

DCB500 - Transceiver for Powerline Communication

Description

The DCB500 is a transceiver for multiplex communication over noisy powerline in automotive and avionics networks. The flexible protocol allows various applications such as transferring Data, Voice, Compressed video (e.g. H.264) and music (e.g. MP3) between modules sharing a common DC powerline at transfer rates up to 500Kbps.

The device is based on DC-BUS™ technology for multiplex network communication over noisy powerline. It avoids complex cabling, saves weight, and simplifies installation. The device communicates with its Host via Serial Peripheral Interface (SPI) or UART interface providing the user the freedom to use his application-defined protocol.

Features

- Communication over DC power lines
- Bit rates of 500Kbps and 300Kbps
- Built in Modem, Error Correction and Synchronization
- Multiplex CSMA/CA mechanism
- UART and SPI interfaces with host
- Channel frequency selection
- Sleep mode for low power consumption

Benefits

- Eliminates complex cabling
- Reduces weight and installation time
- Robust to car battery line noises
- Unlimited message length
- Suitable for Voice and video streaming
- Low cost CMOS Implementation

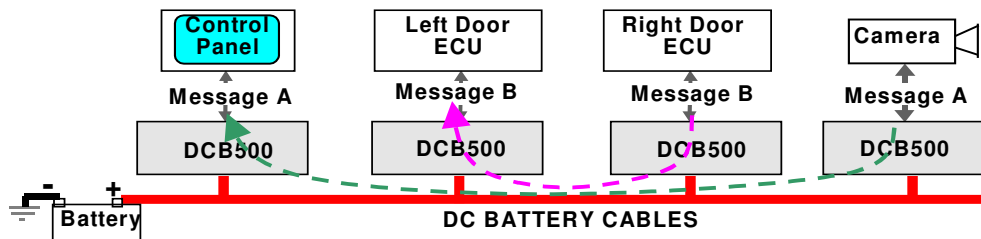


Figure 1.1 - System using DCB500

Characteristics

Packet data:	500Kbps
Modulation method:	DQPSK
Collision resolution:	Built in
Error correction codes:	Built in
Power save mode:	Built in
Packet size:	User defined
Interface:	UART or SPI

