

TJA1425: Quad LIN Commander Transceiver with 1.8 V VIO



NXP's TJA1425 quad LIN commander transceiver integrates commander termination, INH, supports 1.8 V MCU and offers cost-saving solutions in multi-channel LIN systems.

Overview

The TJA1425 is a quad LIN commander device, fully compliant with LIN 2.x, SAE J2602 and ISO 17987-4:2016 (12 V). Each of the four channels contains a LIN transceiver and LIN commander termination, saving significant BoM cost and PCB area and peripherals in multi-channel LIN applications.

The TJA1425 is pin-to-pin compatible with the TJA1124. Not only supporting all functions of TJA1124, TJA1425 also has optimized EMC and ESD performance according to the latest IEC and SAE standards, 1.8 V VIO to support high-end MCU and MCU time-out fail-safe feature to minimize power consumption. Power consumption is very low in low power mode.

Key features

Four LIN commander channels in a single package:

- LIN transceiver compliant to ISO 17987/LIN 2.x/SAE J2602
- Integrated LIN commander termination consisting of a diode and a pull-up resistor
- Very low current consumption in low-power mode with wake-up via SLP/SLP_N or LIN pins
- Option to control an external voltage regulator via the INHN output
- VIO input for direct interfacing with 1.8 V, 3.3 V and 5 V microcontrollers
- MCU time-out feature
- Leadless DHVQFN24 package (3.5 mm x 5.5 mm) supporting improved Automated Optical Inspection (AOI) capability

Target applications

- Body and vehicle control
- HVAC
- eCockpit
- Electric pump
- Zonal controllers
- Heat meter
- Energy management and distribution
- Security and building control systems
- Home/Industrial automation

Enablement tools

Development hardware:

- NXP S32N reference design and EVB – under development
- AUTOSAR software driver – under development

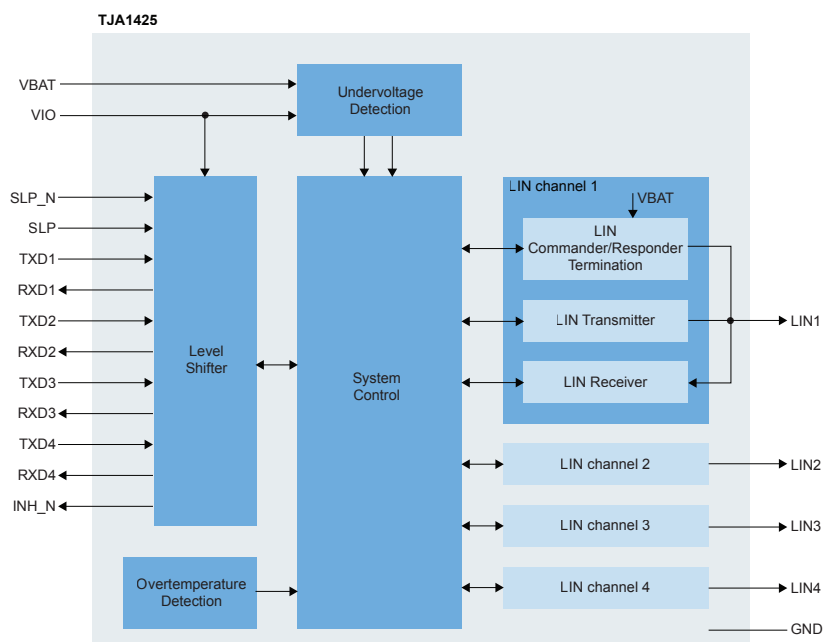
Sampling now

Part Number	Temp Range	Other features	Package
TJA1425BHG/0J*	Grade-1	CES samples	DHVQFN24
TJA1425CHG/0J	Grade-1	CES Samples	DHVQFN24

* B version has commander termination off in low-power mode.

To order, please contact your NXP sales representative or distributor.

TJA1425 Block diagram



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