EN6340QI and EN6363QI Scalable DC-DC Step-Down Converters with Integrated Inductor

The EN6340QI and EN6363QI PowerSoCs are DC-DC step-down converters with integrated inductors that deliver an excellent combination of small solution size and performance. These full featured PowerSoCs are optimized to deliver high conversion efficiency, low output voltage ripple, fast load transient response, and tight output voltage accuracy. The EN6340QI and EN6363QI PowerSoCs are ideal for space constrained applications that cannot sacrifice performance. Both products deliver full rated current at 85°C with no thermal derating.

The EN6340QI and EN6363QI PowerSoCs are pin and PCB compatible. This provides designers with a great deal of flexibility, especially in applications where the final power requirements are not yet finalized. With this flexibility, designers can scale up to the EN6363QI 6A PowerSoC if more current is required, or scale down to the EN6340QI 4A PowerSoC if less current is needed to optimize cost.

The EN6340QI and EN6363QI PowerSoCs will dramatically improve system reliability versus discrete power supply solutions because they are designed, characterized, and qualified as a system, resulting in a solution that delivers very low failure in time (FIT) rates.

Technical Details
• High efficiency (up to 95%)†
• Optimized total solution size 60 mm²
• Input voltage range: 2.7V to 6.6V
• 0.5% initial V_{FB} accuracy†
• 1.5% V_{FB} accuracy over line, load, and temperature†
• Excellent ripple and electromagnetic interference (EMI); passes CISPR 22 Class B
• Precision enable
• Full suite of protections
• 4 x 6 x 2.5 mm 34-pin QFN package

EN6340QI 4A and EN6363QI 6A Scalable DC-DC Step-Down Converters with Integrated Inductor

Simplified Applications Circuit
High Conversion Efficiency

No Thermal Derating

Low Output Voltage Ripple

Meets CISPR 22 Class B EMI Standard

EN6340Q PowerSoC: https://www.altera.com/en6340
EN6363QI PowerSoC: https://www.altera.com/en6363