

MAX20471EVKIT

Evaluation Kit for the **MAX20471**



NDA Required. Request Full Data Sheet and Software

Description

The MAX20471 evaluation kit demonstrates the performance of the MAX20471, which is part of the MAX20471–MAX20473 series of high-efficiency, low-voltage DC-DC converters. The converter ICs boost a 3.0V to 4.0V input supply to between 3.8V and 5.25V at up to 500mA. The boost converters achieve $\pm 1.5\%$ output error over load, line, and temperature range.

The IC features a 2.2MHz fixed-frequency forced-PWM (FPWM) mode for better noise immunity and load-transient response, and a pulse-frequency modulation mode (skip) for increased efficiency during light-load operation. The 2.2MHz frequency operation enables the use of all-ceramic capacitors and minimizes external components. The programmable spread-spectrum-frequency modulation minimizes radiated electromagnetic emissions. Integrated low $R_{DS(ON)}$ switches improve efficiency at heavy loads and make the layout a much simpler task with respect to discrete solutions.

The regulator includes True Shutdown™, soft-start, overcurrent, and overtemperature protections.

Key Features

- 3.0V to 4.0V Operating Supply Voltage
- 3.8V to 5.25V Fixed Output
- 500mA Output Version Populated; Compatible with 1A and 2A Output Versions
- 2.2MHz Operation
- Feedback Injection Point to Test Stability
- Robust for the Automotive Environment
 - Current Mode, Forced-PWM and Skip Operation
 - Overtemperature and Short-Circuit Protection
 - -40°C to $+125^{\circ}\text{C}$ Operating Range
- Proven PCB Layout
- Fully Assembled and Tested

Applications/Uses

- Automotive CAN Transceivers
- Automotive Point of Load