

DEVELOPMENT BOARD

NTMicroDrive Enterprise-Board HVC 5422D based Embedded Motor Control

The NTMicroDrive Enterprise-Board is a development and production ready platform that permits the direct control of brushless DC motors (up to 25 watt). The motor control is empowered by the TDK Micronas HVC 5422D Motor Controller. Next to the motor driver part is an USB/LIN-Adapter for rapid prototyping. Both parts can be separated and used independently.

For commercial applications the NTMicroDrive Software Stack together with the HVC 5422D Motor controller provides a ready-to-use solution.

The NTMicroDrive Development Kit includes the necessary motor controller hardware (NTMicroDrive Enterprise-Board), NTMicroDrive Demo Software for motor control and a PC GUI for fast evaluation and prototyping.

Customer Benefits

- The NTMicroDrive Enterprise-Board provides a complete, high-quality design environment for motor applications.
- Usable for the different types of motors, only with parameter change.
- The development kit helps to simplify the design process and reduce time to market.
- Ready-to-use Demo-Software

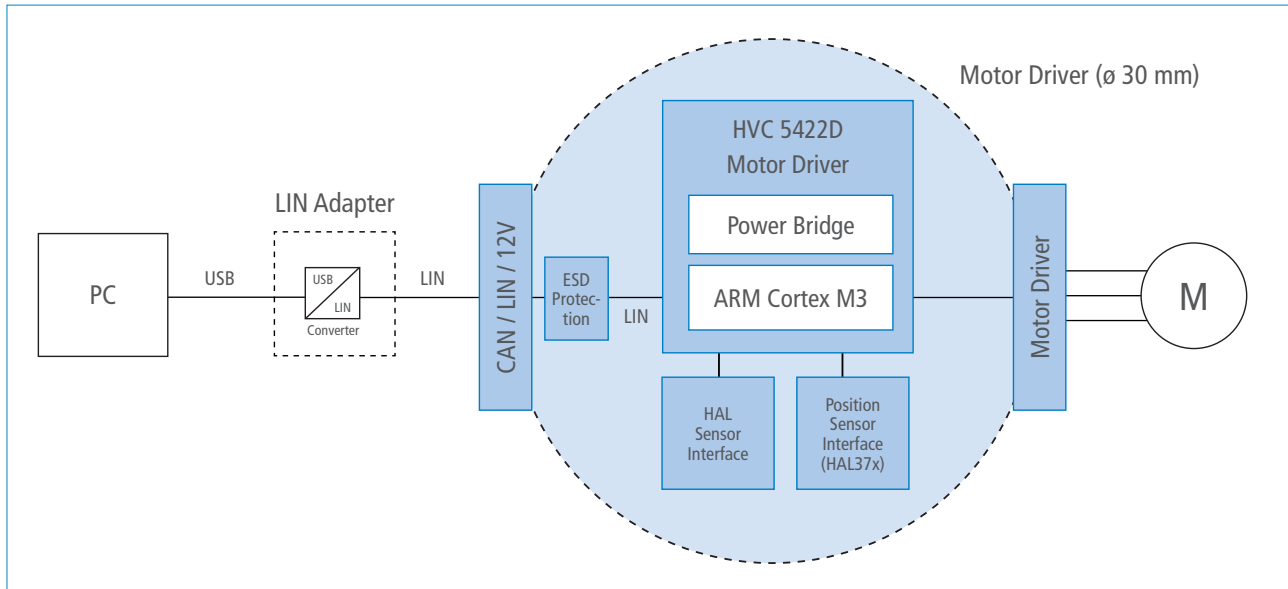
Typical applications

Control of brushless (BLDC) motors up to 25 watt, e. g.

- Grill shutter
- Fan flap / HVAC
- Adaptive front light
- Glove compartment
- Fans
- Small robotic
- Medical/orthopedics assistance
- Smart Home and Living



System Overview



Features Motor Driver

- Motor Driver: Micronas HVC 5422D:
ARM Cortex-M3, Integrated bridges for motors with up to 25 W, 2k RAM, 64k Flash
- Configuration options for stepper, brush-type and brushless (BLDC) motors
- LIN Bus
- Supply voltage from 8 V to 18 V
- Input protection circuit
- Status LED
- Position sensor interface Micronas HAL37xy
- HAL sensor interface

Optional:

- JTAG Connector
- Extension Connector for GPIO

Features LIN Adapter

- USB Adapter for LIN Bus
- Microcontroller
- LIN Transceiver
- Supply Voltage from 8 V to 18 V

Available Software:

- For the LIN Microcontroller:
USB to LIN bridge
- For PC:
Graphical User Interface for motor control

Related Development Tools

NTMicroDrive Development Kit

The ready-to-use Demobox

- NTMicroDrive Enterprise-Board (HVC 5422D based)
- NTMicroDrive Demo-Software
- USB-Cable
- Quick-Start-Guide/Userguide

System requirements

- PC with Windows 10 and USB Port
- PowerSupply 12V/3A

NTMicroDrive Safety-Software

ASIL A ready Software Stack for motor applications based on the TDK Micronas HVC 5422D Motor Controller.

