Safety System Basis Chip For Domain Controller, Fit For ASIL B and D

FS86

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The FS86 device family is software compatible with the FS84/85 family. It expands the power capability, the safety integration and system scalability of domain controller applications to address multiple MCU requirements present in ADAS and electrification.
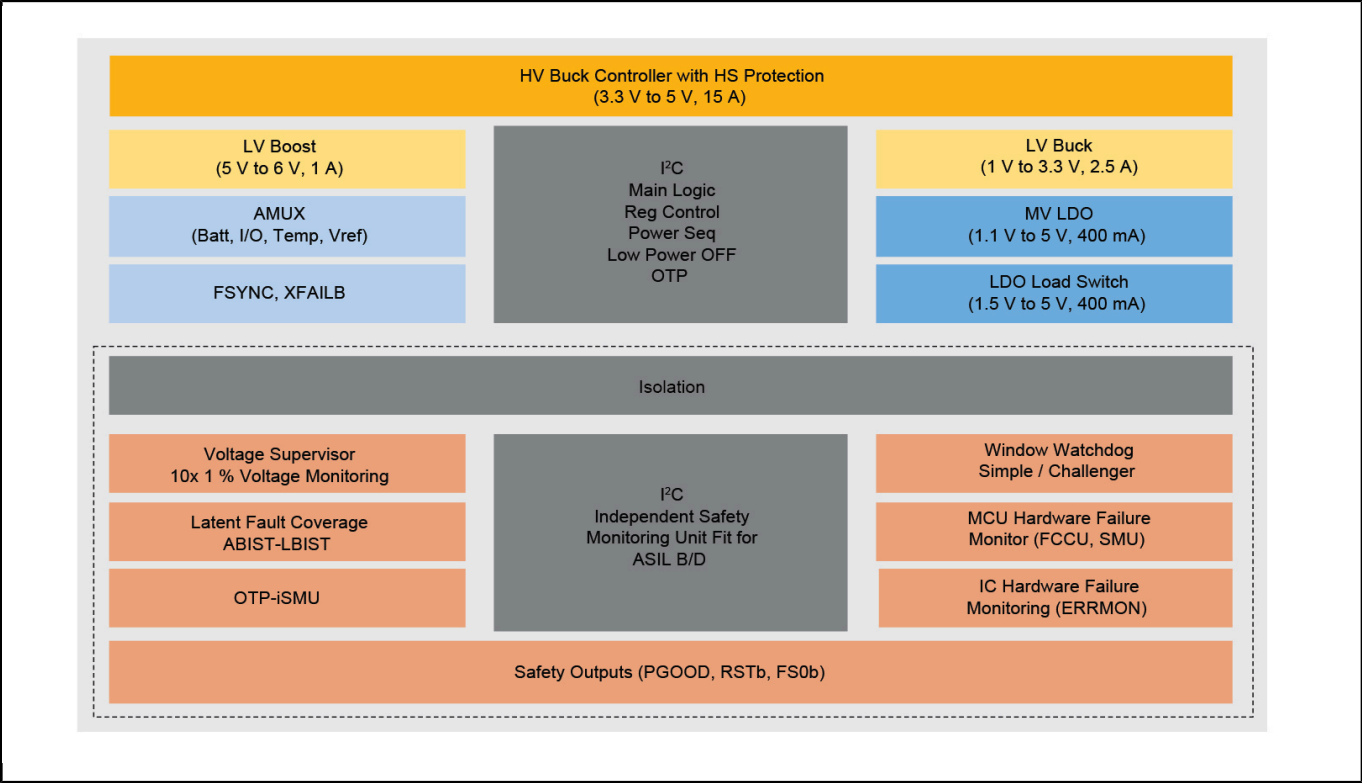
The FS86 includes multiple switch mode and linear voltage regulators, enhanced safety features with fail-safe outputs. This makes it a full part of a safety-oriented system up to ASIL B/D safety integrity level.

Belonging to the BYLINK System Power Platform, NXP releases a new essential link with the FS86 Safety Power Management Family.

The FS86 SBC is part of a complete family of devices offering scalability in power and safety, pin to pin and software compatible. It is developed in compliance with the ISO 26262 standard and is qualified according to AEC-Q100 requirements.

For sampling purposes please order: MFS8613BMDA0ES

FS86, Safety SBC Block Diagram Block Diagram

HV Buck Controller with HS Protection (3.3 V to 5 V, 15 A)		
LV Boost (5 V to 6 V, 1 A)	**I²C** Main Logic Reg Control Power Seq Low Power OFF OTP	**LV Buck** (1 V to 3.3 V, 2.5 A)
AMUX (Batt, I/O, Temp, Vref)		**MV LDO** (1.1 V to 5 V, 400 mA)
FSYNC, XFAILB		**LDO Load Switch** (1.5 V to 5 V, 400 mA)

Isolation

Voltage Supervisor 10x 1 % Voltage Monitoring	**I²C** Independent Safety Monitoring Unit Fit for ASIL B/D	**Window Watchdog** Simple / Challenger
Latent Fault Coverage ABIST-LBIST		**MCU Hardware Failure** Monitor (FCCU, SMU)
OTP-iSMU		**IC Hardware Failure** Monitoring (ERRMON)

Safety Outputs (PGOOD, RSTb, FS0b)

View additional information for .

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