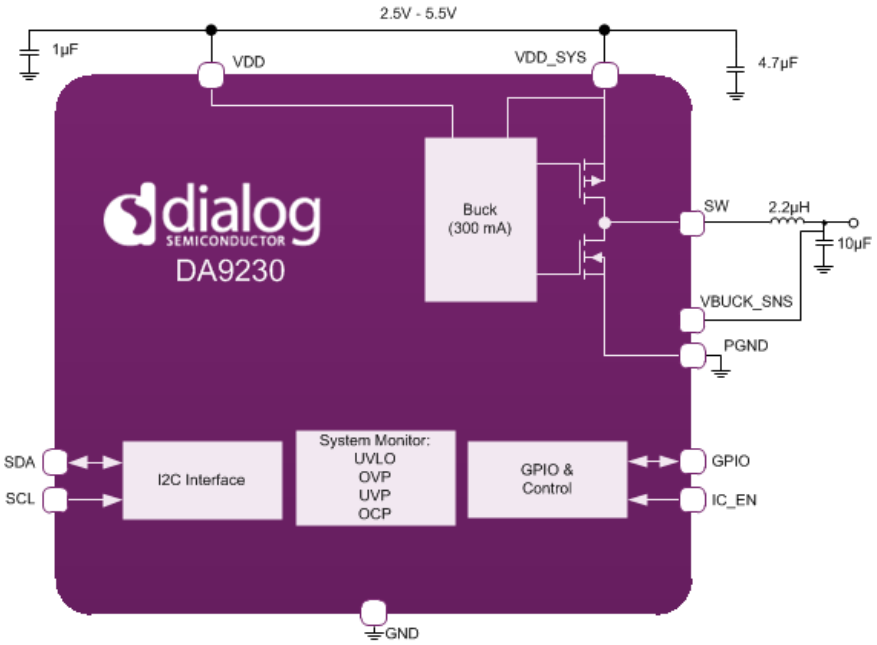
DA9230

Configurable 300 mA high efficiency buck converter with ultra-low quiescent current

DA9230 is an ultra-low quiescent current, high efficiency buck regulator in a compact I^2C configurable WLCSP package targeting battery powered applications needing highly efficient power supplies.



The battery life of these devices is significantly improved due to the low quiescent current delivered by DA9230 during operation and shutdown.

The buck regulator extends high light load efficiency down to 10 uA further extending battery life. Dynamic Voltage Control in the buck regulator facilitates optimization across the system power modes enabling further improvement in system efficiency and battery life.

DA9230 also helps future proof for new battery technologies (such as silicon anode) with a minimum supply voltage of 2.5 V and help support 10 nm/14 nm SoC and GPS with the buck regulator minimum output voltage of 0.6 V.

DA9230 provides multiple protection features and comes with the ability to monitor the events and indicators in the GPO pin.

Suitable for space constrained applications, the DA9230 comes in a 1.65 mm x 1.25 mm, 12-pin WLCSP package.

Key Features

- 300 mA buck converter
  - 750 nA total input current (buck enabled no load)
  - Up to 81% efficiency at 1.8 V output, 10 µA load currents
  - Input voltage 2.5 V to 5.5 V
  - Output voltage 0.6 V to 1.9 V
  - Dynamic Voltage Control (DVC)
- I^2C interface for device configuration and control
- Protection features and System Monitors
- Small 1.65 mm x 1.25 mm, 12-pin WLCSP package

Applications

- Wearables – wrist wear, hearables, pet wearables
- Smart devices - thermostats and door locks
- Smoke detectors
- Portable medical devices
- Remote sensors
- High efficiency, low power applications

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