PF9453 Low Power Multi Rail PMIC for i.MX 91 and Simple Linux Platforms

PF9453

Preproduction

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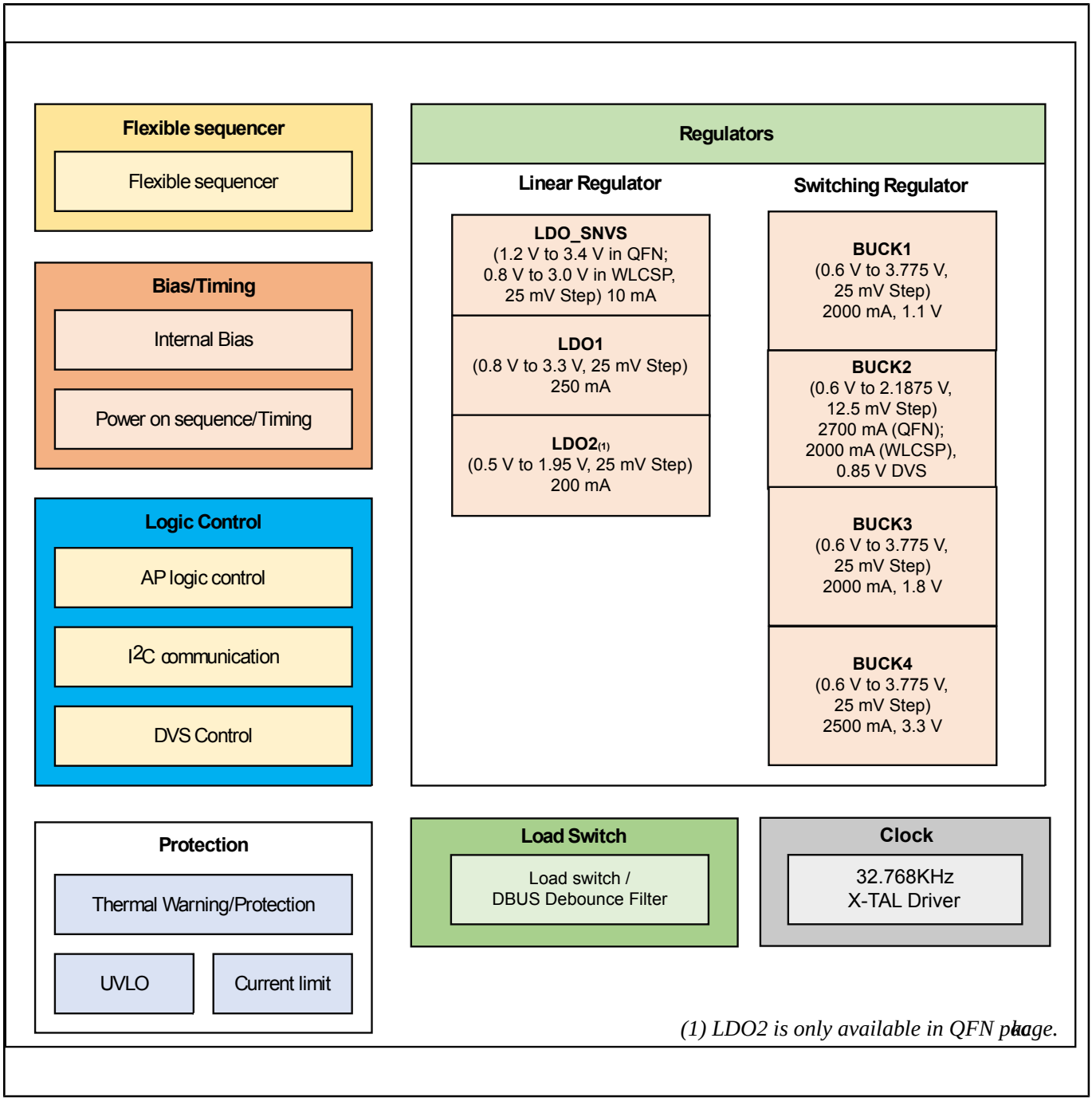
The PF9453 is a single chip Power Management IC (PMIC) specifically designed for i.MX 91 processor. It provides power supply solutions for IoT (Internet of Things), smart appliance, and portable applications where size and efficiency are critical. The device provides four high efficiency step-down regulators, three LDOs, one 400 mA load switch and 32.768 kHz crystal oscillator driver.

One buck regulator supports Dynamic Voltage Scaling (DVS) along with programmable ramping up and down time. This device is characterized across -40 °C to 105 °C ambient temperature range, making it a good option for the industrial, extended industrial, and consumer markets. The four step-down regulators are designed to provide power for i.MX 91 processor and the associated DRAM memory.

One always-on LDO is for secure non-volatile storage (SNVS) core power supply, two LDOs are purposed to supply power to processor and peripheral devices. One 400 mA load switch supplies 3.3 V power to SD card, which has an internal discharge resistor, used to discharge the electric charge stored in the output when the equipment is turned off, for safety reasons. The PF9453 is offered in 40-pin HVQFN package, 5 mm x 5 mm, 0.4 mm pitch and a in 36-bump wafer-level CSP package, 2.48 mm x 2.48 mm, 0.4 mm pitch.

PF9453 Block Diagram



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