► LIN transceiver E910.43

FEATURES

- ► Supply voltage range VS 6V to 18V
- ► Supply voltage range VDD 4.5V to 5.5V
- ► LIN 2.0 compatible interface for data rates up to 20kBaud
- ► Output slewrate control to reduce EMI
- ► Short circuit current limitation
- ► Over temperature protection
- ► Bus-line DC voltage range – 24V to +30V
- ► Receiver debounce filter
- ► Very low active current consumption
- ► Very low standby current (typ. < 10 µA)
- ► Wake up output by LIN-Bus transition and EN, battery power on
- ► – 40°C to +125°C operating temperature
- ► SO 8n package

APPLICATION

- ► Bus interface for Local Interconnect Network (LIN) communication especially in automobile applications

DESCRIPTION

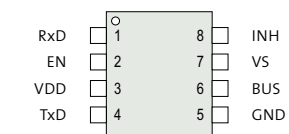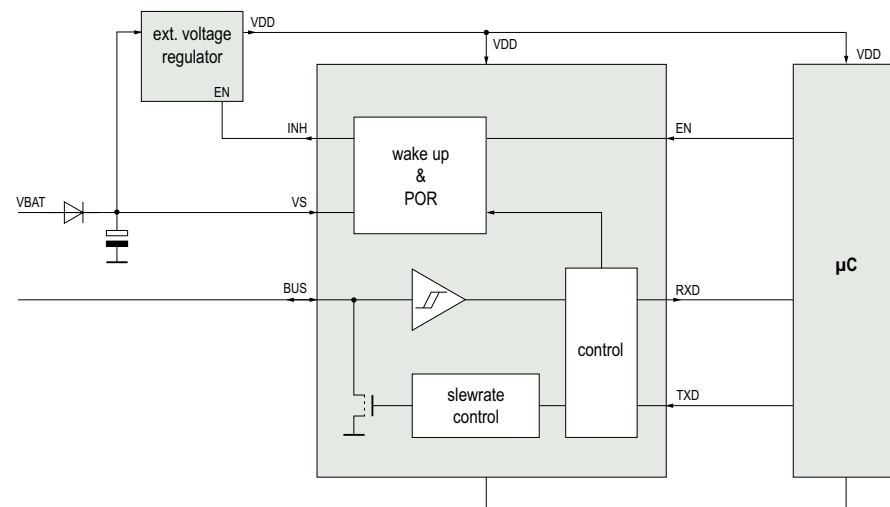The IC interfaces between a µC and a Local Interconnect Network (LIN) bus-line, mainly in automotive sub bus applications. When pin EN is at High level (VDD), a digital input signal at pin TxD is transferred to the fully protected low side driver on pin BUS. The voltage level on pin BUS is detected by a comparator with a threshold of nominally 50% of the battery supply VS. After passing a debounce filter it is valid on pin RxD as a digital signal referenced to the digital supply voltage VDD.

EN also statically keeps the high side output INH active. A high to low transition on EN as well as VDD falling under the POR threshold will dynamically reset INH to high impedance. A debounced low level on the bus-line for a certain time will set INH to high level as well as a - power on condition - on the battery supply pin VS.

PINNING

Pin	Name	Description
1	RxD	Serial data from IC to µC
2	EN	Enable activates transmitter,receive and output INH
3	VDD	+5V digital supply
4	TxD	Serial data from µC to IC
5	GND	Ground
6	BUS	LIN-Bus pin
7	VS	+12V positive supply
8	INH	Switched battery supply output to activate, e.g. an external voltage regulator

PACKAGE

BLOCK DIAGRAM