

Product Overview

NCN5192: Full Feature HART Modem

For complete documentation, see the data sheet.

The NCN5192 is a single-chip, CMOS modem for use in highway addressable remote transducer (HART) field instruments and masters. The modem and a few external passive components provide all of the functions needed to satisfy HART physical layer requirements including modulation, demodulation, receive filtering, carrier detect, and transmit-signal shaping. In addition, the NCN5192 also has an integrated DAC for low-BOM current loop slave transmitter implementation. The NCN5192 uses phase continuous frequency shift keying (FSK) at 1200 bits per second. To conserve power the receive circuits are disabled during transmit operations and vice versa. This provides the half-duplex operation used in HART communications.

Features

- Low Power
- Integrated 16 bit Sigma-Delta DAC
- Bell 202 shift frequencies of 1200 Hz and 2200 Hz
- Transmit-signal wave shaping
- Meets HART physical layer requirements
- SPI Communication
- Receive band-pass filter

Benefits

- Optimal for intrinsically safe applications
- Lower BOM cost

Applications

- HART Multiplexers
- HART Modem Interfaces
- 4 20 mA Loop Powered Transmitters

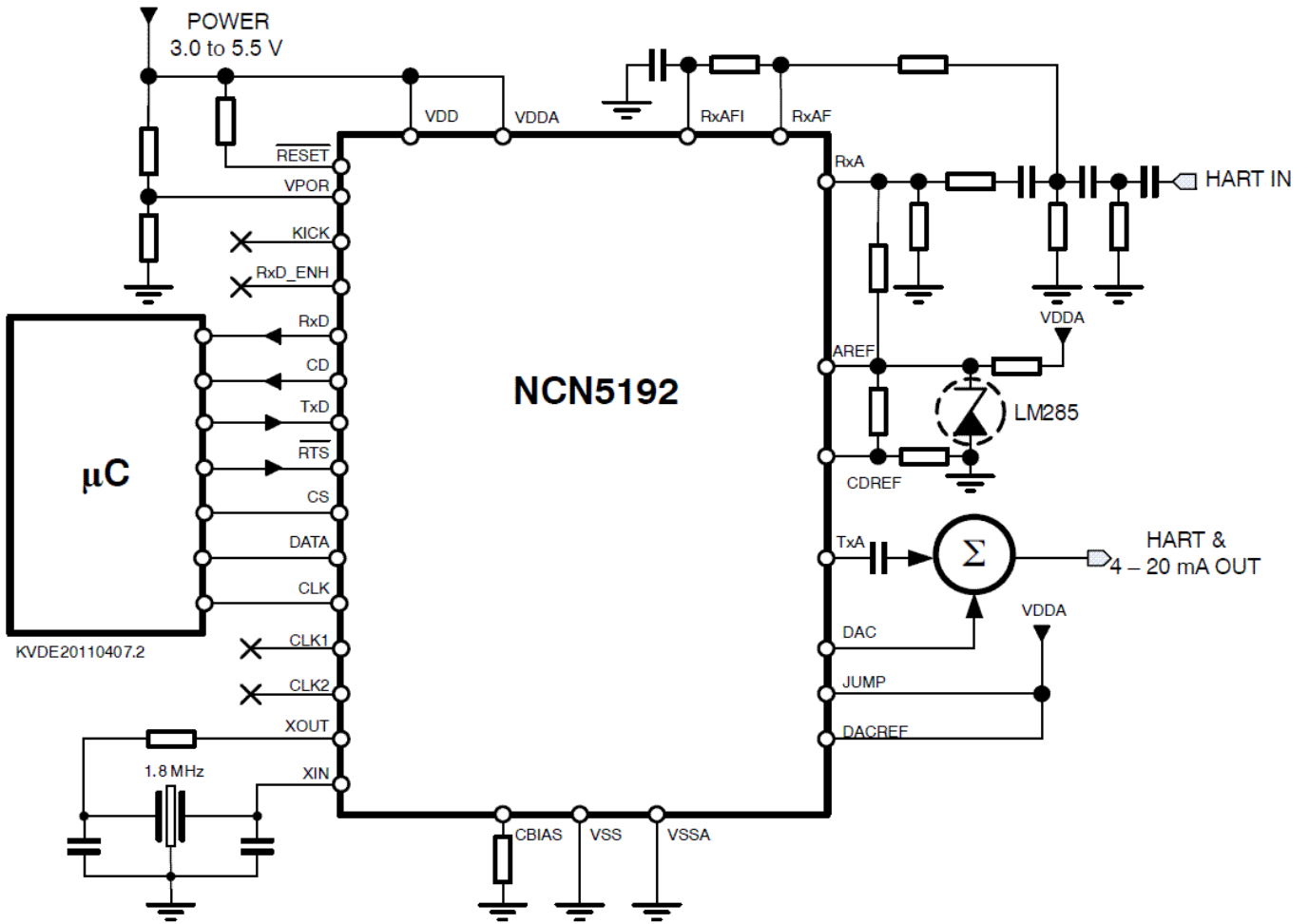
End Products

- Industrial Equipment

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
NCN5192MNRG		Pb-free Halide free non AEC-Q and PPAP	Active	HART	1200 baud	1	1	3	5.5	0.02	670	0.0005	QFN-32

Application Diagram



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

Created on: 1/27/2021