



# STM3210B-MCKIT

## Motor control starter kit

Data brief

### Features

- 24V DC Shinano PMSM 3-phase brushless motor
- Motor control evaluation board featuring
  - 10-Amps 3-phase inverter
  - Single/three shunt-based motor current reading
  - Tacho/hall feedback sensors conditioning
  - On-board switched-mode power supply and wrapping area
- STM32 evaluation board (STM3210B-EVAL) with STM32F103xB device preprogrammed with sensorless PMSM motor control application, motor control connector, color LCD and user controls (push buttons, joystick, potentiometer, etc.)
- Opto-isolation board for galvanic isolation on 20-pin JTAG connection between application boards and development tools
- Segger J-Link USB/JTAG in-circuit debugger/programmer
- USB cable
- Software CD with:
  - PMSM (sensored and sensorless) and AC induction (sensored) software libraries
  - Libraries, user manuals and spreadsheets to customize control parameters of new motors and hardware documentation
  - STM32 data sheet and reference manual

### Description

The STM3210B-MCKIT motor control starter kit provides a complete development platform with all the hardware and software required to get STM32-based motor control applications started quickly, and shortens time to market by allowing developers to apply what they learn in the evaluation phase to real-world applications.



The kit comes ready-to-run with a PMSM motor or an AC induction motor (accessory). You can modify the demonstration application and develop your own motor control applications using the dedicated software libraries provided in the starter kit in conjunction with a third-party IDE and C compiler.

The Segger J-Link is included in the kit for connection to a host PC via an industry standard 20-pin JTAG connection. When connected to a host PC, the opto-isolation board provides galvanic isolation for the host PC and development tools on the 20-pin industry-standard JTAG connection.

**Table 1. Device summary**

Order code	Reference
STM3210B-MCKIT	STM32-based motor control starter kit

## Revision history

**Table 2. Document revision history**

Date	Revision	Changes
17-Sept-2010	1	Initial release.

**Please Read Carefully:**

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

**UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.**

**UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.**

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2010 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

[www.st.com](http://www.st.com)

