

General Description

The AS8221 is a high-speed automotive Transceiver for fault tolerant and high speed applications that operates as interface between a generic controller and the copper wire physical bus. The AS8221 is designed to extend the application range for high speed and safety critical time triggered Bus systems in an automotive environment. The drivers are short circuit protected against the positive and negative supply voltage to increase the robustness and reliability of automotive systems.

The AS8221 operates at Baudrates up to 10 Mbit/s to increase the Bandwidth for automotive applications. A host interface is used to set the several low-power operation modes and to request the diagnose status

Applications

- High speed automotive Bus systems
- Backbone and gateways
- Safety critical applications
- Drive by wire systems
- Time triggered Bus systems

Key Features

- Data transfer up to 10 Mbits/sec
- Do not disturb the bus line when unpowered
- Protection against damage due to short circuit conditions on the bus (positive and negative Battery voltage)
- Integrated power management system
 - ✓ Two INH pins for the external voltage
 - ✓ Local wake-up input
 - ✓ Remote wake-up capability via Flexray bus in sleep mode
- Operating temperature range -40°C to +125°C
- Compliant with Flexray physical layer specification
- Excellent EMC performances
- High common mode range insure excellent EMI
- Interface with optional bus guardian for bus supervision
- Automatic thermal shutdown protection

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