



# STM32-PRIMER STM3210B-PRIMER

Raisonance STM32 Primers  
for fun, easy evaluation and development with STM32

Data Brief

## Features

- STM32 Primer2 with STM32F103E (512 Kbytes Flash) and STM32 Primer with STM32F103B (128 Kbytes Flash):
  - In-circuit debugging/programming via dedicated USB connection to the host PC
  - Ergonomic design, MEMs-based controls tactile display, Joystick
  - Evaluation features including USB connector and MEMs sensor.
- In addition, Primer2 includes:
  - 128x160 pixel touch screen TFT display
  - Codec-based audio record and playback
  - Micro SD card
  - IrDA transceiver
  - 20-pin connector with SPI, I2C, USART, CAN and analog/digital IOs
  - Li-Ion battery with smart loading control for improved current management and extended battery life.
- In addition, Primer includes:
  - 128x128 pixel color LCD
  - buzzer and IrDA transceiver footprint.
- Ride7 development software toolset with project manager, editor and high-level language debugging (up to 32 Kbytes of code).
- GNU C/C++ compiler, no code size limitations.
- CircleOS task scheduler for dynamic loading and management of new applications.
- C source code for all sample applications and libraries including:
  - MEMs (GUI application controls)
  - TFT display (touch screen, graphical interface, games, bitmap converter)
  - Audio record and playback (Primer2)
  - And more to come.
- Dedicated online community and resources at the [stm32circle](http://stm32circle.com) web site.



## Description

The STM32 Primers from Raisonance are a uniquely fun, easy, low-risk solution for exploring and developing applications for the STM32 ARM Cortex™-M3 core-based microcontrollers. When running the applications, the Primers can operate in standalone mode powered by a battery (with power management circuit on the Primer2), which is recharged via the USB connection with a host PC.

The Primers include everything that users need to better understand the STM32's peripheral implementation and operation.

Start exploring the power of the STM32 by playing with the included applications. The STM32 drives the fun, ergonomic hardware platform that combines a TFT graphical display with MEMs-based controls, (plus tactile screen and joystick with the Primer2) for navigating and controlling the GUI and game applications.

Table 1. Order codes

| Part number     | Order code      |
|-----------------|-----------------|
| STM32-PRIMER    | STM3210B-PRIMER |
|                 | STM3210E-PRIMER |
| STM3210B-PRIMER | Obsolete        |

## Primer usage

Simply plug the Primers directly into a host PC's USB port for in-circuit debugging and device programming, then compile (no code-size limit) and debug applications (up to 32 Kbytes in Flash or RAM). For information about upgrade to the unlimited version, refer to the [stm32circle](http://stm32circle.com) web site. The Primers enable you to discover, edit and fine tune applications using Raisonance's Ride7 software toolset which drives the hardware and offers a full range of project management, source code editing and debugging features from an intuitive GUI.

You can output executables with the GNU C/C++ compiler for ARM, which has no code size limitations and is seamlessly integrated into the Ride7 interface for exceptional ease-of-use.

You can develop applications for STM32 using sample applications from Raisonance or other engineers at [www.stm32circle.com](http://www.stm32circle.com) as the starting point for new innovations. All the preloaded sample applications, new applications and the CircleOS task scheduler can be downloaded for free from the [stm32circle](http://stm32circle.com) web site. This Primer dedicated internet site also provides FAQ, user forums, links to development resources and much more.

*Note: In addition to STM32, Raisonance Ride7 also supports the complete range of STR7/9 ARM core-based, 32-bit devices, as well as the STM8, ST7 and uPSD 8-bit microcontroller families. For details about available compilers and special features for each family, refer to the STMicroelectronics microcontroller support site on [www.st.com](http://www.st.com).*

## Ordering information

The STM32 Primer2 and Primer are available from STMicroelectronics' sales offices and distributors. For more information and complete documentation please visit [www.stm32circle.com](http://www.stm32circle.com) or the STMicroelectronics microcontroller support site [www.st.com](http://www.st.com) or contact Raisonance.

**Table 2. Order codes**

| Order code      | Description   |
|-----------------|---|
| STM3210E-PRIMER | <b>STM32 Primer2</b> with STM32F103E (512 Kbytes Flash) includes Raisonance software tools (RIDE7, GNU C/C++ compiler), CircleOS task manager and sample application code implementing a range of device peripherals. The majority of projects for the previous STM32 Primer are compatible with the STM32 Primer2. |
| STM3210B-PRIMER | <b>STM32 Primer</b> with STM32F103B (128 Kbytes Flash) includes: Raisonance software tools (Ride7, GNU C/C++ compiler), CircleOS task manager and sample application code implementing a range of device peripherals.   |

## Revision history

**Table 3. Document revision history**

| Date        | Revision | Changes                            |
|-------------|----------|------------------------------------|
| 26-Sep-2007 | 1        | Initial release.                   |
| 30-Oct-2008 | 2        | Added the STM3210E-PRIMER details. |

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