

PCA9451A Evaluation Board

PCA9451A-EVK

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The PCA9451A is a general purpose single chip power management IC (PMIC) designed to support different microcontrollers and microprocessors for different applications for the consumer and industrial markets. The PCA9451A provides an out-of-the-box power supply solution to support i.MX 93 family processors.

The device provides six high efficiency step-down regulators, three LDOs, one 400 mA load switch, 2-channel level translator and 32.768 kHz crystal oscillator driver.

This PCA9451A-EVK board provides full access to all the features in the PCA9451A device. The evaluation kit comes with a FTDI cable used as a communication interface between I²C and USB to have control of the PMIC's configuration registers using the PCA9451A GUI software.

Regulators 32 kHz Buffer 32 kHz OSC Driver/Buffer Linear Regulator Switching Regulator LDO1 BUCK1 / BUCK3 (1.6 V to 1.9 V, 3.0 V–3.3 V, 100 mV Step) 10 mA, Default 1.8 V Dual Phase (0.65 V to 2.2375 V, DVS 12.5 mV Step) 4000 mA, Default 0.85 V **Bias/Timing** Internal Bias Power on sequence/Timing LDO4 (0.8 V to 3.3 V, 100 mV Step) 200 mA, Default 0.8 V BUCK2 (0.6 V to 2.1875 V, DVS 12.5 mV Step) Logic Control 2000 mA, Default 0.6 V AP logic control LDO5 (0.8 V to 3.3 V, 100 mV Step) 150 mA, 1.8 V or 3.3 V I²C communication BUCK4 (0.6 V to 3.4 V, 25 mV Step) 3000 mA, Default 3.3 V I²C Level Tanslator I²C Level Translator Protection BUCK5 (0.6 V to 3.4 V, 25 mV Step) Thermal Warning/Protection 2000 mA, Default 1.8 V Current limit Load Switch BUCK6 (0.6 V to 3.4 V, 25 mV Step) 1500 mA, Default 1.1 V 400 mA load switch

PCA9451A Power Management IC for i.MX 93x Block Diagram

View additional information for PCA9451A Evaluation Board.

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