



SKYWORKS®

PRODUCT SUMMARY

SKY87201-11: Low Noise, Fast Transient 600 mA Step-Down Converter with Output Auto Discharge

Applications

- Cellular phones
- Digital cameras
- Handheld instruments
- Microprocessor, DSP Core, I/O power
- PDAs and handheld computers
- USB devices

Features

- Output auto discharge when disabled
- V_{IN} range: 2.7 V to 5.5 V
- Low-noise, light-load mode
- Low ripple power management mode
- Output voltage adjustable from 0.6 V to V_{IN}
- No load quiescent current: 37 μ A
- Up to 98% efficiency
- Maximum output current: 600 mA
- Switching Frequency: 2 MHz
- Soft start: 150 μ s
- Fast load transient
- Over-temperature protection
- Current limit protection
- 100% duty cycle low-dropout operation
- Shutdown current: <1 μ A
- Available in an STDFN (8-pin, 2 x 2 mm) package (MSL1, 260 °C per JEDEC J-STD-020)

Description

The SKY87201-11 is a 2 MHz step-down converter with an input voltage range of 2.7 V to 5.5 V and output voltage as low as 0.6 V. It is optimized to react quickly to a load variation. The SKY87201-11 incorporates a unique low-noise architecture that reduces ripple and spectral noise.

The SKY87201-11 is programmable with external feedback resistors. It can deliver 600 mA of load current while maintaining a low 37 μ A no-load quiescent current. The 2 MHz switching frequency minimizes the size of external components while keeping switching losses low.

The SKY87201-11 is designed to maintain high efficiency throughout the operating range, which is critical for portable applications.

The device has an output auto discharge feature. This enables the device to quickly discharge the output when the device is disabled ($V_{EN} = V_{IN}$ to 0 V).

The SKY87201-11 is provided in a small, 8-pin, 2 x 2 mm Thin Dual Flat No-Lead (STDFN) package. A functional block diagram is shown in Figure 1.



Skyworks Green™ products are compliant with all applicable legislation and are halogen-free. For additional information, refer to *Skyworks Definition of Green™*, document number SQ04-0074.

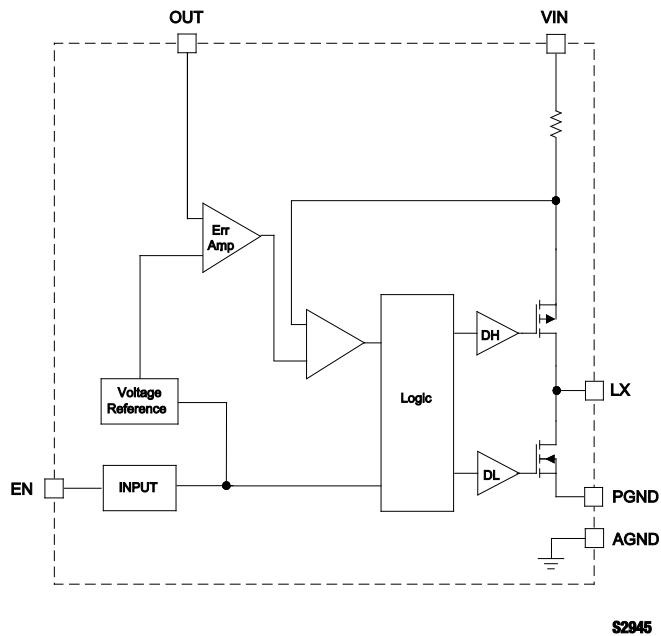


Figure 1. SKY87201-11 Block Diagram

Ordering Information

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY87201-11 Low-Noise, Step-Down Converter with Output Auto Discharge	SKY87201-11	SKY87201-11-EVB

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