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STM32-SK/RAIS,STR91X-SK/RAI,STR7-SK/RAIS
STM32-D/RAIS,STR9-D/RAIS,STR7-D/RAIS

Raisonance REva starter kits for ST ARM core-based microcontrollers

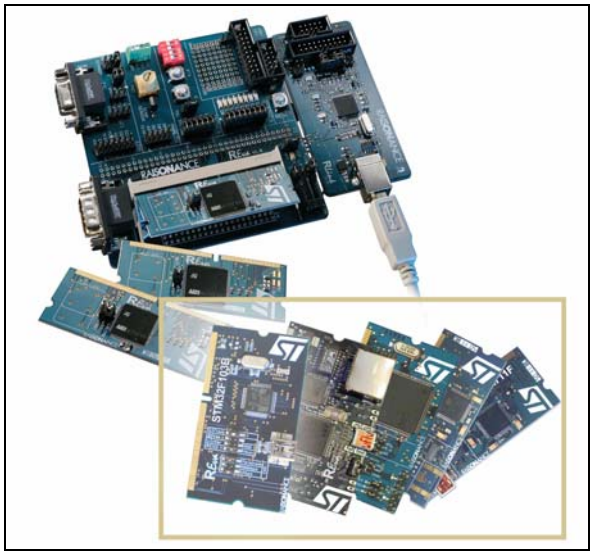
Data brief

Features

- Raisonance software toolset with:
  - GNU C compiler
  - RIDE integrated development environment
  - High-level language debugger, editor, project manager and SIMICE simulator
  - RFlasher dedicated programming interface
- Embedded RLink in-circuit debugger/programmer with USB interface to host PC and 20-pin JTAG application interface
- Unlimited programming of the target device
- Debugging of applications with debug code limitation up to 64 Kbytes
- Interchangeable daughterboards featuring different target microcontrollers allowing development of applications for a wide range of ST microcontrollers
- REva universal evaluation motherboard with:
  - One standard SO-DIMM connector to plug in interchangeable 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
  - Prototyping area
  - VDD settings for 1.8V, 3.3V and 5V
  - USB powered, no external power required

Description

The **Raisonance REva Starter Kits** are complete, low-cost solutions for starting application development and evaluating the features of STMicroelectonics ARM® Cortex™-M3, ARM966E™ and ARM7TDMI™ core-based microcontrollers. Kits come with all the hardware and software that developers need to start developing applications, including the



REva evaluation board, microcontrollers, embedded RLink JTAG in-circuit debugger/programmer and Raisonance Integrated Development Environment (RIDE).

The REva starter kits are available for a full range of 32-bit and 8-bit microcontrollers.

For more information, refer to the microcontrollers support site on www.st.com.

Table 1. Device summary

Part number		Order code
Starter kit	STM32-SK/RAIS	STM3210C-SK/RAIS STM3210B-SK/RAIS
	STR91X-SK/RAI	STR91X-SK/RAI
	STR7-SK/RAIS	STR750-SK/RAIS STR730-SK/RAIS STR71X-SK/RAIS
Daugterboard	STM32-D/RAIS	STM32107C-D/RAIS STM32103B-D/RAIS
	STR9-D/RAIS	STR912-D/RAIS
	STR7-D/RAIS	STR750-D/RAIS STR730-D/RAIS

Starter kit architecture

Ride7 software

Raisonance's integrated development environment drives the hardware and offers seamless control of all software development tools (compiler, assembler, linker, debugger) from an intuitive graphical interface. Ride7 fully integrates control of the GNU C tools.

In addition to RLink, Ride7 also drives the Signum JTAGjet in-circuit debugging and programming tool for ARM core-based microcontrollers, which supports trace using the STR9 microcontroller's Embedded Trace Macrocell™.

REva motherboard

The REva universal evaluation motherboard is designed for quick and easy evaluation of a complete range of device features. All REva motherboards in starter kits for STM32, STR9 and STR7 provide the following on-board evaluation and development features:

- SO-DIMM connector for connection of interchangeable daughterboard featuring ST microcontrollers
- 20-pin JTAG interface connector
- Power supply from USB connection (embedded RLink)
- Two USART connectors
- SPI
- I^2C
- SPI
- CAN connector
- Eight user LEDs
- Potentiometer connected to ADC
- Two user push buttons and a reset button
- Wrapping area

REva motherboards in STM32 starter kits include additional evaluation features including an LCD, MEMs and buzzer.

Embedded RLink

The RLink in-circuit debugging and programming tool has a JTAG application board interface and a USB connection to the host PC.

The RLink allows unlimited programming of the target microcontroller Flash memory. It also allows debugging of applications with debug code up to half the size of the device Flash if Flash is less than or equal to 64 Kbytes and up to 64 Kbytes if Flash is more than 64 Kbytes. An upgrade license file to extend debug capability is available from Raisonance.

REva daughterboards

These interchangeable boards feature different target microcontrollers, making it easy to evaluate and develop applications for a complete range of MCUs from a single evaluation platform.

The REva daughterboard microcontrollers and features are detailed in *Table 2*.

Table 2. REva daughterboard microcontrollers and features

MCU daughterboard	MCU specific features	Included in starter kit	Daughterboard order code
STM32F10xC	Ethernet connector USB OTG connector CAN connector Audio jack and loudspeaker	STM3210C-SK/RAIS	STM32107C-D/RAIS
STM32F10xB	USB connector	STM3210B-SK/RAIS	STM32103B-D/RAIS
STR912F	Ethernet connector USB connector CAN connector ETM connector footprint for trace tool support	STR91X-SK/RAI	STR912-D/RAIS
STR750F	USB connector Boot mode configuration jumper CAN configuration jumper	STR750-SK/RAIS	STR750-D/RAIS
STR730F	CAN configuration jumpers	STR730-SK/RAIS	STR730-D/RAIS
STR712F	CAN configuration jumpers	STR71X-SK/RAIS	-
STR711F	USB mini-B connector		-

Ordering information

REva starter kits can be ordered from Raisonance or from your nearest ST distributor or sales office.

Kits are currently available for:

- STM32 connectivity line microcontrollers (ST order code: **STM3210C-SK/RAIS**)
- STM32 performance and access line microcontrollers with 128K Flash (ST order code: **STM3210B-SK/RAIS**)
- STR91xF microcontrollers (ST order code: **STR91X-SK/RAI**)
- STR75xF microcontrollers (ST order code: **STR750-SK/RAIS**)
- STR73xF microcontrollers (ST order code: **STR730-SK/RAIS**)
- STR71xF microcontrollers (ST order code: **STR71X-SK/RAIS**)

For more information and documentation, please refer to the Raisonance web site, *www.raisonance.com* or to the STMicroelectronics microcontroller support site at *www.st.com/mcu*.

Revision history

Table 3. Document revision history

Date	Revision	Changes
1-Aug-2005	1	Initial release.
21-Sep-2005	2	Added STR730-SK/RAIS and features. Added JTAGjet in hardware driven by RIDE.
7-Jun-2006	3	Added ordering codes and product information for the STR91X-SK/RAI. Added REva motherboard table of features.
16-Jun-2006	4	Corrected ordering codes in Table 1.
14-Feb-2007	5	Addition of the STR750-SK/RAIS. Updated Table 1 and Table 2 for STR750.
4-Oct-2007	6	Modified document title. Added STM3210B-SK/RAIS and features. Modified presentation of daughter board features (removed Table 1).
25-Jun-2009	7	Added STM3210C-SK/RAIS STM32107C-D/RAIS and features. Modified presentation of daughter board features (added Table 1). Modified document title.
22-Apr-2013	8	Modified programming and debugging information in *Features*. Modified supported family information in *Description*. Updated *Embedded RLink* and *Ordering information*.