S/M-POWER is a highly integrated Power and Battery Management IC for mobile handsets and provides all power supply functions for complete systems ranging from GSM over GPRS up to EDGE smart phones and modules.

It has been optimized for usage with Infineon's new generation of base band devices from the S-GOLD family and supports also E-GOLD and M-GOLD based systems in conjunction with cellular RF transceiver like SMARTi-DC, SMARTi-DC+, SMARTi-SD and the Infineon's single chip solution for Bluetooth.

The low power system performance required in market demanding feature rich terminals can be ensured with this advanced power management concept at best in class system costs and highest system integration level.



Applications

 System Powermanagement IC for all GSM/HSCSD/GPRS/EDGE Mobile Phones and Data Moduls

Package

- P-VQFN48-4 package with heat sink and non-protruding leads,
- Smallest board footprint of 7 x 7 mm
- Superior thermal characteristics can handle up to 2 Watt

Documentation/Development and Support Tools

- Product Overview
- Specification
- User Manual
- Application Note
- Evaluation Board

Features

- Support of dedicated standby power-down concept for S-GOLD family
- Charger for NiMH and Li-Ion/Polymer batteries including precharge current generator
- Highly efficient DC/DC step-down converter
- Low-drop-out (LDO) regulators for sytem memory devices
- LDO regulators for baseband I/O supply
- Low-noise LDO regulators for RF devices
- LDO regulator for analog mixedsignal section of S-GOLD
- Supply for Infineon's single chip solution Bluemoon Single

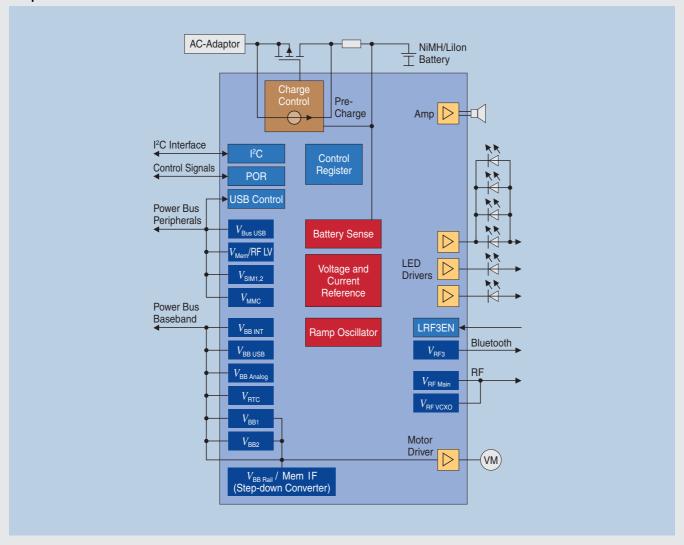
- USB interface support for peripheral and mini-host mode
- Vibrator driver with adjustable voltage
- 400 mW Audio amplifier for handsfree and Polyringer
- RTC regulator with ultra-low quiescent current
- Backlight LEDs driver with dimming function
- Two single LED driver outputs for signalling
- Fully controllable by software via I²C - Bus
- Interrupt channels for peripherals
- System debug mode
- Based on robust 0.5 µm BiCMOS technology

PMB 6811

Power Management for Cellular Systems



Top Level Architecture for S/M-Power



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Published by Infineon Technologies AG, St.-Martin-Strasse 53, 81669 München

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Ordering No. B134-H8155-X-X-7600 Printed in Germany PS 02031. NB