

Product brief

TLE9278B

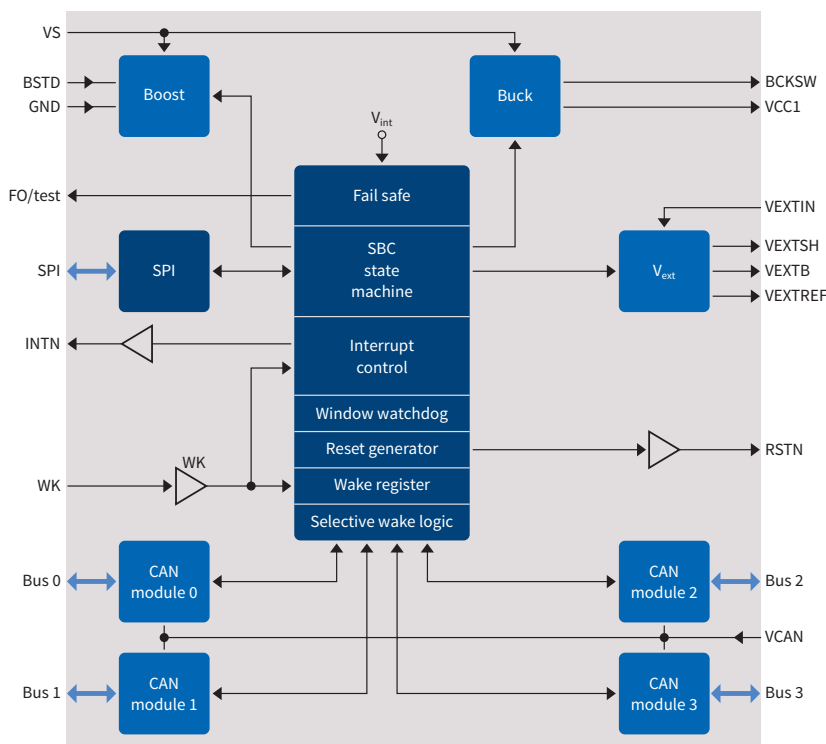
Multi-CAN Power+ System Basis Chip family supporting CAN Flexible Data-rate (FD) and Partial Networking (PN)

Infineon's Multi-CAN Power+ System Basis Chip (SBC) TLE9278B family offers the highest level of integration at smallest footprint for automotive applications requiring multiple channels of CAN transceivers like gateways and high-end Body Control Modules (BCM). A high-efficient Switch Mode Power Supply (SMPS) buck regulator provides an external 5 V or 3.3 V output voltage at up to 750 mA while an additional DC-DC boost converter supports applications or conditions at low supply input voltages. The device is controlled and monitored via a 16-bit Serial Peripheral Interface (SPI). Additional features include a time-out/window watchdog circuit with reset, fail output and under voltage reset. The device offers low-power modes in order to support applications that are connected permanently to the battery. A wake-up from the low-power mode is possible via a message on the buses, via the bi-level sensitive monitoring/wake-up input as well as via the timer. The TLE9278B product family is offered in a very small footprint, exposed pad VQFN-48-31 (7 x 7 mm) power package.

Key features

- > 4x CAN FD transceivers compliant to ISO 11898-2:2016 up to 5 Mbit/s
- > Partial Networking w/ "-3" variants
- > Buck regulator up to 750 mA
- > Boost controller at 6.5/8/10/12 V
- > 16-bit serial peripheral interface
- > Time-out/window watchdog
- > Failsafe-output
- > Low power modes
- > 7 x 7 mm VQFN package

Block diagram TLE9278-3BQX



Key benefits

- > Highly integrated solution for multi-channel CAN applications
- > Highly efficient power supply
- > High power for strong processors
- > Tolerant to low voltage line drops
- > Easy configuration and control
- > Advanced diagnostics functions
- > Failsafe functions for safety
- > Power saving modes
- > Minimal PCB footprint

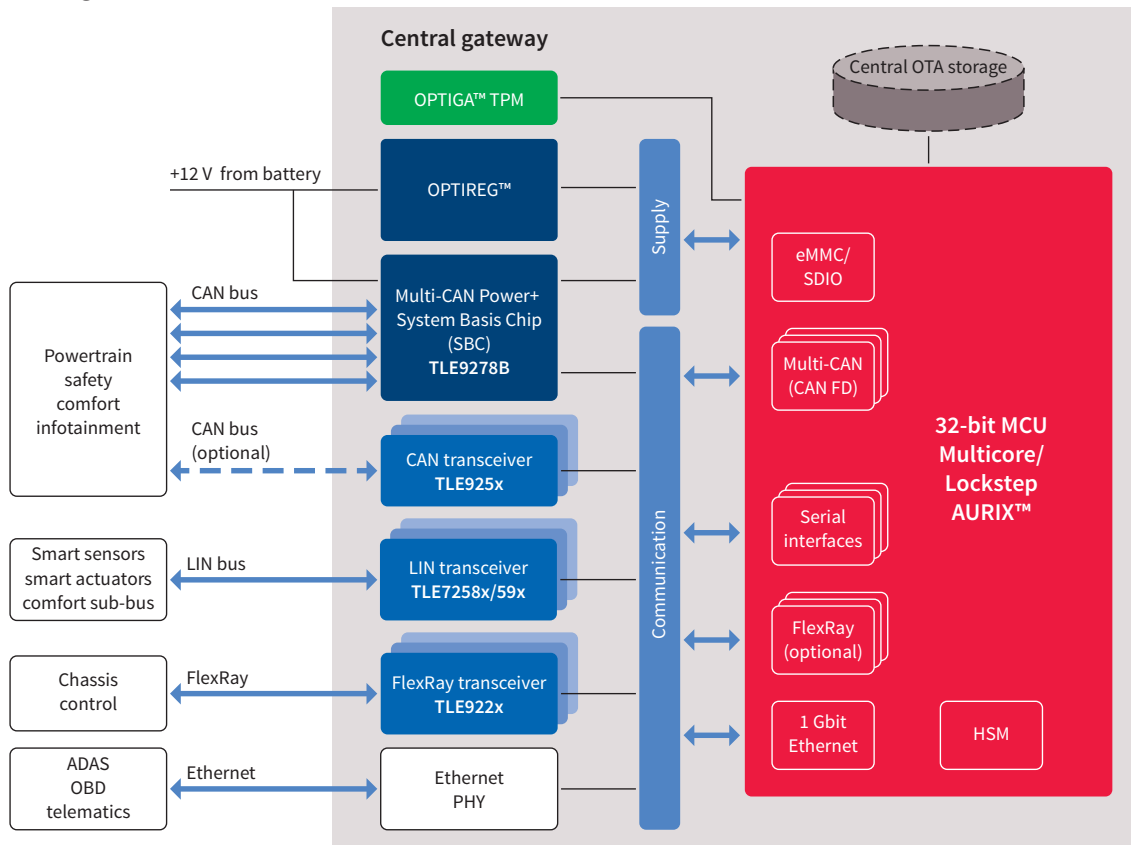
Key applications

- > Gateways
- > Body control modules
- > Driver assistance
- > Chassis control

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Multi-CAN Power+ System Basis Chip family supporting CAN Flexible Data-rate (FD) and Partial Networking (PN)

Application diagram



TLE9278B product overview

Product type	Family name	Transmission rate [Mbit/s]	I_q [μ A]	V_{cc1} [V]	V_{ext} [V]	CAN	Partial networking support	Package
TLE9278BQX	Multi-CAN Power+ SBC	5	30	5	5/3.3/1.8/1.2	4x CAN FD	No	VQFN-48
TLE9278BQX V33	Multi-CAN Power+ SBC	5	30	3.3	5/3.3/1.8/1.2	4x CAN FD	No	VQFN-48
TLE9278-3BQX	Multi-CAN Power+ SBC	5	30	5	5/3.3/1.8/1.2	4x CAN FD	Yes	VQFN-48
TLE9278-3BQX V33	Multi-CAN Power+ SBC	5	30	3.3	5/3.3/1.8/1.2	4x CAN FD	Yes	VQFN-48

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