Single-Inductor and Dual Output for Notebook and Tablet LCD Panel Bias Power Supply

Features

- Programmable Positive Output: 4.0 V to 6.5 V (0.1 V steps)
- Programmable Negative Output: -4.0 V to -6.5 V (0.1 V steps)
- Greater than 85% Efficiency
- 1.5% Output Voltage Accuracy
- Under-Voltage Lockout (UVLO) Rising/Falling
- Wide Input Voltage Range, 2.7 V to 5.5 V
- Programmable Parameters via I2C Compatible Interface
  . Output Voltages on Both Positive and Negative
  . Active-discharge
  . 400 kHz Full-Speed I2C Interface

Applications

- LCD Tablet and Mobile Panels

Description

The SM4851 is designed to provide power supply with positive and negative driven TFT-LCD panels up to 10 inches. It features programmable positive and negative output by an integrated boost converter and charge pump and maximized efficiency by integrating synchronous rectification MOSFETs for the boost converter and charge pump. The device operates in single-cell Li-ion, Ni-Li and Li-Polymer batteries with the input range of 2.7 V to 5.5 V. The SM4851 is available in a 20-pin, 3 mm x 4 mm (0.75 mm) WQFN package.

Device Information

Part	Package	Size
SM4851	20 QFN	3 mm x 4 mm

Simplified Block Diagram