PCA9452 Power Management IC for i.MX 93x Auto Processor

PCA9452

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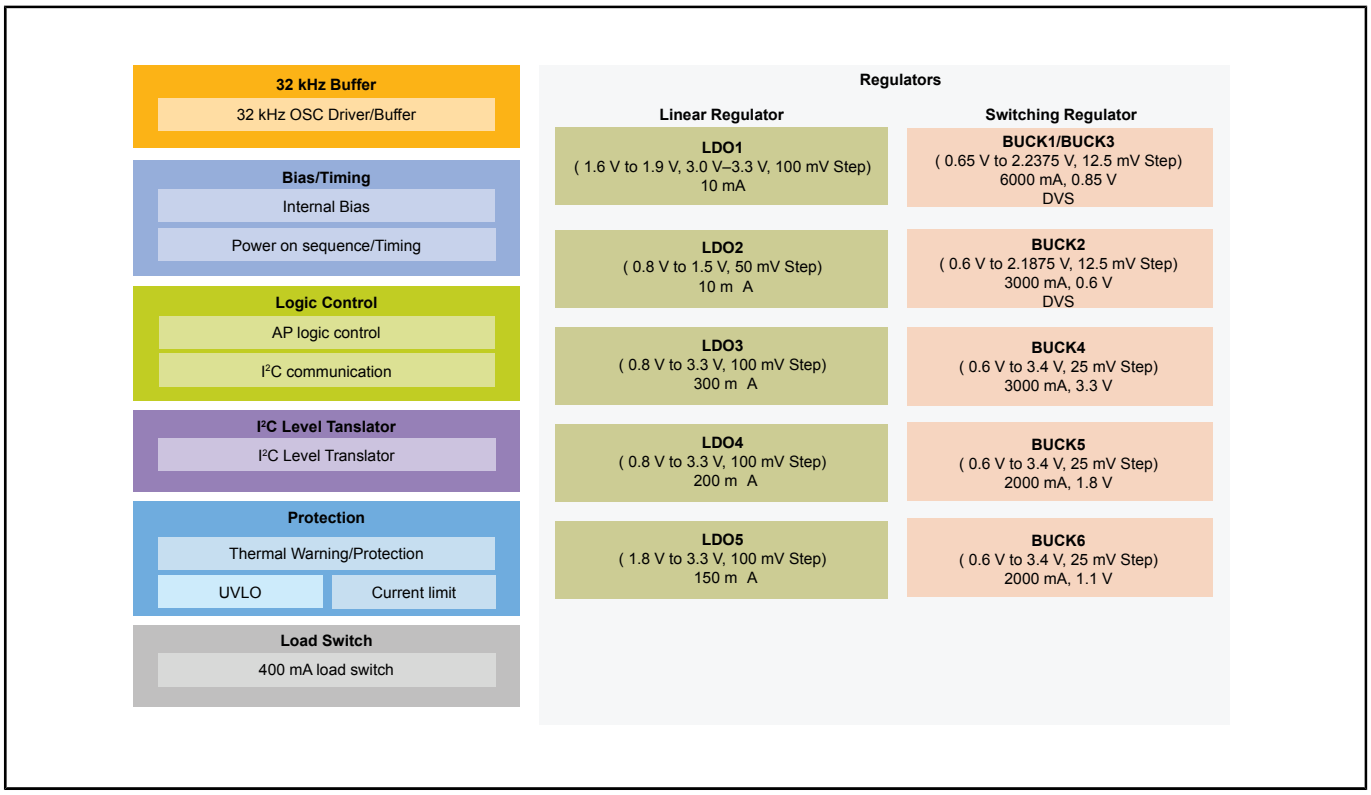
The PCA9452 is a single chip AEC Q100 grade 2 automotive power management IC (PMIC) specifically designed to support i.MX 93x family processors in automotive applications.

The device provides six high efficiency step-down regulators, five LDOs, one 400 mA load switch, 2-channel level translator and 32.768 KHz crystal oscillator driver. Three buck regulators support dynamic voltage scaling (DVS) feature along with programmable ramping up and down time and those buck regulators support remote sense to compensate IR drop to load from buck regulator. This device is characterized across -40 °C to 105 °C ambient temperature range.

Six step-down regulators are designed to provide power for i.MX 93x application processors and DRAM memory. The LDO1 features very low quiescent current to provide power for secure non-volatile storage (SNVS) since this LDO is always ON when input voltage is valid.

The PCA9452 integrates logic translator which is a 2-bit, dual supply translating transceiver with auto direction sensing. It enables bidirectional voltage level translation. It can be used as an I²C level translator. The 400 mA load switch is to supply 3.3 V power supply to an SD card, which has an internal discharge resistor.

PCA9452 Block Diagram



View additional information for PCA9452 Power Management IC for i.MX 93x Auto Processor.

Note: The information on this document is subject to change without notice.