

### STM3210E-SK/KEI

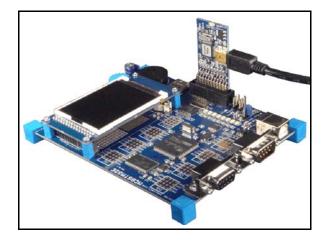
#### Keil<sup>™</sup> starter kits for ST ARM core-based microcontrollers

Data brief

#### Features

- The ARM<sup>®</sup> RealView<sup>™</sup> Microcontroller Development Kit complete development software package with:
  - µVision3<sup>®</sup> integrated development environment for application programming and debugging
  - ARM RealView Compilation Tools C/C++ compiler for output of code up to 16 Kbytes
  - RTX real-time kernel, a multi-tasking operating system for embedded applications
- ULINK<sup>™</sup> in-circuit debugger/programmer with USB interface to host PC and 20-pin JTAG application interface
- Full-featured Keil evaluation board with target microcontroller

Reference	Order code
STM3210E-SK/KEI	STM3210E-SK/KEIL



#### Description

The Keil starter kit is a complete, cost-effective solution for starting application development and evaluating the STMicroelectronics STM32F101/102/103 ARM core-based microcontrollers.

The STM3210E-SK/KEI is a starter kit providing all the hardware and software you need to start developing applications for the STM32 ARM core-based families of microcontrollers. The kit comes complete with Keil's µVision3 integrated development environment for ARM and the 16-Kbyte code-size limited version of the ARM RealView Compilation Tools, a full-featured evaluation board (including USB, USART, SPI, ADC) and target microcontroller, with the ULINK-ME<sup>™</sup> (USB/JTAG) adapter.

Keil starter kits are available for a full range of ST ARM core-based microcontrollers.

April 2011

Doc ID 018595 Rev 2

1/4

For further information contact your local STMicroelectronics sales office.

#### Starter kit architecture

**Keil development software** is a suite of software development tools for creating and debugging microcontroller applications that includes:

- µVision3<sup>®</sup> integrated development environment, which integrates the ARM RealView Compilation Tools and Keil's debugging software so that users can quickly and easily develop and debug their applications while they run on a target microcontroller.
- ARM RealView Compilation Tools (RVCT) 16K code-size limited version of the optimizing C/C++ compiler for ARM<sup>™</sup> core-based microcontrollers.
- ULINK-ME<sup>™</sup> USB/JTAG in-circuit debugger / programmer, which integrates fully with µVision3, allowing users to download the application to the target and debug it while it runs on the ST ARM core-based microcontroller on the evaluation board.
- Keil<sup>TM</sup> evaluation board, an application board that provides a full range of features to help users evaluate and start developing applications for the included STM32F103ZETx microcontroller. The Keil MCBSTM32E evaluation board includes the following key features:
  - 1M external RAM, FSMC
  - 8M external Flash, SPI
  - Micro SD/MMC card connector
  - 20-pin JTAG connector
  - 20-pin trace tool connector
  - Power supply from USB
  - USART connector
  - SPI
  - l<sup>2</sup>C
  - CAN connector
  - USB connector
  - 8 user LEDs
  - QVGA LCD display
  - Potentiometer connected to ADC
  - 4 user and wake-up push buttons
  - Reset button
  - Wrap area
  - Joystick

#### **Ordering information**

All Keil starter kits can be ordered from Keil. Starter kits are available from your nearest STMicroelectronics distributor or sales office for STM32 performance and access line microcontrollers with 512K Flash (ST order code: STM3210E-SK/KEIL).

For more information and documentation, please refer to the Keil web site or the STMicroelectronics microcontroller support site at www.st.com.

Doc ID 018595 Rev 2



### **Revision history**

Table 2.	Document revision history
----------	---------------------------

Date	Revision	Changes
15-Mar-2011	1	Initial release.
26-Apr-2011	2	Added Table 1: Device summary.



Doc ID 018595 Rev 2

#### 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.

© 2011 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

Doc ID 018595 Rev 2

