



SIG100 – UART / DC-LIN Transceiver over Powerline

Description

The SIG100 is a byte-oriented UART/LIN transceiver over DC powerline (DC-BUS). The device merges both data and power over the powerline, eliminating the need for control and data wires. The SIG100 is an advanced generation of the widely used SIG60 device. Both devices use a unique multiplex digital signaling technology that overcomes the powerline noisy environment at bitrates up to 115.2Kbit/s. Sleep mode allows low power consumption when the device is not used. A small size QFN32 5x5 mm package delivers small PCB footprint.

The SIG100 powerline transceiver is useful for a wide range of automotive, aerospace and industrial applications. These include networks for sensor readings, actuator activation, battery monitoring (BMS), doors, seats, mirrors, climate control, lights, Truck-Trailer communication, etc.

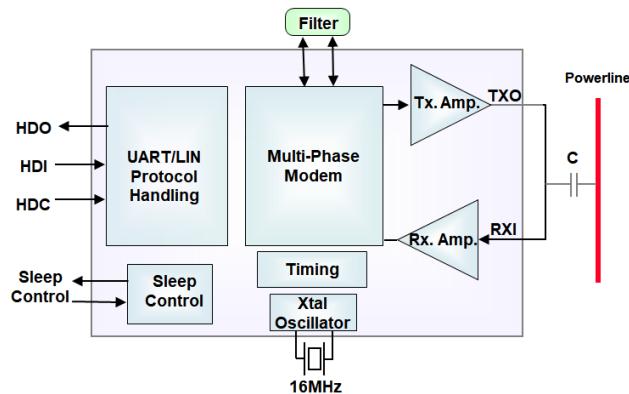


Figure 1- SIG100 Logical Blocks

Applications

- Vehicle sub-bus(es)
- Battery management (BMS)
- Climate control network
- Sensors / actuators bus
- Robotics control networks
- Lighting control
- Truck-Trailer communication
- Multiple networks sharing the same powerline

Features

- Noise robust UART/LIN transceiver over DC powerline.
- Selectable bitrates from 9.6kbit/s up to 115.2kbit/s
- 251 selectable carrier frequencies (5MHz to 30MHz) for multiple networks over single powerline.
- No limit to the number of bytes in a message.
- Operates as Master or as a Slave in a multiplex network.
- Communicates over wide range of DC voltages.
- Eliminates data wire and transceiver in LIN bus
- Power management (Sleep modes) for low power consumption.