



MCP2561 ☆

Status: Not Recommended for new designs

- [View Datasheet](#)
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Features:

- Supports 1Mbit/s
- Implements ISO-11898-2 and ISO-11898-5 Standard Physical Layer Requirements
- AEC-Q100 Grade 0
- Very Low Standby Current (5 μ A, typical)
- VIO Supply Pin to Interface Directly to CAN Controllers and Microcontrollers with 1.8V to 5.5V I/O
- SPLIT Output Pin to Stabilize Common Mode in Biased Split Termination Schemes

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- Recommended for Automotive Designs
- Sampling Options
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Overview

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Development Environment

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Device Overview

Summary

The MCP2561/2FD is a Microchip Technology Inc. second generation high-speed CAN transceiver. It offers the same features as the MCP2561/2. Additionally, it guarantees Loop Delay Symmetry in order to support the higher data rates required for CAN FD. The maximum propagation delay was improved to support longer bus length. The device meets the automotive requirements for CAN FD bit rates exceeding 5 Mbps, low quiescent current, electromagnetic compatibility (EMC) and electrostatic discharge (ESD). The device family members are MCP2561FD with SPLIT pin & MCP2562FD with VIO pin

Please consider this device [MCP2561FD](#)

Additional Features

- Optimized for CAN FD (Flexible Data rate) at 2, 5 and 8 Mbps Operation
 - Maximum Propagation Delay: 120 ns
 - Loop Delay Symmetry: -10%/+10% (2 Mbps)
- Implements ISO-11898-2 and ISO-11898-5 Standard Physical Layer Requirements
- AEC-Q100 Grade 0
- Very Low Standby Current (5 μ A, typical)
- VIO Supply Pin to Interface Directly to CAN Controllers and Microcontrollers with 1.8V to 5.5V I/O
- SPLIT Output Pin to Stabilize Common Mode in Biased Split Termination Schemes
- CAN Bus Pins are Disconnected when Device is Unpowered
 - An Unpowered Node or Brown-Out Event will Not Load the CAN Bus
- Detection of Ground Fault:

Parametrics

Name	Value
Temp. Range (°C)	-40 to +150
Operating Voltage Rang...	4.5 to 5.5

- Permanent Dominant Detection on TXD
- Permanent Dominant Detection on Bus
- Power-on Reset and Voltage Brown-Out Protection on VDD Pin
- Protection Against Damage Due to Short-Circuit Conditions (Positive or Negative Battery Voltage)
- Protection Against High-Voltage Transients in Automotive Environments
- Automatic Thermal Shutdown Protection
- Suitable for 12V and 24V Systems
- Meets or exceeds stringent automotive design requirements including “Hardware Requirements for LIN, CAN and FlexRay Interfaces in Automotive Applications”, Version 1.3, May 2012
 - Radiated emissions @ 2 Mbps with Common Mode Choke (CMC)
 - DPI @ 2 Mbps with CMC
- High ESD Protection on CANH and CANL, meeting IEC61000-4-2 up to ± 14 kV
- Available in PDIP-8L, SOIC-8L and 3x3 DFN-8L
- Temperature ranges:
 - Extended (E): -40°C to $+125^{\circ}\text{C}$
 - High (H): -40°C to $+150^{\circ}\text{C}$