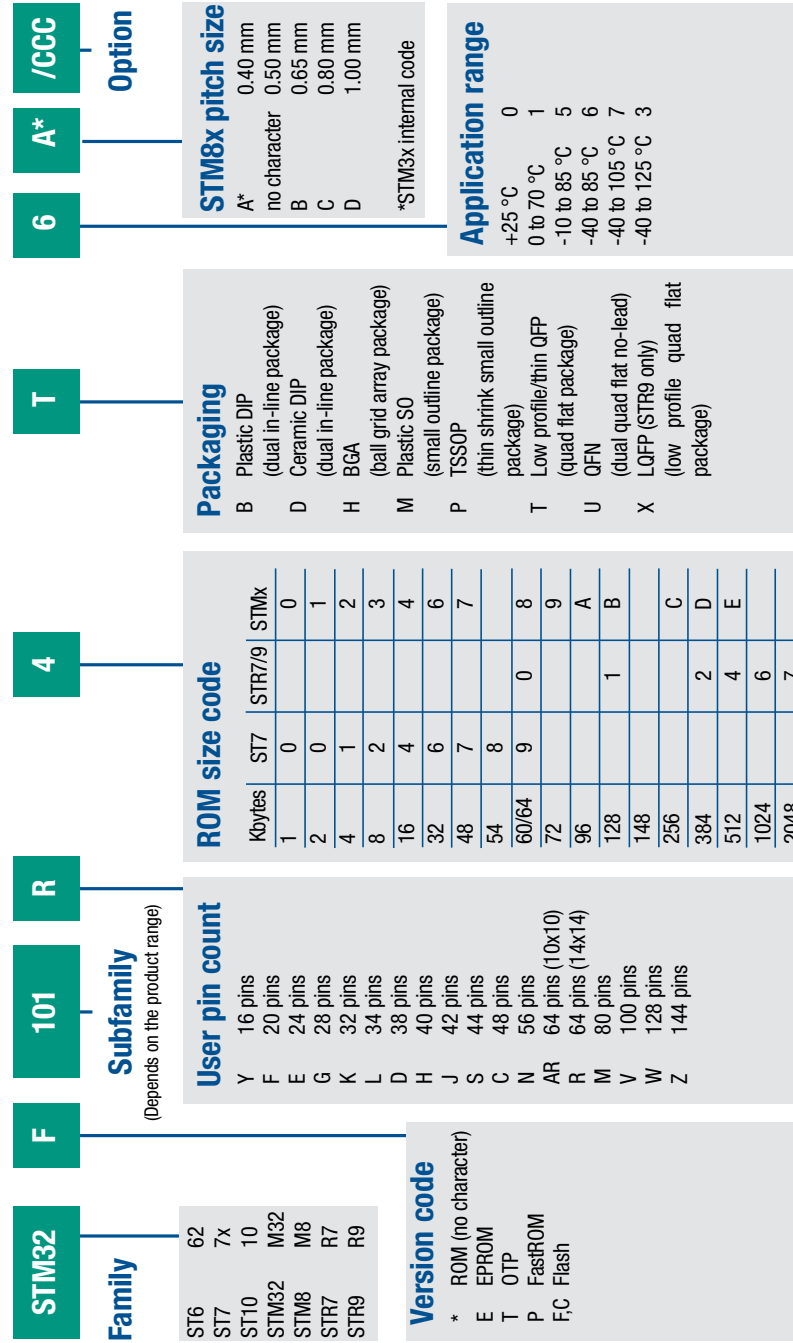


MCU - Typical designations and part number suffixes



8-, 16- and 32-bit microcontrollers

Product and tool selection guide



February 2010



© STMicroelectronics - February 2010 - Printed in Italy - All rights reserved
 The STMicroelectronics corporate logo is a registered trademark of the STMicroelectronics group of companies.
 All other names are the property of their respective owners.

For more information on ST products and solutions,
 visit www.st.com



Order code: SGMICR00210



STM32 - 32-bit microcontroller families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features
	Type	Size				12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)	Others						
	Flash	ROM (Kbytes)												

STM32F - 32-bit ARM Cortex MCUs

STM32F100 Value line - 24 MHz CPU																		
48 pins	STM32F100C4	●	16	4 K	-	10x12-bit	6x16-bit (16/16/21)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	1xSPI, 1xPC, CEC, 2xUSART (IrDA, ISO 7816)	-	37(37)	LQFP48	2.0 to 3.6	24 MHz CPU speed, 2-channel DAC, Vbat pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillator, 4-24 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C or -40 to 105 °C			
	STM32F100C6	●	32	4 K	-	10x12-bit	6x16-bit (16/16/21)	-			2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)	-	37(37)	LQFP48		2.0 to 3.6		
	STM32F100C8	●	64	8 K	-	10x12-bit	7x16-bit (18/18/21)	-		1xSPI, 1xPC, CEC, 2xUSART (IrDA, ISO 7816)		-	37(37)	LQFP48		2.0 to 3.6		
	STM32F100CB	●	128	8 K	-	10x12-bit	7x16-bit (18/18/21)	-			2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)	-	37(37)	LQFP48		2.0 to 3.6		
64 pins	STM32F100R4	●	16	4 K	-	16x12-bit	6x16-bit (16/16/21)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	1xSPI, 1xPC, CEC, 2xUSART (IrDA, ISO 7816)		-	51(51)	LQFP64, TFBGA64		2.0 to 3.6		
	STM32F100R6	●	32	4 K	-	16x12-bit	6x16-bit (16/16/21)	-			2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)	-	51(51)	LQFP64, TFBGA64		2.0 to 3.6		
	STM32F100R8	●	64	8 K	-	16x12-bit	7x16-bit (20/20/23)	-		2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)		-	51(51)	LQFP64, TFBGA64		2.0 to 3.6		
	STM32F100RB	●	128	8 K	-	16x12-bit	7x16-bit (20/20/23)	-			2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)	-	51(51)	LQFP64, TFBGA64		2.0 to 3.6		
100 pins	STM32F100V8	●	64	8 K	-	16x12-bit	7x16-bit (20/20/26)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)		-	80(80)	LQFP100		2.0 to 3.6		
	STM32F100VB	●	128	8 K	-	16x12-bit	7x16-bit (20/20/26)	-			2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	2xSPI, 2xPC, CEC, 3xUSART (IrDA, ISO 7816)	-	80(80)		LQFP100	2.0 to 3.6	
STM32F101 Access line - 36 MHz CPU																		
36 pins	STM32F101T4	●	16	4 K	-	10x12-bit	2x16-bit (8/8/8)	-	2xWDG, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	26(26)	QFN36	2.0 to 3.6		36 MHz CPU speed, Vbat pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillator, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C		
	STM32F101T6	●	32	6 K	-	10x12-bit	2x16-bit (8/8/8)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	26(26)	QFN36		2.0 to 3.6	
	STM32F101T8	●	64	10 K	-	10x12-bit	3x16-bit (12/12/12)	-					2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-		26(26)	QFN36
48 pins	STM32F101C4	●	16	4 K	-	10x12-bit	2x16-bit (8/8/8)	-	2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	36(36)			LQFP48, LQFP48		2.0 to 3.6	
	STM32F101C6	●	32	6 K	-	10x12-bit	2x16-bit (8/8/8)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	36(36)	LQFP48, LQFP48		2.0 to 3.6	
	STM32F101C8	●	64	10 K	-	10x12-bit	3x16-bit (12/12/12)	-					2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-		36(36)	LQFP48, LQFP48
	STM32F101CB	●	128	16 K	-	10x12-bit	3x16-bit (12/12/12)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)			-		36(36)	LQFP48, LQFP48
64 pins	STM32F101R4	●	16	4 K	-	16x12-bit	2x16-bit (8/8/8)	-	2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)			-	51(51)	LQFP64		2.0 to 3.6	
	STM32F101R6	●	32	6 K	-	16x12-bit	2x16-bit (8/8/8)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	51(51)	LQFP64		2.0 to 3.6	
	STM32F101R8	●	64	10 K	-	16x12-bit	3x16-bit (12/12/12)	-					2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-		51(51)	LQFP64
	STM32F101RB	●	128	16 K	-	16x12-bit	3x16-bit (12/12/12)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)			-		51(51)	LQFP64
	STM32F101RC	●	256	32 K	-	16x12-bit	6x16-bit (16/16/16)	-					2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-		51(51)	LQFP64
	STM32F101RD	●	384	48 K	-	16x12-bit	6x16-bit (16/16/16)	-			2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)			-	51(51)	LQFP64	2.0 to 3.6
	STM32F101RE	●	512	48 K	-	16x12-bit	6x16-bit (16/16/16)	-							2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	51(51)
	STM32F101RF	●	768	80K	-	16x12-bit	12x16-bit (19/19/19)	-			2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)					-	51(51)
STM32F101RG	●	1024	80K	-	16x12-bit	12x16-bit (19/19/19)	-	2xWDG, RTC, 24-bit down counter	2xSPI, 2xPC, 3xUSART (IrDA, ISO 7816)	-			80(80)	LQFP100	2.0 to 3.6			
100 pins	STM32F101V8	●	64	10 K	-	16x12-bit	3x16-bit (12/12/12)			-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	80(80)	LQFP100	2.0 to 3.6		
	STM32F101VB	●	128	16 K	-	16x12-bit	3x16-bit (12/12/12)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)			-	80(80)	LQFP100	2.0 to 3.6		
	STM32F101VC	●	256	32 K	-	16x12-bit	6x16-bit (16/16/16)	-					2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	80(80)	LQFP100	2.0 to 3.6
	STM32F101VD	●	384	48 K	-	16x12-bit	6x16-bit (16/16/16)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)					-	80(80)	LQFP100	2.0 to 3.6
	STM32F101VE	●	512	48 K	-	16x12-bit	6x16-bit (16/16/16)	-					2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	80(80)	LQFP100	2.0 to 3.6
	STM32F101VF	●	768	80K	-	16x12-bit	12x16-bit (23/23/23)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)					-	80(80)	LQFP100	2.0 to 3.6
STM32F101VG	●	1024	80K	-	16x12-bit	12x16-bit (23/23/23)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers			3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	80(80)	LQFP100	2.0 to 3.6			
144 pins	STM32F101ZC	●	256	32 K	-	16x12-bit	6x16-bit (16/16/16)		-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers		3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	112(112)	LQFP144	2.0 to 3.6	Additional features on 768-Kbyte to 1-Mbyte variants: MPU, dual bank Flash with RWW	
	STM32F101ZD	●	384	48 K	-	16x12-bit	6x16-bit (16/16/16)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers		3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)		-	112(112)	LQFP144	2.0 to 3.6		
	STM32F101ZE	●	512	48 K	-	16x12-bit	6x16-bit (16/16/16)	-					2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	112(112)		LQFP144
	STM32F101ZF	●	768	80K	-	16x12-bit	12x16-bit (23/23/23)	-	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers		3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)				-	112(112)		LQFP144
	STM32F101ZG	●	1024	80K	-	16x12-bit	12x16-bit (23/23/23)	-					2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xPC, 5xUSART/UART (IrDA, ISO 7816)	-	112(112)		LQFP144
STM32F102 USB Access line - 48 MHz CPU																		
48 pins	STM32F102C4	●	16	4 K	-	10x12-bit	2x16-bit (8/8/8)	-	2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	36(36)	LQFP48	2.0 to 3.6	48 MHz CPU speed, Vbat pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillator, dedicated 32 kHz oscillator, -40 to 85 °C			
	STM32F102C6	●	32	6 K	-	10x12-bit	2x16-bit (8/8/8)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	36(36)		LQFP48	2.0 to 3.6	
	STM32F102C8	●	64	10 K	-	10x12-bit	3x16-bit (12/12/12)	-					2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)		-	36(36)	LQFP48
	STM32F102CB	●	128	16 K	-	10x12-bit	3x16-bit (12/12/12)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)				-	36(36)	LQFP48
64 pins	STM32F102R4	●	16	4 K	-	16x12-bit	2x16-bit (8/8/8)	-	2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)			-	51(51)		LQFP64	2.0 to 3.6	
	STM32F102R6	●	32	6 K	-	16x12-bit	2x16-bit (8/8/8)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)	-	51(51)		LQFP64	2.0 to 3.6	
	STM32F102R8	●	64	10 K	-	16x12-bit	3x16-bit (12/12/12)	-					2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)		-	51(51)	LQFP64
	STM32F102RB	●	128	16 K	-	16x12-bit	3x16-bit (12/12/12)	-			2xWDG, RTC, 24-bit down counter	1xSPI, 1xPC, 2xUSART (IrDA, ISO 7816)				-	51(51)	LQFP64

STM32 - 32-bit microcontroller families

Part number	Program memory			RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features	
	Type		Size				12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)	Others							
	Flash	ROM	(Kbytes)													
144 pins	STM32F103ZC	●		256	48 K	-	21x12-bit	8x16-bit (24/24/28)	-	3xSPI, 2xI ² C, 5xUSART (IrDA, ISO 7816), SDIO, USB, CAN	-	112(112)	LQFP144, LFBGA144	2.0 to 3.6		
	STM32F103ZD	●		384	64 K	-	21x12-bit	8x16-bit (24/24/28)	-		2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	-	112(112)	LQFP144, LFBGA144		2.0 to 3.6
	STM32F103ZE	●		512	64 K	-	21x12-bit	8x16-bit (24/24/28)	-		-	-	112(112)	LQFP144, LFBGA144		2.0 to 3.6
	STM32F103ZF	●		768	96K	-	21x12-bit	14x16-bit (33/33/35)	-		-	-	112(112)	LQFP144, LFBGA144		2.0 to 3.6
	STM32F103ZG	●		1024	96K	-	21x12-bit	14x16-bit (33/33/35)	-		-	-	112(112)	LQFP144, LFBGA144		2.0 to 3.6
STM32F105/107 Connectivity line - 72 MHz CPU																
64 pins	STM32F105R8	●		64	20 K	-	16x12-bit	7x16-bit (20/20/22)	-	3xSPI, 2xI ² S, 2xI ² C, 3xUSART (IrDA, ISO 7816), 2xUART, USB OTG FS, 2xCAN	-	51(51)	LQFP64	2.0 to 3.6	72 MHz CPU speed, 2-channel DAC, Vbat pin, low power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillator, 3-25 MHz main oscillator, dedicated 32 kHz oscillator, 1x high-speed USART 4.5 Mbit/s, motor control oriented PWM, 2x ADC (double sample and hold capability), advanced PLL schemes for audio class I ² S communication, -40 to 85 °C or -40 to 105 °C	
	STM32F105RB	●		128	32 K	-	16x12-bit	7x16-bit (20/20/22)	-		2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	-	51(51)	LQFP64		2.0 to 3.6
	STM32F105RC	●		256	64 K	-	16x12-bit	7x16-bit (20/20/22)	-		-	-	51(51)	LQFP64		2.0 to 3.6
	STM32F107RB	●		128	48 K	-	16x12-bit	7x16-bit (20/20/22)	-		2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	-	51(51)	LQFP64		2.0 to 3.6
	STM32F107RC	●		256	64 K	-	16x12-bit	7x16-bit (20/20/22)	-		3xSPI, 2xI ² S, 2xI ² C, 3xUSART (IrDA, ISO 7816), 2xUART, USB OTG FS, 2xCAN, Ethernet MAC10/100	-	51(51)	LQFP64		2.0 to 3.6
100 pins	STM32F105V8	●		64	20 K	-	16x12-bit	7x16-bit (20/20/22)	-	3xSPI, 2xI ² S, 2xI ² C, 3xUSART (IrDA, ISO 7816), 2xUART, USB OTG FS, 2xCAN	-	80(80)	LQFP100	2.0 to 3.6		
	STM32F105VB	●		128	32 K	-	16x12-bit	7x16-bit (20/20/22)	-		2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	-	80(80)	LQFP100		2.0 to 3.6
	STM32F105VC	●		256	64 K	-	16x12-bit	7x16-bit (20/20/22)	-		-	-	80(80)	LQFP100		2.0 to 3.6
	STM32F107VB	●		128	48 K	-	16x12-bit	7x16-bit (20/20/22)	-		2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	-	80(80)	LQFP100		2.0 to 3.6
	STM32F107VC	●		256	64 K	-	16x12-bit	7x16-bit (20/20/22)	-		3xSPI, 2xI ² S, 2xI ² C, 3xUSART (IrDA, ISO 7816), 2xUART, USB OTG FS, 2xCAN, Ethernet MAC10/100	-	80(80)	LQFP100		2.0 to 3.6

STM32W - 32-bit ARM Cortex RF MCUs

STM32W108 Wireless line - IEEE 802.15.4															
40 pins	STM32W108HB	●		128	8 K	-	6x12-bit	2x16-bit	-	1xUART, 1xSPI, 1xI ² C	-	18	VQFN40	2.1 to 3.6	IEEE 802.15.4, radio 2.45 GHz, 109 dBm Link budget. *x= define F/W Library: Blank=none, 1=ZigBee PRO, 2= RFU, 3=RF4CE, 4=MAC
48 pins	STM32W108CB	●		128	8 K	-	6x12-bit	2x16-bit	-		-	-	24	VQFN48	

Abbreviations and notes

Abbreviations	MFT : Multifunction timer
ADC : Analog-to-digital converter	MMC : MultiMediaCard
ART : Auto-reload timer	NMI : Non-maskable interrupt
ATAPI : AT attachment packet interface	OSG : Oscillator safeguard
AWU : Auto wake-up from halt	PCA : Programmable counter array
BLPD : Byte level protocol decoder	PDR : Power-down reset
BOD : Brown-out detector	PHW : Programmable halt wake-up
CAN : Controller area network	PEC : Peripheral event controller
CAPCOM : Capture compare	PLD : Programmable logic device
CSS : Clock security system	PLL : Phase locked loop
DALI : Digital addressable lighting interface	POR : Power-on reset
DDC : Data display channel	PVD : Programmable voltage detector
DISEqC : Digital satellite equipment control	PVR : Programmable voltage regulator
DMA : Direct memory access	PWM : Pulse width modulation
DSC : Dual supply control	ROP : Readout protection
DTC : Data transfer coprocessor	RTC : Real-time clock timer
ETM : Embedded trace macrocell	SC : Smartcard
EMI : External memory interface	SCI : Serial communication interface
HDLC : High-level data link control	SCR : Smartcard reader
IAP : In-application programming	SDIO : Secure digital input output
IC/OC : Input capture/output compare ICP programming	SMI : Serial memory interface
IR : Infrared	SPI : Serial peripheral interface
IrDA : Infrared data association	SSC : Single-cycle switching support
ISP : In-situ programming	SSP : Synchronous serial port
I ² C : Inter-integrated circuit	TBU : Time base unit
I ² S : Inter-IC sound	TLI : Top level interrupt
LCD : Liquid crystal display	UART : Universal asynchronous receiver transmitter
LIN : Local interconnect network	USART : Universal sync/asynch receiver transmitter
LVD : Low voltage detection	USB : Universal Serial Bus
MAC : Multiply accumulator	WDG : Watchdog timer
MC : Motor control	WWDG : Window watchdog timer

Packages
DIP : Dual in-line package
LCC : Leaded chip carrier
SDIP : Shrink dual in-line package
PQFP : Plastic quad flat package
SO : Small outline
LQFP : Low-profile quad flat package
PBGA : Plastic ball grid array
DFN : Dual flat no-lead
QFN : Quad flat no-lead

Notes
● : Under development
1 : Exists also in OTP and EPROM version
2 : Number of high current pins included in the number of I/O pins
3 : Audio square wave generator
4 : HDFS (high-density Flash)
5 : XFlash (extended Flash for 10 kcycle min)
6 : FASTROM service available for pre-programmed devices in production quantities

STM8 - 8-bit microcontroller families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Pac Kages	Supply voltage (V)	Special features
	Type	Size				12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)	Others						
	Flash	ROM (Kbytes)												

STM8S multi-purpose 8-bit microcontroller families

STM8S20x Performance line															
32 pins	STM8S207K6	●	32	2 K	1 K	7x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	25(12)	LQFP32 (7x7), QFN32 (5x5)	2.95 to 5.5	24 MHz CPU speed, POR, BOR, SWIM, 16 MHz and 128 kHz internal RC, ICP, IAP, boot ROM, beeper, TLI	
	STM8S207S6	●	32	2 K	1 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit		1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	34(15)	LQFP44 (10x10)		2.95 to 5.5
44 pins	STM8S208S6	●	32	4 K	1.5 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	34(15)	LQFP44 (10x10)	2.95 to 5.5		
	STM8S207S8	●	64	4 K	1.5 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	34(15)	LQFP44 (10x10)	2.95 to 5.5		
	STM8S208S8	●	64	4 K	1.5 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	34(15)	LQFP44 (10x10)	2.95 to 5.5		
	STM8S207SB	●	128	4 K	1.5 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	34(15)	LQFP44 (10x10)	2.95 to 5.5		
	STM8S208SB	●	128	4 K	1.5 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	34(15)	LQFP44 (10x10)	2.95 to 5.5		
	STM8S207C6	●	32	2 K	1 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	38(16)	LQFP48 (7x7)	2.95 to 5.5		
48 pins	STM8S208C6	●	32	6 K	2 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	38(16)	LQFP48 (7x7)	2.95 to 5.5		
	STM8S207C8	●	64	4 K	1.5 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	38(16)	LQFP48 (7x7)	2.95 to 5.5		
	STM8S208C8	●	64	6 K	2 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	38(16)	LQFP48 (7x7)	2.95 to 5.5		
	STM8S207CB	●	128	6 K	2 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	38(16)	LQFP48 (7x7)	2.95 to 5.5		
	STM8S208CB	●	128	6 K	2 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	38(16)	LQFP48 (7x7)	2.95 to 5.5		
	STM8S207RB	●	128	6 K	2 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	52(16)	LQFP64 (10x10)	2.95 to 5.5		
64 pins	STM8S208RB	●	32	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	52(16)	LQFP64 (10x10)	2.95 to 5.5		
	STM8S207R8	●	64	4 K	1.5 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	52(16)	LQFP64 (10x10), LQFP64 (14x14)	2.95 to 5.5		
	STM8S208R8	●	64	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	52(16)	LQFP64 (10x10)	2.95 to 5.5		
	STM8S207RB	●	128	6K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	52(16)	LQFP64 (10x10), LQFP64 (14x14)	2.95 to 5.5		
	STM8S208RB	●	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	52(16)	LQFP64 (10x10)	2.95 to 5.5		
	STM8S207MB	●	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	68(18)	LQFP80 (14x14)	2.95 to 5.5		
80 pins	STM8S208MB	●	64	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	68(18)	LQFP80 (14x14)	2.95 to 5.5		
	STM8S207M8	●	64	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	68(18)	LQFP80 (14x14)	2.95 to 5.5		
	STM8S208M8	●	64	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816), 1xCAN	1	68(18)	LQFP80 (14x14)	2.95 to 5.5		
	STM8S207MB	●	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 2xUART (IrDA, ISO 7816)	1	68(18)	LQFP80 (14x14)	2.95 to 5.5		
20 pins	STM8S10x Access line														
	STM8S103F2	●	4	1 K	640	5x10-bit	2x16-bit (7/7/7)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	16(12)	TSSOP20, QFN20	2.95 to 5.5	16 MHz CPU speed, POR, BOR, SWIM, 16 MHz and 128 kHz internal RC, ICP, IAP, boot ROM, beeper, TLI	
	STM8S103F3	●	8	1 K	640	5x10-bit	2x16-bit (7/7/7)	1x8-bit		1	16(12)				
	32 pins	STM8S103K3	●	8	1 K	640	5x10-bit	2x16-bit (7/7/10)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	28(21)	LQFP32 (7x7), QFN32 (5x5)		2.95 to 5.5
		STM8S105K4	●	16	2 K	1 K	7x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	25(12)	SDIP32, LQFP32 (7x7), QFN32 (5x5)		2.95 to 5.5
	44 pins	STM8S105K6	●	32	2 K	1 K	7x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	25(12)	LQFP44 (10x10)		2.95 to 5.5
		STM8S105S4	●	16	2 K	1 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	34(15)			
	48 pins	STM8S105S6	●	32	2 K	1 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	34(15)	LQFP48 (7x7)		2.95 to 5.5
		STM8S105C4	●	16	2 K	1 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	38(16)			
		STM8S105C6	●	32	2 K	1 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	38(16)			
STM8S90x Application specific line															
20 pins	STM8S903F3	●	8	1 K	640	7x10-bit	2x16-bit (7/7/10)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	16(12)	S020	2.95 to 5.5	16 MHz CPU speed, POR, BOR, SWIM, 16 MHz and 128 kHz internal RC, ICP, IAP, boot ROM, beeper, TLI	
	STM8S903K3	●	8	1 K	640	7x10-bit	2x16-bit (7/7/10)	1x8-bit	1xSPI, 1x ² C, 1xUART (IrDA, ISO 7816)	1	28(21)	LQFP32 (7x7) SDIP32	2.95 to 5.5		

STM8 - 8-bit microcontroller families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Pac Kages	Supply voltage (V)	Special features
	Type	Size				12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)	Others						
	Flash	ROM (Kbytes)												

STM8A 8-bit microcontroller families for automotive applications

STM8AF51/61																
32 pins	STM8AF6126	●	8	0.5 K	384	7x10-bit	2x16-bit (6/6/6)	1x8-bit	-	LIN-UART, SPI	-	25(9)	LQFP32	2.95 to 5.5	Window and standard watchdogs, 16 MHz RC oscillator, 128 kHz RC oscillator, CSS, boot ROM, SWIM The CAN version order code prefix is STM8AF51	
	STM8AF6146	●	16	1 K	0.5 K	7x10-bit	2x16-bit (6/6/6)	1x8-bit	-		-	25(9)	LQFP32	2.95 to 5.5		
	STM8AF6166	●	32	2 K	1 K	7x10-bit	3x16-bit (8/8/8)	1x8-bit	-		-	25(9)	LQFP32	2.95 to 5.5		
	STM8AF6176	●	48	3 K	1.5 K	7x10-bit	3x16-bit (8/8/8)	1x8-bit	-		LIN-UART, SPI, I ² C	-	25(9)	LQFP32		2.95 to 5.5
	STM8AF6186	●	64	4 K	1.5 K	7x10-bit	3x16-bit (8/8/8)	1x8-bit	-		-	25(9)	LQFP32	2.95 to 5.5		
48 pins	STM8AF6148	●	16	1 K	0.5 K	10x10-bit	3x16-bit (9/9/9)	1x8-bit	-	LIN-UART, SPI, I ² C, CAN	-	38(9)	LQFP48	2.95 to 5.5		
	STM8AF6148	●	32	2 K	1 K	10x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	38(9)	LQFP48	2.95 to 5.5		
	STM8AF6178	●	48	3 K	1.5 K	10x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	38(9)	LQFP48	2.95 to 5.5		
	STM8AF6188	●	64	4 K	1.5 K	10x10-bit	3x16-bit (9/9/9)	1x8-bit	-		LIN-UART, USART, SPI, I ² C, CAN	-	38(9)	LQFP48		2.95 to 5.5
	STM8AF6198	●	96	6 K	2 K	10x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	38(9)	LQFP48	2.95 to 5.5		
64 pins	STM8AF61A8	●	128	6 K	2 K	10x10-bit	3x16-bit (9/9/9)	1x8-bit	-	-	38(9)	LQFP48	2.95 to 5.5			
	STM8AF6169	●	32	2 K	1 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-	LIN-UART, USART, SPI, I ² C, CAN	-	52(9)	LQFP64	2.95 to 5.5		
	STM8AF6179	●	48	3 K	1.5 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	52(9)	LQFP64	2.95 to 5.5		
	STM8AF6189	●	64	4 K	1.5 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	52(9)	LQFP64	2.95 to 5.5		
	STM8AF6199	●	96	6 K	2 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	52(9)	LQFP64	2.95 to 5.5		
STM8AF61A9	●	128	6 K	2 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-	-		52(9)	LQFP64	2.95 to 5.5			
80 pins	STM8AF618A	●	64	4 K	1.5 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-	LIN-UART, USART, SPI, I ² C, CAN	-	68(11)	LQFP80	2.95 to 5.5		
	STM8AF619A	●	96	6 K	2 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	68(11)	LQFP80	2.95 to 5.5		
	STM8AF61AA	●	128	6 K	2 K	16x10-bit	3x16-bit (9/9/9)	1x8-bit	-		-	68(11)	LQFP80	2.95 to 5.5		

STM8 - 8-bit microcontroller families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Pac Kages	Supply voltage (V)	Special features
	Type	Size				12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)	Others						
	Flash	ROM (Kbytes)												

STM8L ultra-low-power 8-bit microcontrollers families

STM8L101 ultra-low-power line															
20 pins	STM8L101F2	●	4	1.5 K	-	-	2x16-bit (4/4/4)	1x8-bit	-	2xWDG, beep	1xSPI, 1xI ² C, 1xUART	-	18(16)	TSSOP20, UFQFPN 20 (3x3)	1.65 to 3.6
	STM8L101F3	●	8	1.5 K	-	-	2x16-bit (4/4/4)	1x8-bit	-			-	18(16)	TSSOP20, UFQFPN 20 (3x3)	1.65 to 3.6
28 pins	STM8L101G2	●	4	1.5 K	-	-	2x16-bit (4/4/4)	1x8-bit	-	2xWDG, beep	1xSPI, 1xI ² C, 1xUART	-	26(24)	UFQFPN 28 (4x4)	1.65 to 3.6
	STM8L101G3	●	8	1.5 K	-	-	2x16-bit (4/4/4)	1x8-bit	-			-	26(24)	UFQFPN 28 (4x4)	1.65 to 3.6
32 pins	STM8L101K3	●	8	1.5 K	-	-	2x16-bit (4/4/4)	1x8-bit	-	-	-	-	30(28)	LQFP32 (7x7), UFQFPN 32 (5x5)	1.65 to 3.6
STM8L151 ultra-low-power line															
28 pins	STM8L151G4	●	16	2 K	1 K	18x12-bit	3x16-bit (7/7/8)	1x8-bit	-	2xWDG, RTC, beep	1xSPI, 1xI ² C, 1xUSART (IrDA, ISO 7816)	7	26(24)	UFQFPN 28 (4x4), WLCSPP28 (1.7x2.9)	1.8 to 3.6
	STM8L151G6	●	32	2 K	1 K	18x12-bit	3x16-bit (7/7/8)	1x8-bit	-			7	26(24)	UFQFPN 28 (4x4), WLCSPP28 (1.7x2.9)	1.8 to 3.6
32 pins	STM8L151K4	●	16	2 K	1 K	22x12-bit	3x16-bit (7/7/10)	1x8-bit	-	2xWDG, RTC, beep	1xSPI, 1xI ² C, 1xUSART (IrDA, ISO 7816)	7	30(28)	LQFP32 (7x7), UFQFPN 32 (5x5)	1.8 to 3.6
	STM8L151K6	●	32	2 K	1 K	22x12-bit	3x16-bit (7/7/10)	1x8-bit	-			7	30(28)	LQFP32 (7x7), UFQFPN 32 (5x5)	1.8 to 3.6
48 pins	STM8L151C4	●	16	2 K	1 K	25x12-bit	3x16-bit (7/7/10)	1x8-bit	-	2xWDG, RTC, beep	1xSPI, 1xI ² C, 1xUSART (IrDA, ISO 7816)	7	41(39)	LQFP48, UQFN48 (7x7)	1.8 to 3.6
	STM8L151C6	●	32	2 K	1 K	25x12-bit	3x16-bit (7/7/10)	1x8-bit	-			7	41(39)	LQFP48, UQFN48 (7x7)	1.8 to 3.6
STM8L152 ultra-low-power line															
32 pins	STM8L152K4	●	16	2 K	1 K	21x12-bit	3x16-bit (7/7/10)	1x8-bit	-	2xWDG, RTC, beep	1xSPI, 1xI ² C, 1xUSART (IrDA, ISO 7816)	7	29(27)	LQFP32 (7x7), UFQFPN 32 (5x5)	1.8 to 3.6
48 pins	STM8L152K6	●	32	2 K	1 K	21x12-bit	3x16-bit (7/7/10)	1x8-bit	-			7	29(27)	LQFP48, UFQFPN48 (7x7)	1.8 to 3.6
	STM8L152C4	●	16	2 K	1 K	25x12-bit	3x16-bit (7/7/10)	1x8-bit	-	7	41(39)	LQFP48, UFQFPN48 (7x7)	1.8 to 3.6		
	STM8L152C6	●	32	2 K	1 K	25x12-bit	3x16-bit (7/7/10)	1x8-bit	-	7	41(39)	LQFP48, UFQFPN48 (7x7)	1.8 to 3.6		

Established MCU families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features	
	Type					Size (Kbytes)	12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)							Others
	Flash	ROM													

STR7 (ARM) - 32-bit microcontrollers

STR710 Family															
64 pins	STR711FRO	●	64+16	16 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, USB	-	30(0)	LQFP64	3.0 to 3.6	16-Kbyte data Flash
	STR712FRO	●	64+16	16 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, CAN	-	32(0)	LQFP64	3.0 to 3.6	
	STR715FRO	●	64+16	16 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC	-	32(0)	LQFP64	3.0 to 3.6	
	STR711FR1	●	128+16	32 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, USB	-	30(0)	LQFP64	3.0 to 3.6	
	STR712FR1	●	128+16	32 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, CAN	-	32(0)	LQFP64	3.0 to 3.6	
	STR711FR2	●	256+16	64 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, USB	-	30(0)	LQFP64	3.0 to 3.6	
144 pins	STR712FR2	●	256+16	64 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, CAN	-	32(0)	LQFP64	3.0 to 3.6	EMI
	STR710RZ	●		64 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, CAN, USB	-	48(8)	LFBGA144, LQFP144	3.0 to 3.6	
	STR710FZ1	●	128+16	32 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, CAN, USB	-	48(8)	LFBGA144, LQFP144	3.0 to 3.6	
STR710FZ2	●	256+16	64 K	-	4x12-bit	4x16-bit (5/5/3)	-	WDG, RTC	2xSPI, 2x ² PC, 4xUART, HDLC, SC, CAN, USB	-	48(8)	LFBGA144, LQFP144	3.0 to 3.6	16-Kbyte data Flash, EMI	
STR730 Family															
100 pins	STR731FV0	●	64	16 K	-	12x10-bit	15x16-bit (12/12/12)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART, 3xCAN	-	72(0)	LQFP100	4.5 to 5.5	16 x DMA channels, on-chip RC oscillator
	STR736FV0	●	64	16 K	-	12x10-bit	15x16-bit (12/12/12)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART	-	72(0)	LQFP100	4.5 to 5.5	
	STR731FV1	●	128	16 K	-	12x10-bit	15x16-bit (12/12/12)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART, 3xCAN	-	72(0)	LQFP100	4.5 to 5.5	
	STR736FV1	●	128	16 K	-	12x10-bit	15x16-bit (12/12/12)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART	-	72(0)	LQFP100	4.5 to 5.5	
	STR731FV2	●	256	16 K	-	12x10-bit	15x16-bit (12/12/12)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART, 3xCAN	-	72(0)	LQFP100	4.5 to 5.5	
	STR736FV2	●	256	16 K	-	12x10-bit	15x16-bit (12/12/12)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART	-	72(0)	LQFP100	4.5 to 5.5	
144 pins	STR730FZ1	●	128	16 K	-	16x10-bit	19x16-bit (20/20/16)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART, 3xCAN	-	112(0)	LFBGA144, LQFP144	4.5 to 5.5	EMI
	STR735FZ1	●	128	16 K	-	16x10-bit	19x16-bit (20/20/16)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART	-	112(0)	LFBGA144, LQFP144	4.5 to 5.5	
	STR730FZ2	●	256	16 K	-	16x10-bit	19x16-bit (20/20/16)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART, 3xCAN	-	112(0)	LFBGA144, LQFP144	4.5 to 5.5	
STR735FZ2	●	256	16 K	-	16x10-bit	19x16-bit (20/20/16)	-	WDG, RTC	3xSPI, 2x ² PC, 4xUART	-	112(0)	LFBGA144, LQFP144	4.5 to 5.5	EMI	
STR750 Family															
64 pins	STR751FRO	●	64	16 K	-	11x10-bit	5x16-bit (5/5/11)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, USB	-	38(7)	LQFP64	3.0 to 3.6	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
	STR752FRO	●	64	16 K	-	11x10-bit	5x16-bit (5/5/11)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, CAN	-	38(7)	LQFP64	3.0 to 3.6 or 4.5 to 5.5	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C / 105 °C
	STR755FRO	●	64	16 K	-	11x10-bit	5x16-bit (5/5/11)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART	-	38(7)	LQFP64	3.0 to 3.6 or 4.5 to 5.5	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
	STR751FR1	●	128	16 K	-	11x10-bit	5x16-bit (5/5/11)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, USB	-	38(7)	LQFP64	3.0 to 3.6	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
	STR752FR1	●	128	16 K	-	11x10-bit	5x16-bit (5/5/11)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, CAN	-	38(7)	LQFP64	3.0 to 3.6 or 4.5 to 5.5	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C / 105 °C
	STR755FR1	●	128	16 K	-	11x10-bit	5x16-bit (5/5/11)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART	-	38(7)	LQFP64	3.0 to 3.6 or 4.5 to 5.5	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
	STR751FR2	●	256	16 K	-	11x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSSP, ² PC, 3xHS-UART, USB	-	38(7)	LQFP64	3 to 3.6	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
	STR752FR2	●	256	16 K	-	11x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSSP, ² PC, 3xHS-UART, CAN	-	38(7)	LQFP64	3.0 to 3.6 or 4.5 to 5.5	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C / 105 °C
	STR755FR2	●	256	16 K	-	11x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSSP, ² PC, 3xHS-UART	-	38(7)	LQFP64	3.0 to 3.6 or 4.5 to 5.5	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
100 pins	STR750FV0	●	64	16 K	-	16x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, CAN, USB	-	72(9)	LQFP100, BGA100	3.0 to 3.6 or 4.5 to 5.5 (without USB)	4x DMA, AWU, SMI, on-chip RC oscillator, MC oriented PWM, -40 to +85 °C
	STR755FV0	●	64	16 K	-	16x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART	-	72(9)	LQFP100, BGA100	3.0 to 3.6 or 4.5 to 5.5 (without USB)	
	STR750FV1	●	128	16 K	-	16x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, CAN, USB	-	72(9)	LQFP100, BGA100	3.0 to 3.6 or 4.5 to 5.5 (without USB)	
	STR755FV1	●	128	16 K	-	16x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART	-	72(9)	LQFP100, BGA100	3.0 to 3.6 or 4.5 to 5.5 (without USB)	
	STR750FV2	●	256	16 K	-	16x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART, CAN, USB	-	72(9)	LQFP100, BGA100	3.0 to 3.6 or 4.5 to 5.5 (without USB)	
	STR755FV2	●	256	16 K	-	16x10-bit	5x16-bit (6/6/12)	-	WDG, RTC	2xSPI, ² PC, 3xHS-UART	-	72(9)	LQFP100, BGA100	3.0 to 3.6 or 4.5 to 5.5 (without USB)	

Established MCU families

Part number	Program memory		RAM (bytes)	Data E ² PROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features	
	Type					Size (Kbytes)	12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)							Others
	Flash	ROM													

STR9 (ARM) - 32-bit microcontrollers

STR91x Family															
80 pins	STR910FAM32	●		256+32	64 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	CAN, 3xUART, 2xfast I ² C, 2xSPI	2	40(16)	LQFP80	96 MHz ARM9E CPU core, 9xDMA, brown-out warning, 3-phase AC MC, ETM trace
	STR911FAM42	●		256+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	40(16)	LQFP80	
	STR911FAM44	●		512+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	40(16)	LQFP80	
128 pins	STR910FAW32	●		256+32	64 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LQFP128	CPU core: 1.8 +/-10% I/O ring-selectable: 2.7 to 3.3 or 3.0 to 3.6 96 MHz ARM9E CPU core, 9xDMA, brown-out warning, 3-phase AC MC, ETM trace, tamper detect, EMI
	STR911FAW42	●		256+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LQFP128	
	STR911FAW44	●		512+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LQFP128	
	STR912FAW32	●		256+32	64 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	Ethernet, USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LQFP128	
	STR912FAW42	●		256+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	Ethernet, USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LQFP128	
144 pins	STR912FAW44	●		512+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	Ethernet, USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LQFP128	96 MHz ARM9E CPU core, 9xDMA, brown-out warning, 3-phase AC MC, ETM trace, tamper detect, EMI
	STR910FAZ32	●		256+32	64 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LFBGA144	
	STR912FAZ42	●		256+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	Ethernet, USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LFBGA144	
	STR912FAZ44	●		256+32	96 K	-	8x10-bit	7x16-bit (8/8/7)	-	WDG, 1 μA RTC	Ethernet, USB, CAN, 3xUART, 2xfast I ² C, 2xSPI	2	80(16)	LFBGA144	

Established MCU families

Part number	Program memory		RAM (bytes)	Data E ² PROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features	
	Type					Size (Kbytes)	12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)							Others
	Flash	ROM													

ST10 - 16-bit microcontrollers

ST10 Family																
100 pins	ST10R172L			-	1 K	-	-	5x16-bit	-	WDG	USART, SSP	-	77	LQFP100	3.3	50 MHz, ROMless, PEC, PWM, EMI
	ST10R272L			-	1 K	-	-	5x16-bit	-	WDG	USART, SSP	-	77	LQFP100	3.3	50 MHz, ROMless, PEC, PWM, MAC, EMI
144 pins	ST10R167-Q			-	4 K	-	16x10-bit	5x16-bit	-	WDG	USART, SSC, CAN	-	111	PQFP144	4.5 to 5.5	25 MHz, ROMless, PEC, PWM, CAPCOM, EMI
	ST10F271Z1	●		128	12 K	-	24x10-bit	5x16-bit	-	WDG, RTC	I ² C, 2xUART, 2xSSC, 2xCAN	-	111	PQFP144	4.5 to 5.5	40 MHz, PEC, CAN, PWM, CAPCOM, MAC
	ST10F269Z2	●		256	12 K	-	16x10-bit	5x16-bit	-	WDG	USART, SSC, 2xCAN	-	111	LQFP144, PQFP144	4.5 to 5.5	
	ST10F272Z2	●		256	20 K	-	24x10-bit	5x16-bit	-	WDG, RTC	UART, SSC, 2xCAN	-	111	LQFP144, PQFP144	4.5 to 5.5	
	ST10F273Z4	●		512	36 K	-	24x10-bit	5x16-bit	-	WDG, RTC	I ² C, 2xUART, 2xSSC, 2xCAN	-	111	LQFP144, PQFP144	4.5 to 5.5	64 MHz, PEC, PWM, CAPCOM, MAC, EMI
	ST10F276Z5	●		832	68 K	-	24x10-bit	5x16-bit	-	WDG, RTC	I ² C, 2xUART, 2xSSC, 2xCAN	-	111	LQFP144, PQFP144	4.5 to 5.5	

ST6 - 8-bit microcontrollers

ST6 Family																
16 pins	ST6200C1	6	●	1	64	-	4x8-bit	-	1(0/0/0)	WDG	-	1	9(3)	DIP16, S016	3.0 to 6.0	RC oscillator, OSG, ROP
	ST6203C1	6	●	1	64	-	-	-	1(0/0/0)	WDG	-	1	9(3)	DIP16, S016	3.0 to 6.0	
	ST6201C1	6	●	2	64	-	4x8-bit	-	1(0/0/0)	WDG	-	1	9(3)	DIP16, S016	3.0 to 6.0	
20 pins	ST6210C1	6	●	2	64	-	8x8-bit	-	1(0/0/0)	WDG	-	1	12(4)	DIP20, S020	3.0 to 6.0	
	ST6220C1	6	●	4	64	-	8x8-bit	-	1(0/0/0)	WDG	-	1	12(4)	DIP20, S020	3.0 to 6.0	
28 pins	ST6225C1	6	●	4	64	-	16x8-bit	-	1(0/0/0)	WDG	-	1	20(4)	DIP28, S028	3.0 to 6.0	

Established MCU families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features	
	Type					Size (Kbytes)	12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)							Others
	Flash	ROM													

ST7 - 8-bit microcontrollers

ST7Lite																
8 pins	ST7LITE09	15.6		2	128	128	5x10-bit	1x12-bit (0/1/1)	1(1/0/0)	WDG, RTC	SPI	3	5(5)	DIP8, S08	2.4 to 5.5	8 MHz internal RC oscillator, AWU, ROP, ICP, IAP, 5 I/Os + 1 additional output
	ST7LITE09Y0	15		1.5	128	128	5x8-bit	1x12-bit (0/1/1)	1(1/0/0)	WDG, RTC	SPI	3	13(6)	DIP16, S016	2.4 to 5.5	1 % internal RC oscillator, PLL, ADC with op-amp, ROP, ICP, IAP
16 pins	ST7LIT198Y0	15		2	256	128	7x10-bit	2x12-bit (1/4/4)	2(1/0/0)	WDG, RTC	SPI	3	13(5)	DIP16, S016	2.7 to 5.5	1 % internal RC oscillator, PLL, 32 MHz timer, ART with deadline and enhanced one-pulse mode, AWU, ADC with op-amp, analog comparator, ROP, ICP, IAP, debug module
	ST7LIT198Y1	15		4	256	128	7x10-bit	-	2(1/0/0)	WDG, RTC	SPI	3	13(5)	DIP16, S016	2.7 to 5.5	
20 pins	ST7LIT198F0	15		2	256	128	7x10-bit	2x12-bit (1/4/4)	2(1/0/0)	WDG, RTC	SPI	3	17(7)	DIP20, S020, QFN20	2.7 to 5.5	
	ST7LIT198F1	15		4	256	128	7x10-bit	-	2(1/0/0)	WDG, RTC	SPI	3	17(7)	DIP20, S020, QFN20	2.7 to 5.5	
	ST7DALIF2	15.6		8	384	256	7x10-bit	1x12-bit (1/4/4)	2(1/0/0)	WDG, RTC	SPI, DALI	3	15(7)	S020	2.4 to 5.5	1 % internal RC oscillator, PLL, 32 MHz timer, DALI, AWU, ADC with op-amp, ROP, ICP, IAP, debug module
ST7 DiSEqC™																
16 pins	ST7LNB0V2Y0	6	●	1.5	128	128	-	-	-	-	-	-	13(6)	S016	4.5 to 5.5	DiSEqC™ 2.1 interface, 22 kHz tone detector
	ST7LNB1Y0	6	●	1.5	128	128	-	-	-	-	-	-	13(6)			DiSEqC™ interface, SatCR control
ST7 motor control																
32 pins	ST7MC1K2	14.6		8	384	-	8x10-bit	1x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI	1	17(3)	LQFP32, SDIP32	4.5 to 5.5	
	ST7MC1K4	14.6		16	768	-	8x10-bit	-	1(1/0/1)	WWDG	LINSCI	1	17(3)	LQFP32, SDIP32	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts
44 pins	ST7MC2S4	14.6		16	768	-	11x10-bit	2x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI, SPI	1	26(6)	LQFP44	4.5 to 5.5	
	ST7MC2S6	14.6		32	1 K	-	11x10-bit	2x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI, SPI	1	26(6)	LQFP44	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts
64 pins	ST7MC2S7	14.6		48	1.5 K	-	11x10-bit	2x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI, SPI	1	26(6)	LQFP44	4.5 to 5.5	
	ST7MC2R6	14.6		32	1 K	-	16x10-bit	2x16-bit (2/2/2)	1(2/0/4)	WWDG	LINSCI, SPI	1	44(12)	LQFP64	4.5 to 5.5	
	ST7MC2R7	14.6		48	1.5 K	-	16x10-bit	2x16-bit (2/2/2)	1(2/0/4)	WWDG	LINSCI, SPI	1	44(12)	LQFP64	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts, beep3
	ST7MC2M9	14.6		60	1.5 K	-	16x10-bit	2x16-bit (2/2/2)	1(2/0/4)	WWDG	LINSCI, SPI	1	60(12)	LQFP80	4.5 to 5.5	

Established MCU families

Part number	Program memory		RAM (bytes)	Data EPROM (bytes)	A/D inputs	Timer functions			Serial interface	LVD levels	I/Os (high current ²)	Packages	Supply voltage (V)	Special features	
	Type					Size (Kbytes)	12 or 16-bit (IC/OC/PWM)	8-bit (IC/OC/PWM)							Others
	Flash	ROM													

ST7 SCR																
24 pins	ST7GEME4		●	16	768	-	-	-	1(0/0/0)	WDG	USB, ISO 7816	1	4(1)	S024, QFN24	4.0 to 5.5	Turnkey firmware from Gemalto
	ST7SCR1E4	14.6		16	768	-	-	-	1(0/0/0)	WDG	USB, ISO 7816	1	4	S024, QFN24	4.0 to 5.5	Smartcard power supply unit, ISO 7816, 7 full-speed USB endpoints, ICP, IAP, 4 LED outputs
64 pins	ST7SCR1R4	14.6		16	768	-	-	-	1(0/0/0)	WDG	USB, ISO 7816	1	35	LQFP64	4.0 to 5.5	
ST7 full-speed USB																
64 pins	ST72651AR6	14.6		32	5 K	-	8x8-bit	1x16-bit (0/2/2)	-	WDG	USB, DTC, I ² C, SPI	1	47(11)	LQFP64 (10x10)	2.7 to 5.5	DSC, PVR, ROP, 5 full-speed USB endpoints, ICP, IAP
ST7 low-speed USB																
24 pins	ST7260E1	14		4	384	-	-	1x16-bit (2/1/1)	-	WDG	USB, SCI	1	14(6)	S024	4.0 to 5.5	
	ST7263BE1	14		4	384	-	-	1x16-bit (2/1/1)	-	WDG	USB, SCI, I ² C	1	14(6)	S024	4.0 to 5.5	
	ST7260E2	14		8	384	-	-	1x16-bit (2/1/1)	-	WDG	USB, SCI	1	14(6)	S024	4.0 to 5.5	
	ST7263BE2	14		8	384	-	-	1x16-bit (2/1/1)	-	WDG	USB, SCI, I ² C	1	14(6)	S024	4.0 to 5.5	
	ST7263BE4	14		16	512	-	-	1x16-bit (2/1/1)	-	WDG	USB, SCI, I ² C	1	14(6)	S024	4.0 to 5.5	
	ST7263BE6	14		32	1 K	-	-	1x16-bit (2/1/1)	-	WDG	USB, SCI, I ² C	1	14(6)	S024	4.0 to 5.5	
32-34 pins	ST7263BK1	14	●	4	384	-	8x8-bit	1x16-bit (2/2/1)	-	WDG	USB	1	19(10)	SDIP32, S034	4.0 to 5.5	3 low-speed USB endpoints, ICP, IAP, ROP
	ST7263BK2	14	●	8	384	-	8x8-bit	1x16-bit (2/2/1)	-	WDG	USB, SCI	1	19(10)	SDIP32, S034, QFN40	4.0 to 5.5	
	ST7263BK4	14		16	512	-	8x8-bit	1x16-bit (2/2/1)	-	WDG	USB, SCI, I ² C	1	19(10)	SDIP32, S034	4.0 to 5.5	
	ST7263BK6	14		32	1 K	-	8x8-bit	-	-	WDG	USB, SCI, I ² C	1	19(10)	SDIP32, S034	4.0 to 5.5	
40 pins	ST7260K1	14.6		4	384	-	-	1x16-bit (2/2/1)	-	WDG	USB, SCI	1	19(10)	QFN40	4.0 to 5.5	
	ST7260K2	14		8	384	-	-	1x16-bit (2/2/1)	-	WDG	USB, SCI	1	19(10)	QFN40	4.0 to 5.5	
48 pins	ST7263BD6	14		32	1 K	-	12x8-bit	-	-	WDG	USB, SCI, I ² C	1	27(10)	QFN40	4.0 to 5.5	
	ST7263BH2	14		8	384	-	12x8-bit	1x16-bit (2/2/1)	-	WDG	USB, SCI, I ² C	1	27(10)	LQFP48 (7x7)	4.0 to 5.5	
	ST7263BH6	14		32	1 K	-	12x8-bit	1x16-bit (2/2/1)	-	WDG	USB, SCI, I ² C	1	27(10)	LQFP48 (7x7)	4.0 to 5.5	

8-, 16- and 32-bit microcontroller development tools

This reference guide lists ST and third-party development tools that are promoted as part of the ST tool offer for 8-, 16- and 32-bit microcontrollers. For the latest news about this tool offer, please refer to www.st.com/mcu

Evaluation

Evaluation boards from ST

- Implement full range of device features
- Come with complete schematics, documentation and code samples

Starter kits

- Everything you need to start developing quickly and easily
- Immediate device evaluation with ready-to-run demonstration applications
- In-circuit debugging to troubleshoot code using actual input/output of target system

Low-cost evaluation boards are also available from third-party vendors.

Development

In-circuit debugger/programmers

- Real-time debugging using debug resources on the standard chip, no bondouts, 100% electrical characteristics guaranteed
- Requires separate evaluation or application board
- RLink – debug and program a full range of ST MCUs from 8 to 32 bits
- ST-LINK – debug and program STM8 and STM32 families

Advanced emulation systems for 8-bit devices

- Real-time emulation
- Advanced breakpoints
- Trace capability with complex triggering
- Code performance analysis

Software

- Free software toolsets with development environment, programming interface, integrated compiler support and more
- C compilers with free versions that output code up to a specified size
- Free ST firmware libraries for all standard peripherals plus special package for USB, motor control and more
- Large selection of development solutions (IDE + compiler) from leading tool suppliers for ARM
- Large selection of royalty-free RTOS, solution stacks (TCP/IP, USB, ...) and middleware

Programming

In-circuit programmers

Program the device on an application board via JTAG, in-circuit communication or in-situ programming interface (depends on target device)

Automated programmers

Third-party solutions for programming in a production environment.
For a list of vendors, refer to www.st.com/mcu

Single position programmers

Third-party solutions for programming one device at a time.
Allows operation from a host PC, or in standalone mode.
For a list of vendors, refer to www.st.com/mcu

Gang programmers

Third-party solutions for programming several devices at once.
For a list of vendors, refer to www.st.com/mcu

STM32, STR9 and STR7 families

Tools for ST ARM® core based STM32, STR9 and STR7 families include a full range of third-party solutions that come complete with C/C++ compiler, integrated development environment and in-circuit debugger/programmer with industry standard JTAG interface. Explore and start applications easily with any of a range of affordable, easy-to-use starter kits. Take advantage of a range of firmware to speed application development, including free ST libraries and royalty-free RTOS, solution stacks (USB, TCP/IP, ...) and middleware.

Evaluation	<p>Discovery kit</p> <p>The cheapest and quickest way to discover the STM32 Value line. Embedded ST-LINK included to debug applications (Order code type: STM32VLDISCOVERY)</p> <p>Evaluation boards</p> <p>ST evaluation boards: Implement the full range of device peripherals and features for each family. STM32F10x (Ethernet, USB OTG, USB, CAN, RS-232, IrDA, FSMC, SDIO, I²S, DAC), STR91x (Ethernet, USB, CAN, RS-232, IrDA, trace tool support), STR75x (USB, CAN, RS-232), STR73x (CAN, RS-232), STR71x (USB, CAN, RS-232). (Order code types: STxxxx-EVAL)</p> <p>Starter kits</p> <p>STM32 Primers: Fun, stimulating learning and development platforms with touchscreen LCD, MEMS-based controls and integrated debugging/programming via USB. Includes Raisonance RIDE (debug up to 32 Kbytes of code) and GNU C/C++ compiler. (Order code types: STMxxxxPRIMER)</p> <p>STM32-ComStick: Low-cost evaluation and development package for Ethernet, USB Host connectivity with STM32F107, includes debugging/programming via dedicated USB, unlimited Hitex tool set (HiTOP5 IDE, Tasking VX compiler). (Order code: STM32-COMSTICK)</p> <p>STM32 PerformanceStick and STM32 PerformanceStick2: Your window to explore STM32 performance. Includes integrated debugging/programming via USB, unlimited Hitex HiTOP5, Tasking VX compiler and DashBoard GUI for device performance evaluation. (Order Code: STM3210B-PFSTICK and STM3210E-SK/HIT)</p> <p>STM32 motor control starter kit: Complete, ready-to-run application for motor control with vector-based algorithms. Includes sensor and sensorless libraries, demo application, STM32 control board, hardware platform for vector drive of three-phase PMSM and induction motors, opto-isolation, and Segger J-Link (USB/JTAG) for host PC interface. (Order code: STM3210B-MCKIT)</p> <p>Hitex STM32 starter kits: Unlimited HiTOP5, Tasking VX compiler, STM32-PerformanceStick with integrated debugging/programming via USB, extension I/O board with peripheral evaluation features, DashBoard GUI. (Order code: STM3210B-SK/HIT and STM3210E-SK/HIT)</p> <p>Hitex STRx starter kits: HiTOP5 (16-Kbyte code-size limited version) with GNU C/C++ compiler, debugger, Tantino (USB/JTAG) and evaluation board for either STR912F, STR750F, STR730F, or STR710F. (Order code types: STxxxx-SK/HIT)</p> <p>IAR starter kits: Embedded workbench for ARM (EWARM 32-Kbyte code-size limited version), C/C++ compiler, J-Link (USB/JTAG) and IAR demonstration board for either STM32F10x, STR912F, STR750F, STR731F, STR730F, STR712F, or STR711F. (Order code types: STxxxx-SK/IAR)</p> <p>Keil starter kits: RealView microcontroller development kit for ARM (32-Kbyte code-size limited version) with U-LINK (USB/JTAG) and evaluation board for either STM32F10x, STR912F or STR750F. (Order codes types: STxxxx-SK/KEIL)</p> <p>Raisonance REva starter kits: RIDE (32-Kbyte code-size limited version), GNU C/C++ compiler, RLink (USB/JTAG), REva demonstration motherboard (CAN, RS-232, I/Os, etc.) and daughter boards for STM32F10x, STR912F, STR750F, STR730F, STR711F or STR712F. (Order code types: STxxxx-SK/RAIS)</p> <p>STR9-ComStick: Low-cost evaluation and development package for Ethernet, USB and CAN connectivity with STR9, includes debugging/programming via dedicated USB, unlimited Hitex tool set (HiTOP5 IDE, GNU C/C++ compiler). (Order code: STR9-COMSTICK)</p>
Development	<p>Development environments</p> <p>Choose from a full range of development solutions that deliver start-to-finish control of application development from a single integrated development environment from third parties (see table)</p> <p>Atollic TrueSTUDIO Lite version available for free for the STM32, unlimited code-size and usage-time</p> <p>Software package with in-circuit debugger/programmer</p> <p>STX-PRO/RAIS: Raisonance developer's kit for ARM core-base MCUs with unlimited RIDE integrated development environment, GNU C/C++ compiler and RLink (USB/JTAG)</p>
Software	<p>RTOS, stack software and libraries: A full range of portable embedded system software, TCP/IP stacks and several royalty-free, small-footprint operating systems from a range of third parties (see table)</p> <p>Free ST library packages for all standard device peripherals, USB, and motor control. Refer to www.st.com/mcu</p>
Programming	<p>A complete range of programming solutions from single-position to automated are available from third-party vendors. For updated listings, refer to www.st.com/mcu</p> <p>ST-LINK: very low cost solution for programming STM8 and STM32 families</p> <p>RLink from Raisonance provides a low-cost solution for programming a complete range of ST microcontrollers from 8 to 32 bits</p> <p>FlashRunner from SMH Technologies provides in-circuit programming for ST microcontrollers that is ready to integrate into production/test equipment</p> <p>Flasher ARM, Segger Microcontroller Systems' in-circuit programmer with standalone mode for production environment</p>

All part numbers shown are for STMicroelectronics and third-party tools (Hitex, IAR, Keil and Raisonance) which are available from ST. Additional tools that are not available through ST can be ordered from the third-parties listed.

STM32, STR9 and STR7 families

Development and programming tools

Device	Evaluation		Development environment available from ST	C/C++ compiler	3rd-party development environment	RTOS and stack software	Programmer
	Evaluation board	Starter kit					
STM32F10x	STM3210B-EVAL STM3210C-EVAL STM3210E-EVAL STM32100B-EVAL	STM32VLDISCOVERY STM32VLDISCOVERY STM3210E-PRIMER STM3210C-PRIMER STM32-COMSTICK STM3210B-PFSTICK STM3210B-MCKIT	Software with in-circuit emulator: STX-PRO/RAIS Software/hardware package supporting STR9 trace capability: STR91X-DK/IAR STR9-DK/RAIS	ARM www.arm.com GNU gcc.gnu.org GreenHills www.ghs.com IAR www.iar.com Keil www.keil.com Altium/Tasking www.tasking.com	Aiji System www.aijisystem.com Altium/Tasking www.tasking.com ARM www.arm.com Ashling www.ashling.com Atollic www.atollic.com Embest www.embedinfo.com Green Hills Software www.ghs.com Hitex www.hitex.com IAR www.iar.com iSYSTEM www.isystem.com Keil www.keil.com Lauterbach www.lauterbach.com Nohau www.icetech.com PLS www.pls-mc.com Raisonance www.raisonance.com Rowley www.rowley.co.uk Signum www.signum.com	CMX www.cmx.com eCosCentric www.ecoscentric.com Express Logic www.rtos.com freeRTOS www.freertos.org GreenHills www.ghs.com HCC-Embedded www.hcc-embedded.com IAR www.iar.com InterNiche www.iniche.com Keil www.keil.com Micrium www.micrium.com Micro Digital www.smxrtos.com Port www.epl-tools.com Quadros www.quadros.com Segger www.segger.com uClinux www.uclinux.org Wittenstein High Integrity Systems www.highintegritysystems.com	From ST: ST-LINK STX-RLINK Third-parties: BP Microsystems www.bpmicro.com Dataman www.dataman.com Data I/O www.data-io.com ElneC www.elnec.sk Hitex www.hitex.com Leap www.leap.com.tw PLS www.pls-mc.com Raisonance www.raisonance.com RK-System www.rk-system.com.pl Segger www.segger.com SMH Technologies www.smh-tech.com Systems General www.sg.com.tw Xeltec www.xeltec.com
		STM32W108					
STR91xF	STR910-EVAL	STR91X-SK/HIT STR91X-SK/IAR STR91X-SK/KEI STR91X-SK/RAI					
STR750xF	STR750-EVAL	STR750-SK/HIT STR750-SK/IAR STR750-SK/KEIL STR750-SK/RAIS					
STR73xF	STR730-EVAL	STR730-SK/HIT STR730-SK/IAR STR730-SK/RAIS STR731-SK/IAR Keil: www.keil.com					
STR71xF	STR710-EVAL	STR71X-SK/RAIS STR710-SK/HIT STR711-SK/IAR STR712-SK/IAR Keil: www.keil.com					

ST10 family

ST10 development and programming tools

Part number	Software	Evaluation board	Emulator/debugger	Programmer
ST10R167	C Toolchain Cosmic www.cosmic-software.com			BP Microsystems www.bpmicro.com
ST10R172	Keil www.keil.com Tasking www.tasking.com			
ST10R272	GNU (HighTec) www.hightec-rt.com Real-time kernel			
ST10F269	CMX www.cmx.com OSE166 www.ose.com			
ST10F271	RTX166 www.keil.com PXROS www.hightec-rt.com			
ST10F272	EUROS www.euros-embedded.com µC/OS-II Micrium www.micrium.com			
ST10F273	OSEK osCAN www.vector-informatik.com			
ST10F276	ProOSEK www.3soft.com OSEKWorks www.windriver.com			

STM8 families

Evaluation

Discovery kit

The cheapest and quickest way to discover the STM8 families with touch sensing button. Embedded ST-LINK included to debug applications. (Order code types: STM8xx-DISCOVERY)

Evaluation boards

Open-platform evaluation boards that are distributed by ST and implement the complete range of device peripherals. These include:

- **ST evaluation boards:** general-purpose evaluation boards for STM8A, STM8S and STM8L devices with hardware features for evaluating microcontroller performance, low-power options and full range of peripherals such as SPI, I²C EEPROM, RS-232 and more... (Order code types: STM8xxx-EVAL)

Starter kits

Complete sets of hardware and software tools to help users discover target device features and start application development quickly and easily:

- **STM8L Primer:** Fun, stimulating learning and development platforms with touchscreen LCD, MEMS-based controls and integrated debugging/programming via USB for the STM8L15x. Includes Raisonance RIDE and STM8 C compiler (compiles up to 16 Kbytes of code). (Order code STM8L1526PRIMER)
- **Raisonance REva starter kits for STM8S and STM8L,** STM8S-Discovery for STM8S, STM8A with integrated development environment, C compiler for STM8, RLink (USB/JTAG) for the REva kit or ST-Link (USB) for STM8-Discovery, in-circuit debugger/programmer, demonstration motherboard and daughter board with STM8S, STM8A and STM8L target devices.

Software

Application development is supported by a range of software tools that include integrated development environments (IDE) and C compiler/assembler toolchains. Free software development tools include:

- **ST MCU Toolset** with ST Visual Develop (STVD) IDE and ST Visual Programmer (STVP) programming interface in a single, free download.
- **EWSTM8,** IAR Embedded Workbench for STM8 with its optimizing C compiler and supporting ST Stice and ST-LINK hardware debug tools.
- **Ride,** Raisonance's free IDE for ST microcontrollers, which includes the innovative RBuilder application builder and the RFlasher programming interface.
- **C Compilers** include toolchains from Cosmic, IAR and Raisonance, which are both available in free versions that output from 8 to up to 32 Kbytes.

Development

Debugging tools

The STice in-circuit emulation system offers the most advanced debugging and diagnostic features available (freely configurable advanced breakpoints, trace, code coverage, profiling) when running applications in place of the target microcontroller, plus the added flexibility of in-circuit debugging and programming capability for start-to-finish control of application development.

- **STice** advanced in-circuit emulation system for ST microcontrollers

In-circuit debugger/programmers provide low-cost solutions for programming the target device on an application board, and debugging the application while it runs on the target microcontroller.

- **RLink** from Raisonance for STM8A, STM8L, STM8S, ST7, μ PSD, STR7, STR9 and STM32 microcontrollers
- **ST-LINK** from ST for STM8A, STM8L, STM8S and STM32 microcontrollers

Accessories

STM8 accessories adapt STice to support a specific STM8 microcontroller or sub-family. This modularity also allows the system to be adapted to future ST microcontrollers.

STice accessories and spares include parts that allow connection of the STice to an application board in place of the target microcontroller. The connection accessories must be specified when ordering the STice system.

Programming

In-circuit programmers

Allow you to program the STM8 Flash microcontroller on your application board via a 4-pin single wire interface module (SWIM) connector. In-circuit programmers include:

- **RLink:** Raisonance's in-circuit programmer/debugger for STM8S, STM8L, ST7, μ PSD, STR7, STR9 and STM32 with USB host interface
- **ST-LINK:** ST's in-circuit debugger/programmer for STM8A, STM8L, STM8S and STM32 with USB host interface
- **Flasher:** in-circuit programmer with standalone mode for production environment from Segger Microcontroller Systeme GmbH
- **FlashRunner:** in-circuit programming system for production lines featuring standalone operation and easy integration in production and test equipment

Production programming solutions include multi-site (gang) and automated programming solutions from third-parties

ST7 family

Evaluation

Evaluation boards

Evaluation boards for learning and testing microcontroller features include: ST7DALI-EVAL for lighting applications, ST7MDTULS/EVAL, ST7265X-EVAL/MS and ST7265X-DVT/MS for USB devices

Starter kits

Raisonance REva starter kits

Complete, cost-effective development kits that include RIDE development environment, RLink (USB) in-circuit debugger/programmer, evaluation motherboard (ADC, SPI, CAN, I²C, I/Os, etc.) and daughter boards featuring supported MCUs:

- ST7FLITEU0, ST7FLITE0, ST7FLITE1B and ST7FLITE3 daughter boards for ST7FLITE-SK/RAIS
- ST7263B daughter board for ST72F63B-SK/RAIS

ST7FMC motor control starter kit

Motor control development kit for ST7MC that includes firmware, GUI, a 12 VDC 240 VAC 1000 W inverter board, isolation board, STXF-INDART/USB debugger/programmer and 24 V BLDC motor. Optional accessories include ST7MC-MOT/IND - 240 V/800 W Selni three-phase induction motor (Order code: ST7MC-KIT/BLDC). Available from ST/distributor or www.smh-tech.com

Development

Hardware tools for all budgets and all needs

RLink low-cost, real-time in-circuit debugger/programmer of ST microcontrollers, from Raisonance

ST7-DVP3 series emulators for affordable, real-time emulation with advanced breakpoints and trace, plus in-circuit debugging/programming capability

ST7-EMU3 series emulators for full-featured, real-time emulation with advanced breakpoints, trace and profiling, plus in-circuit debugging/programming capability. Emulators include everything to connect to the user application for all supported MCUs

Free software tools

ST MCU toolset with everything to build, debug and program applications in one free download that includes assembler and linker plus:

- ST Visual Develop (STVD), easy-to-use IDE with integrated control of C toolsets from Cosmic and Raisonance. Supports a full range of debugging and programming tools
- ST Visual Programmer (STVP), full-featured programming software supporting the complete range of ST programming boards

Raisonance software toolset for ST microcontrollers, available at www.raisonance.com.

- RIDE development environment, RBuilder (application builder), C compiler. Supports DVP3 and EMU3 series emulators and RLink in-circuit debugger/programmer
- Raisonance C compiler. Available in free version that outputs code up to 16 Kbytes

- RFlasher programming software for viewing, erasing, writing and verifying device Flash memory. Offers automated mode and project manager **Cosmic C compiler** with free version that outputs code up to 4 Kbytes. Available at www.cosmic-software.com
- **REALIZER**, Actum Solutions' graphical design tool for creating applications without learning assembly or writing a single line of code. Supports ST7 and ST6. Versions include STREALIZER-II (available from ST only), and REALIZER with end-user support available at www.actum.com

Programming In-circuit programmers

A complete range of programming solutions from single-position to automated are available from third-party vendors. For updated listings, refer to www.st.com/mcu

- **RLink** from Raisonance provides a low-cost solution for programming a complete range of ST microcontrollers from 8 to 32 bits
 - **Flasher** ST7, Segger Microcontroller Systems' in-circuit programmer with standalone mode for production environment
 - **FlashRunner** from SMH Technologies provides in-circuit programming for ST microcontrollers that is ready to integrate into production/test equipment
- ST7-SocketBoard** provide single-position programming with any tool with in-circuit programming capability (STX-RLINK, ST7-DVP3, ST7-EMU3)

ST7 development and programming tools

Part number	Evaluation		In-circuit debugger	Emulator		3rd-party emulator	Programming tool		
	Evaluation board	Starter kit with RLink		DVP series	EMU series		In-circuit programmer	Socket boards ⁷ or EPB series	3rd-party programmer
ST7LITEU0		ST7FLITE-SK/RAIS ^{3,5}	STX-RLINK ^{3,5,8}	ST7MDT10-DVP3 ⁴	ST7MDT10-EMU3		STX-RLINK ^{3,5}	ST7-SB10-SU0 ¹	BP Microsystems www.bpmicro.com Leap www.leap.com.tw
ST7LITE0		ST7FLITE-SK/RAIS ^{3,5}	STX-RLINK ^{3,5}	ST7MDT10-DVP3 ⁴	ST7MDT10-EMU3		STX-RLINK ^{3,5}	ST7-SB10-SU0 ¹	Data I/O www.data-io.com RK-System www.rk-system.com.pl
ST7LITE1B		ST7FLITE-SK/RAIS ^{3,5}	STX-RLINK ^{3,5}	ST7MDT10-DVP3 ⁴	ST7MDT10-EMU3		STX-RLINK ^{3,5}	ST7-SB10-123 ¹	Dataman www.dataman.com Segger www.segger.com
ST7DALI	ST7DALI-EVAL		STX-RLINK ^{3,5}	ST7MDT10-DVP3 ⁴	ST7MDT10-EMU3		STX-RLINK ^{3,5}	ST7-SB10-123 ¹	Elnec www.elnec.com SMH Technologies www.smh-tech.com
ST7MC	ST7MC-KIT/BLDC ⁶		STX-RLINK ^{3,5}		ST7MDT50-EMU3	iSystem	STX-RLINK ^{3,5}		Hi-LO www.hilosystems.com.tw System General www.sg.com
ST7263B/ST7260	ST7MDTULS-EVAL	ST72F63B-SK/RAIS ^{3,5}	STX-RLINK ^{3,5}		ST7MDTU3-EMU3		STX-RLINK ^{3,5}	ST7MDTU3-EPB ¹	Insem www.insem.co.kr Xeltek www.xeltek.com
ST7265	ST7265X-EVAL/MS ST7265X-DVT/MS		STX-RLINK ^{3,5}		ST7MDTU5-EMU2B		STX-RLINK ^{3,5}	ST7MDTU5-EPB ¹	
ST7SCR	ST7SCR-EVAL/SCR				ST7MDTS1-EMU2B			ST7MDTS1-EPB ¹	

Notes

- 1 Add suffix /EU, /US or /UK for the power supply for your region
- 2 Add suffix /EU or /US for the power supply for your region
- 3 Available from ST or from Raisonance, www.raisonance.com
- 4 Includes connection kit for DIP16/SO16 only
- 5 USB connection to PC

- 6 Available accessories: ST7MC-MOT/IND (induction motor) and ST7-ICC/OPTOISOL (optoisolation board included with motor control starter kit (ST7MC-KIT/BLDC), is also available as separate product)
- 7 Socket boards complement any tool with ICC capabilities (InDART, RLINK, DVP3, EMU3, etc.)
- 8 For in-circuit debugging of ST7FLITEU0, users must also order the AD-ICD/DS8Z adapter. For ICD of ST7FLITEU0 in DFN8 package, users must order AD-ICD/DS8Z and ST7MDT10-8/DVP