

Features

- ▶ Part of the FlexRay™ electrical, physical layer
- ▶ Active star coupler connects up to 4 branches (FlexRay™ busses) to nodes or other active stars
- ▶ Support of data rates up to 10 Mbit/s
- ▶ Optional support of low power mode for an ECU
- ▶ Remote wake up via bus line
- ▶ Enhanced diagnosis capability provided via SPI with interrupt generation
- ▶ Protection against overload damage by current limitation and overtemperature detection
- ▶ Bus driver outputs withstand - 27 V / + 40 V DC voltage
- ▶ Low EME due to balanced differential transmission

Applications

- ▶ Star coupler and additionally usable as transceiver in FlexRay™ nodes (ECUs)

Brief Functional Description

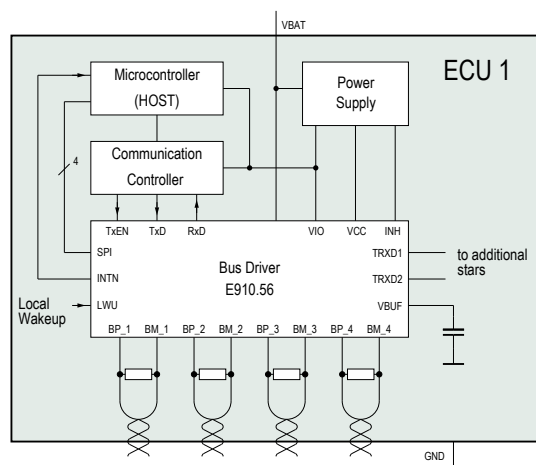
The star coupler is part of the electrical, physical layer in a FlexRay™ communication network. The E910.56 provides interfaces to connect up to four branches of twisted pair physical bus lines to other bus drivers or star couplers. It also interfaces with a communication controller (CC) and a µC. Via SPI the bus driver (BD) provides status information concerning failure detection on the bus lines (e.g. short circuit, ground loss) and overtemperature condition to a host controller (HOST). An interrupt signal is generated whenever the failure status changes.

The device supports normal and standby modes and provides remote wake up capability via bus line. The output (INH) can be used to control an external voltage regulator.

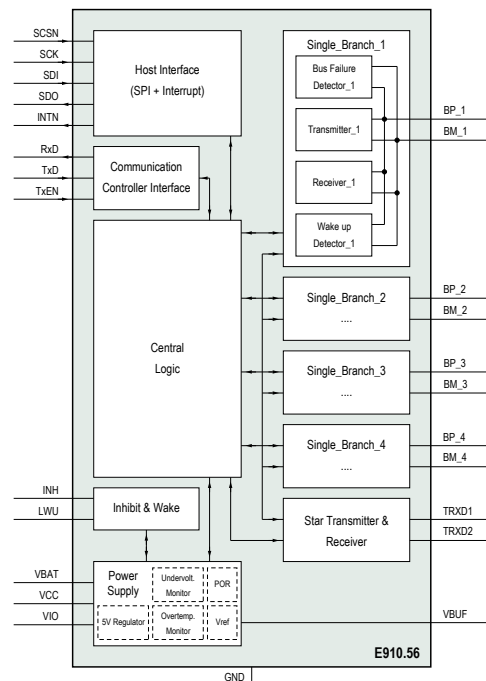


ELMOS is member of the FlexRay consortium

Typical Application



Blockdiagram



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