



STM32100B-MCKIT

Motor control starter kit

Data brief

Features

- STEVAL-IHM023v2 (MB991) power stage evaluation board
- MB871 STM32F100B evaluation board
- MB535B opto-isolation JTAG board
- J-link USB.JTAG debugger
- 24 V DC Shinano PMSM motor
- An auxiliary power supply block TR30R
- Cables:
 - Motor cables
 - Motor connector HE10 34-pin cable
 - USB cable
 - Two JTAG cables
- CD-ROM including:
 - Software
 - PMSM software libraries
 - Documentation



Description

The STM32100B-MCKIT starter kit is an integrated system designed to provide a complete, ready-to-use motor control application developed around the STMicroelectronics STM32F100 microcontroller. This starter kit is particularly suited to drive three-phase brushless permanent magnet synchronous motors and demonstrates how effectively the low-cost STM32F100 microcontrollers can be used in cost optimized real-world motor control applications.

The STM32100B-MCKIT supports Field Oriented Control (FOC) drive of three-phase permanent magnet synchronous motors (PMSM). Single-shunt resistor current measurement is supported out-of-the-box allowing closed loop torque control. Position measurement can be implemented using quadrature encoder sensors, Hall effect sensors or sensorless algorithms.

The STM32100B-MCKIT starter kit can be run either as a plug-and play, out-of-the-box, demo with the provided PMSM motor, in sensorless torque or speed control mode; or in conjunction with a third-party IDE and C compiler, as a development kit for creating your own motor control application based on STM32F100.

Table 1. Device summary

Order code	Reference
STM32100B-MCKIT	STM32F100-based motor control starter kit

Revision history

Table 2. Document revision history

Date	Revision	Changes
01-Sept-2011	1	Initial release.

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