

Analog, Mixed Signal and Power Management

Freescalé's Leading Edge PMIC Solution

Designed for Intel's Upcoming "Oak Trail" Platform

Applications

- Netbooks
- Tablet PCs
- Embedded Devices

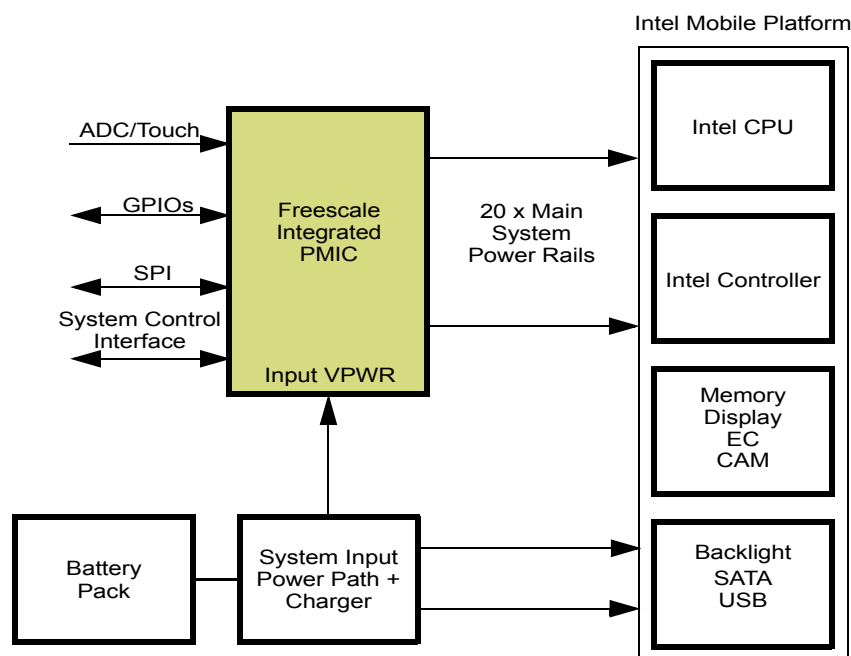
Provides superior integration for ultra-mobile applications and embedded designs

Innovation and Flexibility

Freescalé's highly integrated PMIC is designed to support the power requirements in ultra-mobile netbook, tablets designs, and embedded devices. It has five switching power supplies running at frequencies from 1.0 to 4.0MHz, 14 highly efficient LDOs, and one 3.3V power switch. It incorporates a 22-channel analog-to-digital converter (ADC), real-time-clock (RTC), eight GPIOs and eight GPOs.

The PMIC is fully configurable and controllable through its SPI interface and is designed to provide CPU power requirements and control as an integral part of Freescalé's power management solution for ultra-mobile platforms.

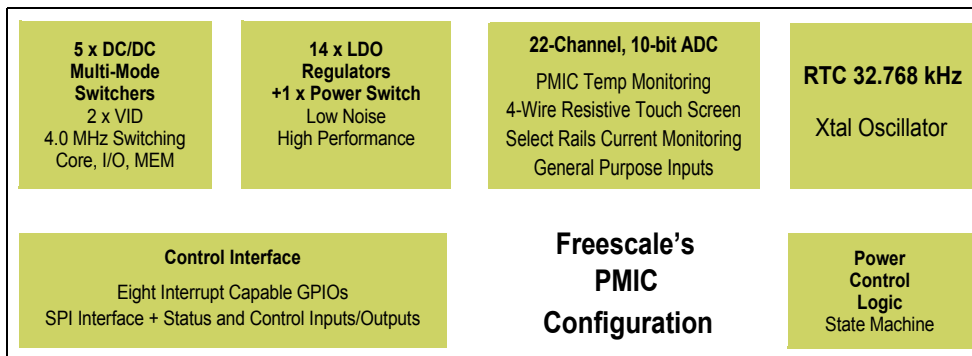
Optimum partitioning, high feature integration, and state-of-the-art technology enable Freescalé to support cost-effective ultra-mobile platforms by reducing component count and board area. The Freescalé solution also allows ease of system design, resulting in faster time to market.



Features

- Main system power management integrated in a single chip
- 20 fully programmable power supplies for ultra-mobile platform support
- High efficiency multi-mode power conversion, ensuring extended battery life
- Extensive protection features and complete fault reporting for best-in-class overall system reliability
- Internal compensation
- Five buck DC/DC regulators
- 14 low dropout (LDO) regulators
- One configurable LDO/switch regulator for SDIO card support
- 3.3V load switch for platform support
- SPI interface (12.5MHz/25MHz operation)
- Coin cell backup battery charger
- Low power 32.786kHz XTAL oscillator
- Real time clock (RTC)
- 22-channel (32 capable) 10-bit ADC for internal and external sensing with touch screen interface
- Various control and status reporting I/Os
- Eight interrupt capable GPIOs and eight GPOs
- Interrupt and reset controller. All interrupt signals can be masked.
- Operating temperature of -40 to +85°C

Freescal Power Management Functional Blocks



Orderable Part Numbers

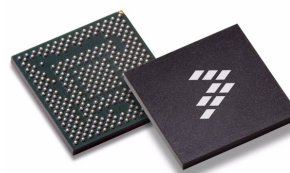
| Part Number | Temperature Range (T _A) | Package |
|----------------|-------------------------------------|-------------|
| SC900844JVK/R2 | -40°C to 85°C | 338- MAPBGA |

Development Tools

| Kit Part Number | Description |
|------------------|--|
| KITINTOAKPMMEVBE | Evaluation Board is available upon request |

Documentation

| Document Number | Title |
|-----------------|--|
| SC900844 | Data Sheet |
| SG1002 | Analog and power management device comparison Selector Guide |



98ASA10841D
338 pin MAPBGA
11 mm X 11 mm

Contact Freescale Sales or distribution for samples and orders.
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