

## Advanced PMU for Samsung S5PC100, S5PC110 and S5PV210 Processors

### FEATURES

- Optimized for Samsung S5PC100, S5PC110 and S5PV210 Processors
- Three Step-Down DC/DC Converters
- Four Low-Dropout Linear Regulators
- Integrated *ActivePath<sup>™</sup>* Charger
- I<sup>2</sup>C<sup>™</sup> Serial Interface
- Advanced Enable/Disable Sequencing Controller
- Minimal External Components
- Tiny 5x5mm 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

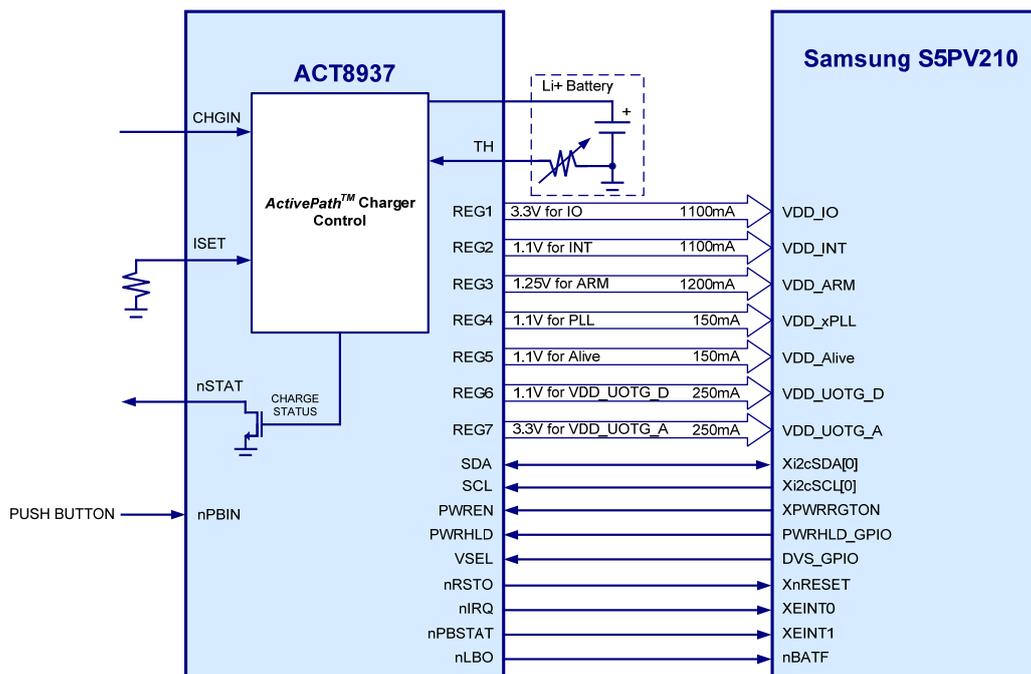
The ACT8937 is a complete, cost effective, highly-efficient *ActivePMU<sup>™</sup>* power management solution, optimized for the unique power, voltage-sequencing, and control requirements of the Samsung S5PC100, S5PC110 and S5PV210 processors.

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<sup>™</sup>* 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 1100mA of output current, while the third supports up to 1200mA. All four low-dropout linear regulators are high-performance, low-noise, regulators that supply up to 150mA, 150mA, 250mA, and 250mA, respectively.

The ACT8937 is available in a compact, Pb-Free and RoHS-compliant TQFN55-40 package.

### TYPICAL APPLICATION DIAGRAM



## 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	1100mA
REG2	Step-Down DC/DC		1100mA
REG3	Step-Down DC/DC		1200mA
REG4	LDO	0.6V to 3.9V	150mA
REG5	LDO		150mA
REG6	LDO		250mA
REG7	LDO		250mA

## FUNCTIONAL BLOCK DIAGRAM

