

Features

- ▶ Part of the FlexRay™ electrical, physical layer
- ▶ Interface between communication controller and physical medium (twisted pair bus line)
- ▶ Support of data rates up to 10 Mbit/s
- ▶ Support of low power mode for an ECU
- ▶ Remote wake-up via bus line
- ▶ Enhanced diagnosis capability 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

Brief Functional Description

The low cost bus driver is a part of the electrical, physical layer in a FlexRay™ communication network. The E910.55 provides an interface between the twisted pair physical bus medium and a communication controller (CC). An SPI interface connects the bus driver (BD) to a host controller (HOST) to provide status information concerning failure detection on the bus lines (e.g. short-circuits, ground loss) and overtemperature condition. 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.

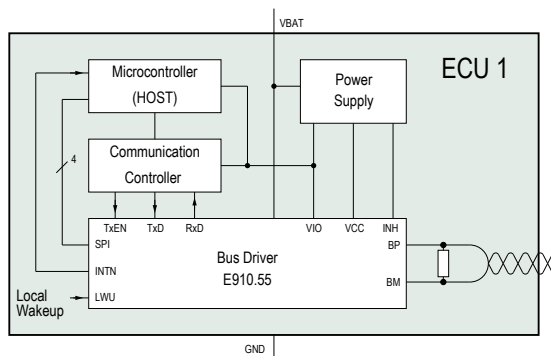
Applications

- ▶ Transceiver in FlexRay™ nodes (ECUs)

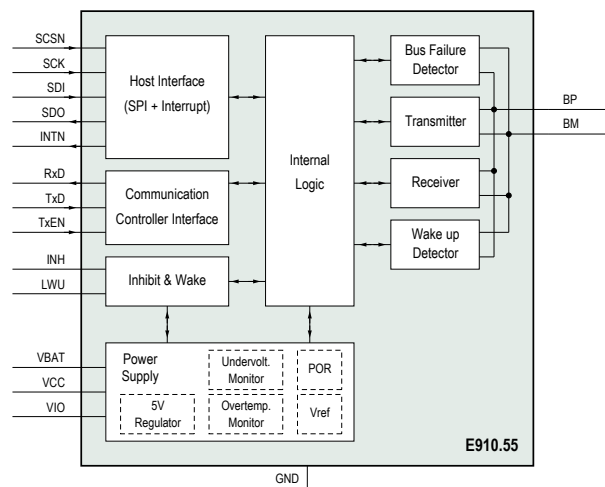


ELMOS is member of the FlexRay consortium

Typical Application



Blockdiagram



ELMOS Semiconductor AG – Headquarters

Heinrich-Hertz-Str. 1 | 44227 Dortmund | Germany
Phone +49 (0) 231-75 49-0 | Fax +49 (0) 231-75 49-149
sales@elmos.de | www.elmos.de

ELMOS Semiconductor AG – Munich Branch

Am Geflügelhof 12 | 85716 Unterschleissheim | Germany
Phone +49 (0) 89-318 370-30 | Fax +49 (0) 89-318 370-31
sales@elmos.de | www.elmos.de

ELMOS Semiconductor AG – Stuttgart Branch

Max-Eyth-Str. 35 | 71088 Holzgerlingen | Germany
Phone +49 (0) 70 31-63 19 91 | Fax +49 (0) 70 31-63 19 97
sales@elmos.de | www.elmos.de

MECHALESS Systems GmbH | A MEMBER OF THE ELMOS GROUP

Technologiepark Karlsruhe | Albert Nestler Str. 10 | 76131 Karlsruhe | Germany
Phone +49 - 721 - 62698 - 00 | Fax +49 - 721 - 62698 - 11
info@mechaless.com

ELMOS North America, inc.

32255 Northwestern Highway Suite 45 | Farmington Hills | MI 48334 | USA
Phone +1-248 865 32 00 | Fax +1-248 865 3203
sales-int@elmos.de | www.elmos.de

ELMOS France S.A.

64 bis rue Kléber | 92300 Levallois Perret | France
Phone +33 (0) 1-46 52 59 59 | Fax +33 (0) 1-42 42 95 54
sales-int@elmos.de | www.elmos.de

ELMOS Representative in Japan – MUSASHINO Corporation

Tohchiku Bldg. | 2-14-18 | Minato-ku | Tokyo 108-0023 | Japan
Phone +81-3-34 53-33 51 | Fax +81-3-34 53-33 50
info@musashinocorp.com

ELMOS Distribution Line – Channel Microelectronic GmbH

Alleenstr. 29/3 | 73730 Esslingen | Germany
Phone +49 - 711 - 930 721 - 30 | Fax +49 - 711 - 930 721 - 40
info@channel-microelectronic.de