

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

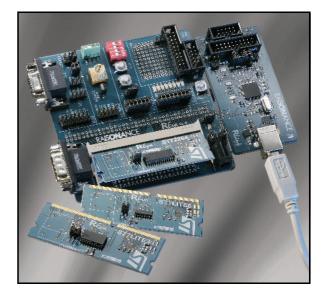
- 1 standard SO-DIMM connector to plug in daughterboards
- Digital and analog I/O evaluation features, including on-board LEDs, buttons, switches, external analog connector, temperature sensor and potentiometer
- I2C EEPROM and bus
- RS-232 driver and 2 DB9 connectors
- Prototype area
- VDD settings 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, ST7236x and ST7263B 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 incircuit programming and the raisonance integrated development environment (Ride7) with application builder.

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
 - 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.

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
ST2F63B-SK/RAIS	ST7263B	Clock source selection jumper USB mini-B connector 24 MHz oscillator	ST7260 ST7263B	ST72F63BH6	LQFP48

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

Standalone **Daughterboard** MCU family MCU daughterboard Additional features⁽¹⁾ MCU device **ID** marking supported package (order code) STM8S/32-D/RAIS STM8S105 STM8S103/5 STM8S105C6 LQFP48 STM8/128-D/RAIS STM8S207/8 STM8S208RB STM8S208RB LQFP64 STM8S/8-D/RAIS STM8S903 STM8S903 STM8S903K3 LQFP32 ST7FLIT1B-D/RAIS ST7LITE1B ST7FLIT1xB ST7FLIT19BF1 SO20 ST7FLITU0-D/RAIS ST7LITEU0 ST7Ultralite0 ST7FLITEU0 DIP16 ST7FLITUS-D/RAIS ST7LITEUS5 ST7UltraliteS ST7FLITEUS DIP16 ST7FLI49-D/RAIS ST7FLI49 ST7FLITE4 ST7FLITE49K2 LQFP32 ST7FLI49MK1 LQFP32 ST7FLI49M-D/RAIS ST7LITE4M ST7FLITE4M 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 LQFP32 ST7FOXK2

Table 2. Raisonance standalone daughterboards for the STM8 and ST7

Ordering information

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

REva starter kits based on the same mother/daughterboard design, with embedded RLink, driven by Ride software are also available for the STM32, STR7 and STR9 ARM® corebased microcontrollers and for the μ PSD 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*.

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

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 <i>Table 1</i> and <i>Table 2</i> .	

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