

NCV7422

Dual LIN Transceiver

Product Overview

For complete documentation, see the data sheet.

The NCV7422 is a two channel physical layer device using the Local Interconnect Network (LIN) protocol. It allows interfacing of two independent LIN physical buses and the LIN protocol controllers. The device is compliant to ISO 17987-4 (LIN 2.x Protocol Specification package) and the SAE J2602 standard.

The NCV7422 LIN device is a member of the in-vehicle networking (IVN) transceiver family.

The LIN bus is designed to communicate low-rate data from control devices such as door locks, mirrors, car seats, and sunroofs at the lowest possible cost. The bus is designed to eliminate as much wiring as possible and is implemented using a single wire in each node. Each node has a slave MCU-state machine that recognizes and translates the instructions specific to that function.

The main attraction of the LIN bus is that all the functions are not time critical and usually relate to passenger comfort.

Features

- LIN-Bus Transceiver • Compliant to ISO 17987-4 (Backwards Compatible to LIN Specification rev. 2.x, 1.3) and SAE J2602 • Bus Voltage ± 42 V • Transmission Rate 1 kbps to 20 kbps • TxD Timeout function • Integrated Slope Control
- Protection • Thermal Shutdown • Undervoltage Detection • Bus Pins Protected Against Transients in an Automotive Environment
- Modes
 - Normal Mode: LIN Transceiver Enabled, Communication via the Bus is Possible
 - Sleep Mode: LIN Transceiver Disabled, the Consumption from VBB is Minimized
 - Standby Mode: Transition Mode Reached after Wake-Up Event on LIN Bus
- Compatible
 - Pin-Compatible with NCV7329 DFN8 package
 - K-line Compatible
- Quality
 - NCV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable
 - These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

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 _H Max (mA)	Package Type
NCV7422MW0R2G	0.3697		Active	LIN	20 kbaud	2	2	5	18				DFNW-14