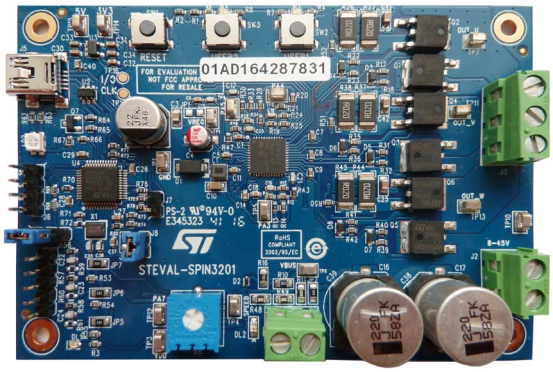
STEVAL-SPIN3201

Advanced BLDC controller with embedded STM32 MCU evaluation board

Data brief



Description

The STEVAL-SPIN3201 board is a three-phase brushless DC motor driver board based on the STSPIN32F0 and STD140N6F7 MOSFETs.

The device provides an affordable and easy-to-use solution for the implementation of low voltage motor driving applications such as fans, drones and power tools.

The board is designed for sensored or sensorless vector control - FOC algorithms with 3-shunt sensing.

Features

- Input voltage from 8 V to 45 V
- Output current up to 15 A_{rms}
- Power stage based on STD140N6F7 MOSFETs
- Embedded 3.3 V buck regulator
- Embedded 12 V LDO regulator
- 3-shunt current sensing
- Digital Hall sensors and encoder input
- Overcurrent comparator
- Bus voltage sensing
- Fully supporting STM32 PMSM FOC Software Development Kit (STSW-STM32100)
- Embedded ST-LINK/V2-1
- Easy user interface with buttons and trimmer
- RoHS compliant

Revision history

Table 1. Document revision history

Date	Revision	Changes
27-Oct-2016	1	Initial release.