

## Advanced PMU for Amlogic AML8726-M3 Processor

### FEATURES

- Three Step-Down DC/DC Converters
- Four Low-Dropout Linear Regulators
- Integrated *ActivePath™* Charger
- I<sup>2</sup>C™ Serial Interface
- Advanced Enable/Disable Sequencing Controller
- Minimal External Components
- Tiny 5x5mm TQFN55-40 Package
  - 0.75mm Package Height
  - Pb-Free and RoHS Compliant

Amlogic AML8726-M3 processor. It is ideal for a wide range of high performance portable handheld applications such as tablet or pad devices. This device integrates the *ActivePath™* complete battery charging and management system with seven power supply channels.

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.

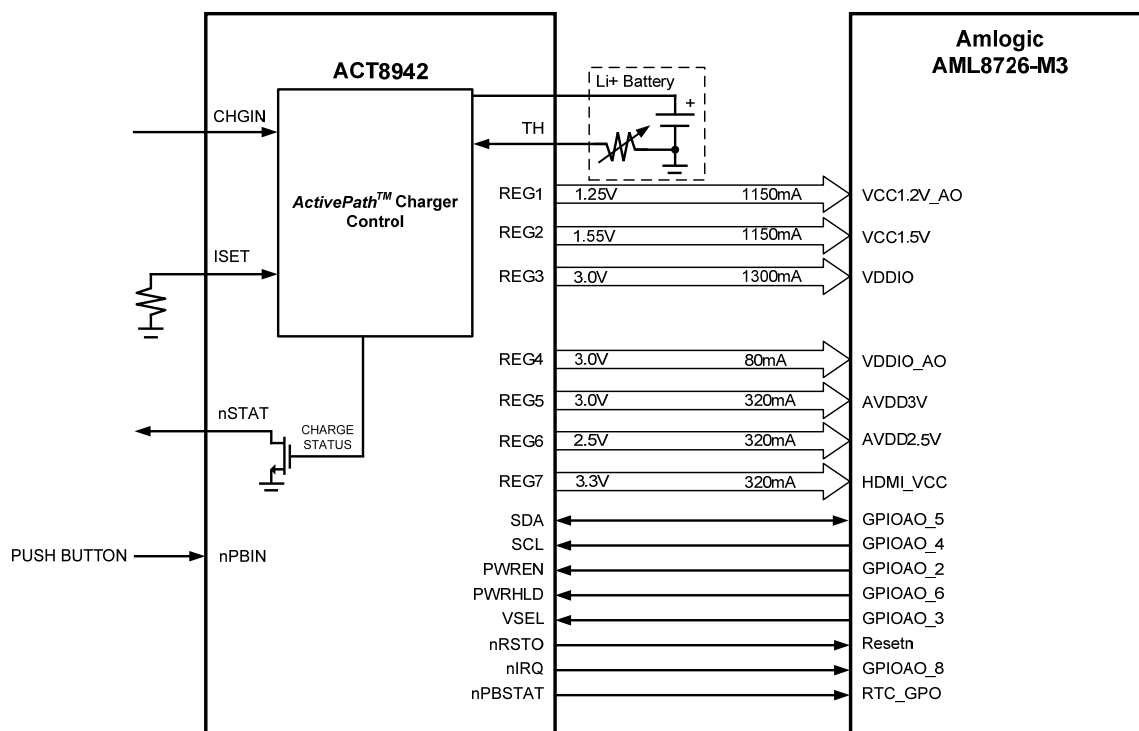
The three DC/DC converters utilize a high-efficiency, fixed-frequency (2MHz), current-mode PWM control architecture that requires a minimum number of external components. Two DC/DCs are capable of supplying up to 1150mA of output current, while the third supports up to 1300mA. All four low-dropout linear regulators are high-performance, low-noise regulators that supply up to 80mA, 320mA, 320mA, 320mA, respectively.

### GENERAL DESCRIPTION

The ACT8942 is a complete, cost effective, highly-efficient *ActivePMU™* power management solution, optimized for the unique power, voltage-sequencing, and control requirements of the

The ACT8942 is available in a compact, Pb-Free and RoHS-compliant TQFN55-40 package.

### TYPICAL APPLICATION DIAGRAM



**PRODUCT OPTIONS**

| Block | Function        | Output Voltage | Capability |
|-------|-----------------|----------------|------------|
| REG1  | Step-Down DC/DC | 0.6V to 3.9V   | 1150mA     |
| REG2  | Step-Down DC/DC | 0.6V to 3.9V   | 1150mA     |
| REG3  | Step-Down DC/DC | 0.6V to 3.9V   | 1300mA     |
| REG4  | LDO             | 0.6V to 3.9V   | 80mA       |
| REG5  | LDO             | 0.6V to 3.9V   | 320mA      |
| REG6  | LDO             | 0.6V to 3.9V   | 320mA      |
| REG7  | LDO             | 0.6V to 3.9V   | 320mA      |

**FUNCTIONAL BLOCK DIAGRAM**

