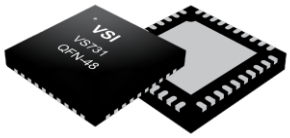
VS731

Product Brief



10BASE-T1S Ethernet Transceiver

FEATURES

- 10BASE-T1S PHY Fully Compliant with IEEE 802.3cg
- Support for Multi-drop and Point-To-Point Configuration
- Built-in Ethernet Buffers with standard SPI I/F
  - Maximum SPI speed up to 20 Mbps
  - SPI register setting error checking capability
- Additional Support for CAN/CAN-FD
  - Automatic CAN/CAN-FD Rate Detection
  - Support for Simultaneous Operation of Ethernet and CAN/CAN-FD
- Meets stringent Automotive EMC requirements over Unshielded Twisted Pair (UTP)
- 48-pin QFN Package (6 mm x 6 mm)

APPLICATION

- Automotive In-vehicle Networking
- Industrial Control

DESCRIPTION

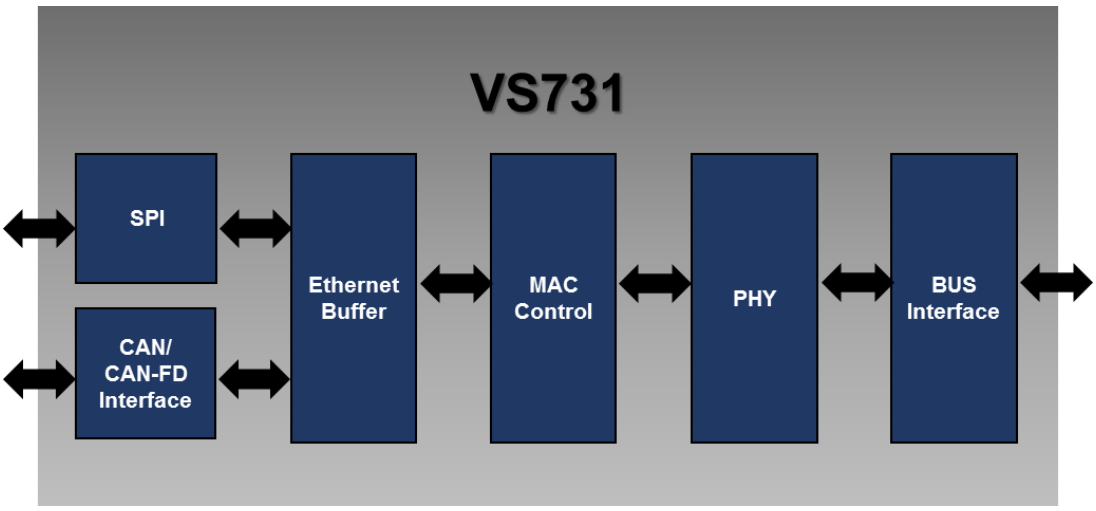
The VS731 is a single pair Ethernet transceiver that implements the Ethernet physical layer (PHY) functions of 10BASE-T1S, also called 10SPE (10 Mbps Single Pair Ethernet), standard defined by IEEE 802.3cg.

10BASE-T1S is a new 10 Mbps Single Pair Ethernet physical layer network technology that has been designed for automotive and industrial applications. The key objective of 10BASE-T1S is to provide a low-cost, collision-free, deterministic Ethernet-based transmission over a multi-drop network.

The VS731 offers a standard Ethernet connection with the advantages of a multidrop function using PLCA for collision-free access. Also VS731 can be used to add CAN-based ECUs on the same bus for future zonal architecture where Ethernet and CAN ECUs will be present in each zone.

The solution of VS731 will pave seamless and efficient way for all Ethernet network by allowing car OEMs and Tier 1 companies for the introduction of Ethernet ECUs to future smart cars.

BLOCK DIAGRAM



About VSI

VSI Inc. is a global technology leader that designs and develops in-vehicle Ethernet network technologies and semiconductors for self-driving cars.

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