

Advanced PMU for Marvell Aspen

FEATURES

- Optimized for Marvell Aspen Processors
- Three Step-Down DC/DC Converters
- Four Low-Dropout Linear Regulators
- I²C™ Serial Interface
- Advanced Enable/Disable Sequencing Controller
- Minimal External Components
- Tiny 5x5mm TQFN55-32 Package
 - 0.75mm Package Height
 - Pb-Free and RoHS Compliant

APPLICATIONS

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

GENERAL DESCRIPTION

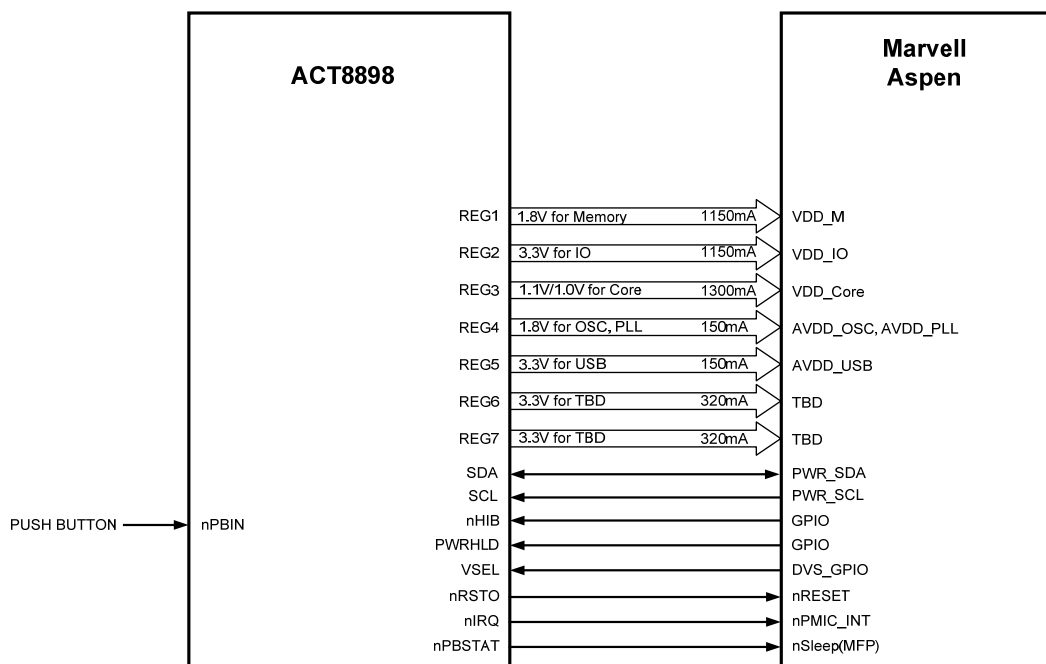
The ACT8898 is a complete, cost effective, highly-efficient *ActivePMU™* power management solution, optimized for the unique power, voltage-sequencing, and control requirements of the Marvell Aspen processor.

This device features three step-down DC/DC converters and four low-noise, low-dropout linear regulators.

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 150mA, 150mA, 320mA, and 320mA, respectively.

The ACT8898 is available in a compact, Pb-Free and RoHS-compliant TQFN55-32 package.

TYPICAL APPLICATION DIAGRAM



PRODUCT OPTIONS

| Block | Function | Output Voltage | Capability |
|-------|-----------------|-----------------------------|------------|
| REG1 | Step-Down DC/DC | Adjustable, or 0.6V to 3.9V | 1150mA |
| REG2 | Step-Down DC/DC | | 1150mA |
| REG3 | Step-Down DC/DC | | 1300mA |
| REG4 | LDO | 0.6V to 3.9V | 150mA |
| REG5 | LDO | | 150mA |
| REG6 | LDO | | 320mA |
| REG7 | LDO | | 320mA |

FUNCTIONAL BLOCK DIAGRAM

