

LP3970

Power Management Unit for Advanced Application Processors

General Description

The LP3970 is a multi-function, programmable Power Management Unit, designed especially for advanced application processors. The LP3970 has been optimized for low power handheld applications. PMU provides 11 low dropout, low noise linear regulators, two DC/DC magnetic buck regulators, a back-up battery charger and 4 GPO's. A high speed serial interface is included to program individual regulator output voltages as well on/off control.

Key Specifications

Buck regulators

- Programmable V_{OUT} from 0.8 to 3.5 V
- Up to 95% Efficiency
- 600 mA output current
- +3% output voltage accuracy

LDO's

- Programmable V_{OUT} of 1.5-3.3 V
- +3% output voltage accuracy
- 100/150/300 mA output current
- 100 mV (typ) Dropout

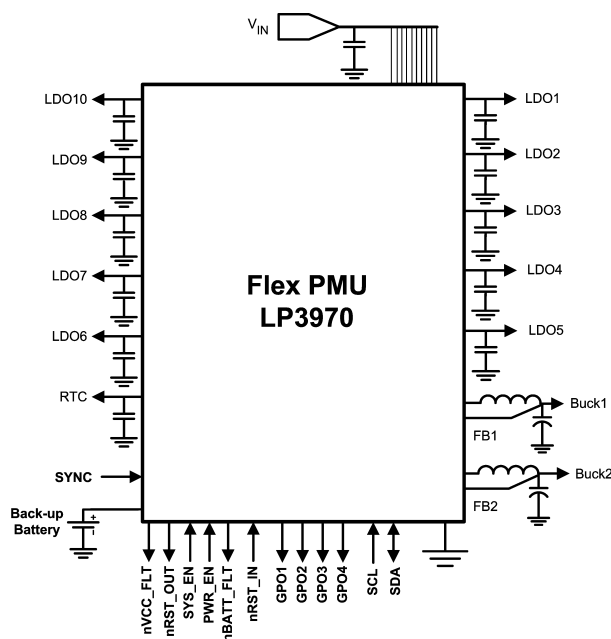
Features

- Compatible with advanced applications processors
- Additional buck regulator for powering high current peripheral devices
- 11 LDOs for powering Internal processor functions and I/O's
- Backup battery charger for Lithium and Lithium-Manganese coin cell batteries
- Automatic switching to backup battery
- High speed serial interface for independent control of device functions and settings
- Precision internal reference
- Thermal overload protection
- Current overload protection
- 48-lead 7x7x0.8 mm LLP package
- Software Programmable Low Noise LDO's

Applications

- PDA phones
- Smart phones
- Personal Media Players
- Digital Cameras

Simplified Application Circuit



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Notes

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