



Grade 1 and Grade 0 Safety Power System Basis Chip with CAN Flexible Data Transceiver

FS4500

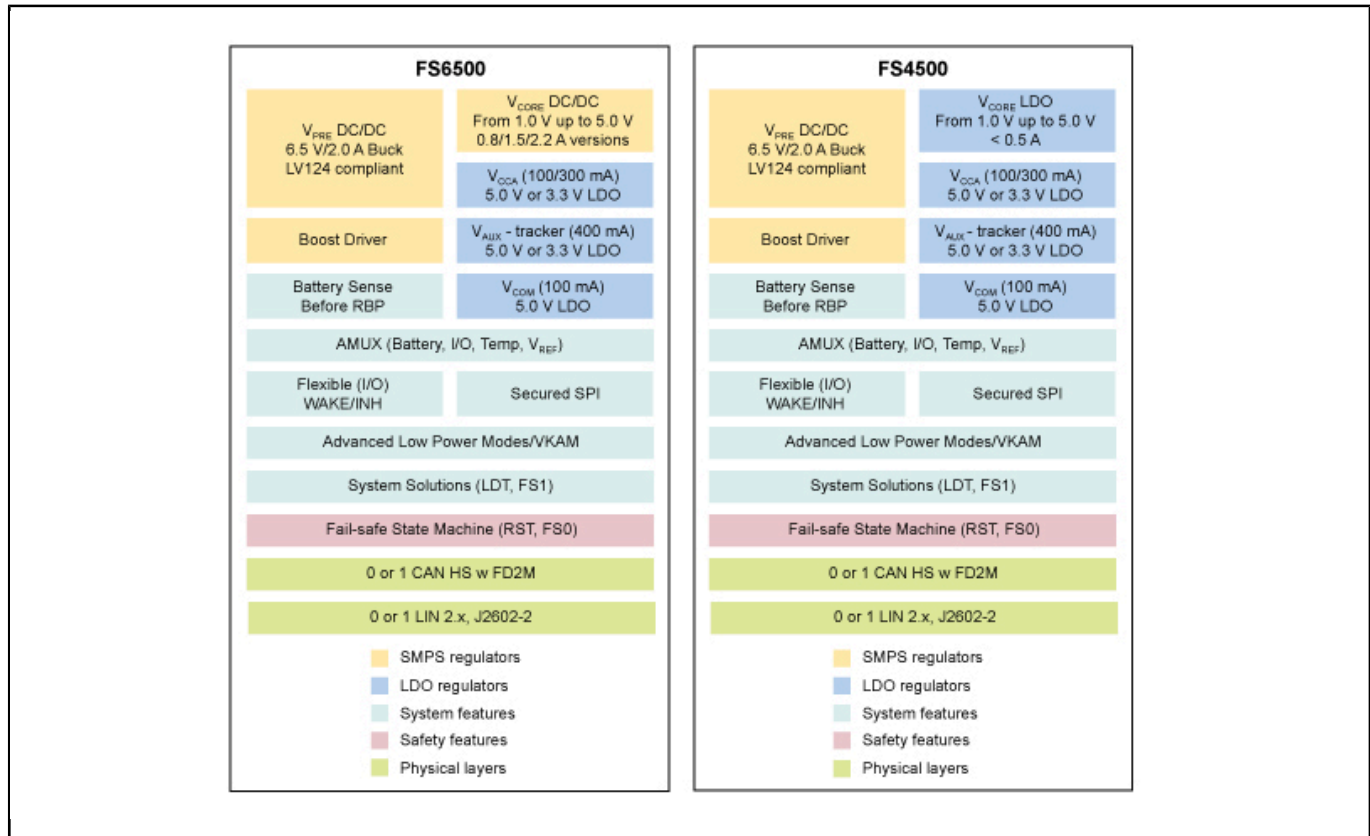
Last Updated: May 8, 2024

The FS45 system basis chip (SBC) provides power to MCUs and optimizes energy consumption through a DC/DC pre-regulator and linear regulators and ultra-low-power saving modes.

Featuring:

- Advanced functional safety measures to target ASIL B or D applications
- A serial peripheral interface (SPI) to allow control and diagnostics with the MCU
- Integration of CAN FD and LIN physical interfaces compliant with the ISO 11898-2,-5, LIN 2.2, 2.1 /J2602-2 standards along with the latest automotive OEM standards for EMC and ESD
- A range of integrated safety features such as monitoring of critical analog parameters, a fail-safe state machine and an advanced watchdog reduce software complexity with dual-core lock-step MCUs
- High-temperature capability up to $T_A = 150\text{ }^{\circ}\text{C}$ and $T_J = 175\text{ }^{\circ}\text{C}$, compliant with AEC-Q100 Grade 0 automotive qualification

FS4500 Fail Silent SBC with DCDC, ASIL B/D ready Block Diagram



View additional information for [Grade 1 and Grade 0 Safety Power System Basis Chip with CAN Flexible Data Transceiver](#).

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

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.