

# 9-Channel PMIC for High-Performance Applications, Fit for up to SIL-2

## **PF9455**

#### 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 PF9455 power management integrated circuit (PMIC) is optimized for high-performance i.MX94 based applications. It features five high-efficiency buck converters and four linear regulators for powering the processor, memory and miscellaneous peripherals. PF9455 provides low quiescent current in standby and low-power off modes.

The PF9455 is developed in compliance with 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 industrial SIL-2.

### PF9455 Multi-Channel PMIC for i.MX 94 Block Diagram

LDO1 (Load switch) (0.75 V to 3.3 V, 500 mA)

LDO2 (Load switch) (0.75 V to 3.3 V, 200 mA)

LDO3 (Load switch) (0.75 V to 3.3 V, 200 mA)

VSNVS (RTC Supply) 1.8 V to 3.3 V, 10 mA)

AMUX (Diagnostics)

**Clock management** 

Logic and control

High speed I<sup>2</sup>C MCU interface Regulator control Fault detection

SIL-2
Safety monitoring
Voltage monitoring
System monitoring
WD management
System self-test
ABIST/LBIST
FCCU monitoring
Safety output

Digital supervisor

**SW1** (PMODE\_LVBUCK) (0.8 V to 3.3 v, 2.5 A)

**SW2** (VMODE\_LVBUCK) (0.5 V to 1.8 V, 1.5 A)

**SW3** (VMODE\_LVBUCK) (0.5 V to 1.8 V, 1.5 A)

**SW4** (VMODE\_LVBUCK) (0.3 V to 1.5 V, 1.5 A)

**SW5** (VMODE\_LVBUCK) (0.3 V to 1.5 V, 1.5 A)

**OTP** (Flexible configuration)

View additional information for 9-Channel PMIC for High-Performance Applications, Fit for up to SIL-2.

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