Automotive CAN FD Transceiver Family

TJA144x

Last Updated: Jun 26, 2023

The TJA144x family of transceivers provides an interface between a controller area network (CAN) or CAN flexible data rate (FD) protocol controller and the physical two-wire CAN-bus.

- TJA1441: Basic CAN
- TJA1442: Standby mode CAN
- TJA1443: Sleep mode CAN
- TJA1448: Dual channel standby mode CAN

All variants enable reliable communication in the CAN FD fast phase at data rates up to 5 Mbit/s.

The TJA144x is intended as a simple replacement for high-speed classical CAN and CAN FD transceivers. It offers pin compatibility and is designed to avoid changes to hardware and software design, allowing the TJA1442 to be easily retrofitted to existing applications.

AEC-Q100 Grade 0 variants, the TJR144x, are available for high temperature applications, supporting operation at 150°C ambient temperature.

A variant optimized for use in very low-speed industrial solutions is available, the TJF1441.

For additional information and sample availability, contact your local sales office.
TJA1441 Block Diagram

TJA1441X

1. Temperature Protection
2. Time-out
3. Mode Control
4. Mux and Driver

GND

1. TXD
2. S_N
3. S/OF
4. RXD

VCC

(1) V OC is only available in the TJA1441A and TJF1441A (pin 5 is n.c. in the TJA1441B)
(2) Only for TJA1441D

TJA1442 Block Diagram

TJA1442X

1. Temperature Protection
2. Time-out
3. Mode Control
4. Driver
5. Wake-up Filter

GND

1. TXD
2. STB
3. RXD

VCC

(1) V OC is only available in the TJA1441A and TJF1441A (pin 5 is n.c. in the TJA1441B)
(2) V OC in TJA1442A; V cc in TJA1442B.
TJA1443 Block Diagram Block Diagram

TJA1448 Block Diagram Block Diagram

View additional information for Automotive CAN FD Transceiver Family.