

Device summary

Part number	Prog. (bytes)	RAM (bytes)	A/D inputs	Timer functions		Serial interface	I/Os (high current)	Packages	Supply voltage	Special features
				16-Bit (I/O/PWM)	Others					
STR711FR0	64K+16K	16K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	30 (0)	TQFP64/LFBGA64	3.0 to 3.6V	USB
STR712FR0	64K+16K	16K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	32 (0)	TQFP64/LFBGA64	3.0 to 3.6V	CAN
STR715FR0	64K+16K	16K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	32 (0)	TQFP64/LFBGA64	3.0 to 3.6V	
STR710FZ1	128K+16K	32K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	48 (8)	TQFP144/LFBGA144	3.0 to 3.6V	EMI, CAN, USB
STR711FR1	128K+16K	32K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	30 (0)	TQFP64/LFBGA64	3.0 to 3.6V	USB
STR712FR1	128K+16K	32K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	32 (0)	TQFP64/LFBGA64	3.0 to 3.6V	CAN
STR710FZ2	256K+16K	64K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	48 (8)	TQFP144/LFBGA144	3.0 to 3.6V	EMI, CAN, USB
STR711FR2	256K+16K	64K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	30 (0)	TQFP64/LFBGA64	3.0 to 3.6V	USB
STR712FR2	256K+16K	64K	4x12-Bit	5 (5/8/3)	WDG, RTC	2xSPI/2xI ² C/4xUART/HDLC/SC	32 (0)	TQFP64/LFBGA64	3.0 to 3.6V	CAN

Development tools

STMicroelectronics' 32-bit ARM core-based microcontrollers are supported by a complete range of high-end and low-cost development tools to meet the needs of application developers. The range of development packages includes third-party solutions that come complete with a graphical development environment and an in-circuit emulator/programmer featuring a JTAG application interface. These support a range of embedded operating systems (OS) while several royalty-free OSs are also available.

Third-parties

Aiji System (아이시스템)	www.aijissystem.com	Hitex	www.hitex.com	Nohau	www.nohau.com
Anby (안비)	www.anby.cn	IAR	www.iar.com	PLS	www.pls-mc.com
ARM	www.arm.com	Isystem	www.isystem.com	Raisonance	www.raisonance.com
Ashling	www.ashling.com	Keil	www.keil.com	Rowley	www.rowley.co.uk
Embest (英梅特)	www.embedinfo.com	Lauterbach	www.lauterbach.com	Segger	www.segger.com
Greenchips (그린칩스)	www.greenchips.com	Manley (만리)	www.manley.com.cn		
GreenHills	www.ghs.com	Micrium	www.micrium.com		

Evaluation board

Complete development platforms from ST include the STR710FZ2T6 microcontroller. Available evaluation boards also include products from third-party suppliers including Anby, Embest, Manley and Greenchips.

Starter kits

Starter kits for STR7 microcontrollers are low cost and out-of-the-box solutions to evaluate and start development on ST's ARM core-based MCUs. Starter kits for ARM are available from ST and third-parties such as IAR, Hitex, Keil and Raisonance.



RealView Developer kit for ST (RVDK for ST)

The RealView Developer Kit for ST is a complete, low-cost development solution based on ARM's RealView Developer Suite (RVDS).

e-Support

Extensive documentation is available through our website, www.st.com/mcu including application notes, datasheets, programming manual and user manuals. Software can also be downloaded.

Part number	Description
Starter kits	
STR711-SK/IAR STR712-SK/IAR	KickStart kit from IAR, includes IAR embedded workbench for ARM (EWARM - 32K code-size limited version), J-Link (USB/JTAG) in-circuit emulator, as well as IAR demonstration boards
STR71x-SK/RAIS	REva starter kit from Raisonance, includes RIDE (16K code-size limited version) with GNU C/C++ compiler, debugger, RLink (USB/JTAG) in-circuit emulator, demonstration motherboard and daughter boards for STR711F and STR712
STR710-SK/HIT	ARM starter kit from Hitex, includes HiTOP5 (16K code-size limited version) with GNU C/C++ compiler, debugger, Tantino (USB/JTAG) in-circuit emulator, evaluation board for STR710F
Evaluation board	
STR710-EVAL	STR71xF series evaluation board
RVDK	
STR7-RVDK	ARM RealView Developer Kit for ST and ARM7TM, including RealView ICE Micro Edition hardware. No time restriction
STR7-RVDK/BAS	ARM RealView Developer Kit for ST, Basic Edition for ARM7TM with RealView ICE Micro Edition hardware. 1 year license at limited cost
STR-RVICE/ME	RealView ICE Micro Edition hardware emulator with Preview Edition CD (45 day evaluation version)
STR-RVDK/CPP	C++ support option



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For selected STMicroelectronics sales offices fax:

France +33 1 55489569; Germany +49 89 4605454; Italy +39 02 8250449; Japan +81 3 57838216; Singapore +65 6481 5124; Sweden +46 8 58774411; Switzerland +41 22 9292900; United Kingdom and Eire +44 1628 890391; USA +1 781 861 2678

Full product information at www.st.com

STR710F Flash family

32-bit ARM-based Flash microcontrollers



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www.st.com/mcu



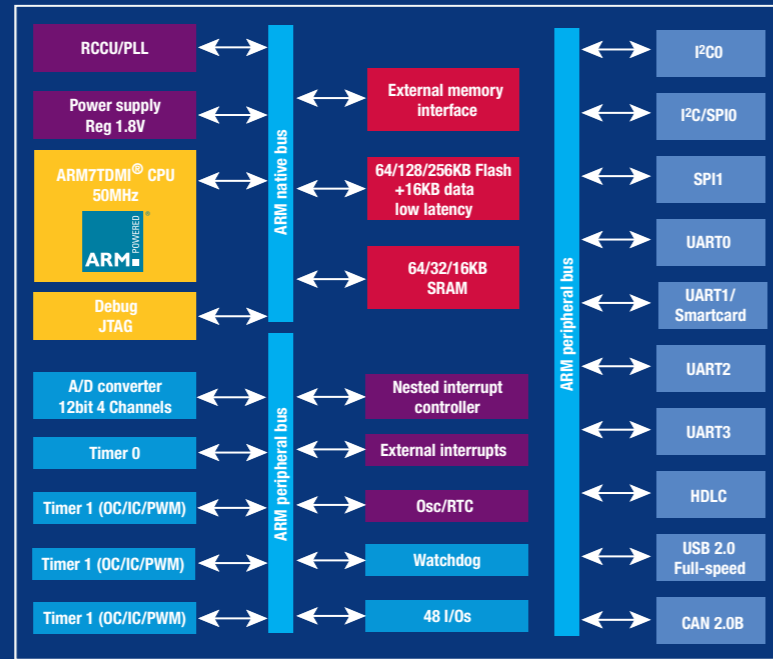
STR710F Flash family

STR710F Flash Microcontrollers from **STMicroelectronics** are a new generation of super-integrated, single-chip devices. They combine the industry standard ARM7TDMI® RISC microprocessor with embedded Flash and powerful peripheral functions including, USB and CAN. It is ideal for embedded applications requiring a compact yet powerful MCU, or versatile, scalable solutions such as user interfaces, factory automation systems and Point of Sale applications.

Built on the leading ARM™ architecture, the STR710F Flash series allows fast response to emerging requirements, enabling the rapid implementation of changes at low cost. This family of standard ARM microcontrollers will serve your needs for today and the future.

Applications

- POS
 - Secure card reader
 - Receipt printer
 - Bill validation
 - Tax control machine
- USB devices
 - Security token
 - Card reader
- Industrial
 - Circuit breaker
 - Factory automation
 - Industrial network
 - PLC
- Building, fire and security
 - Alarm system
 - Power meter
- Medical
- Appliances
- Others (hands-free car kits, electric wheelchairs, cellphone basestations etc.)



64/144-pin TQFP and BGA -40 to +85°C operating temperature range Single power 3.3V

Features and benefits

Features	Benefits
High-performance, industry standard core ARM7TDMI RISC 32-bit CPU	Future-proof microcontrollers that easily adapt to customer requirements
Extensive software and tool support including the complete STR7 library for USB	Dramatically reduces development time and increases easy-of-use
Largest choice of peripherals and interfaces, including USB and CAN	Reduces system cost with all peripherals in one chip
Flexible power and clock management	Allows full control over power consumption and performance/power tradeoffs
Superior RAM/FLASH ratio	Unlimited possibilities - up to 64K RAM, and always above 16K even with smallest Flash option
High-quality embedded Flash with 16K extra Flash for EE emulation	Reduces system cost with no need for external EEPROM
Extensive package options including the space efficient 8x8 LFBGA64 and 10x10 LFBGA 144	Optimizes development – each device is available with extensive options to ensure compatibility with any product range

Take control of your design

With the STR7 series you take control of your design. The flexibility of the family, with its extensive range of options for Flash and RAM, its comprehensive set of peripherals, and its versatile package options, enables reuse for a whole range of products, optimizing your developments. It helps you build cost-effective and powerful solutions that bring innovation in your market.

Take control of your application

The STR710F series helps you take control of your software, with our complete STR7 software library and extensive application notes explaining how to get the most from the device.

The STR710F enables you to take control of your development. Its ARM7 core is an industry standard – recognized globally – and with extensive support for all major tool providers, you will have no problem establishing the best fit to reduce the time to market of your development.

