

9-Channel PMIC for High-Performance Applications, ASIL D and SIL-2

PF09

Preproduction

This page contains information on a preproduction product. Specifications and information herein are subject to change without notice. For additional information contact support or your sales representative.

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The PF09 power management integrated circuit (PMIC) is optimized for high-performance i.MX95 based applications. It features five high-efficiency buck converters and four linear regulators for powering the processor, memory and miscellaneous peripherals. PF09 provides low quiescent current in standby and low-power off modes.

The PF09 is developed in compliance with automotive ISO 26262 and industrial IEC 61508 safety standards, including safety features, with failsafe outputs and integrated self-test mechanisms, becoming part of a safety oriented system partitioning targeting high integrity safety levels up to automotive ASIL D and industrial SIL-2.

PF09 Multi-Channel PMIC for i.MX95 Block Diagram

LDO1 (Load Switch)

(0.75 V to 3.3 V, 500 mA)

LDO2

(Load Switch) (0.65 V to 3.3 V, 200 mA)

LDO3

(Load Switch)

(0.65 V to 3.3 V, 200 mA)

VA ON

(Always-On Supply) (1.8 V to 3.3 V, 10 mA)

AMUX

(Diagnostics)

Clock Management

Logic and Control

High Speed I²C MCU Interface Regulator Control Fault Detection

> ASIL-D SIL-2

Safety Monitoring

Voltage monitoring System monitoring WD management System self-test ABIST/LBIST FCCU monitoring Safety output Digital Supervisor SW1 (LVBUCK)

(0.5 V to 3.3 V, 3.5 A)

SW2

(MPH_LVBUCK)

(0.3 V to 3.3 V, 2.5 A)

SW3

(MPH_LVBUCK)

(0.3 V to 3.3 V, 2.5 A)

SW4

(MPH_LVBUCK)

(0.3 V to 3.3 V, 2.5 A)

SW5

(MPH_LVBUCK)

(0.3 V to 3.3 V, 2.5 A)

MTP

(Flexible Configuration)

View additional information for 9-Channel PMIC for High-Performance Applications, ASIL D and SIL-2.

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