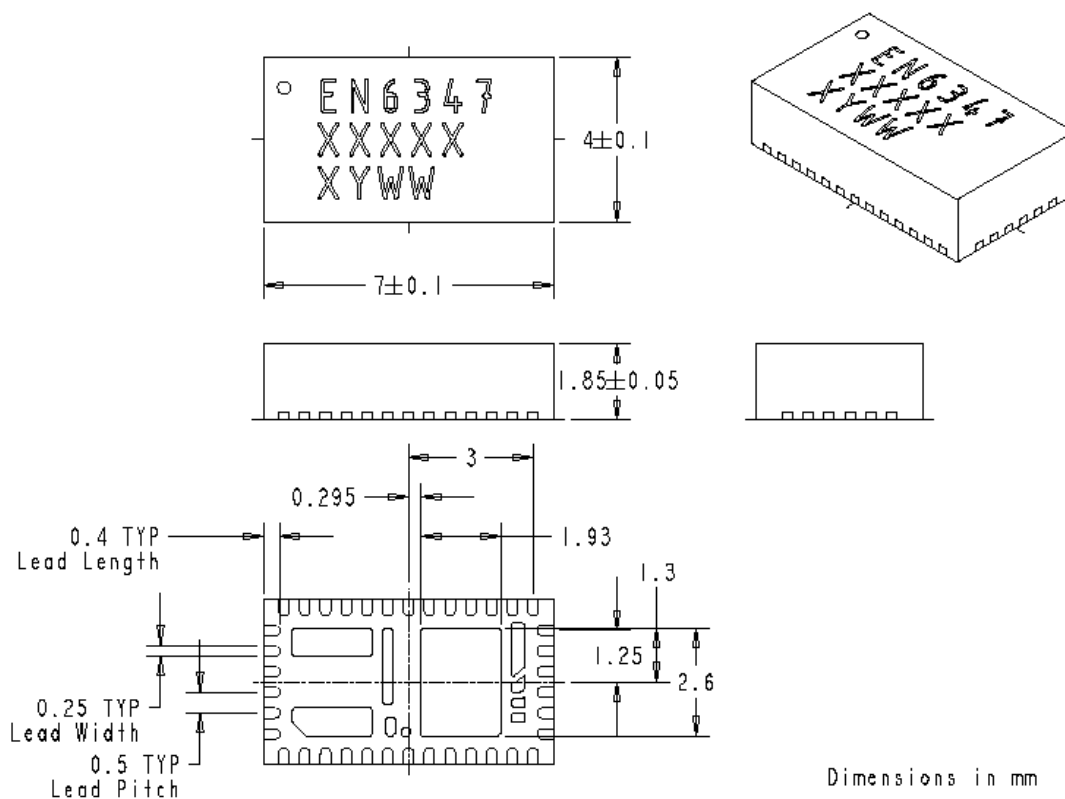
Application Schematic



Pin Assignments (Top View)



Package Dimensions



Contact Information

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