

Product Overview

AMIS-42770: Dual CAN Transceiver, High Speed, for long networks

For complete documentation, see the data sheet.

Controller Area Network (CAN) is a serial communication protocol, which supports distributed real time control and multiplexing with high safety level. Typical applications of CAN-based networks can be found in automotive and industrial environments. The AMIS-42770 dual CAN transceiver is the interface between up to two physical bus lines and the protocol controller and will be used for serial data interchange between different electronic units at more than one bus line. It can be used for both 12 V and 24 V systems. The circuit consists of following blocks: - Two differential line transmitters - Two differential line receivers - Interface to the CAN protocol handler - Interface to expand the number of CAN busses - Logic block including repeater function and the feedback suppression - Thermal shutdown circuit (TSD) Due to the wide common mode voltage range of the receiver inputs, the AMIS-42770 is able to reach outstanding levels of electromagnetic susceptibility (EMS). Similarly, extremely low electromagnetic emission (EME) is achieved by the excellent matching of the output signals.

Features

- Fully compatible with the ISO 11898-2 standard
- Certified authentication on CAN Transceiver Conformance (d1.1)
- Wide range of bus communication speed (up to 1Mbit/s in function of the bus topology)
- Allows low transmit data rate in networks exceeding 1km
- Ideally suited for 12V and 24V industrial and automotive applications
- Low EME: common-mode-choke is no longer required
- Differential receiver with wide common-mode range (+/- 35V) for high EMS
- No disturbance of the bus lines with an un-powered node
- Prolonged dominant time-out function allowing communication speeds down to 1kbit/s
- Thermal protection

For more features, see the data sheet

Applications

- Lighting
- Textiles

End Products

- Process equipment
- Robotics
- Industrial automation

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Data Transmission Standard	Data Rate	Number of Drivers	Number of Receivers	V _{CC} Min (V)	V _{CC} Max (V)	t _{PLH} Max (μs)	I _O Max (μA)	I _{HH} Max (mA)	Package Type
AMIS42770ICAW1G	3.1199	Pb-free Halide free	Active	CAN	1 Mb/s	1	1	4.75	5.25				SOIC-20W
AMIS42770ICAW1RG	3.1199	Pb-free Halide free	Active	CAN	1 Mb/s	1	1	4.75	5.25				SOIC-20W

For more information please contact your local sales support at www.onsemi.com.

Created on: 3/29/2020