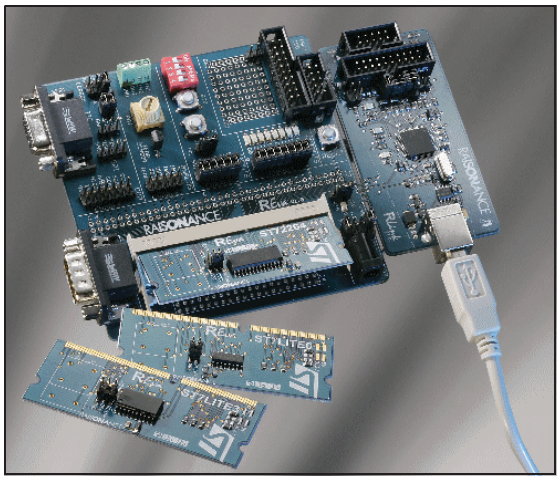
STM8-SK/RAIS STM8-D/RAIS ST7-SK/RAIS ST7-D/RAIS

Raisonance's complete, low-cost starter kits for STM8 and ST7

Data brief

Features

- Embedded RLink
  - USB interface to host PC
  - In-circuit debugging and programming
  - Application board connection via ST SWIM, ICC or JTAG
- REva motherboard
  - 1 standard SO-DIMM connector to plug in daughterboards
  - Digital and analog I/O evaluation features, including on-board LEDs, buttons, switches, external analog connector, temperature sensor and potentiometer
  - I²C EEPROM and bus
  - RS-232 driver and 2 DB9 connectors
  - Prototype area
  - VDD settings for 1.8 V, 3.3 V and 5 V microcontrollers
  - USB powered, no external power required
- Interchangeable REva daughterboard
  - Features different STM8 and ST7 MCUs to permit application development for a wide range of devices and may include additional device specific features
- Raisonance software
  - Ride7: Editor, SIMICE simulator, Rbuilder, C compiler, debugger, Project manager, and CodeCompressor
  - RFlasher7 device programming interface



Description

The REva starter kits are Raisonance's complete, cost-effective solutions for starting application development and evaluating STM8x, ST7LITEx, ST7Fox, ST7232x, ST7234x and ST7236x microcontrollers.

Kits contain all the hardware and software required to develop applications for microcontrollers, including the REva evaluation board, target STM8 and ST7 microcontrollers, embedded RLink for in-circuit debugging and in-circuit programming and the raisonance integrated development environment (Ride7) with application builder.

For further information contact your local STMicroelectronics sales office. www.st.com

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1 Architecture

Embedded RLink: In-circuit debugging and programming tool that uses SWIM for the STM8, in-circuit communication (ICC) for the ST7 and supports the JTAG protocol. It interfaces with the host PC via a USB connection.

REva mother board: Universal evaluation board designed for quick and easy evaluation of a complete range of features (I/Os, ADC, SPI, CAN, I2C...) for a variety of STM8 and ST7s. It is powered from the RLink's USB connection to the host PC.

REva daughterboards: Interchangeable boards featuring different STM8 and ST7 microcontrollers, make it easy to evaluate and develop applications for a complete range of MCUs from a single evaluation platform. All boards have a clock source selection jumper, and an oscillator footprint. See *Table 1* and *Table 2* for details.

Raisonance's software: RLink can be driven by Raisonance's Ride7 or RFlasher7.

- **Ride7**: Drives the RLink and offers seamless control of software development tools (project manager, editor, compiler, assembler, linker, debugger, etc.) from an intuitive graphical interface. It offers full integration of the relevant C/C++ toolsets, project management, code editor and SIMICE instruction set simulator. Ride7 includes:
  - **RBuilder** allows users to rapidly configure device peripherals in a GUI and generate the C source code for peripherals at the click of a button without writing a single line of code
  - **SIMICE** simulator
  - Raisonance STM8 and ST7 C compiler, free download version allows compiling up to 2 Kbytes code (Effective Date: April 1st, 2013).
  - High-level language debugging
  - Project manager
  - Color syntax highlighting editor
  - Free downloads of evaluation versions with unlimited debugging from www.raisonance.com
  - The optional CodeCompressor allows post-link optimization of the entire applications code using optimizations like in-lining, factorizing and peepholing, which can reduce application code by 5 to 15%.
- **RFlasher7**: Raisonance's easy-to-use device programming interface drives RLink and allows users to erase, program, view and verify microcontroller memory. RFlasher7 also includes automated mode for automatic execution of programming sequences for mass programming and project mode that allows users to save their programming configurations. In this operating mode, tasks become intuitive and can be achieved with only a few clicks such as:
  - Flash memory erasing and programming,
  - Flash or RAM memory dumping,
  - blank check, programming verifications,
  - mass programming process.

2 REva starter kits

REva boards can be purchased in the starter kit format, as shown in *Table 1*.

REva standalone daughterboards are also available independently from STMicroelectronics, as shown in *Table 2*.

Table 1. Raisonance starter kits for the STM8 and ST7

Starter kit (order code)	Daughterboard ID marking	Additional features(1)	MCU family supported	MCU device	MCU package
STM8/128-SK/RAIS	STM8S105	-	STM8S103/5	STM8S105C6	LQFP48
	STM8S208RB	-	STM8S207/8	STM8S208RB	LQFP64
	STM8S903	-	STM8S903	STM8S903K3	LQFP32
ST7FLITE-SK/RAIS	ST7LITEU0	-	ST7Ultralite0	ST7FLITEU0	DIP16
	ST7LITE0	-	ST7FLITE0	ST7FLITE09Y0	SO16
	ST7LITE1B	-	ST7FLIT1xB	ST7FLIT19BF1	SO20
	ST7LITE3	-	ST7FLITE3	ST7FLITE39F2	SO20
ST7232X-SK/RAIS	ST72321B	-	ST72321	ST72F321BAR9	LQFP64
	ST72325	-	ST72324/5	ST72F325AR9	LQFP64
ST72F34X-SK/RAIS	ST72345	-	ST7234x	ST72F345C4	LQFP48
	ST72264	-	ST7226x	ST72F264G2	S028
ST2F36X-SK/RAIS	ST72361	-	ST72361 ST7256X	ST72F361AR9	LQFP64

1. All kits have a clock source selection jumper, and an oscillator footprint unless stated otherwise.

Table 2. Raisonance standalone daughterboards for the STM8 and ST7

Standalone daughterboard (order code)	Daughterboard ID marking	Additional features[1]	MCU family supported	MCU device	MCU package
STM8S/32-D/RAIS	STM8S105	-	STM8S103/5	STM8S105C6	LQFP48
STM8/128-D/RAIS	STM8S208RB	-	STM8S207/8	STM8S208RB	LQFP64
STM8S/8-D/RAIS	STM8S903	-	STM8S903	STM8S903K3	LQFP32
ST7FLIT1B-D/RAIS	ST7LITE1B	-	ST7FLIT1xB	ST7FLIT19BF1	SO20
ST7FLITU0-D/RAIS	ST7LITEU0	-	ST7Ultralite0	ST7FLITEU0	DIP16
ST7FLI49-D/RAIS	ST7FLI49	-	ST7FLITE4	ST7FLITE49K2	LQFP32
ST7FLI49M-D/RAIS	ST7LITE4M	-	ST7FLITE4M	ST7FLI49MK1	LQFP32
ST72321B-D/RAIS	ST72321B	-	ST72321	ST72F321BAR9	LQFP64
ST72325-D/RAIS	ST72325	-	ST72324/25	ST72F325AR9	LQFP64
ST72345-D/RAIS	ST72345	-	ST7234x	ST72F345C4	LQFP48
ST7FOXA0-D/RAIS	ST7FOXA0	-	ST7FOXA0	ST7FOXA0	DIP16
ST7FOXK2-D/RAIS	ST7FOXK2	-	ST7FOXK2	ST7FOXK2	LQFP32

1. All kits have a clock source selection jumper, and an oscillator footprint unless stated otherwise.

3 Ordering information

REva starter kits and Raisonance development tools can be ordered from Raisonance or from your nearest ST Distributor or sales office.

The REva starter kits are available for a full range of 32-bit and 8-bit microcontrollers. For more information refer to www.st.com/mcu.

For more information, documentation and downloads, please refer to www.raisonance.com. For more information about which microcontrollers are supported, refer to www.raisonance.com or the STMicroelectronics microcontroller support site, www.st.com.

4 Revision history

Table 3. Document revision history

Date	Revision	Changes
01-Mar-2005	1	Initial release.
24-Aug-2005	2	Added part number ST7232x-SK/RAIS and ST7LITE1B daughterboard.
21-June-2006	3	Added part number ST72F34X-SK/RAIS, ST72F36X-SK/RAIS and ST72F63B-SK/RAIS. Added daughterboard features to Table 1.
21-Jul-2008	4	Added STM8 microcontroller family to supported devices. Updated the Raisonance's software paragraph, replaced Table 1 with Tables 1 and 2, and reformatted the document.
09-Apr-2010	5	Added STM8S105 and STM8S903 daughterboards to *Table 1* and *Table 2*.
22-Apr-2013	6	Updated information on Raisonance STM8 and ST7 C compiler in *Section 1: Architecture*. Modified *Section 3: Ordering information*.
01-Jul-2014	7	Updated list of starter kits in *Description*. Removed ST72F63B-SK/RAIS from *Table 1*, and ST7FLITUS-D/RAIS from *Table 2*.

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