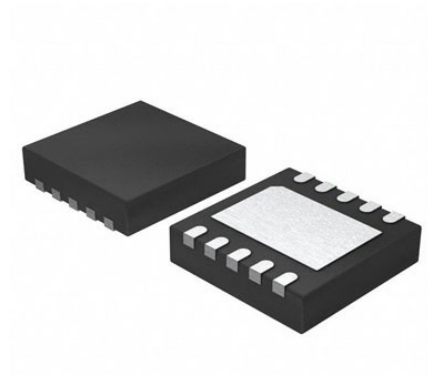


## CAN FD TRANSCEIVER

Manufacturers	<a href="#">Microchip Technology, Inc</a>
Package/Case	TDFN-8
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for MCP2542FDT-E/MNY or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The MCP2542FD CAN transceiver is designed for high-speed CAN FD applications up to 8Mbps communication speed. The maximum propagation delay was improved to support longer bus length. The device meets the automotive requirements for CAN FD bit rates exceeding 2 Mbps, low quiescent current, electromagnetic compatibility (EMC) and electrostatic discharge (ESD).

For 12V- applications please consider the ATA6561

Please see our MikroElektronika click board! <http://www.mikroe.com/click/mcp2542>

## Features

Supports CAN 2.0 and CAN with Flexible Data Rate (CAN FD) Physical Layer Transceiver Requirements

Optimized for CAN FD at 2, 5 and 8 Mbps Operation

Maximum propagation delay: 120 ns

Loop delay symmetry:  $\pm 10\%$  (2 Mbps)

Wake-up on CAN activity, 3.6  $\mu$ s filter time

Implements ISO11898-2:2003, ISO11898-5:2007, and ISO/DIS11898-2:2015

Qualification: AEC-Q100 Rev. G, Grade 0 (-40°C to +150°C)

Very Low Standby Current (4  $\mu$ A, typical)

VIO Supply Pin to Interface Directly to CAN Controllers and Microcontrollers with 1.8V to 5V I/O

CAN Bus Pins are Disconnected when Device is Unpowered

An unpowered node or brown-out event will not load the CAN bus

Device is unpowered if VDD or VIO drop below its POR level

Detection of Ground Fault:

Permanent Dominant detection on TXD

Permanent Dominant detection on bus

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

Conducted emissions @ 2 Mbps with Common-Mode Choke (CMC)

Direct Power Injection (DPI) @ 2Mbps with CMC

Meets SAE J2962/2 “Communication Transceiver Qualification Requirements

CAN”

Radiated emissions @ 2Mbps without a CMC

High Electrostatic Discharge (ESD) Protection on CANH and CANL, meeting IEC61000-4-2 up to ±13kV

Temperature ranges:

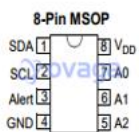
Extended (E): -40°C to +125°C

High (H): -40°C to +150°C

Smallest package option in the industry 2x3 DFN-8L

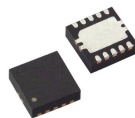
Also available in SOIC-8L and 3x3 DFN-8L

## Related Products



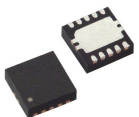
### [MCP9808T-E/MS](#)

Microchip Technology, Inc  
MSOP-8



### [ATSAMC21G17A-MZTVAO](#)

Microchip Technology, Inc  
VQFN



### [MCP16502TAC-E/S8B](#)

Microchip Technology, Inc  
VQFN



### [MCP16362T-E/NMX](#)

Microchip Technology, Inc  
VDFN



[BM64SPKS1MC1-00M2AA](#)

Microchip Technology, Inc  
SMD

[MCP2517FD-H/SL](#)



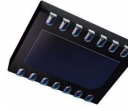
Microchip Technology, Inc  
SOIC-14



[MCP2517FDT-H/SL](#)

Microchip Technology, Inc  
SOIC-14

[MCP2517FD-H/JHA](#)



Microchip Technology, Inc  
VDFN-14