Product Description

The AnD8302 Adaptable PMIC uses AnDAPT AmP™ advanced technology consisting of fully flexible digital fabric combined with high performance analog blocks. The AnD8302 consists of three configurable, high-output-current Synchronous Buck Regulators and two high current load switches. The AnD8302 is fully tested and ready to use in designs. The AnD8302 Buck regulators uses Voltage Mode methodology. The AnD8302 also has an integrated sequencer and 4 additional integrated fixed output LDOs. The user can modify output voltage and rail sequencing using resistor or WebAdapter™ online tools. The sequencer has the capability to be based on timed delays or Power Good signals. Adaptable PMICs provide fastest prototyping and time to market, while providing best in class performance and flexibility. The AnD8302 design is available in the WebAmP™ software tool library for full customization capability. The Adaptable PMIC is optimized to power high end Processors by integrating multiple power rails into single chip designs.

Features

- Three 6A Synchronous Buck Regulators
- PVIN: 4.5V to 17V, V_{OUT}: 0.7V to 5.0V
- 500/800kHz Switching Frequency
- Integrated 30mΩ MOSFET
- Protection: UVLO, OCP, OVP, OTP
- Two 6A HV load switches (V_{OUT}: 1.8V to 5V)
- Four fixed output LDOs: 1.2V, 1.8V, 2.5V, 3.3V
  internal input voltage 4.5V, or external 5V
  up to 200mA output current
- Adjustable output voltage with down to 2.4 mV resolution
- 1% typical load regulation
- Efficiency up to 93%
- Power-good flag output and Enable input
- Soft start/stop, sequencing, pre-bias startup
- –40°C to +125°C operating junction temperature
- Easy WebAmP upgrade path to On-Demand PMIC

Applications

- On-demand power management, multi-rail power integration
- Powering server, processor, memory, storage, network switcher and router platforms
- Powering FPGA, processor, SSD, subsystem power control & sequencing

Product Detail

The AnD8302 Adaptable PMIC consists of three customizable, Synchronous Buck Regulators, customizable control and status pins including enable input, an optional power-good output, and optional output flags to signal when the system triggers an overvoltage (OVP), overcurrent (OCP), or undervoltage lockout (UVLO) condition. It also includes two load switches.

Triple Buck Design View