Driver assistance systems

System power supply for radar sensors CS520

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PRODUCT BENEFITS

- Precise, super-low noise analog power supply for radar frontends
- Fully integrated solution, specifically tailored for radar sensors
- High efficiency
- Voltage monitoring and overcurrent protection for all regulators
- Safety watchdog
- Clock input for external synchronization
- Full operation down to 4 V
- Designed for safety relevant applications up to ASIL C

1 CS520

12 Watt

maximum output power

super-low noise analog supply

100 nV / √Hz for 1 MHz < f < 10 MHz

TASK

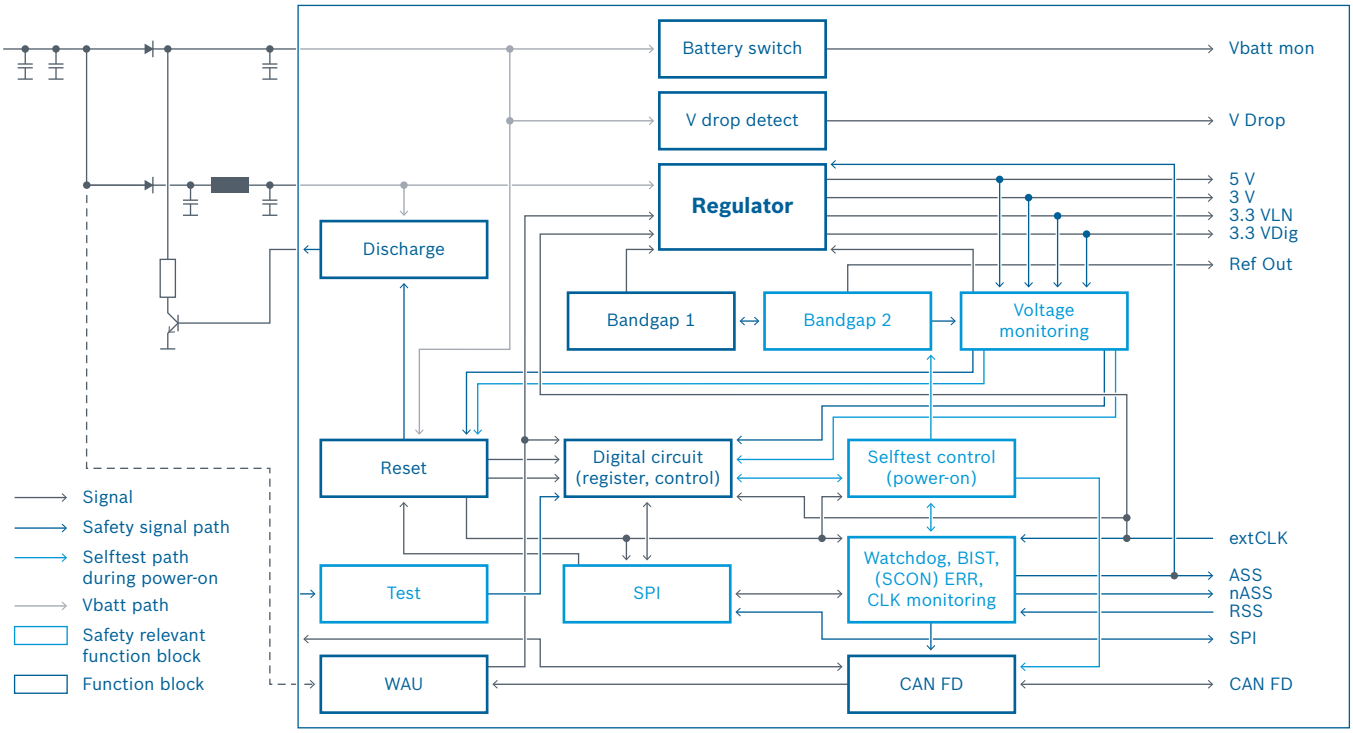
CS520 provides a super-low noise, highly stable supply voltage for MMIC analog radar frontends. It also provides separate supply voltages for the digital MMIC parts, microcontroller and external bus transceivers. A switchable supply output brings partial network transceivers into safe state. All output voltages are monitored, a safety watchdog supervises the microcontroller. Fast bus communication is supported by an integrated CAN FD transceiver.

FEATURES

- Battery voltage drop detector
- SCON functionality (Q&A and window watchdog)
- Built-in-self-test circuit (runs after power up)
- SPI interface for control and diagnostics (CRC protected)
- CAN FD driver (wake up and diagnostic functionality)
- Wake up pin
- Reset functionality

TECHNICAL CHARACTERISTICS

Supply for MMIC analog radar components	3.3 V +/–1.5 % / 1.8 A low noise LR
Supply for MMIC digital radar components	3.3 V / 0.8 A LR
Supply for microcontroller and bus transceivers	3.3 V / 1.8 A SMPS
Switch for partial network transceivers	5 V / 100 mA
Operating temperature	–40 °C...+125 °C
Package	TQFP64_ePad



Robert Bosch GmbH | PO 106050 | 70049 Stuttgart | Germany | **www.bosch-semiconductors.com** | **www.bosch-mobility-solutions.com**