

Description

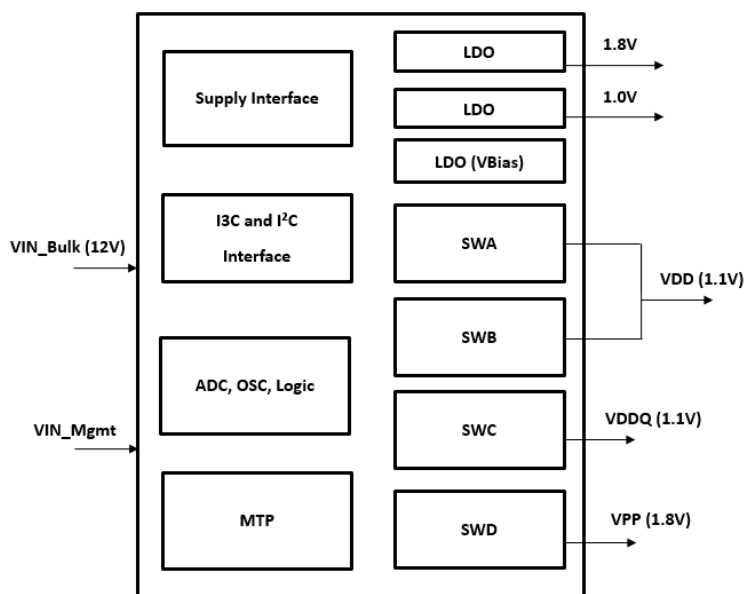
The P8900 is a power management IC (PMIC) designed for typical DDR5 RDIMM, DDR5 LRDIMM, and DDR5 NVDIMM applications. The P8900 features four step-down switching regulators and three LDO regulators.

The P8900 supports up to 15 Watts of power. It is powered from VIN_Bulk input for switching regulators and VIN_Mgmt input for the rest of the PMIC. The device supports selectable interface (I²C or I³C) to fit various application environment.

Typical Applications

- DDR5 RDIMMs, LRDIMMs and NVDIMMs

Block Diagram



Features

- VIN_Bulk input supply range: 4.25V to 15.0V
- VIN_Mgmt input supply range: 3.0V to 3.6V
- Four step-down switching regulators: SWA, SWB, SWC, and SWD
- Programmable dual phase and single phase regulator for SWA and SWB
- Three LDO regulators: VBias, VOUT_1.8V, and VOUT_1.0V
- Automatic switchover from VIN_Mgmt input supply to VIN_Bulk input supply
- Error injection capability
- Error log registers
- Secure mode of operation
- Independently programmable output voltages, power-up and power-down sequence for switch regulators
- Input and output power good status reporting mechanism
- VIN_Bulk input supply protection feature: Input over voltage
- Output switch regulators protection feature: Output over voltage, output under voltage, output current limiter
- Output current measurement, output current threshold mechanism
- Temperature measurement, temperature warning threshold, critical temperature shutdown
- Multi Time Programmable Non-Volatile Memory
- Programmable and DIMM specific registers for customization
- General Status Interrupt function
- Flexible Open Drain IO (3.3V, 2.5V, 1.8V, or 1.2V or 1.1V or 1.0V), or Push Pull IO (1.2V or 1.1V or 1.0V) support

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