ACT8936

Product Brief, 09-Nov-10

Advanced PMU for Samsung S3C6410

FEATURES

- **Optimized for Samsung S3C6410 Processor**
- **Three Step-Down DC/DC Converters**
- **Four Low-Dropout Linear Regulators**
- **Integrated *ActivePath*™ Charger**
- **I²C™ Serial Interface**
- **Advanced Enable/Disable Sequencing Controller**
- **Minimal External Components**
- **Tiny 5×5mm TQFN55-40 Package**
  - **0.75mm Package Height**
  - **Pb-Free and RoHS Compliant**

APPLICATIONS

- **Personal Navigation Devices**
- **Portable Media Players**
- **Tablet Devices**
- **Smart Phones**
- **MIDs**

GENERAL DESCRIPTION

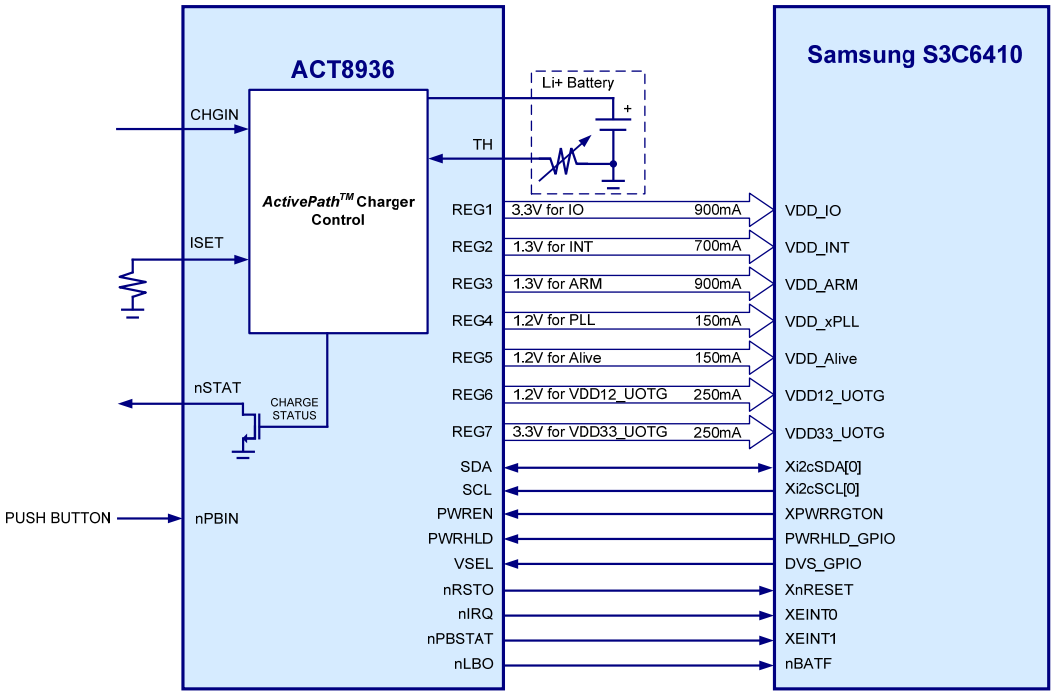
The ACT8936 is a complete, cost effective, highly-efficient *ActivePMU*™ power management solution, optimized for the unique power, voltage-sequencing, and control requirements of the Samsung S3C6410 processor.

This device features three step-down DC/DC converters and four low-noise, low-dropout linear regulators, along with a complete battery charging solution featuring the advanced *ActivePath*™ system-power selection function.

The three DC/DC converters utilize a high-efficiency, fixed-frequency (2MHz), current-mode PWM control architecture that requires a minimum number of external components. Two DC/DCs are capable of supplying up to 900mA of output current, while the third supports up to 700mA. All four low-dropout linear regulators are high-performance, low-noise, regulators that supply up to 150mA, 150mA, 250mA, and 250mA, respectively.

The ACT8936 is available in a compact, Pb-Free and RoHS-compliant TQFN55-40 package.

TYPICAL APPLICATION DIAGRAM



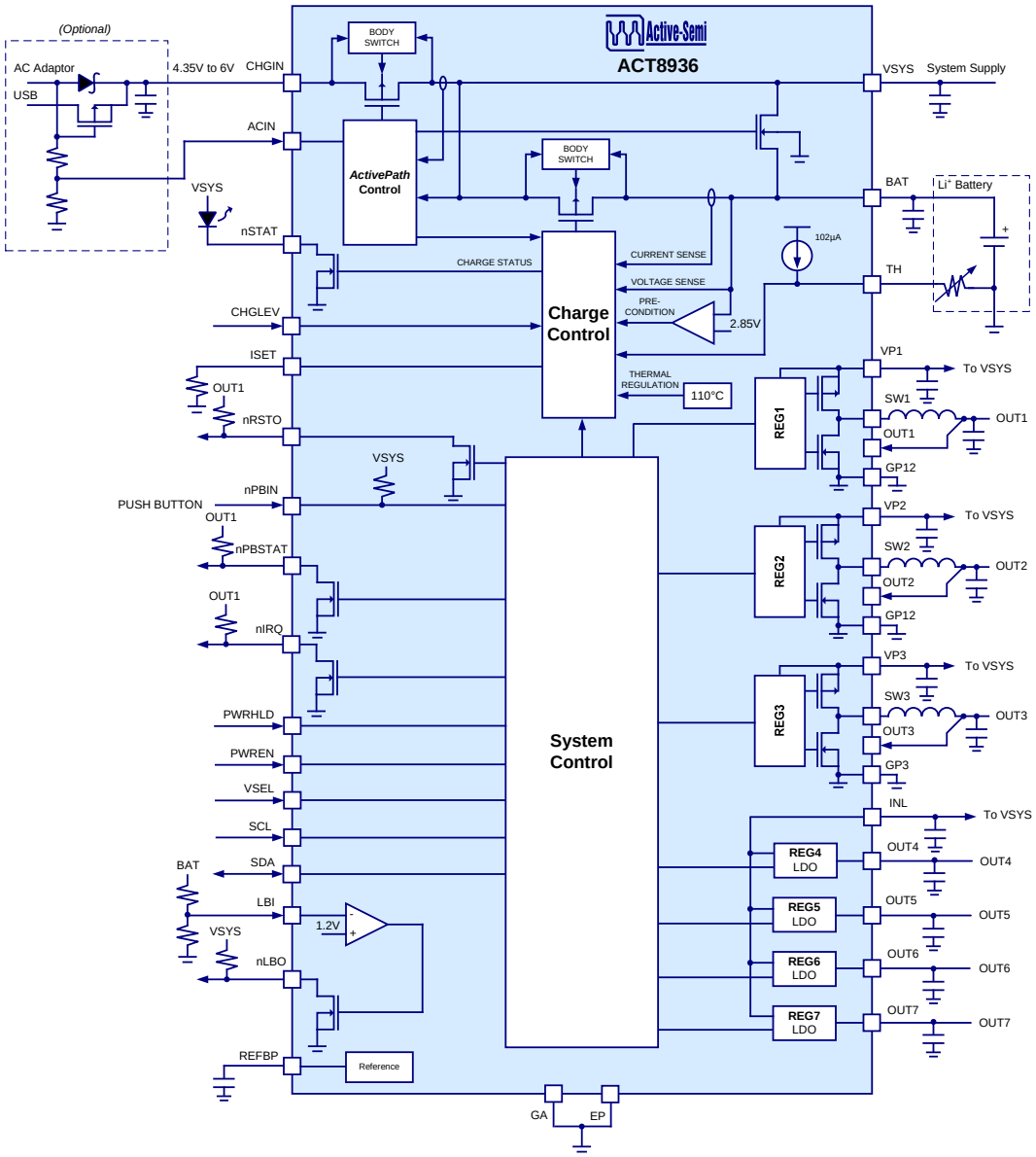
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PRODUCT OPTIONS

Block	Function	Output Voltage	Capability
ActivePath	System Power Selection	4.6V	Up to 2A
CHGR	Battery Charger	4.2V	Programmable up to 1A
REG1	Step-Down DC/DC	Adjustable, or 0.6V to 3.9V	900mA
REG2	Step-Down DC/DC		700mA
REG3	Step-Down DC/DC		900mA
REG4	LDO	0.6V to 3.9V	150mA
REG5	LDO		150mA
REG6	LDO		250mA
REG7	LDO		250mA

FUNCTIONAL BLOCK DIAGRAM



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