

## Automotive Single 8A/12A Step-Down Converter Family

### General Description

The MAX20011 is a family of high-efficiency, synchronous step-down converters that operate with a 3.0V to 5.5V input voltage range and supply a 0.5V to 1.275V output voltage range. The wide input/output voltage range and the ability to provide up to 12A peak output current make this device family ideal for on-board point-of-load and post-regulation applications. The MAX20011 achieves  $\pm 1.5\%$  output error over load, line, and temperature ranges.

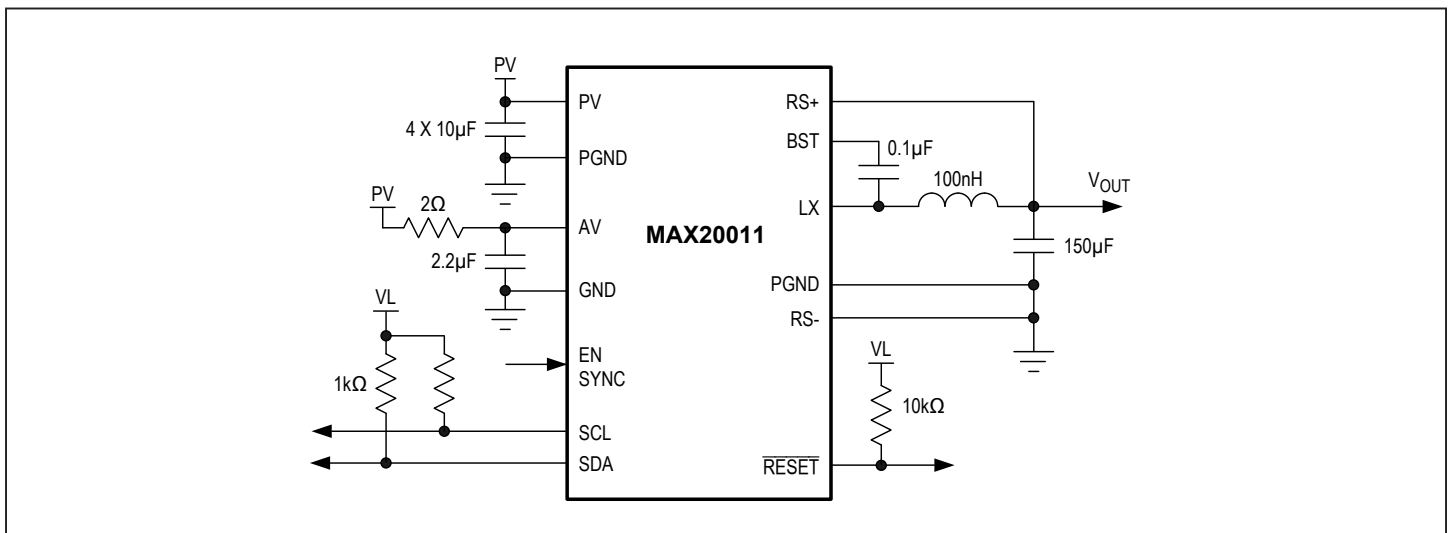
The MAX20011 features a 2.2MHz fixed-frequency PWM mode for better noise immunity and load-transient response. The 2.2MHz frequency operation allows for the use of all ceramic capacitors and minimizes external components. The spread-spectrum frequency modulation option minimizes radiated electromagnetic emissions. Integrated low  $R_{DS(ON)}$  switches improve efficiency at heavy loads and make layout simpler than discrete solutions.

The MAX20011 is offered with factory-preset output voltage. See the *Ordering Information* table for options. The I<sup>2</sup>C interface supports dynamic voltage adjustment with programmable slew rates. Other features include programmable soft-start, overcurrent, and overtemperature protections.

### Applications

- Automotive ADAS Systems
- SoC Core Power

### Simplified Block Diagram



Visit [Web Support](#) to complete the nondisclosure agreement (NDA) required to receive additional product information.

Rev. 8

DOCUMENT FEEDBACK

TECHNICAL SUPPORT

Information furnished by Analog Devices is believed to be accurate and reliable. However, no responsibility is assumed by Analog Devices for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of Analog Devices. Trademarks and registered trademarks are the property of their respective owners.

