High Voltage ASIL D PMIC for S32N Processor -1 HVBUCK, 5 LVBUCK and 1 LDO

FS04

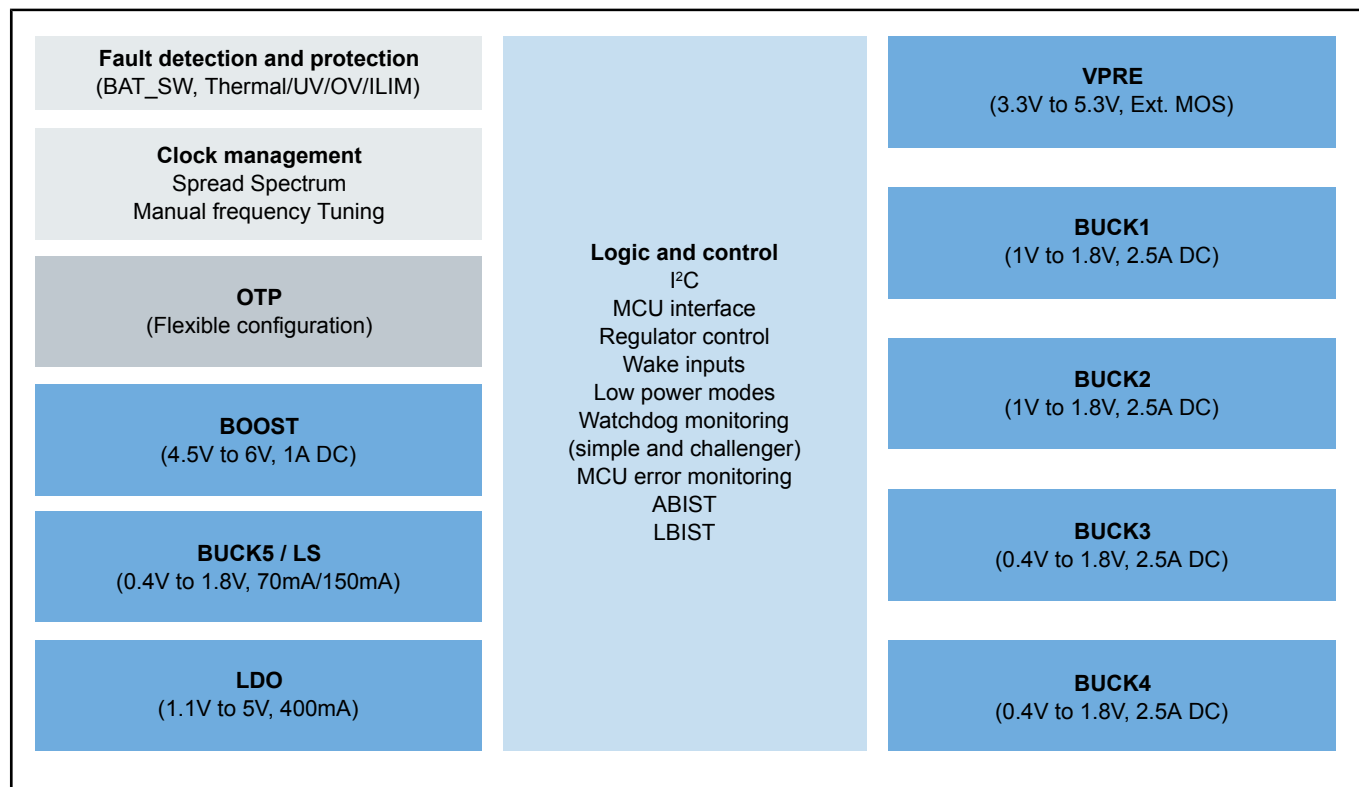The FS04 is an automotive multi-output power management IC that focuses on gateway, in-vehicle networks, domain controllers and central compute applications. The device includes a high-voltage buck converter, multiple high-efficiency switch regulators and linear voltage regulator.

The FS04 includes enhanced safety features with fail-safe outputs and dedicated safety pins for the processor S32N. The device covers ASIL B and ASIL D safety integrity levels. The FS04 can be fully utilized in safety-oriented system partitioning and can also be configured to operate as a non-safety QM-version part.

FS04 Block Diagram

Fault detection and protection (BAT_SW, Thermal/UV/OV/ILIM)		**VPRE** (3.3V to 5.3V, Ext. MOS)
Clock management Spread Spectrum Manual frequency Tuning		**BUCK1** (1V to 1.8V, 2.5A DC)
OTP (Flexible configuration)	**Logic and control** I²C MCU interface Regulator control Wake inputs Low power modes Watchdog monitoring (simple and challenger) MCU error monitoring ABIST LBIST	**BUCK2** (1V to 1.8V, 2.5A DC)
BOOST (4.5V to 6V, 1A DC)		**BUCK3** (0.4V to 1.8V, 2.5A DC)
BUCK5 / LS (0.4V to 1.8V, 70mA/150mA)		**BUCK4** (0.4V to 1.8V, 2.5A DC)
LDO (1.1V to 5V, 400mA)		

View additional information for High Voltage ASIL D PMIC for S32N Processor -1 HVBUCK, 5 LVBUCK and 1 LDO.

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