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

PF9455

Preproduction

Last Updated: Jan 31, 2025

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)	**Logic and control** High speed I²C MCU interface Regulator control Fault detection	**SW1 (PMODE_LVBUCK)** (0.8 V to 3.3 v, 2.5 A)
LDO2 (Load switch) (0.75 V to 3.3 V, 200 mA)		**SW2 (VMODE_LVBUCK)** (0.5 V to 1.8 V, 1.5 A)
LDO3 (Load switch) (0.75 V to 3.3 V, 200 mA)	**SIL-2 Safety monitoring** Voltage monitoring System monitoring WD management System self-test ABIST/LBIST FCCU monitoring Safety output Digital supervisor	**SW3 (VMODE_LVBUCK)** (0.5 V to 1.8 V, 1.5 A)
VSNVS (RTC Supply) 1.8 V to 3.3 V, 10 mA)		**SW4 (VMODE_LVBUCK)** (0.3 V to 1.5 V, 1.5 A)
AMUX (Diagnostics)		**SW5 (VMODE_LVBUCK)** (0.3 V to 1.5 V, 1.5 A)
Clock management		**OTP** (Flexible configuration)

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

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