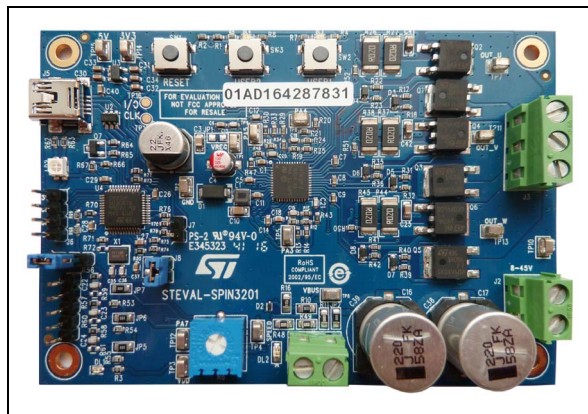


Advanced BLDC controller with embedded STM32 MCU evaluation board

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.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2016 STMicroelectronics – All rights reserved

