



STM32-SK/IAR STR91X-SK/IAR, STR7-SK/IAR

IAR™ starter kits for ST ARM core-based microcontrollers

Data brief

Features

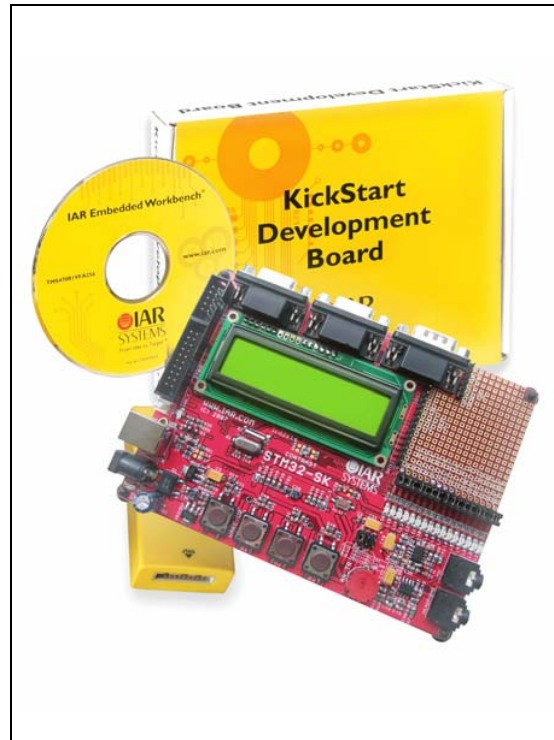
- The IAR Embedded WorkBench™ for ARM® (EWARM) software package with:
 - KickStart™ C/C++ compiler for output of code up to 32 Kbytes
 - VisualState™ code generator, 20-state version
 - C-SPY high-level language debugger
 - Editor, linker and librarian tools
- J-Link in-circuit debugger/programmer with USB interface to host PC and 20-pin JTAG application interface (embedded on some kits)
- Full-featured KickStart™ development board with target microcontroller. On-board features are listed in [Table 1](#).

Description

The **IAR KickStart kits** are complete, cost-effective solutions for starting application development and evaluating STMicroelectronics' ARM core-based microcontrollers.

The KickStart kit's come with all the hardware and software you need to start developing applications including the KickStart development board with target microcontroller, the IAR J-Link in-circuit debugger/programmer (USB/JTAG) and IAR Embedded Workbench™ for ARM (EWARM) integrated development environment with the KickStart edition of the IAR C/C++ compiler (output code up to 32 Kbytes), built-in Flash loader and sample projects for all device peripherals.

IAR KickStart kits provide evaluation and development support for a full range of ST ARM core-based microcontrollers.



Starter kit architecture

The **IAR development software** is a suite of software tools for all phases of application development that includes:

- **IAR Embedded Workbench for ARM** integrated development environment with the KickStart 32KB C/C++ compiler to build the application and the C-SPY™ debugger for debugging the application while it runs on your microcontroller.
- **VisualSTATE 20-state version** of IAR's graphical design environment with C/C++ code generator for developing application code based on machine states.
- **J-Link** in-circuit debugger/programmer (USB/JTAG) which integrates fully with EWARM, allowing you to download the application to your target and debug it while it runs on your ST ARM core-based microcontroller. J-Link is embedded on the KickStart development board in the STM32 starter kits.
- **KickStart development board** that provides a full range of features to help developers evaluate and start developing applications for the included microcontroller. The board is powered from the J-Link's USB connection with the host PC.

Table 1. KickStart development board key features

| Feature | Starter kit | | | | | | | |
|----------------------------------|-----------------|-----------------|-------------------|---------------|---------------|---------------|---------------|---------------|
| | STM3210C-SK/IAR | STM3210E-SK/IAR | STR91X-SK/IAR | STR750-SK/IAR | STR731-SK/IAR | STR730-SK/IAR | STR712-SK/IAR | STR711-SK/IAR |
| Included microcontroller | STM32F107C | STM32F103E | STR912FAW4 | STR750FV2 | STR731FV2 | STR730FZ2 | STR712FR2 | STR711FR2 |
| J-Link | Embedded | Embedded | Standalone | Standalone | Standalone | Standalone | Standalone | Standalone |
| 20-pin JTAG connector | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trace tool connector | 20-pin | 20-pin | 38-pin | N/A | N/A | N/A | N/A | N/A |
| Power supply from USB connection | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Backup power supply | No | No | 3V button battery | No | No | No | No | No |
| USART connector(s) | 2 | 2 | 3 | 3 | 4 | 4 | 2 | 2 |
| SPI | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| I ² C | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| CAN connector | Yes | No | Yes | Yes | No | Yes | Yes | No |
| USB connector | Host OTG | Host | Host | Host | Host | No | No | Host |
| Ethernet connector | Yes | N/A | Yes | N/A | N/A | N/A | N/A | N/A |
| User LEDs | 4 | 4 | 16 | 16 | 16 | 16 | 2 | 2 |
| LCD display | Graphical | Graphical | Yes (2x16) | Yes (2x16) | Yes (2x16) | Yes (2x16) | No | No |

Table 1. KickStart development board key features (continued)

| Feature | Starter kit | | | | | | | |
|--------------------------------------|-----------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | STM3210C-SK/IAR | STM3210E-SK/IAR | STR91X-SK/IAR | STR750-SK/IAR | STR731-SK/IAR | STR730-SK/IAR | STR712-SK/IAR | STR711-SK/IAR |
| SD/MMC connector | Yes | Yes | Yes | Yes | No | No | No | No |
| Potentiometer connected to ADC | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| User, tamper, wake-up push button(s) | 3 | 3 | 3 | 5 | 5 | 5 | 3 | 3 |
| Reset button | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Wrap area | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Additional features | | | | | | | | |
| Stepper motor | Yes | Yes | No | No | No | No | No | No |
| MEMS accelerometer | Yes | Yes | No | No | No | No | No | No |

Ordering information

IAR KickStart kits can be ordered from IAR or from your nearest ST distributor or sales office. Kits are currently available for:

- STM32 connectivity line microcontrollers (ST order code: **STM3210C-SK/IAR**)
- STM32 performance and access line microcontrollers with up to 512K Flash (ST order code: **STM3210E-SK/IAR**)
- STR91xF microcontrollers (ST order code: **STR91X-SK/IAR**)
- STR75xF microcontrollers (ST order code: **STR750-SK/IAR**)
- STR731F microcontrollers (ST order code: **STR731-SK/IAR**)
- STR730F microcontrollers (ST order code: **STR730-SK/IAR**)
- STR712F microcontrollers (ST order code: **STR712-SK/IAR**)
- STR711F microcontrollers (ST order code: **STR711-SK/IAR**)

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

Revision history

Table 2. Document revision history

| Date | Revision | Changes |
|-------------|----------|--|
| 1-Apr-2005 | 1 | Initial release. |
| 27-Sep-2005 | 2 | Added STR730-SK/IAR and table of on-board features. |
| 7-Jun-2006 | 3 | Added STR91X-SK/IAR and STR731-SK/IAR and key features. |
| 4-Oct-2006 | 4 | Added STR750-SK/IAR and key features. |
| 4-Oct-2007 | 5 | Modified document title. Added STM3210B-SK/IAR and key features. |
| 17-Oct-2008 | 6 | Added STM3210E-SK/IAR and key features. |
| 18-Jun-2009 | 7 | Added STM3210C-SK/IAR and key features. Removed STM3210B-SK/IAR and key features. |

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