High-Speed CAN Transceiver with Standby Mode

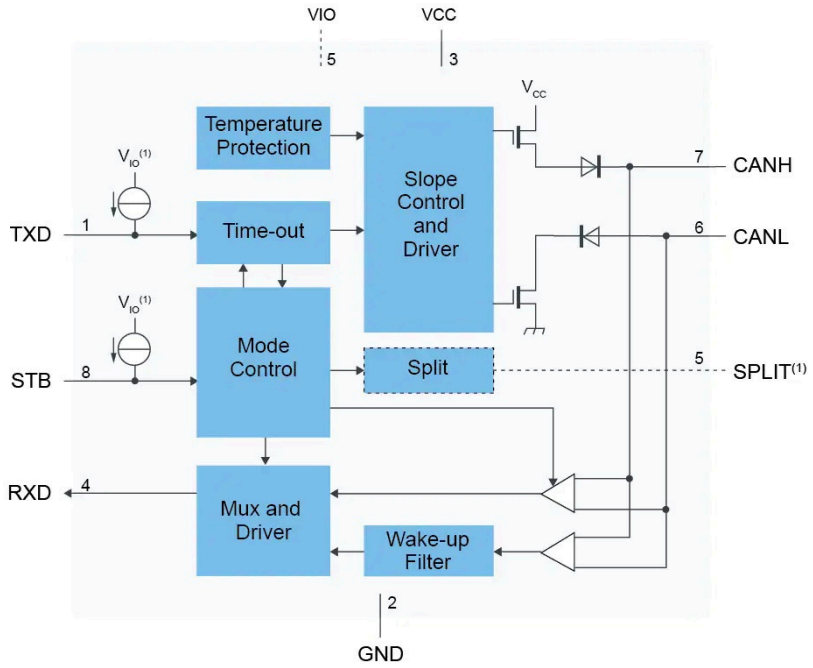
TJA1042

Last Updated: Nov 6, 2026

For security on TJA1042, TJA1044, TJA1049, go to Secure CAN TJA1152, for higher data rates on these devices, go to CAN SIC TJA1462.

The TJA1042 is a high-speed CAN transceiver that provides the interface between a CAN protocol controller and a two-wire CAN bus in automotive applications. The TJA1042 supports reliable CAN and CAN FD communication at data rates up to 5 Mbit/s and offers improved electromagnetic compatibility (EMC) and electrostatic discharge (ESD) performance. The transceiver features low-power Standby mode with bus wake-up capability, passive behavior when unpowered, and variants with a VIO interface for direct connection to 3.3 V and 5 V microcontrollers. The TJA1042 is compliant with ISO 11898-2:2016 and SAE J2284 standards, while TJA1042B and TJA1042C variants provide reduced propagation delay for larger network topologies.

TJA1042 Block Diagram



(1) In a transceiver with a SPLIT pin, the V_{IO} input is internally connected to V_{CC}

View additional information for High-Speed CAN Transceiver with Standby Mode.

Note: The information on this document is subject to change without notice.

www.nxp.com
NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.