

Product Overview

NCN5120: KNX Transceiver for Twisted Pair Networks

For complete documentation, see the data sheet.



The NCN5120 is the first IC from ON Semiconductor's family of KNX transceivers, handling the transmission and reception of data on the bus. It integrates a 20 V regulator and two high efficient DC-DC converters generating a fixed 3.3 V and a selectable 3.3 to 21 V regulated voltage from the bus with 100 mA drive capability each. This transceiver is ideal for high power applications and has been designed to reduce the bill of materials while supporting safe and reliable coupling to the bus thanks to features such as selectable current slope, bus voltage and temperature monitoring.

Features

- KNX certified EIB transceiver with embedded PHY and MAC layers (TP1-256)
 - KNX communication speed of 9600 Bauds
 - Two high efficient DC-DC converters generating board supply:
 - DC-DC1 : fixed 3.3 V
 - DC-DC2 : adjustable between 3.3 and 21 V
 - 20 V linear regulator
 - Configurable fan-in model (up to 2 virtual nodes) and current slopes
 - Supervision of KNX bus voltage
 - Control and monitoring of the DC-DC converters
 - Configurable amount of repetition
 - Buffering of sent data frames
 - Optional auto acknowledge
- For more features, see the data sheet

Benefits

- High level of integration, minimal BOM cost
- Enables high power KNX applications to be connected and supplied from the KNX bus
- While designed to offer unique features for most advanced KNX systems, its flexibility also simplifies integration into legacy designs.

Applications

- In-home automation
- Building automation

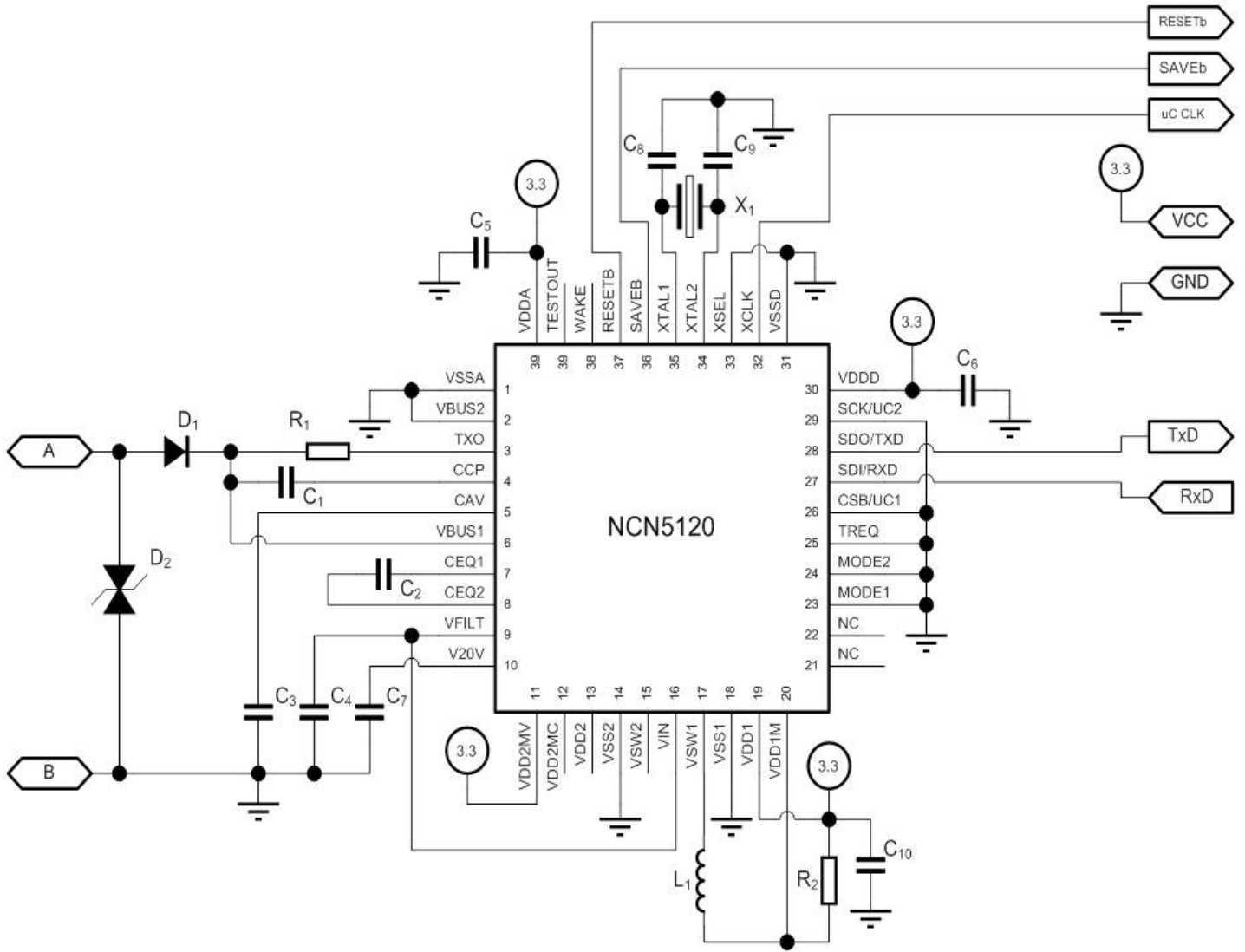
End Products

- Smart lighting & switches
- Ventilation and air conditioning
- Thermostats
- Alarms and smoke detectors

Part Electrical Specifications

Product	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 _{IH} Max (mA)	Package Type
NCN5120MNTWG	Pb-free Halide free	Active	KNX	9600 baud	1	1	3.13	3.47				QFN-40

Application Diagram



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

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