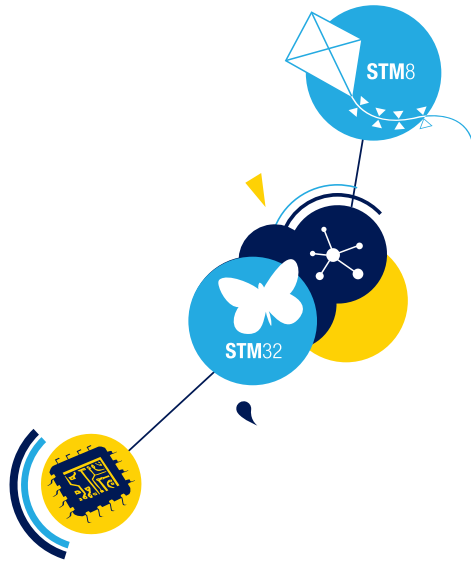


# 8- and 32-bit microcontrollers



## Product selection guide



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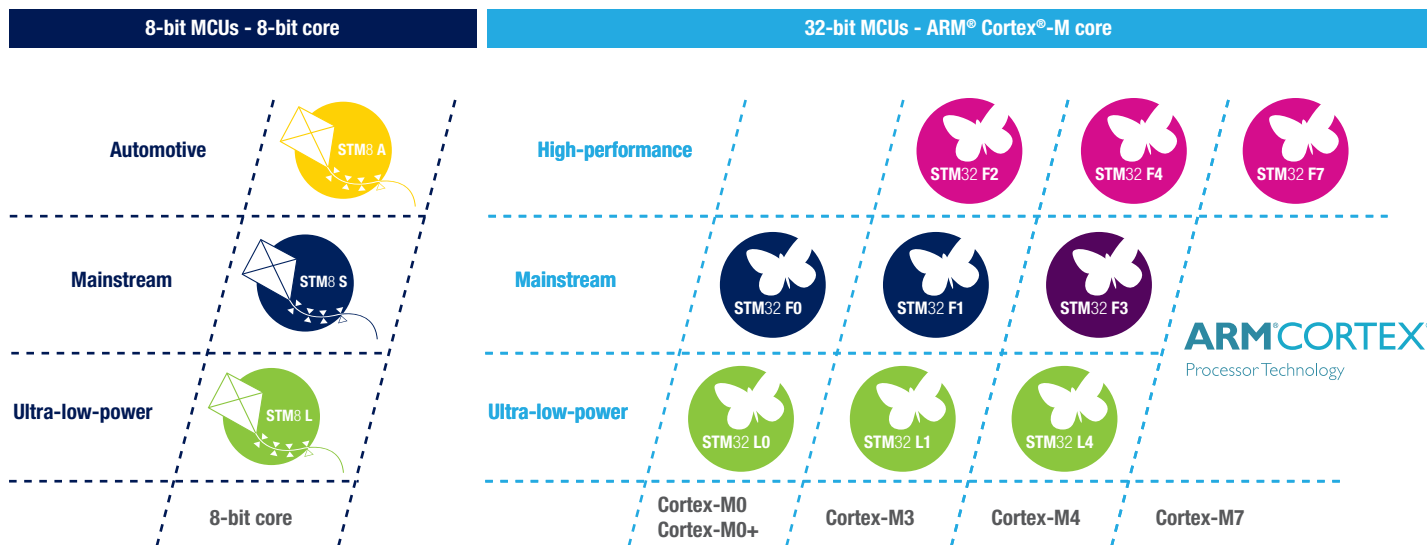
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## STM32 – 32-bit microcontroller families

### STM32 F0 SERIES - ARM® CORTEX®-M0 ENTRY-LEVEL MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC external channels	DAC channels	I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-/32-bit timers	Others				SPI	I²S	I²C	USART	CEC	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F0x0 Value line - 48 MHz CPU																			
STM32F030F4	16	4	TSSOP20	4x16-bit	2 x WDG, RTC, 24-bit downcounter	9x12-bit		15	1		1	1				2.4 to 3.6	3.4	250	-40 to +85
STM32F030C6	32	4	LQFP48	4x16-bit		10x12-bit		39	1		1	1				2.4 to 3.6	3.4	250	-40 to +85
STM32F030K6	32	4	LQFP32	4x16-bit		10x12-bit		26	1		1	1				2.4 to 3.6	3.4	250	-40 to +85
STM32F070F6	32	6	TSSOP20	5x16-bit		9x12-bit		15	1	0	1	2		1		2.4 to 3.6	1.7	264	-40 to +85
STM32F070C6	32	6	LQFP48	5x16-bit		10x12-bit		37	1	0	1	2		1		2.4 to 3.6	1.7	264	-40 to +85
STM32F030C8	64	8	LQFP48	6x16-bit		10x12-bit		39	2		2	2				2.4 to 3.6	3.4	250	-40 to +85
STM32F030R8	64	8	LQFP64	6x16-bit		16x12-bit		55	2		2	2				2.4 to 3.6	3.4	250	-40 to +85
STM32F070CB	128	16	LQFP48	8x16-bit		10x12-bit		37	2	0	2	4		1		2.4 to 3.6	1.8	273	-40 to +85
STM32F070RB	128	16	LQFP64	8x16-bit		16x12-bit		51	2	0	2	4		1		2.4 to 3.6	1.8	273	-40 to +85
STM32F030CC	256	32	LQFP48	8x16-bit		10x12-bit		38	2	0	2	4				2.4 to 3.6	1.8	306	-40 to +85
STM32F030RC	256	32	LQFP64	8x16-bit		16x12-bit		52	2	0	2	6				2.4 to 3.6	1.8	306	-40 to +85

## STM32 F0 SERIES - ARM® CORTEX®-M0 ENTRY-LEVEL MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC external channels	DAC channels	I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-/32-bit timers	Others				SPI	I²S	I²C	USART	CEC	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F0x1 line - 48 MHz CPU																			
STM32F031C4	16	4	LQFP48	5x16-bit / 1x32-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit		39	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031F4	16	4	TSSOP20	5x16-bit / 1x32-bit		9x12-bit		15	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031G4	16	4	UFQFPN28	5x16-bit / 1x32-bit		10x12-bit		23	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031K4	16	4	LQFP32 UFQFPN32	5x16-bit / 1x32-bit		10x12-bit		25/27	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F051C4	16	8	LQFP48 UFQFPN48	7x16-bit / 1x32-bit		10x12-bit	1x12-bit	39	1	1	1	1	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051K4	16	8	LQFP32 UFQFPN32	7x16-bit / 1x32-bit		10x12-bit	1x12-bit	27	1	1	1	1	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051R4	16	8	LQFP64 UFBGA64	7x16-bit / 1x32-bit		16x12-bit	1x12-bit	55	1	1	1	1	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F031C6	32	4	LQFP48	5x16-bit / 1x32-bit		10x12-bit		39	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031E6	32	4	WLCSP25	5x16-bit / 1x32-bit		10x12-bit		20	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031F6	32	4	TSSOP20	5x16-bit / 1x32-bit		9x12-bit		15	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031G6	32	4	UFQFPN28	5x16-bit / 1x32-bit		10x12-bit		23	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F031K6	32	4	LQFP32 UFQFPN32	5x16-bit / 1x32-bit		10x12-bit		25/27	1	1	1	1				2.0 to 3.6	1.7	250	-40 to +105
STM32F051C6	32	8	LQFP48 UFQFPN48	7x16-bit / 1x32-bit		10x12-bit	1x12-bit	39	1	1	1	2	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051K6	32	8	LQFP32 UFQFPN32	7x16-bit / 1x32-bit		10x12-bit	1x12-bit	27	1	1	1	2	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051R6	32	8	LQFP64 UFBGA64	7x16-bit / 1x32-bit		16x12-bit	1x12-bit	55	1	1	1	2	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051C8	64	8	LQFP48 UFQFPN48	7x16-bit / 1x32-bit		10x12-bit	1x12-bit	39	2	1	2	2	1			2.0 to 3.6	1.7	250	-40 to +105

## STM32 F0 SERIES - ARM® CORTEX®-M0 ENTRY-LEVEL MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC external channels	DAC channels	I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-/32-bit timers	Others				SPI	I²S	I²C	USART	CEC	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F051K8	64	8	LQFP32 UFQFPN32	7x16-bit / 1x32-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit	1x12-bit	27	1	1	1	2	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051R8	64	8	LQFP64 UFBGA64	7x16-bit / 1x32-bit		16x12-bit	1x12-bit	55	2	1	2	2	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F051T8	64	8	WLCSP36	7x16-bit / 1x32-bit		10x12-bit	2x12-bit	29	2	1	1	2	1			2.0 to 3.6	1.7	250	-40 to +105
STM32F071V8	64	16	LQFP100 UFBGA100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	87	2	2	2	4	1			2.0 to 3.6	1.8	260	-40 to +105
STM32F071CB	128	16	LQFP48 UFQFPN48 WLCSP49	8x16-bit / 1x32-bit		10x12-bit	2x12-bit	37	2	2	2	4	1			2.0 to 3.6	1.8	260	-40 to +105
STM32F071RB	128	16	LQFP64	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	51	2	2	2	4	1			2.0 to 3.6	1.8	260	-40 to +105
STM32F071VB	128	16	LQFP100 UFBGA100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	87	2	2	2	4	1			2.0 to 3.6	1.8	260	-40 to +105
STM32F091VB	128	32	LQFP100 UFBGA100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	88	2	2	2	8	1		1	2.0 to 3.6	1.8	306	-40 to +105
STM32F091RB	128	32	LQFP64 UFBGA64 WLCSP64	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	52	2	2	2	8	1		1	2.0 to 3.6	1.8	306	-40 to +105
STM32F091CB	128	32	LQFP48 UFQFPN48	8x16-bit / 1x32-bit		10x12-bit	2x12-bit	38	2	2	2	6	1		1	2.0 to 3.6	1.8	306	-40 to +105
STM32F091VC	256	32	LQFP100 UFBGA100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	88	2	2	2	8	1		1	2.0 to 3.6	1.8	306	-40 to +105
STM32F091RC	256	32	LQFP64 UFBGA64 WLCSP64	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	52	2	2	2	8	1		1	2.0 to 3.6	1.8	306	-40 to +105
STM32F091CC	256	32	LQFP48 UFQFPN48	8x16-bit / 1x32-bit		10x12-bit	2x12-bit	38	2	2	2	6	1		1	2.0 to 3.6	1.8	306	-40 to +105
STM32F0x2 line - 48 MHz CPU with USB and CAN																			
STM32F042F4	16	6	TSSOP20	5x16-bit / 1x32-bit	2 x WDG, RTC, 24-bit downcounter	9x12-bit		16	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042G4	16	6	UFQFPN28	5x16-bit / 1x32-bit		10x12-bit		24	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105

## STM32 F0 SERIES - ARM® CORTEX®-M0 ENTRY-LEVEL MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC external channels	DAC channels	I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-/32-bit timers	Others				SPI	I²S	I²C	USART	CEC	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F042K4	16	6	LQFP32 UFQFPN32	5x16-bit / 1x32-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit		28	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042C4	16	6	LQFP48 UFQFPN48	5x16-bit / 1x32-bit		10x12-bit		38	2	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042F6	32	6	TSSOP20	5x16-bit / 1x32-bit		9x12-bit		16	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042G6	32	6	UFQFPN28	5x16-bit / 1x32-bit		10x12-bit		24	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042K6	32	6	LQFP32 UFQFPN32	5x16-bit / 1x32-bit		10x12-bit		28	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042T6	32	6	WLCSP36	5x16-bit / 1x32-bit		10x12-bit		30	1	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F042C6	32	6	LQFP48 UFQFPN48	5x16-bit / 1x32-bit		10x12-bit		38	2	1	1	2	1	1	1	2.0 to 3.6	1.7	250	-40 to +105
STM32F072C8	64	16	LQFP48 UFQFPN48 WLCSP49	8x16-bit / 1x32-bit		10x12-bit	2x12-bit	37	2	1	2	4	1	1	1	2.0 to 3.6	1.8	260	-40 to +105
STM32F072R8	64	16	LQFP64	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	51	2	1	2	4	1	1	1	2.0 to 3.6	1.8	260	-40 to +105
STM32F072V8	64	16	LQFP100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	87	2	1	2	4	1	1	1	2.0 to 3.6	1.8	260	-40 to +105
STM32F072C8B	128	16	LQFP48 UFQFPN48 WLCSP49	8x16-bit / 1x32-bit		10x12-bit	2x12-bit	37	2	1	2	4	1	1	1	2.0 to 3.6	1.8	260	-40 to +105
STM32F072RB	128	16	LQFP64 BGA64	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	51	2	1	2	4	1	1	1	2.0 to 3.6	1.8	260	-40 to +105
STM32F072VB	128	16	LQFP100 UFBGA100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	87	2	1	2	4	1	1	1	2.0 to 3.6	1.8	260	-40 to +105
STM32F0x8 line - 48 MHz CPU with USB																			
STM32F038C6	32	4	LQFP48 UFQFPN48	5x16-bit / 1x32-bit	2 x WDG, RTC, 24-bit downcounter	9x12-bit		38	1	1	1	1				1.65 to 1.95	1.7	250	-40 to +105
STM32F038E6	32	4	WLCSP25	5x16-bit / 1x32-bit		10x12-bit		20	1	1	1	1				1.65 to 1.95	1.7	250	-40 to +105

## STM32 F0 SERIES - ARM® CORTEX®-M0 ENTRY-LEVEL MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC external channels	DAC channels	I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-/32-bit timers	Others				SPI	I²S	I²C	USART	CEC	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F038F6	32	4	TSSOP20	5x16-bit / 1x32-bit	2 x WDG, RTC, 24-bit downcounter	9x12-bit		14	1	1	1	1				1.65 to 1.95	1.7	250	-40 to +105
STM32F038G6	32	4	UFQFPN28	5x16-bit / 1x32-bit		10x12-bit		22	1	1	1	1				1.65 to 1.95	1.7	250	-40 to +105
STM32F038K6	32	4	UFQFPN32	5x16-bit / 1x32-bit		10x12-bit		26	1	1	1	1				1.65 to 1.95	1.7	250	-40 to +105
STM32F048C6	32	6	LQFP48 UFQFPN48	5x16-bit / 1x32-bit		10x12-bit		38	2	1	1	2	1	1	1	1.65 to 1.95	1.7	250	-40 to +105
STM32F048G6	32	6	UFQFPN28	5x16-bit / 1x32-bit		10x12-bit		24	1	1	1	2	1	1	1	1.65 to 1.95	1.7	250	-40 to +105
STM32F048T6	32	6	WLCSP36	5x16-bit / 1x32-bit		10x12-bit		30	1	1	1	2	1	1	1	1.65 to 1.95	1.7	250	-40 to +105
STM32F058C8	64	8	UFQFPN48	7x16-bit / 1x32-bit		10x12-bit	2x12-bit	39	2	1	2	2	1			1.65 to 1.95	1.7	250	-40 to +105
STM32F058R8	64	8	LQFP64	7x16-bit / 1x32-bit		16x12-bit	2x12-bit	55	2	1	2	2	1			1.65 to 1.95	1.7	250	-40 to +105
STM32F058T8	64	8	WLCSP36	7x16-bit / 1x32-bit		10x12-bit	2x12-bit	29	2	1	1	2	1			1.65 to 1.95	1.7	250	-40 to +105
STM32F078CB	128	16	LQFP48 WLCSP49	9x16-bit / 1x32-bit		10x12-bit	2x12-bit	36	2	2	2	4	1	1	1	1.65 to 1.95	1.7	250	-40 to +105
STM32F078RB	128	16	BGA64 LQFP64	9x16-bit / 1x32-bit		16x12-bit	2x12-bit	50	2	2	2	4	1	1	1	1.65 to 1.95	1.8	260	-40 to +105
STM32F078VB	128	16	BGA100 LQFP100	9x16-bit / 1x32-bit		16x12-bit	2x12-bit	86	2	2	2	4	1	1	1	1.65 to 1.95	1.7	260	-40 to +105
STM32F098CC	256	32	LQFP48 UQFN48	8x16-bit / 1x32-bit		10x12-bit	2x12-bit	37	2	2	2	6	1		1	1.65 to 1.95	1.8	306	-40 to +105
STM32F098RC	256	32	BGA64 LQFP64 WLCSP64	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	51	2	2	2	8	1		1	1.65 to 1.95	1.8	306	-40 to +105
STM32F098VC	256	32	BGA100 LQFP100	8x16-bit / 1x32-bit		16x12-bit	2x12-bit	87	2	2	2	8	1		1	1.65 to 1.95	1.8	306	-40 to +105



## STM32 F1 SERIES - ARM® CORTEX®-M3 FOUNDATION MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-bit timers	Others				SPI	I²S	I²C	USART + UART¹	CEC	USB FS	CAN 2.0B	SDIO		Ethernet MAC10/100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F100 Value line - 24 MHz CPU																					
STM32F100C4	16	4	LQFP48	6x16-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit	2x12-bit	37	1		1	2	1					2 to 3.6	1.7	358	-40 to +105
STM32F100R4	16	4	LQFP64 TFBGA64	6x16-bit		16x12-bit	2x12-bit	51	1		1	2	1					2 to 3.6	1.7	358	-40 to +105
STM32F100C6	32	4	LQFP48	6x16-bit		10x12-bit	2x12-bit	37	1		1	2	1					2 to 3.6	1.7	358	-40 to +105
STM32F100R6	32	4	LQFP64 TFBGA64	6x16-bit		16x12-bit	2x12-bit	51	1		1	2	1					2 to 3.6	1.7	358	-40 to +105
STM32F100C8	64	8	LQFP48	7x16-bit		10x12-bit	2x12-bit	37	2		2	3	1					2 to 3.6	1.7	358	-40 to +105
STM32F100R8	64	8	LQFP64 TFBGA64	7x16-bit		16x12-bit	2x12-bit	51	2		2	3	1					2 to 3.6	1.7	358	-40 to +105
STM32F100V8	64	8	LQFP100	7x16-bit		16x12-bit	2x12-bit	80	2		2	3	1					2 to 3.6	1.7	358	-40 to +105
STM32F100CB	128	8	LQFP48	7x16-bit		10x12-bit	2x12-bit	37	2		2	3	1					2 to 3.6	1.7	358	-40 to +105
STM32F100RB	128	8	LQFP64 TFBGA64	7x16-bit		16x12-bit	2x12-bit	51	2		2	3	1					2 to 3.6	1.7	358	-40 to +105
STM32F100VB	128	8	LQFP100	7x16-bit		16x12-bit	2x12-bit	80	2		2	3	1					2 to 3.6	1.7	358	-40 to +105
STM32F100RC	256	24	LQFP64	11x16-bit		16x12-bit	2x12-bit	51	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100VC	256	24	LQFP100	11x16-bit		16x12-bit	2x12-bit	80	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100ZC	256	24	LQFP144	11x16-bit		16x12-bit	2x12-bit	112	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100RD	384	32	LQFP64	11x16-bit		16x12-bit	2x12-bit	51	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100VD	384	32	LQFP100	11x16-bit		16x12-bit	2x12-bit	80	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100ZD	384	32	LQFP144	11x16-bit		16x12-bit	2x12-bit	112	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100RE	512	32	LQFP64	11x16-bit		16x12-bit	2x12-bit	51	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100VE	512	32	LQFP100	11x16-bit		16x12-bit	2x12-bit	80	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105
STM32F100ZE	512	32	LQFP144	11x16-bit		16x12-bit	2x12-bit	112	3		2	3+2	1					2 to 3.6	2.2	396	-40 to +105

## STM32 F1 SERIES - ARM® CORTEX®-M3 FOUNDATION MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-bit timers	Others				SPI	I²S	I²C	USART + UART†	CEC	USB FS	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)	
STM32F101 Access line - 36 MHz CPU																				
STM32F101C4	16	4	LQFP48	2x16-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit		36	1		1	2					2 to 3.6	1.7	363	-40 to +105
STM32F101R4	16	4	LQFP64	2x16-bit		16x12-bit		51	1		1	2					2 to 3.6	1.7	363	-40 to +105
STM32F101T4	16	4	VFQFPN36	2x16-bit		10x12-bit		26	1		1	2					2 to 3.6	1.7	363	-40 to +105
STM32F101C6	32	6	LQFP48	2x16-bit		10x12-bit		36	1		1	2					2 to 3.6	1.7	363	-40 to +105
STM32F101R6	32	6	LQFP64	2x16-bit		16x12-bit		51	1		1	2					2 to 3.6	1.7	363	-40 to +105
STM32F101T6	32	6	VFQFPN36	2x16-bit		10x12-bit		26	1		1	2					2 to 3.6	1.7	363	-40 to +105
STM32F101C8	64	10	LQFP48	3x16-bit		10x12-bit		36	2		2	3					2 to 3.6	1.7	363	-40 to +105
STM32F101R8	64	10	LQFP64	3x16-bit		16x12-bit		51	2		2	3					2 to 3.6	1.7	391	-40 to +105
STM32F101T8	64	10	VFQFPN36	3x16-bit		10x12-bit		26	1		1	2					2 to 3.6	1.7	391	-40 to +105
STM32F101V8	64	10	LQFP100	3x16-bit		16x12-bit		80	2		2	3					2 to 3.6	1.7	391	-40 to +105
STM32F101CB	128	16	LQFP48 VFQFPN48	3x16-bit		10x12-bit		36	2		2	3					2 to 3.6	1.7	363	-40 to +105
STM32F101RB	128	16	LQFP64 TFBGA64	3x16-bit		16x12-bit		51	2		2	3					2 to 3.6	1.7	391	-40 to +105
STM32F101TB	128	16	VFQFPN36	3x16-bit		10x12-bit		26	1		1	2					2 to 3.6	1.7	391	-40 to +105
STM32F101VB	128	16	LQFP100	3x16-bit		16x12-bit		80	2		2	3					2 to 3.6	1.7	391	-40 to +105
STM32F101RC	256	32	LQFP64	6x16-bit		16x12-bit	2x12-bit	51	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101VC	256	32	LQFP100	6x16-bit		16x12-bit	2x12-bit	80	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101ZC	256	32	LQFP144	6x16-bit		16x12-bit	2x12-bit	112	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101RD	384	48	LQFP64	6x16-bit		16x12-bit	2x12-bit	51	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101VD	384	48	LQFP100	6x16-bit		16x12-bit	2x12-bit	80	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101ZD	384	48	LQFP144	6x16-bit		16x12-bit	2x12-bit	112	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101RE	512	48	LQFP64	6x16-bit		16x12-bit	2x12-bit	51	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101VE	512	48	LQFP100	6x16-bit		16x12-bit	2x12-bit	80	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101ZE	512	48	LQFP144	6x16-bit		16x12-bit	2x12-bit	112	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101RF	768	80	LQFP64	12x16-bit		16x12-bit	2x12-bit	51	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101VF	768	80	LQFP100	12x16-bit		16x12-bit	2x12-bit	80	3		2	3+2					2 to 3.6	1.9	433	-40 to +105

## STM32 F1 SERIES - ARM® CORTEX®-M3 FOUNDATION MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
				16-bit timers	Others				SPI	I²S	I²C	USART + UART¹	CEC	USB FS	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)	
STM32F101ZF	768	80	LQFP144	12x16-bit	2 x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	112	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101RG	1024	80	LQFP64	12x16-bit		16x12-bit	2x12-bit	51	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101VG	1024	80	LQFP100	12x16-bit		16x12-bit	2x12-bit	80	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F101ZG	1024	80	LQFP144	12x16-bit		16x12-bit	2x12-bit	112	3		2	3+2					2 to 3.6	1.9	433	-40 to +105
STM32F102 USB Access line - 48 MHz																				
STM32F102C4	16	4	LQFP48	2x16-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit		36	1		1	2		1			2 to 3.6	1.55	348	-40 to +105
STM32F102R4	16	4	LQFP64	2x16-bit		16x12-bit		51	1		1	2		1			2 to 3.6	1.55	348	-40 to +105
STM32F102C6	32	6	LQFP48	2x16-bit		10x12-bit		36	1		1	2		1			2 to 3.6	1.55	348	-40 to +105
STM32F102R6	32	6	LQFP64	2x16-bit		16x12-bit		51	1		1	2		1			2 to 3.6	1.55	348	-40 to +105
STM32F102C8	64	10	LQFP48	3x16-bit		10x12-bit		36	2		2	3		1			2 to 3.6	1.7	373	-40 to +105
STM32F102R8	64	10	LQFP64	3x16-bit		16x12-bit		51	2		2	3		1			2 to 3.6	1.7	373	-40 to +105
STM32F102CB	128	16	LQFP48	3x16-bit		10x12-bit		36	2		2	3		1			2 to 3.6	1.7	373	-40 to +105
STM32F102RB	128	16	LQFP64	3x16-bit		16x12-bit		51	2		2	3		1			2 to 3.6	1.7	373	-40 to +105
STM32F103 Performance line - 72 MHz CPU																				
STM32F103C4	16	6	LQFP48	3x16-bit	2 x WDG, RTC, 24-bit downcounter	10x12-bit		36	1		1	2		1	1		2 to 3.6	1.55	337	-40 to +105
STM32F103R4	16	6	LQFP64 TFBGA64	3x16-bit		16x12-bit		51	1		1	2		1	1		2 to 3.6	1.55	337	-40 to +105
STM32F103T4	16	6	VFQFPN36	3x16-bit		10x12-bit		26	1		1	2		1	1		2 to 3.6	1.55	337	-40 to +105
STM32F103C6	32	10	LQFP48 VFQFPN48	3x16-bit		10x12-bit		36	1		1	2		1	1		2 to 3.6	1.55	337	-40 to +105
STM32F103R6	32	10	LQFP64 TFBGA64	3x16-bit		16x12-bit		51	1		1	2		1	1		2 to 3.6	1.55	337	-40 to +105
STM32F103T6	32	10	VFQFPN36	3x16-bit		10x12-bit		26	1		1	2		1	1		2 to 3.6	1.55	373	-40 to +105
STM32F103C8	64	20	LQFP48	4x16-bit		10x12-bit		36	2		2	3		1	1		2 to 3.6	1.7	373	-40 to +105
STM32F103R8	64	20	LQFP64 TFBGA64	4x16-bit		16x12-bit		51	2		2	3		1	1		2 to 3.6	1.7	373	-40 to +105
STM32F103T8	64	20	VFQFPN36	4x16-bit		10x12-bit		26	1		1	2		1	1		2 to 3.6	1.7	373	-40 to +105
STM32F103V8	64	20	LFPGA100 LQFP100	4x16-bit		16x12-bit		80	2		2	3		1	1		2 to 3.6	1.7	373	-40 to +105
STM32F103CB	128	20	LQFP48 VFQFPN48	4x16-bit		10x12-bit		36	2		2	3		1	1		2 to 3.6	1.7	373	-40 to +105

## STM32 F1 SERIES - ARM® CORTEX®-M3 FOUNDATION MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-bit timers	Others				SPI	I²S	I²C	USART + UART¹	CEC	USB FS	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F103RB	128	20	LQFP64 TFBGA64	4x16-bit	2 x WDG, RTC, 24-bit downcounter	16x12-bit		51	2		2	3		1	1			2 to 3.6	1.7	373	-40 to +105
STM32F103TB	128	20	VFPQFN36	4x16-bit		10x12-bit		26	1		1	2		1	1			2 to 3.6	1.7	373	-40 to +105
STM32F103VB	128	20	LFBGA100 LQFP100	4x16-bit		16x12-bit		80	2		2	3		1	1			2 to 3.6	1.7	373	-40 to +105
STM32F103RC	256	48	LQFP64 WLCSP64	8x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103VC	256	48	LFBGA100 LQFP100	8x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103ZC	256	48	LFBGA144 LQFP144	8x16-bit		21x12-bit	2x12-bit	112	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103RD	384	64	LQFP64 WLCSP64	8x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103VD	384	64	LFBGA100 LQFP100	8x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103ZD	384	64	LFBGA144 LQFP144	8x16-bit		21x12-bit	2x12-bit	112	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103RE	512	64	LQFP64 WLCSP64	8x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103VE	512	64	LFBGA100 LQFP100	8x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103ZE	512	64	LFBGA144 LQFP144	8x16-bit		21x12-bit	2x12-bit	112	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103RF	768	96	LQFP64	12x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103VF	768	96	LQFP100	14x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103ZF	768	96	LFBGA144 LQFP144	14x16-bit		21x12-bit	2x12-bit	112	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103RG	1024	96	LQFP64	12x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103VG	1024	96	LQFP100	14x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105
STM32F103ZG	1024	96	LFBGA144 LQFP144	14x16-bit		21x12-bit	2x12-bit	112	3	2	2	3+2		1	1	1		2 to 3.6	1.9	421	-40 to +105

## STM32 F1 SERIES - ARM® CORTEX®-M3 FOUNDATION MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-bit timers	Others				SPI	I²S	I²C	USART + UART¹	CEC	USB FS	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F105/107 Connectivity line - 72 MHz CPU																					
STM32F105R8	64	64	LQFP64	7x16-bit	2 x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	51	3	2	2	3+2		OTG	2			2 to 3.6	1.9	393	-40 to +105
STM32F105V8	64	64	LQFP100	7x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		OTG	2			2 to 3.6	1.9	393	-40 to +105
STM32F105RB	128	64	LQFP64	7x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		OTG	2			2 to 3.6	1.9	393	-40 to +105
STM32F105VB	128	64	LFPGA100 LQFP100	7x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		OTG	2			2 to 3.6	1.9	393	-40 to +105
STM32F107RB	128	64	LQFP64	7x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		OTG	2		Yes	2 to 3.6	1.9	393	-40 to +105
STM32F107VB	128	64	LQFP100	7x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		OTG	2		Yes	2 to 3.6	1.9	393	-40 to +105
STM32F105RC	256	64	LQFP64	7x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		OTG	2			2 to 3.6	1.9	393	-40 to +105
STM32F105VC	256	64	LQFP100	7x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		OTG	2			2 to 3.6	1.9	393	-40 to +105
STM32F107RC	256	64	LQFP64	7x16-bit		16x12-bit	2x12-bit	51	3	2	2	3+2		OTG	2		Yes	2 to 3.6	1.9	393	-40 to +105
STM32F107VC	256	64	LFPGA100 LQFP100	7x16-bit		16x12-bit	2x12-bit	80	3	2	2	3+2		OTG	2		Yes	2 to 3.6	1.9	393	-40 to +105

Note:

1. Marked in the table (3+2) means 3 USART and 2 UART. All UARTs have LIN master/slave function. All USARTs have IrDA, ISO 7816, modem control and LIN master/slave functions.

## STM32 F3 SERIES - ARM® CORTEX®-M4 MIXED-SIGNAL MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		Analog				I/Os	SPI	Serial interface					Supply voltage (V)	Supply current (Icc)		Operating temperature range (°C)
				16-/32-bit timers	Others	ADC 16-bit / 12-bit	DAC	Comp.	Op-amp			I²S	I²C	USART / UART	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F301 line – 72 MHz with advanced timer and 12-bit ADC (5 MSPS)																				
STM32F301C6	32	16	LQFP48 WLCSP49	5x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC	1x12-bit (11 Ch.)	1x12-bit	3	1	37	2	up to 2x full duplex	3	3		2.0 to 3.6	1.4	353	-40 to +105	
STM32F301K6	32	16	UFQFPN32	5x16-bit / 1x32-bit		1x12-bit (8 Ch.)	1x12-bit	2	1	24	2		3	2		2.0 to 3.6	1.4	353	-40 to +105	
STM32F301R6	32	16	LQFP64	5x16-bit / 1x32-bit		1x12-bit (15 Ch.)	1x12-bit	3	1	51	2		3	3		2.0 to 3.6	1.4	353	-40 to +105	
STM32F301C8	64	16	LQFP48 WLCSP49	5x16-bit / 1x32-bit		1x12-bit (11 Ch.)	1x12-bit	3	1	37	2		3	3		2.0 to 3.6	1.4	353	-40 to +105	
STM32F301K8	64	16	UFQFPN32	5x16-bit / 1x32-bit		1x12-bit (8 Ch.)	1x12-bit	2	1	24	2		3	2		2.0 to 3.6	1.4	353	-40 to +105	
STM32F301R8	64	16	LQFP64	5x16-bit / 1x32-bit		1x12-bit (15 Ch.)	1x12-bit	3	1	51	2		3	3		2.0 to 3.6	1.4	353	-40 to +105	
STM32F302 line – 72 MHz with advanced timer and 12-bit ADC (5 MSPS)																				
STM32F302C6	32	16	LQFP48 WLCSP49	5x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC	1x12-bit (11 Ch.)	1x12-bit	3	1	37	2	up to 2x full duplex	3	3	1	1	2.0 to 3.6	1.4	353	-40 to +105
STM32F302K6	32	16	UFQFPN32	5x16-bit / 1x32-bit		1x12-bit (8 Ch.)	1x12-bit	2	1	24	2		3	2	1	1	2.0 to 3.6	1.4	353	-40 to +105
STM32F302R6	32	16	LQFP64	5x16-bit / 1x32-bit		1x12-bit (15 Ch.)	1x12-bit	3	1	51	2		3	3	1	1	2.0 to 3.6	1.4	353	-40 to +105
STM32F302C8	32	16	LQFP48 WLCSP49	5x16-bit / 1x32-bit		1x12-bit (11 Ch.)	1x12-bit	3	1	37	2		3	3	1	1	2.0 to 3.6	1.4	353	-40 to +105
STM32F302K8	64	16	UFQFPN32	5x16-bit / 1x32-bit		1x12-bit (8 Ch.)	1x12-bit	2	1	24	2		3	2	1	1	2.0 to 3.6	1.4	353	-40 to +105
STM32F302R8	64	16	LQFP64	5x16-bit / 1x32-bit		1x12-bit (15 Ch.)	1x12-bit	3	1	51	2		3	3	1	1	2.0 to 3.6	1.4	353	-40 to +105
STM32F302CB	128	32	LQFP48	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	1x12-bit	4	2	37	3		2	3	1	1	2.0 to 3.6	1.5	392	-40 to +105
STM32F302RB	128	32	LQFP64	7x16-bit / 1x32-bit		2x12-bit (16 Ch.)	1x12-bit	4	2	52	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105
STM32F302VB	128	32	LQFP100	7x16-bit / 1x32-bit		2x12-bit (17 Ch.)	1x12-bit	4	2	87	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105
STM32F302CC	256	40	LQFP48	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	1x12-bit	4	2	37	3		2	3	1	1	2.0 to 3.6	1.5	392	-40 to +105

## STM32 F3 SERIES - ARM® CORTEX®-M4 MIXED-SIGNAL MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		Analog				I/Os	SPI	I <sup>2</sup> S	Serial interface					Supply voltage (V)	Supply current (I <sub>CC</sub> )		
				16-/32-bit timers	Others	ADC 16-bit / 12-bit	DAC	Comp.	Op-amp				I <sup>2</sup> C	USART / UART	USB FS	CAN 2.0B	Lowest power mode (μA)		Run mode (per MHz) (μA)	Operating temperature range (°C)	
STM32F302RC	256	40	LQFP64	7x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC	2x12-bit (16 Ch.)	1x12-bit	4	2	52	3	up to 2x full duplex	2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302VC	256	40	LQFP100	7x16-bit / 1x32-bit		2x12-bit (17 Ch.)	1x12-bit	4	2	87	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302RD	384	64	LQFP64	7x16-bit / 1x32-bit		2x12-bit (16 Ch.)	1x12-bit	4	2	51	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302VD	384	64	LQFP100	7x16-bit / 1x32-bit		2x12-bit (17 Ch.)	1x12-bit	4	2	86	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302ZD	384	64	LQFP144	7x16-bit / 1x32-bit		2x12-bit (18 Ch.)	1x12-bit	4	2	115	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302RE	512	64	LQFP64	7x16-bit / 1x32-bit		2x12-bit (16 Ch.)	1x12-bit	4	2	51	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302VE	512	64	LQFP100	7x16-bit / 1x32-bit		2x12-bit (17 Ch.)	1x12-bit	4	2	86	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F302ZE	512	64	LQFP144	7x16-bit / 1x32-bit		2x12-bit (18 Ch.)	1x12-bit	4	2	115	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303 line – 72 MHz with up to 16-Kbyte CCM-SRAM, advanced timer and 12-bit ADC (5 MSPS)																					
STM32F303C6	32	16	LQFP48	7x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC	2x12-bit (15 Ch.)	3x12-bit	3	1	37	1	No	1	3		1	2.0 to 3.6	1.4	353	-40 to +105	
STM32F303K6	32	16	LQFP32	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	3x12-bit	2	1	25	1		1	2	1	1	2.0 to 3.6	1.4	353	-40 to +105	
STM32F303R6	32	16	LQFP64	7x16-bit / 1x32-bit		2x12-bit (21 Ch.)	3x12-bit	3	1	51	1		1	3	1	1	2.0 to 3.6	1.4	353	-40 to +105	
STM32F303C8	64	16	LQFP48	7x16-bit / 1x32-bit		2x12-bit (15 Ch.)	3x12-bit	3	1	37	1		1	3	1	1	2.0 to 3.6	1.4	353	-40 to +105	
STM32F303K8	64	16	LQFP32	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	3x12-bit	2	1	25	1		1	2	1	1	2.0 to 3.6	1.4	353	-40 to +105	
STM32F303R8	64	16	LQFP64	7x16-bit / 1x32-bit		2x12-bit (21 Ch.)	3x12-bit	3	1	51	1		1	3	1	1	2.0 to 3.6	1.4	353	-40 to +105	
STM32F303CB	128	40	LQFP48	9x16-bit / 1x32-bit		4x12-bit (15 Ch.)	2x12-bit	7	4	37	3	up to 2x full duplex	2	3	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303RB	128	40	LQFP64	9x16-bit / 1x32-bit		4x12-bit (22 Ch.)	2x12-bit	7	4	52	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303VB	128	40	LQFP100	9x16-bit / 1x32-bit		4x12-bit (39 Ch.)	2x12-bit	7	4	87	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	

## STM32 F3 SERIES - ARM® CORTEX®-M4 MIXED-SIGNAL MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		Analog				I/Os	SPI	I <sup>2</sup> S	Serial interface					Supply voltage (V)	Supply current (Icc)		Operating temperature range (°C)
				16-/32-bit timers	Others	ADC 16-bit / 12-bit	DAC	Comp.	Op- amp				I <sup>2</sup> C	USART / UART	USB FS	CAN 2.0B	Lowest power mode (μA)		Run mode (per MHz) (μA)		
STM32F303CC	256	48	LQFP48	9x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC	4x12-bit (15 Ch.)	2x12-bit	7	4	37	3	up to 2x full duplex	2	3	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303RC	256	48	LQFP64	9x16-bit / 1x32-bit		4x12-bit (22 Ch.)	2x12-bit	7	4	52	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303VC	256	48	LQFP100	9x16-bit / 1x32-bit		4x12-bit (39 Ch.)	2x12-bit	7	4	87	3		2	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303RD	384	80	LQFP64	10x16-bit / 1x32-bit		4x12-bit (22 Ch.)	2x12-bit	7	4	51	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303ZD	384	80	LQFP144	10x16-bit / 1x32-bit		4x12-bit (40 Ch.)	2x12-bit	7	4	115	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303VD	384	80	LQFP100	10x16-bit / 1x32-bit		4x12-bit (39 Ch.)	2x12-bit	7	4	86	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303RE	512	80	LQFP64	10x16-bit / 1x32-bit		4x12-bit (22 Ch.)	2x12-bit	7	4	51	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303VE	512	80	LQFP100	10x16-bit / 1x32-bit		4x12-bit (39 Ch.)	2x12-bit	7	4	86	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F303ZE	512	80	LQFP144	10x16-bit / 1x32-bit		4x12-bit (40 Ch.)	2x12-bit	7	4	115	4		3	5	1	1	2.0 to 3.6	1.5	392	-40 to +105	
STM32F373 line – 72 MHz with 16-bit ΣΔ ADC																					
STM32F373C8	64	16	LQFP48	9x16-bit / 2x32-bit	SysTick, 2 x WDG, RTC	3x16-bit (8ch.) / 1x12-bit (9ch.)	3x12-bit	2		36	3	up to 3x half duplex	2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373R8	64	16	LQFP64	9x16-bit / 2x32-bit		3x16-bit (8ch.) / 1x12-bit (16ch.)	3x12-bit	2		52	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373V8	64	16	LQFP100 UFBGA100	9x16-bit / 2x32-bit		3x16-bit (21ch.) / 1x12-bit (16ch.)	3x12-bit	2		84	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373CB	128	24	LQFP48	9x16-bit / 2x32-bit		3x16-bit (8ch.) / 1x12-bit (9ch.)	3x12-bit	2		36	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	



## STM32 F3 SERIES - ARM® CORTEX®-M4 MIXED-SIGNAL MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		Analog				I/Os		Serial interface						Supply voltage (V)	Supply current (Icc)		Operating temperature range (°C)
				16-/32-bit timers	Others	ADC 16-bit / 12-bit	DAC	Comp.	Op-amp			I²S	I²C	USART / UART	USB FS	CAN 2.0B	Lowest power mode (µA)		Run mode (per MHz) (µA)		
STM32F373RB	128	24	LQFP64	9x16-bit / 2x32-bit	SysTick, 2 x WDG, RTC	3x16-bit (8ch.) / 1x12-bit (16ch.)	3x12-bit	2		52	3	up to 3x half duplex	2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373VB	128	24	LQFP100 UFBGA100	9x16-bit / 2x32-bit		3x16-bit (21ch.) / 1x12-bit (16ch.)	3x12-bit	2		84	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373CC	256	32	LQFP48	9x16-bit / 2x32-bit		3x16-bit (8ch.) / 1x12-bit (9ch.)	3x12-bit	2		36	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373RC	256	32	LQFP64	9x16-bit / 2x32-bit		3x16-bit (8ch.) / 1x12-bit (16ch.)	3x12-bit	2		52	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F373VC	256	32	LQFP100 UFBGA100	9x16-bit / 2x32-bit		3x16-bit (21ch.) / 1x12-bit (16ch.)	3x12-bit	2		84	3		2	3	1	1	2.0 to 3.6	1.6	417	-40 to +105	
STM32F3x4 line – 72 MHz with HR-timer																					
STM32F334C4	16	16	LQFP48	7x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC, HR-timer (1x217ps)	2x12-bit (15 Ch.)	3x12-bit	3	1	37	1	No	1	3		1	2.0 to 3.6	1	420	-40 to +105	
STM32F334K4	16	16	LQFP32	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	3x12-bit	2	1	25	1		1	2		1	2.0 to 3.6	1	420	-40 to +105	
STM32F334C6	32	16	LQFP48	7x16-bit / 1x32-bit		2x12-bit (15 Ch.)	3x12-bit	3	1	37	1		1	3		1	2.0 to 3.6	1	420	-40 to +105	
STM32F334K6	32	16	LQFP32	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	3x12-bit	2	1	25	1		1	2		1	2.0 to 3.6	1	420	-40 to +105	
STM32F334R6	32	16	LQFP64	7x16-bit / 1x32-bit		4x12-bit (21 Ch.)	3x12-bit	3	1	51	1		1	3		1	2.0 to 3.6	1	420	-40 to +105	

## STM32 F3 SERIES - ARM® CORTEX®-M4 MIXED-SIGNAL MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		Analog				I/Os		Serial interface					Supply voltage (V)	Supply current (Icc)		Operating temperature range (°C)
				16-/32-bit timers	Others	ADC 16-bit / 12-bit	DAC	Comp.	Op-amp			I²S	I²C	USART / UART	USB FS	CAN 2.0B		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F334C8	64	16	LQFP48	7x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC, HR-timer (1x217ps)	2x12-bit (15 Ch.)	3x12-bit	3	1	37	1	No	1	3		1	2.0 to 3.6	1	420	-40 to +105
STM32F334K8	64	16	LQFP32	7x16-bit / 1x32-bit		2x12-bit (9 Ch.)	3x12-bit	2	1	25	1		1	2		1	2.0 to 3.6	1	420	-40 to +105
STM32F334R8	64	16	LQFP64	7x16-bit / 1x32-bit		4x12-bit (21 Ch.)	3x12-bit	3	1	51	1		1	3		1	2.0 to 3.6	1	420	-40 to +105
STM32F3x8 line - 72 MHz reg off 1.8V																				
STM32F318C8	64	16	LQFP48 WLCSP49	5x16-bit / 1x32-bit	SysTick, 2 x WDG, RTC	1x12-bit (11 Ch.)	1x12-bit	3	1	36	2	up to 2x full duplex	3	3		1	1.65 to 1.95	4.2	350	-40 to +105
STM32F318K8	64	16	UFQFPN32	5x16-bit / 1x32-bit		1x12-bit (8 Ch.)	1x12-bit	2	1	23	2		3	2		1	1.65 to 1.95	4.2	350	-40 to +105
STM32F328C8	64	16	LQFP48	7x16-bit / 1x32-bit		2x12-bit (14 Ch.)	3x12-bit	3	1	36	1		1	3		1	1.65 to 1.95	6.8	420	-40 to +105
STM32F358CC	256	48	LQFP48	9x16-bit / 1x32-bit		4x12-bit (14 Ch.)	2x12-bit	7	4	36	3	up to 2x full duplex	2	5		1	1.65 to 1.95	7.4	368	-40 to +105
STM32F358RC	256	48	LQFP64	9x16-bit / 1x32-bit		4x12-bit (21 Ch.)	2x12-bit	7	4	51	3		2	5		1	1.65 to 1.95	7.4	368	-40 to +105
STM32F358VC	256	48	LQFP100	9x16-bit / 1x32-bit		4x12-bit (38 Ch.)	2x12-bit	7	4	86	3		2	5		1	1.65 to 1.95	7.4	368	-40 to +105
STM32F378CC	256	32	LQFP48	9x16-bit / 2x32-bit		3x16-bit (8ch.) / 1x12-bit (9ch.)	3x12-bit	2		36	3		up to 3x half duplex	2	3		1	1.65 to 1.95	5.9	430
STM32F378RC	256	32	LQFP64	9x16-bit / 2x32-bit	3x16-bit (8ch.) / 1x12-bit (16ch.)	3x12-bit	2		52	3	2	3			1	1.65 to 1.95	5.9	430	-40 to +105	
STM32F378VC	256	32	LQFP100	9x16-bit / 2x32-bit	3x16-bit (21ch.) / 1x12-bit (16ch.)	3x12-bit	2		84	3	2	3			1	1.65 to 1.95	5.9	430	-40 to +105	
STM32F398VE	512	80	LQFP100	10x16-bit / 1x32-bit		4x12-bit (39 Ch.)	2x12-bit	7	4	86	4	up to 2x full duplex	3	5		1	1.65 to 1.95	9.8	392	-40 to +105

Notes: Supply voltage 2.0 to 3.6V for all devices or 1.8V +/-8% dedicated sales type  
 WLCSP66 package available in 1.8V +/-8% dedicated sales type only

## STM32 F2 SERIES - ARM® CORTEX®-M3 HIGH-PERFORMANCE MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	AES	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					16-/32-bit timers	Others				SPI	I²S	I²C	USART + UART¹	USB OTG FS +FS/ HS	CAN 2.0B	SDIO	Ethernet MAC10 /100		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F2x5 line: USB OTG (FS/HS¹), crypto/hash processor² - 120 MHz CPU																					
STM32F205RB	128	64		LQFP64	12x16-bit / 2x32-bit	2 x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205VB	128	64		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205RC	256	96		LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205VC	256	96		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205ZC	256	96		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205RE	512	128		LQFP64 WLCSP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.7/1.8 to 3.6	2.5	188	-40 to +105
STM32F215RE²	512	128	Yes	LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F215VE²	512	128	Yes	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205VE	512	128		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205ZE	512	128		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F215ZE²	512	128	Yes	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205RF	768	128		LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205VF	768	128		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205ZF	768	128		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105

## STM32 F2 SERIES - ARM® CORTEX®-M3 HIGH-PERFORMANCE MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	AES	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	(Icc)		Maximum operating temperature range (°C)
					16-/32-bit timers	Others				SPI	I²S	I²C	USART + UART³	USB OTG FS +FS/ HS	CAN 2.0B	SDIO	Ethernet MAC10 /100		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F205RG	1024	128		LQFP64 WLCSP64	12x16-bit / 2x32-bit	2 x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.7/1.8 to 3.6	2.5	188	-40 to +105
STM32F215RG²	1024	128	Yes	LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205VG	1024	128		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F215VG²	1024	128	Yes	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F205ZG	1024	128		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F215ZG²	1024	128	Yes	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	3	4+2	2	2	1		1.8 to 3.6	2.5	188	-40 to +105
STM32F2x7 line: 2x USB OTG (FS/HS)¹, camera IF, crypto/hash processor² - 120 MHz CPU																					
STM32F207VC	256	128		LQFP100	12x16-bit / 2x32-bit	2 x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	82	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207ZC	256	128		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207IC	256	128		UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207VE	512	128		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F217VE²	512	128	Yes	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207ZE	512	128		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F217ZE²	512	128	Yes	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207IE	512	128		UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F217IE²	512	128	Yes	UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207VF	768	128		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105

## STM32 F2 SERIES - ARM® CORTEX®-M3 HIGH-PERFORMANCE MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	AES	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	(Icc)		Maximum operating temperature range (°C)
					16-/32-bit timers	Others				SPI	I²S	I²C	USART + UART³	USB OTG FS +FS/ HS	CAN 2.0B	SDIO	Ethernet MAC10 /100		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F207ZF	768	128		LQFP144	12x16-bit / 2x32-bit	2 x WDG, RTC, 24-bit downcounter	24x12-bit	2x12-bit	114	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207IF	768	128		UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207VG	1024	128		LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F217VG²	1024	128	Yes	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207ZG	1024	128		LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F217ZG²	1024	128	Yes	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F207IG	1024	128		LQFP176 UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105
STM32F217IG²	1024	128	Yes	LQFP176 UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3	2	2	4+2	2	2	1	Yes	1.8 to 3.6	2.5	188	-40 to +105

Notes:

1. HS requires an external PHY connected to ULPI interface

2. Crypto/hash processor on STM32F215 and STM32F217

3. Marked in the table (3+2) means 3 USART and 2 UART. All UARTs have LIN master/slave function. All USARTs have IrDA, ISO 7816, modem control and LIN master/slave functions.

## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPI	SAI	I²S	I²C	USART + UART³	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10/100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F401 line: USB OTG (FS), low power (10 µA typ. in Stop mode) - 84 MHz CPU																					
STM32F401CB	128	64	WLCSP49 UFQFPN48	6x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	10x12-bit		36	3		2	3	3	1			1.7³ to 3.6	1.8	128	-40 to +105	
STM32F401RB	128	64	LQFP64	6x16-bit / 2x32-bit		16x12-bit		50	3		2	3	3	1		1		1.7³ to 3.6	1.8	128	-40 to +105
STM32F401VB	128	64	LQFP100 UFBGA100	6x16-bit / 2x32-bit		16x12-bit		81	4		2	3	3	1		1		1.7³ to 3.6	1.8	128	-40 to +105
STM32F401CC	256	64	WLCSP49 UFQFPN48	6x16-bit / 2x32-bit		10x12-bit		36	3		2	3	3	1				1.7³ to 3.6	1.8	128	-40 to +105
STM32F401RC	256	64	LQFP64	6x16-bit / 2x32-bit		16x12-bit		50	3		2	3	3	1		1		1.7³ to 3.6	1.8	128	-40 to +105
STM32F401VC	256	64	LQFP100 UFBGA100	6x16-bit / 2x32-bit		16x12-bit		81	4		2	3	3	1		1		1.7³ to 3.6	1.8	128	-40 to +105
STM32F401CD	384	96	WLCSP49 UFQFPN48	6x16-bit / 2x32-bit		10x12-bit		36	3		2	3	3	1				1.7³ to 3.6	1.8	137	-40 to +105
STM32F401RD	384	96	LQFP64	6x16-bit / 2x32-bit		16x12-bit		50	3		2	3	3	1		1		1.7³ to 3.6	1.8	137	-40 to +105
STM32F401VD	384	96	LQFP100 UFBGA100	6x16-bit / 2x32-bit		16x12-bit		81	4		2	3	3	1		1		1.7³ to 3.6	1.8	137	-40 to +105
STM32F401CE	512	96	WLCSP49 UFQFPN48	6x16-bit / 2x32-bit		10x12-bit		36	3		2	3	3	1				1.7³ to 3.6	1.8	137	-40 to +105
STM32F401RE	512	96	LQFP64	6x16-bit / 2x32-bit		16x12-bit		50	3		2	3	3	1		1		1.7³ to 3.6	1.8	137	-40 to +105
STM32F401VE	512	96	LQFP100 UFBGA100	6x16-bit / 2x32-bit		16x12-bit		81	4		2	3	3	1		1		1.7³ to 3.6	1.8	137	-40 to +105
STM32F411 line: Batch Acquisition Mode (BAM), USB OTG (FS), low power (9 µA typ. in Stop mode) - 100 MHz CPU																					
STM32F411CC	256	128	WLCSP49 UFQFPN48	6x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	12x12-bit		36	5		5	3	3	1		1		1.7³ to 3.6	1.8	100	-40 to +105
STM32F411RC	256	128	LQFP64	6x16-bit / 2x32-bit		12x12-bit		50	5		5	3	3	1		1		1.7³ to 3.6	1.8	100	-40 to +105
STM32F411VC	256	128	LQFP100 UFBGA100	6x16-bit / 2x32-bit		12x12-bit		81	5		5	3	3	1		1		1.7³ to 3.6	1.8	100	-40 to +105

## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)			
				16-/32-bit timers	Others				SPI	SAI	I²S	I²C	USART + UART³	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)		
STM32F411CE	512	128	WLCSP49 UFQFPN48	6x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	12x12-bit		36	5		5	3	3	1		1	1.7³ to 3.6	1.8	100	-40 to +105			
STM32F411RE	512	128	LQFP64	6x16-bit / 2x32-bit		12x12-bit		50	5		5	3	3	1		1	1.7³ to 3.6	1.8	100	-40 to +105			
STM32F411VE	512	128	LQFP100 UFBGA100	6x16-bit / 2x32-bit		12x12-bit		81	5		5	3	3	1		1	1.7³ to 3.6	1.8	100	-40 to +105			
STM32F405/415 line: USB OTG (FS/HS¹), crypto/hash processor² - 168 MHz CPU																							
STM32F405OE	512	192	WLCSP90	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	13x12-bit	2x12-bit	72	3		2	3	4+2	2	2	1		1.7³ to 3.6	1.7	215	-40 to +105		
STM32F405OG	1024	192	WLCSP90	12x16-bit / 2x32-bit		13x12-bit	2x12-bit	72	3		2	3	4+2	2	2	1		1.7³ to 3.6	1.7	215	-40 to +105		
STM32F4150G²	1024	192	WLCSP90	12x16-bit / 2x32-bit		13x12-bit	2x12-bit	72	3		2	3	4+2	2	2	1		1.7³ to 3.6	1.7	215	-40 to +105		
STM32F405RG	1024	192	LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3		2	3	4+2	2	2	1		1.8 to 3.6	1.7	215	-40 to +105		
STM32F415RG²	1024	192	LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	51	3		2	3	4+2	2	2	1		1.8 to 3.6	1.7	215	-40 to +105		
STM32F405VG	1024	192	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3		2	3	4+2	2	2	1		1.8 to 3.6	1.7	215	-40 to +105		
STM32F415VG²	1024	192	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3		2	3	4+2	2	2	1		1.8 to 3.6	1.7	215	-40 to +105		
STM32F405ZG	1024	192	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3		2	3	4+2	2	2	1		1.7³ to 3.6	1.7	215	-40 to +105		
STM32F415ZG²	1024	192	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3		2	3	4+2	2	2	1		1.7³ to 3.6	1.7	215	-40 to +105		
STM32F407/417 line: 2x USB OTG (FS/HS¹), camera IF, crypto/hash processor² - 168 MHz CPU																							
STM32F407IE	512	192	UFBGA176 LQFP176	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	24x12-bit	2x12-bit	140	3		2	3	4+2	2	2	1	Yes	1.7³ to 3.6	1.7	215	-40 to +105		
STM32F417IE²	512	192	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3		2	3	4+2	2	2	1	Yes	1.7³ to 3.6	1.7	215	-40 to +105		
STM32F407VE	512	192	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3		2	3	4+2	2	2	1	Yes	1.8 to 3.6	1.7	215	-40 to +105		

## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (I <sub>cc</sub> )		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPI	SAI	I <sup>2</sup> S	I <sup>2</sup> C	USART + UART <sup>3</sup>	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (μA)		Run mode (per MHz) (μA)
STM32F417VE <sup>2</sup>	512	192	LQFP100	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	82	3		2	3	4+2	2	2	1	Yes	1.8 to 3.6	1.7	215	-40 to +105
STM32F407ZE	512	192	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3		2	3	4+2	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	215	-40 to +105
STM32F417ZE <sup>2</sup>	512	192	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3		2	3	4+2	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	215	-40 to +105
STM32F407IG	1024	192	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3		2	3	4+2	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	215	-40 to +105
STM32F417IG <sup>2</sup>	1024	192	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	3		2	3	4+2	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	215	-40 to +105
STM32F407VG	1024	192	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3		2	3	4+2	2	2	1	Yes	1.8 to 3.6	1.7	215	-40 to +105
STM32F417VG <sup>2</sup>	1024	192	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	3		2	3	4+2	2	2	1	Yes	1.8 to 3.6	1.7	215	-40 to +105
STM32F407ZG	1024	192	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3		2	3	4+2	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	215	-40 to +105
STM32F417ZG <sup>2</sup>	1024	192	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	3		2	3	4+2	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	215	-40 to +105
STM32F427/437 line: 2x USB OTG (FS/HS <sup>1</sup> ), camera IF, crypto/hash processor <sup>2</sup> , SDRAM interface, dual-bank Flash - 180 MHz CPU																					
STM32F427AG	1024	256	UFBGA169	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	24x12-bit	2x12-bit	130	6	1	2	3	4+4	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	208	-40 to +105
STM32F427IG	1024	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	208	-40 to +105
STM32F427VG	1024	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F427ZG	1024	256	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	208	-40 to +105
STM32F437IG <sup>2</sup>	1024	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	208	-40 to +105
STM32F437VG <sup>2</sup>	1024	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F437ZG <sup>2</sup>	1024	256	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	208	-40 to +105



## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPi	SAI	I²S	I²C	USART + UART³	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F427AI	2048	256	UFBGA169	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	24x12-bit	2x12-bit	130	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F427II	2048	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F427VI	2048	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F427ZI	2048	256	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F437AI²	2048	256	UFBGA169	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	130	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F437II²	2048	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F437VI²	2048	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F437ZI²	2048	256	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429/439 line: Same as STM32F427/437 line + TFT LCD controller - 180 MHz CPU																					
STM32F429BE	512	256	LQFP208	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429IE	512	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429NE	512	256	TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429VE	512	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F429ZE	512	256	LQFP144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429BG	1024	256	LQFP208	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429IG	1024	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429NG	1024	256	TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105

## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPI	SAI	I²S	I²C	USART + UART³	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F429VG	1024	256	LQFP100	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F429ZG	1024	256	LQFP144 WLCSP143	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439BG²	1024	256	LQFP208	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439IG²	1024	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439NG²	1024	256	TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439VG²	1024	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F439ZG²	1024	256	LQFP144 WLCSP143	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429AI	2048	256	UFBGA169	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	130	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429BI	2048	256	LQFP208	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429II	2048	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429NI	2048	256	TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F429VI	2048	256	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F429ZI	2048	256	LQFP144 WLCSP143	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439AI²	2048	256	UFBGA169	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	130	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439BI²	2048	256	LQFP208	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439II²	2048	256	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105
STM32F439NI²	2048	256	TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	1	2	3	4+4	2	2	1	Yes	1.7³ to 3.6	1.7	208	-40 to +105

## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (I <sub>cc</sub> )		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPI	SAI	I <sup>2</sup> S	I <sup>2</sup> C	USART + UART <sup>3</sup>	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (μA)		Run mode (per MHz) (μA)
STM32F439V <sup>12</sup>	2048	256	LQFP100	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	82	6	1	2	3	4+4	2	2	1	Yes	1.8 to 3.6	1.7	208	-40 to +105
STM32F439Z <sup>12</sup>	2048	256	LQFP144 WLCSP143	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	1	2	3	4+4	2	2	1	Yes	1.7 <sup>3</sup> to 3.6	1.7	208	-40 to +105
STM32F446 line : 180 MHz																					
STM32F446RC	256	128	LQFP64	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	16x12-bit	2x12-bit	64	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446VC	256	128	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	100	4	2	2	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446ZC	256	128	LQFP144 UFBGA144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	144	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446MC	256	128	WLCSP81	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	81	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446RE	512	128	LQFP64	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	64	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446VE	512	128	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	100	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446ZE	512	128	LQFP144 UFBGA144	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	144	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F446ME	512	128	WLCSP81	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	81	4	2	3	4	4+4	2	2	1		1.7 to 3.6	1.12	167	-40 to +105
STM32F4x9 line : 180 MHz with MIPI Interface																					
STM32F469IE	512	384	LQFP176 UFBGA176	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	3x12-bit	2x12-bit	131	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469BE	512	384	LQFP208	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469AE	512	384	WLCSP168 BGA169	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	114	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469NE	512	384	BGA216	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469IG	1024	384	LQFP176 UFBGA176	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	131	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105

## STM32 F4 SERIES - ARM® CORTEX®-M4 HIGH-PERFORMANCE MCUs WITH DSP AND FPU

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPI	SAI	I²S	I²C	USART + UART³	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F469BG	1024	384	LQFP208	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter	3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469AG	1024	384	WLCSP168 BGA169	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	114	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469NG	1024	384	BGA216	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479IG²	1024	384	LQFP176 UFBGA176	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	131	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479BG²	1024	384	LQFP208	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479AG²	1024	384	WLCSP168 BGA169	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	114	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479NG²	1024	384	BGA216	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469II	2048	384	LQFP176 UFBGA176	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	131	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469BI	2048	384	LQFP208	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469AI	2048	384	WLCSP168 BGA169	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	114	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F469NI	2048	384	BGA216	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479II²	2048	384	LQFP176 UFBGA176	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	131	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479BI²	2048	384	LQFP208	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479AI²	2048	384	WLCSP168 BGA169	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	114	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105
STM32F479NI²	2048	384	BGA216	12x16-bit / 2x32-bit		3x12-bit	2x12-bit	161	6		2	3	4+4	2	2	1		1.7 to 3.6	2.2	238	-40 to +105

Notes:

1. HS requires an external PHY connected to ULPI interface functions.

2. Crypto/hash processor on STM32F415, STM32F417, STM32F437, STM32F439 and STM32F479.

3. Marked in the table (3+2) means 3 USART and 2 UART. All UARTs have LIN master/slave function. All USARTs have IrDA, ISO 7816, modem control and LIN master/slave functions.

## STM32 F7 SERIES - ARM® CORTEX®-M7 HIGH-PERFORMANCE MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (I <sub>cc</sub> )		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPI	SAI	I <sup>2</sup> S	I <sup>2</sup> C	USART + UART <sup>2</sup>	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (μA)		Run mode (per MHz) (μA)
STM32F7x5 line 216 MHz																					
STM32F745VE	512	320	LQFP100	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter, LP Timer	24x12-bit	2x12-bit	82	4	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F745ZE	512	320	LQFP144	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	114	6	2	2	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F745IE	512	320	UFBGA176 LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F745VG	1024	320	LQFP100	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	82	4	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F745ZG	1024	320	LQFP144	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	114	6	2	2	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F745IG	1024	320	UFBGA176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F7x6 LCD-TFT controller line 216 MHz																					
STM32F746BE	512	320	LQFP208	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter, LP Timer	24x12-bit	2x12-bit	168	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746IE	512	320	LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746NE	512	320	UFBGA216 TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746VE	512	320	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	4	2	2	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746ZE	512	320	LQFP144 WLCSP143	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746BG	1024	320	LQFP208	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746IG	1024	320	LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746NG	1024	320	UFBGA216 TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F746VG	1024	320	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	4	2	2	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105

## STM32 F7 SERIES - ARM® CORTEX®-M7 HIGH-PERFORMANCE MCUS

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface								Supply voltage (V)	Supply current (I <sub>cc</sub> )		Maximum operating temperature range (°C)	
				16-/32-bit timers	Others				SPi	SAI	I²S	I²C	USART + UART²	USB OTG	CAN 2.0B	SDIO		Ethernet MAC10 /100	Lowest power mode (µA)		Run mode (per MHz) (µA)
STM32F746ZG	1024	320	LQFP144 WLCSP143	12x16-bit / 2x32-bit	2x WDG, RTC, 24-bit downcounter, LP Timer	24x12-bit	2x12-bit	114	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F756BG¹	1024	320	LQFP208	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F756IG¹	1024	320	LQFP176	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	140	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F756NG¹	1024	320	UFPGA216 TFBGA216	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	168	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F756VG¹	1024	320	LQFP100	12x16-bit / 2x32-bit		16x12-bit	2x12-bit	82	4	2	2	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105
STM32F756ZG¹	1024	320	LQFP144 WLCSP143	12x16-bit / 2x32-bit		24x12-bit	2x12-bit	114	6	2	3	4	4+4	2	2	1	1	1.7 to 3.6	2.5	420	-40 to +105

Notes:

1. Crypto/hash processor on STM32F756.

2. Marked in the table (3+2) means 3 USART and 2 UART. All UARTs have LIN master/slave function. All USARTs have IrDA, ISO 7816, modem control and LIN master/slave functions.

## STM32 L0 SERIES - ARM® CORTEX®-M0+ ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog		I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-bit timers + LP <sup>1</sup> 16-bit timers	Others	ADC <sup>2</sup>	DAC		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART + LP <sup>1</sup> UART	USB FS <sup>3</sup>	AES		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L0x1 - 32 MHz CPU - Access line																				
STM32L031C4	16	8	1	LQFP48	4x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	10x12-bit		38	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L031E4	16	8	1	WLCSP25	4x16-bit / 1x16-bit LP		10x12-bit		20	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L031F4	16	8	1	TSSOP20	4x16-bit / 1x16-bit LP		10x12-bit		15	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L041F4 <sup>4</sup>	16	8	1	TSSOP20	4x16-bit / 1x16-bit LP		10x12-bit		15	1		1	1+1	Yes	1.65 to 3.6	0.25	87		-40 to +125	
STM32L031G4	16	8	1	UQFN28	4x16-bit / 1x16-bit LP		10x12-bit		23	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L031K4	16	8	1	UQFN32	4x16-bit / 1x16-bit LP		10x12-bit		27	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L031C6	32	8	1	LQFP48	4x16-bit / 1x16-bit LP		10x12-bit		38	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L041C6 <sup>4</sup>	32	8	1	LQFP48	4x16-bit / 1x16-bit LP		10x12-bit		38	1		1	1+1	Yes	1.65 to 3.6	0.25	87		-40 to +125	
STM32L031E6	32	8	1	WLCSP25	4x16-bit / 1x16-bit LP		10x12-bit		20	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L031G6	32	8	1	UQFN28	4x16-bit / 1x16-bit LP		10x12-bit		23	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L041G6 <sup>4</sup>	32	8	1	UQFN28	4x16-bit / 1x16-bit LP		10x12-bit		23	1		1	1+1	Yes	1.65 to 3.6	0.25	87		-40 to +125	
STM32L031K6	32	8	1	UQFN32	4x16-bit / 1x16-bit LP	10x12-bit		27	1		1	1+1		1.65 to 3.6	0.25	87		-40 to +125		
STM32L041K6 <sup>4</sup>	32	8	1	UQFN32	4x16-bit / 1x16-bit LP	10x12-bit		27	1		1	1+1	Yes	1.65 to 3.6	0.25	87		-40 to +125		
STM32L051C6	32	8	2	LQFP48	5x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	10x12-bit		37	2	1	2	3+1		1.65 to 3.6	0.25	87		-40 to +125	
STM32L051K6	32	8	2	LQFP32 UFQFPN32	5x16-bit / 1x16-bit LP		10x12-bit		27	1		1	3+0		1.65 to 3.6	0.25	87		-40 to +125	
STM32L051R6	32	8	2	LQFP64 TFBGA64	5x16-bit / 1x16-bit LP		16x12-bit		51	2	1	2	3+1		1.65 to 3.6	0.25	87		-40 to +125	

# STM32 L0 SERIES - ARM® CORTEX®-M0+ ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog		I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-bit timers + LP <sup>1</sup> 16-bit timers	Others	ADC <sup>2</sup>	DAC		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART + LP <sup>1</sup> UART	USB FS <sup>3</sup>	AES		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L051T6	32	8	2	WLCSP36	5x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	16x12-bit		29	1		2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L051C8	64	8	2	LQFP48	5x16-bit / 1x16-bit LP		10x12-bit		37	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L051K8	64	8	2	LQFP32 UFQFPN32	5x16-bit / 1x16-bit LP		10x12-bit		27	1		1	3+0			1.65 to 3.6	0.25	87		-40 to +125
STM32L051R8	64	8	2	LQFP64 TFBGA64	5x16-bit / 1x16-bit LP		16x12-bit		51	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L051T8	64	8	2	WLCSP36	5x16-bit / 1x16-bit LP		16x12-bit		29	1		2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071K8	64	20	3	LQFP32 UFQFPN32	7x16-bit / 1x16-bit LP		16x12-bit		25	2	1	3	4+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071V8	64	20	3	LQFP100 UBGA100	7x16-bit / 1x16-bit LP		16x12-bit		84	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071CB	128	20	3	LQFP48	7x16-bit / 1x16-bit LP		16x12-bit		40	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L081CB <sup>4</sup>	128	20	3	WLCSP36	7x16-bit / 1x16-bit LP		16x12-bit		40	2	1	2	3+1		Yes	1.65 to 3.6	0.25	87		-40 to +125
STM32L071KB	128	20	3	LQFP32 UFQFPN32	7x16-bit / 1x16-bit LP		16x12-bit		25	2	1	3	4+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071RB	128	20	3	LQFP32 TFBGA64	7x16-bit / 1x16-bit LP		16x12-bit		51	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L081RB <sup>4</sup>	128	20	3	TFBGA64	7x16-bit / 1x16-bit LP		16x12-bit		51	2	1	2	3+1		Yes	1.65 to 3.6	0.25	87		-40 to +125
STM32L071VB	128	20	3	LQFP100 UBGA100	7x16-bit / 1x16-bit LP		16x12-bit		84	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071CZ	192	20	6	LQFP48	7x16-bit / 1x16-bit LP		16x12-bit		40	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071KZ	192	20	3	UFQFN32 LQFP32	7x16-bit / 1x16-bit LP		16x12-bit		25	2	1	3	4+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071RZ	192	20	6	LQFP64 TFBGA64	7x16-bit / 1x16-bit LP		16x12-bit		51	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125
STM32L071VZ	192	20	6	LQFP100 IIRGA100	7x16-bit / 1x16-bit LP		16x12-bit		84	2	1	2	3+1			1.65 to 3.6	0.25	87		-40 to +125



## STM32 L0 SERIES - ARM® CORTEX®-M0+ ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog		I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-bit timers + LP <sup>1</sup> 16-bit timers	Others	ADC <sup>2</sup>	DAC		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART + LP <sup>1</sup> UART	USB FS <sup>3</sup>	AES		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L0x2 - 32 MHz CPU - USB line																				
STM32L052C6	32	8	2	LQFP48	5x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	10x12-bit	1x12-bit	37	2	1	2	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L052K6	32	8	2	LQFP32 UFQFPN32	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	27	1		1	3+0	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L052R6	32	8	2	LQFP64 TFBGA64	5x16-bit / 1x16-bit LP		16x12-bit	1x12-bit	51	2	1	2	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L052T6	32	8	2	WLCSP36	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	37	2		1	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L052T8	64	8	2	WLCSP36	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	37	2		1	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L052C8	64	8	2	LQFP48	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	37	2	1	2	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L052K8	64	8	2	LQFP32 UFQFPN32	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	27	1		1	3+0	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L062K8 <sup>4</sup>	64	8	2	LQFP32	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	27	1		1	3+0	1	Yes	1.65 to 3.6	0.25	87		-40 to +125
STM32L052R8	64	8	2	LQFP64 TFBGA64	5x16-bit / 1x16-bit LP		16x12-bit	1x12-bit	51	2	1	2	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072V8	64	20	6	LQFP100 UBGAI100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	3+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072KB	128	20	6	UFQFPN32 LQFP32	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	25	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L082KB <sup>4</sup>	128	20	6	UFQFPN32	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	25	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87		-40 to +125
STM32L072CB	128	20	6	LQFP48	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	40	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072RB	128	20	6	LQFP64 TFBGA64	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	51	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072VB	128	20	6	LQFP100 UBGAI100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072KZ	192	20	6	QFN32 WLCSP36	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	25	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072CZ	192	20	6	LQFP48	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	40	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125

# STM32 L0 SERIES - ARM® CORTEX®-M0+ ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog		I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-bit timers + LP <sup>1</sup> 16-bit timers	Others	ADC <sup>2</sup>	DAC		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART + LP <sup>1</sup> UART	USB FS <sup>3</sup>	AES		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L072RZ	192	20	6	LQFP64 TFBGA64	7x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	16x12-bit	2x12-bit	51	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L072VZ	192	20	6	LQFP100 UBG100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1		1.65 to 3.6	0.25	87		-40 to +125
STM32L0x3 - 32 MHz CPU - USB and LCD line																				
STM32L053C6	32	8	2	LQFP48	5x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	10x12-bit	1x12-bit	37	2	1	2	3+1	1		1.65 to 3.6	0.25	87	4x18	-40 to +125
STM32L053R6	32	8	2	LQFP64 TFBGA64	5x16-bit / 1x16-bit LP		16x12-bit	1x12-bit	51	2	1	2	3+1	1		1.65 to 3.6	0.25	87	4x31/8x28	-40 to +125
STM32L053C8	64	8	2	LQFP48	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	37	2	1	2	3+1	1		1.65 to 3.6	0.25	87	4x18	-40 to +125
STM32L063C8 <sup>4</sup>	64	8	2	LQFP48	5x16-bit / 1x16-bit LP		10x12-bit	1x12-bit	37	2	1	2	3+1	1	Yes	1.65 to 3.6	0.25	87	4x18	-40 to +125
STM32L053R8	64	8	2	LQFP64 TFBGA64	5x16-bit / 1x16-bit LP		16x12-bit	1x12-bit	51	2	1	2	3+1	1		1.65 to 3.6	0.25	87	4x31/8x28	-40 to +125
STM32L063R8 <sup>4</sup>	64	8	2	LQFP64 TBA64	5x16-bit / 1x16-bit LP		16x12-bit	1x12-bit	51	2	1	2	3+1	1	Yes	1.65 to 3.6	0.25	87	4x31/8x28	-40 to +125
STM32L073V8	64	20	3	LQFP100 UBG100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1		1.65 to 3.6	0.25	87	8x48/4x52	-40 to +125
STM32L083V8 <sup>4</sup>	64	20	3	LQFP100 UBG100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87	8x48/4x52	-40 to +125
STM32L073RB	128	20	6	LQFP64 TBA64	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	51	2	1	3	4+1	1		1.65 to 3.6	0.25	87	8x28/4x32	-40 to +125
STM32L083RB <sup>4</sup>	128	20	6	LQFP64 TBA64	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	51	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87	8x28/4x32	-40 to +125
STM32L073VB	128	20	6	LQFP100 UBG100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1		1.65 to 3.6	0.25	87	8x48/4x52	-40 to +125
STM32L083VB <sup>4</sup>	128	20	6	LQFP100 UBG100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87	8x48/4x52	-40 to +125
STM32L073CZ	192	20	6	LQFP48	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	40	2	1	3	4+1	1		1.65 to 3.6	0.25	87	4x18	-40 to +125
STM32L083CZ <sup>4</sup>	192	20	6	LQFP48	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	40	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87	4x18	-40 to +125

STM32 L0 SERIES - ARM® CORTEX®-M0+ ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog		I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-bit timers + LP <sup>1</sup> 16-bit timers	Others	ADC <sup>2</sup>	DAC		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART + LP <sup>1</sup> UART	USB FS <sup>3</sup>	AES		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L073RZ	192	20	6	LQFP64 TBGA64	7x16-bit / 1x16-bit LP	SysTick, 2 x WDG, RTC	16x12-bit	2x12-bit	51	2	1	3	4+1	1		1.65 to 3.6	0.25	87	8x28/4x32	-40 to +125
STM32L083RZ <sup>4</sup>	192	20	6	LQFP64	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	51	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87	8x28/4x32	-40 to +125
STM32L073VZ	192	20	6	LQFP100 UBGA100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1		1.65 to 3.6	0.25	87	8x48/4x52	-40 to +125
STM32L083VZ <sup>4</sup>	192	20	6	LQFP100	7x16-bit / 1x16-bit LP		16x12-bit	2x12-bit	84	2	1	3	4+1	1	Yes	1.65 to 3.6	0.25	87	8x28/4x32	-40 to +125

Note:

- 1. « Low-Power peripheral available in stop mode »
- 2. « 16-bit Hardware oversampling capable »
- 3. « USB 2.0 FS certified. USB support Battery Charging Detection (BCD) and Link Power Management (LPM). »
- 4. Crypto/hash processor on STM32L041/L062/L081/L082/L083

## STM32 L1 SERIES - ARM® CORTEX®-M3 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog			I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	I²S	I²C	USART	USB FS	SDIO	FMC		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L100 Value line - 32 MHz CPU																						
STM32L100C6	32	4	2	UFQFPN48	6x16-bit	SysTick, 2 x WDG, RTCv1	14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.8 to 3.6	0.28	177	4x16	-40 to +105	
STM32L100C6-A	32	4	2	UFQFPN48	6x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.8 to 3.6	0.28	177	4x16	-40 to +105	
STM32L100R8	64	8	2	LQFP64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.8 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L100R8-A	64	8	2	LQFP64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.8 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L100RB	128	10	2	LQFP64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.8 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L100R8-A	128	10	2	LQFP64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.8 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L100RC	256	16	4	LQFP64	8x16-bit		21x12-bit	2x12-bit	2	50	3	2	2	2	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L151/152¹ - 32 MHz CPU																						
STM32L151C6	32	10	4	LQFP48, UFQFPN48	6x16-bit	SysTick, 2 x WDG, RTCv1	14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	
STM32L151C6-A	32	16	4	LQFP48, UFQFPN48	8x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	
STM32L151R6	32	10	4	LQFP64, TFBGA64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	
STM32L151R6-A	32	16	4	LQFP64, TFBGA64	8x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	
STM32L152C6	32	10	4	LQFP48, UFQFPN48	6x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.65 to 3.6	0.28	177	4x18	-40 to +105	
STM32L152C6-A	32	16	4	LQFP48, UFQFPN48	8x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.65 to 3.6	0.28	177	4x18	-40 to +105	
STM32L152R6	32	10	4	LQFP64, TFBGA64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L152R6-A	32	16	4	LQFP64, TFBGA64	8x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L151C8	64	10	4	LQFP48, UFQFPN48	6x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	
STM32L151C8-A	64	32	4	LQFP48, UFQFPN48	8x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	
STM32L151R8	64	10	4	LQFP64, TFBGA64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1		1.65 to 3.6	0.28	177		-40 to +105	

## STM32 L1 SERIES - ARM® CORTEX®-M3 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog			I/Os	Serial interface								Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART	USB FS	SDIO	FMC	Supply voltage (V)	Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L151R8-A	64	32	4	LQFP64, TFBGA64	8x16-bit	SysTick, 2 x WDG, RTCv1	20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151V8	64	10	4	LQFP100, UFBGA100	6x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151V8-A	64	32	4	LQFP100, UFBGA100	8x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L152C8	64	10	4	LQFP48, UFQFPN48	6x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1			1.65 to 3.6	0.28	177	4x18	-40 to +105
STM32L152C8-A	64	32	4	LQFP48, UFQFPN48	8x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1			1.65 to 3.6	0.28	177	4x18	-40 to +105
STM32L152R8	64	10	4	LQFP64, TFBGA64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152R8-A	64	32	4	LQFP64, TFBGA64	8x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152V8	64	10	4	LQFP100, UFBGA100	6x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L152V8-A	64	32	4	LQFP100, UFBGA100	8x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L151CB	128	16	4	LQFP48, UFQFPN48	6x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151CB-A	128	32	4	LQFP48, UFQFPN48	8x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151R8	128	16	4	LQFP64, TFBGA64	6x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151R8-A	128	32	4	LQFP64, TFBGA64	8x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151V8	128	16	4	LQFP100, UFBGA100	6x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151V8-A	128	32	4	LQFP100, UFBGA100	8x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L152CB	128	16	4	LQFP48, UFQFPN48	6x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1			1.65 to 3.6	0.28	177	4x18	-40 to +105
STM32L152CB-A	128	32	4	LQFP48, UFQFPN48	8x16-bit		14x12-bit	2x12-bit	N/A	37	2		2	3	1			1.65 to 3.6	0.28	177	4x18	-40 to +105

## STM32 L1 SERIES - ARM® CORTEX®-M3 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog			I/Os	Serial interface								Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	I <sup>2</sup> S	I <sup>2</sup> C	USART	USB FS	SDIO	FMC	Supply voltage (V)	Lowest power mode (μA)	Run mode (per MHz) (μA)		
STM32L152RB	128	16	4	LQFP64, TFBGA64	6x16-bit	SysTick, 2 x WDG, RTCV1	20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152RB-A	128	32	4	LQFP64, TFBGA64	8x16-bit		20x12-bit	2x12-bit	N/A	51	2		2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152VB	128	16	4	LQFP100, UFBGA100	6x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L152VB-A	128	32	4	LQFP100, UFBGA100	8x16-bit		24x12-bit	2x12-bit	N/A	83	2		2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L151CC	256	32	8	LQFP48, UFQFPN48	8x16-bit/ 1x32-bit	SysTick, 2 x WDG, RTCV2	14x12-bit	2x12-bit	2	37	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151UC	256	32	8	WLCSP63	8x16-bit/ 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151RC	256	32	8	LQFP64	8x16-bit/ 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151RC-A	256	32	8	LQFP64, WLCSP64	8x16-bit/ 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151VC	256	32	8	LQFP100	8x16-bit/ 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151QC	256	32	8	UFBGA132	8x16-bit/ 1x32-bit		40x12-bit	2x12-bit	2	109	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151ZC	256	32	8	LQFP144	8x16-bit/ 1x32-bit		40x12-bit	2x12-bit	2	115	3	2	2	3	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L152CC	256	32	8	LQFP48, UFQFPN48	8x16-bit/ 1x32-bit		14x12-bit	2x12-bit	2	37	3	2	2	3	1			1.65 to 3.6	0.28	177	4x18	-40 to +105
STM32L152UC	256	32	8	WLCSP63	8x16-bit/ 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152RC	256	32	8	LQFP64	8x16-bit/ 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152RC-A	256	32	8	LQFP64, WLCSP64	8x16-bit/ 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152VC	256	32	8	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L152QC	256	32	8	UFBGA132	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	109	3	2	2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105

## STM32 L1 SERIES - ARM® CORTEX®-M3 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog			I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	I²S	I²C	USART	USB FS	SDIO	FMC		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L152ZC	256	32	8	LQFP144	8x16-bit / 1x32-bit	SysTick, 2 x WDG, RTCCv2	40x12-bit	2x12-bit	2	115	3	2	2	3	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L151QD	384	48	12	UFBGA132	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	3	109	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177		-40 to +105
STM32L151RD	384	48	12	LQFP64 WLCSP64	8x16-bit / 1x32-bit		21x12-bit	2x12-bit	3	51	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177		-40 to +105
STM32L151VD	384	48	12	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	3	83	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177		-40 to +105
STM32L151VD-X	384	80	16	BGA100 LQFP100 WLCSP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	82	3	2	2	5	1			1.65 to 3.6	0.3	230		-40 to +85
STM32L151ZD	384	48	12	LQFP144	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	3	115	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177		-40 to +105
STM32L152QD	384	48	12	UFBGA132	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	3	109	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L152RD	384	48	12	LQFP64 WLCSP64	8x16-bit / 1x32-bit		21x12-bit	2x12-bit	3	51	3	2	2	5	1	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L152VD	384	48	12	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	3	83	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L152VD-X	384	80	16	BGA100 LQFP100 WLCSP100	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	82	3	2	2	5	1			1.65 to 3.6	0.3	230	4x44/8x40	-40 to +85
STM32L152ZD	384	48	12	LQFP144	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	3	115	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L151QE	512	80	16	UFBGA132	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	109	3	2	2	5	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151RE	512	80	16	LQFP64	8x16-bit / 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	5	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151VE	512	80	16	LQFP100 WLCSP104	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	5	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L151ZE	512	80	16	LQFP144	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	115	3	2	2	5	1			1.65 to 3.6	0.28	177		-40 to +105
STM32L152QE	512	80	16	UFBGA132	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	109	3	2	2	5	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105

## STM32 L1 SERIES - ARM® CORTEX®-M3 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Kbytes)	Package	Timer functions		Analog			I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	I²S	I²C	USART	USB FS	SDIO	FMC		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L152RE	512	80	16	LQFP64	8x16-bit / 1x32-bit	SysTick, 2 x WDG, RTCv2	21x12-bit	2x12-bit	2	51	3	2	2	5	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L152VE	512	80	16	LQFP100 WLCSP104	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	5	1		1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105	
STM32L152ZE	512	80	16	LQFP144	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	115	3	2	2	5	1		1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105	
STM32L162¹ line with LCD and AES - 32 MHz CPU																						
STM32L162RC²	256	32	8	LQFP64	8x16-bit / 1x32-bit	SysTick, 2 x WDG, RTCv2	21x12-bit	2x12-bit	2	51	3	2	2	3	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L162RC-A²	256	32	8	LQFP64	8x16-bit / 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	3	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105	
STM32L162VC²	256	32	8	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	3	1		1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105	
STM32L162VC-A²	256	32	8	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	3	1		1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105	
STM32L162QD²	384	48	12	UFBGA132	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	3	109	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L162RD²	384	48	12	LQFP64	8x16-bit / 1x32-bit		21x12-bit	2x12-bit	3	51	3	2	2	5	1	1		1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L162VD²	384	48	12	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	3	83	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L162VD-X²	384	80	16	LQFP100 BGA100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	82	3	2	2	5	1			1.65 to 3.6	0.3	230	4x44/8x40	-40 to +85
STM32L162ZD²	384	48	12	LQFP144	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	3	115	3	2	2	5	1	1	1	1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L162RE²	512	80	16	LQFP64	8x16-bit / 1x32-bit		21x12-bit	2x12-bit	2	51	3	2	2	5	1			1.65 to 3.6	0.28	177	4x32/8x28	-40 to +105
STM32L162VE²	512	80	16	LQFP100	8x16-bit / 1x32-bit		25x12-bit	2x12-bit	2	83	3	2	2	5	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105
STM32L162ZE²	512	80	16	LQFP144	8x16-bit / 1x32-bit		40x12-bit	2x12-bit	2	115	3	2	2	5	1			1.65 to 3.6	0.28	177	4x44/8x40	-40 to +105

Notes:

1. Touch-sensing FW library available for all STM32L15x and STM32L16x devices

2. Crypto/hash processor on STM32L162

\* Temperature range from -40°C to +85°C. Also available on +105°C



## STM32 L4 SERIES - ARM® CORTEX®-M4 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	AES 128-/256-bit	Package	Timer functions		Analog			I/Os	Serial interface							Supply voltage (V)	Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	SAI	I²C	USART	USB FS	SDMMC	FMC		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L4x6 line 80 MHz																						
STM32L476VC	256	128		LQFP100	11x16-bit/2x32-bit	SysTick, 2 x WDG, RTC	16x12-bit	2x12-bit	2	82	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476RC	256	128		LQFP64	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	51	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L476ZE	512	128		LQFP144	11x16-bit/2x32-bit		24x12-bit	2x12-bit	2	114	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476QE	512	128		BGA132	11x16-bit/2x32-bit		19x12-bit	2x12-bit	2	109	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476VE	512	128		BGA132	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	82	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476RE	512	128		LQFP64	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	51	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L476ME	512	128		WLCSP81	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	65	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L476MG	1024	128		WLCSP81	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	65	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L476ZG	1024	128		LQFP144	11x16-bit/2x32-bit		24x12-bit	2x12-bit	2	114	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476QG	1024	128		BGA132	11x16-bit/2x32-bit		19x12-bit	2x12-bit	2	109	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476VG	1024	128		LQFP100	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	82	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L476RG	1024	128		LQFP64	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	51	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L486ZG¹	1024	128	Yes	LQFP144	11x16-bit/2x32-bit		24x12-bit	2x12-bit	2	114	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L486QG¹	1024	128	Yes	BGA132	11x16-bit/2x32-bit		19x12-bit	2x12-bit	2	109	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L486VG¹	1024	128	Yes	LQFP100	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	82	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x40/4x44	-40 to +85
STM32L486RG¹	1024	128	Yes	LQFP64	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	51	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85

STM32 L4 SERIES - ARM® CORTEX®-M4 ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	AES 128-/256-bit	Package	Timer functions		Analog			I/Os	Serial interface								Supply current (Icc)		Display controller (LCD)	Operating temperature range (°C)*
					16-/32-bit timers	Others	ADC	DAC	Op Amp		SPI	SAI	I²C	USART	USB FS	SDMMC	FMC	Supply voltage (V)	Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32L476JG	1024	128		WLCSP72	11x16-bit/2x32-bit	SysTick, 2 x WDG, RTC	16x12-bit	2x12-bit	2	57	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L486JG¹	1024	128	Yes	WLCSP72	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	57	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85
STM32L476JE	1024	128		WLCSP72	11x16-bit/2x32-bit		16x12-bit	2x12-bit	2	57	3	2	3	6	1	1	1	1.71 to 3.6	0.03	100	LCD 8x28/4x32	-40 to +85

Note:

1. Crypto/hash processor on STM32F476

## STM8 – 8-bit microcontroller families

### STM8S SERIES – MAINSTREAM MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface					Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16-bit timers	Others				CAN	SPI	I²C	UART (IrDA, ISO 7816)	Other		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8S003/005/007 Value line - 16 MHz CPU																		
STM8S003F3	8	1	128	TSSOP20 UFQFPN20	1x8-bit / 2x16-bit	2 x WDG, beeper	5x10-bit		16		1	1	1		2.95 to 5.5	5	230	-40 to +85
STM8S003K3	8	1	128	LQFP32	1x8-bit / 2x16-bit		4x10-bit		28		1	1	1		2.95 to 5.5	5	230	-40 to +85
STM8S005C6	32	2	128	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	1		2.95 to 5.5	5	430	-40 to +85
STM8S005K6	32	2	128	LQFP32	1x8-bit / 3x16-bit		7x10-bit		25		1	1	1		2.95 to 5.5	5	430	-40 to +85
STM8S007C8	64	6	128	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	2		2.95 to 5.5	5	500	-40 to +85
STM8S103/105 Access line - 16 MHz CPU																		
STM8S103F2	4	1	640	S020 TSSOP20 UFQFPN20	1x8-bit / 2x16-bit	2 x WDG, beeper	5x10-bit		16		1	1	1		2.95 to 5.5	5	230	-40 to +125
STM8S103F3	8	1	640	S020 TSSOP20 UFQFPN20	1x8-bit / 2x16-bit		5x10-bit		16		1	1	1		2.95 to 5.5	5	230	-40 to +125
STM8S103K3	8	1	640	LQFP32 SDIP32 UFQFPN32	1x8-bit / 2x16-bit		4x10-bit		28		1	1	1		2.95 to 5.5	5	230	-40 to +125
STM8S105C4	16	2	1024	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	1		2.95 to 5.5	5	430	-40 to +125
STM8S105K4	16	2	1024	LQFP32 SDIP32 UFQFPN32	1x8-bit / 3x16-bit		7x10-bit		25		1	1	1		2.95 to 5.5	5	430	-40 to +125
STM8S105S4	16	2	1024	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34		1	1	1		2.95 to 5.5	5	430	-40 to +125
STM8S105C6	32	2	1024	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	1		2.95 to 5.5	5	430	-40 to +125

## STM8S SERIES – MAINSTREAM MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface					Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16-bit timers	Others				CAN	SPI	I²C	UART (IrDA, ISO 7816)	Other		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8S105K6	32	2	1024	LQFP32 PDIP32 UFQFPN32	1x8-bit / 3x16-bit	2 x WDG, beeper	7x10-bit		25		1	1	1		2.95 to 5.5	5	430	-40 to +125
STM8S105S6	32	2	1024	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34		1	1	1		2.95 to 5.5	5	430	-40 to +125
STM8S207/208 Performance line - 24 MHz CPU																		
STM8S207C6	32	6	1024	LQFP48	1x8-bit / 3x16-bit	2 x WDG, beeper	10x10-bit		38		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207K6	32	6	1024	LQFP32	1x8-bit / 3x16-bit		7x10-bit		25		1	1	1		2.95 to 5.5	5	500	-40 to +125
STM8S207R6	32	6	1024	LQFP64	1x8-bit / 3x16-bit		16x10-bit		52		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207S6	32	6	1024	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208C6	32	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208R6¹	32	6	2048	LQFP64	1x8-bit / 3x16-bit		16x10-bit		52	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208S6	32	6	1536	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207C8	64	6	1536	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207K8	64	6	1024	LQFP32	1x8-bit / 3x16-bit		7x10-bit		25		1	1	1		2.95 to 5.5	5	500	-40 to +125
STM8S207M8	64	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		68		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207R8	64	6	1536	LQFP64	1x8-bit / 3x16-bit		16x10-bit		52		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207S8	64	6	1536	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208C8	64	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208M8¹	64	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		68	1	1	1	2		2.95 to 5.5	5	500	-40 to +125

## STM8S SERIES – MAINSTREAM MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface					Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16-bit timers	Others				CAN	SPI	I²C	UART (IrDA, ISO 7816)	Other		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8S208R8	64	6	2048	LQFP64	1x8-bit / 3x16-bit	2 x WDG, beeper	16x10-bit		52	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208S¹	64	6	1536	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207CB	128	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207MB	128	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		68		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207RB	128	6	2048	LQFP64	1x8-bit / 3x16-bit		16x10-bit		52		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S207SB	128	6	1536	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34		1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208CB	128	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208MB	128	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		68	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208RB	128	6	2048	LQFP64	1x8-bit / 3x16-bit		16x10-bit		52	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S208SB¹	128	6	1536	LQFP44	1x8-bit / 3x16-bit		9x10-bit		34	1	1	1	2		2.95 to 5.5	5	500	-40 to +125
STM8S903/STM8SPLNB1 Application specific line - 16 MHz CPU																		
STM8S903F3	8	1	640	S020 TSSOP20 UFQFPN20	1x8-bit / 2x16-bit	2 x WDG, beeper	5x10-bit		16		1	1	1		2.95 to 5.5	5	230	-40 to +125
STM8S903K3	8	1	640	LQFP32 SDIP32 UFQFPN32	1x8-bit / 2x16-bit		7x10-bit		28		1	1	1		2.95 to 5.5	5	230	-40 to +125
STM8SPLNB1	8	1	640	S020 TSSOP20			5x10-bit					4	2xDiSEqC	2.95 to 5.5	5	230	-40 to +85	

Note:

1. On demand only

## STM8AF SERIES – MAINSTREAM AUTOMOTIVE MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16- bit timers	Others				CAN	LIN- UART	USART (IrDA, ISO 7816, LIN 1.3, LIN 2.0)	SPI	I²C	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8AF Series																			
STM8AF52 CAN and LIN line - Up to 24 MHz CPU																			
STM8AF5268	32	6	1024	LQFP48	1x8-bit / 3x16-bit	IWDG, Beeper, WWDG AWU	10x10-bit		38	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF5269	32	6	1024	LQFP64	1x8-bit / 3x16-bit		16x10-bit		54	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF5286	64	6	2048	VFQFPN32	1x8-bit / 3x16-bit		7x10-bit		25	1	1			1		3 to 5.5	5	500	-40 to +150
STM8AF5288	64	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF5289	64	6	2048	LQFP64	1x8-bit / 3x16-bit		16x10-bit		54	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF528A	64	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		70	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF52A6	128	6	2048	VFQFPN32	1x8-bit / 3x16-bit		7x10-bit		25	1	1			1		3 to 5.5	5	500	-40 to +150
STM8AF52A8	128	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF52A9	128	6	2048	LQFP64	1x8-bit / 3x16-bit		16x10-bit		54	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF52AA	128	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		70	1	1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF62 LIN line - Up to 24 MHz CPU																			
STM8AF6213	4	1	640	TSSOP20	1x8-bit / 1x16-bit	IWDG, Beeper, WWDG AWU	5x10-bit		16		1		1	1		3 to 5.5	5	230	-40 to +150
STM8AF6223	8	1	640	TSSOP20	1x8-bit / 1x16-bit		5x10-bit		16		1		1	1		3 to 5.5	5	230	-40 to +150
STM8AF6223A	8	1	640	TSSOP20	1x8-bit / 2x16-bit		7x10-bit		16		1		1	1		3 to 5.5	5	230	-40 to +150
STM8AF6226	8	1	640	LQFP32	1x8-bit / 3x16-bit		7x10-bit		28		1		1	1		3 to 5.5	5	230	-40 to +150
STM8AF6246	16	2	512	LQFP32 VFQFPN32	1x8-bit / 3x16-bit		7x10-bit		25		1		1	1		3 to 5.5	5	430	-40 to +150

## STM8AF SERIES – MAINSTREAM AUTOMOTIVE MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16-bit timers	Others				CAN	LIN- UART	USART (IrDA, ISO 7816, LIN 1.3, LIN 2.0)	SPI	I²C	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8AF6248	16	2	512	LQFP48	1x8-bit / 3x16-bit	IWDG, Beeper, WWDG, AWU	10x10-bit		38		1		1	1		3 to 5.5	5	430	-40 to +150
STM8AF6266	32	2	1024	LQFP32 VFQFPN32	1x8-bit / 3x16-bit		7x10-bit		25		1		1	1		3 to 5.5	5	430	-40 to +150
STM8AF6268	32	2	1024	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1		1	1		3 to 5.5	5	430	-40 to +150
STM8AF6269	32	6	1024	LQFP64	1x8-bit / 3x16-bit		16x10-bit		54		1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF6286	64	6	2048	LQFP32	1x8-bit / 3x16-bit		7x10-bit		25		1		1	1		3 to 5.5	5	500	-40 to +150
STM8AF6288	64	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF6289	64	6	2048	LQFP64	1x8-bit / 3x16-bit		16x10-bit		54		1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF628A	64	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		70		1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF62A6	128	6	2048	LQFP32	1x8-bit / 3x16-bit		7x10-bit		25		1		1	1		3 to 5.5	5	500	-40 to +150
STM8AF62A8	128	6	2048	LQFP48	1x8-bit / 3x16-bit		10x10-bit		38		1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF62A9	128	6	2048	LQFP64	1x8-bit / 3x16-bit		10x10-bit		54		1	1	1	1		3 to 5.5	5	500	-40 to +150
STM8AF62AA	128	6	2048	LQFP80	1x8-bit / 3x16-bit		16x10-bit		70		1	1	1	1		3 to 5.5	5	500	-40 to +150

## STM8AL SERIES – ULTRA-LOW-POWER AUTOMOTIVE MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16- bit timers	Others				CAN	LIN- UART	USART (IrDA, ISO 7816, LIN 1.3, LIN 2.0)	SPI	I²C	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8AL Series																			
STM8AL31 Standard low-power line - 16 MHz CPU																			
STM8AL3136	8	2	256	LQFP32	1x8-bit / 3x16-bit	IWDG, WWDG, AWU, RTC, beeper	22x12-bit	1x12-bit	30			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3138	8	2	1024	LQFP48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3146	16	2	1024	LQFP32	1x8-bit / 3x16-bit		22x12-bit	1x12-bit	30			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3148	16	2	1024	LQFP48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3166	32	2	1024	LQFP32	1x8-bit / 3x16-bit		22x12-bit	1x12-bit	30			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3168	32	2	1024	LQFP48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL31E88 <sup>3</sup>	64	4	2000	LQFP48	1x8-bit / 4x16-bit		25x12-bit	2x12-bit	41			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3188	64	4	2000	LQFP48	1x8-bit / 4x16-bit		25x12-bit	2x12-bit	41			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL31E89 <sup>3</sup>	64	4	2000	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3189	64	4	2000	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL31E8A <sup>3</sup>	64	4	2000	LQFP80	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	68			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL318A	64	4	2000	LQFP80	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	68			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3L LCD (4x17) or (4x28) <sup>3</sup> Standard low-power line - 16 MHz CPU																			
STM8AL3L46	16	2	1024	LQFP32	1x8-bit / 3x16-bit	IWDG, WWDG, AWU, RTC, beeper	21x12-bit	1x12-bit	29			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3L48	16	2	1024	LQFP48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3L66	32	2	1024	LQFP32	1x8-bit / 3x16-bit		21x12-bit	1x12-bit	29			1	1	1		1.8 to 3.6	0.4	195	-40 to +125



STM8AL SERIES – ULTRA-LOW-POWER AUTOMOTIVE MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface						Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)
					8-/16- bit timers	Others				CAN	LIN- UART	USART (IrDA, ISO 7816, LIN 1.3, LIN 2.0)	SPI	I²C	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM8AL3L68	32	2	1024	LQFP48	1x8-bit / 3x16-bit	IWDG, WWDOG, AWU, RTC, beeper	25x12-bit	1x12-bit	41			1	1	1		1.8 to 3.6	0.4	195	-40 to +125
STM8AL3LE88 <sup>§</sup>	64	2	2000	LQFP48	1x8-bit / 3x16-bit		25x12-bit	2x12-bit	41			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3L88	64	2	2000	LQFP48	1x8-bit / 3x16-bit		25x12-bit	2x12-bit	41			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3LE89 <sup>§</sup>	64	4	2000	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3L89	64	4	2000	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3LE8A <sup>§</sup>	64	4	2000	LQFP80	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	68			3	1	1		1.8 to 3.6	0.4	200	-40 to +125
STM8AL3L8A	64	4	2000	LQFP80	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	68			3	1	1		1.8 to 3.6	0.4	200	-40 to +125

Note:  
All STM8AL part numbers have DMA with 4 channels  
(\*) For all STM8AL3Lx6 LCD is( 4x17) and for all STM8AL3Lx8 LCD (4x28)  
(<sup>§</sup>) 128-bit AES

## STM8L SERIES – ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface				Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	Display controller (LCD)
					8-/16-bit timers	Others				SPI	I²C	USART (IrDA, ISO 7816)	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM8L051/052 Value line - 16 MHz CPU																		
STM8L051F3	8	1	256	TSSOP20	1x8-bit / 2x16-bit	2 x WDG, RTC, Beeper	10x12-bit		18	1	1	1		1.8 to 3.6	0.35	180	-40 to +85	
STM8L052C6	32	2	256	LQFP48	1x8-bit / 3x16-bit		25x12-bit		41	1	1	1		1.8 to 3.6	0.35	180	-40 to +85	4x28
STM8L052R8	64	4	256	LQFP64	1x8-bit / 4x16-bit		27x12-bit		54	2	1	3		1.8 to 3.6	0.4	200	-40 to +85	4x28/8x24
STM8L101 entry line - 16 MHz CPU																		
STM8L101F1	2	1.5		UFQFPN20	1x8-bit / 2x16-bit	IWDG, AWU, Beeper			18	1	1	1	1	1.65 to 3.6	0.3	150	-40 to +85	
STM8L101F2	4	1.5		TSSOP20 UFQFPN20	1x8-bit / 2x16-bit				18	1	1	1	1	1.65 to 3.6	0.3	150	-40 to +125	
STM8L101G2	4	1.5		UFQFPN28	1x8-bit / 2x16-bit				26	1	1	1	1	1.65 to 3.6	0.3	150	-40 to +85	
STM8L101F3	8	1.5	¹	TSSOP20 UFQFPN20	1x8-bit / 2x16-bit				18	1	1	1	1	1.65 to 3.6	0.3	150	-40 to +125	
STM8L101G3	8	1.5	¹	UFQFPN28	1x8-bit / 2x16-bit				26	1	1	1	1	1.65 to 3.6	0.3	150	-40 to +125	
STM8L101K3	8	1.5	¹	LQFP32 UFQFPN32	1x8-bit / 2x16-bit				30	1	1	1	1	1.65 to 3.6	0.3	150	-40 to +125	
STM8L151/152 - 16 MHz CPU																		
STM8L151C2	4	1	256	LQFP48	1x8-bit / 2x16-bit	2 x WDG, AWU, RTC, Beeper	28x12-bit		41	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151F2	4	1	256	TSSOP20 UFQFPN20	1x8-bit / 2x16-bit		10x12-bit		18	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151G2	4	1	256	UFQFPN28	1x8-bit / 2x16-bit		18x12-bit		26	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151K2	4	1	256	UFQFPN32	1x8-bit / 2x16-bit		23x12-bit		30	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151C3	8	1	256	LQFP 48	1x8-bit / 2x16-bit		28x12-bit		41	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	

## STM8L SERIES – ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface				Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	Display controller (LCD)
					8-/16-bit timers	Others				SPI	I²C	USART (IrDA, ISO 7816)	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM8L151F3	8	1	256	TSSOP20 UFQFPN20	1x8-bit / 2x16-bit	2 x WDG, AWU, RTC, Beeper	10x12-bit		18	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151G3	8	1	256	UFQFPN28	1x8-bit / 2x16-bit		18x12-bit		26	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151K3	8	1	256	UFQFPN32	1x8-bit / 2x16-bit		23x12-bit		30	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151C4	16	2	1024	LQFP48 UFQFPN48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151G4	16	2	1024	UFQFPN28 WLCSP28	1x8-bit / 3x16-bit		18x12-bit	1x12-bit	26	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151K4	16	2	1024	LQFP32 UFQFPN32	1x8-bit / 3x16-bit		22x12-bit	1x12-bit	30	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L152C4	16	2	1024	LQFP48 UFQFPN48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	4x28
STM8L152K4	16	2	1024	LQFP32 UFQFPN32	1x8-bit / 3x16-bit		21x12-bit	1x12-bit	29	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	4x17
STM8L151C6	32	2	1024	LQFP48 UFQFPN48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151G6	32	2	1024	UFQFPN28 WLCSP28	1x8-bit / 3x16-bit		18x12-bit	1x12-bit	26	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151K6	32	2	1024	LQFP32 UFQFPN32	1x8-bit / 3x16-bit		22x12-bit	1x12-bit	30	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	
STM8L151R6	32	2	1024	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	
STM8L152C6	32	2	1024	LQFP48 UFQFPN48	1x8-bit / 3x16-bit		25x12-bit	1x12-bit	41	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	4x28
STM8L152K6	32	2	1024	LQFP32 UFQFPN32	1x8-bit / 3x16-bit		21x12-bit	1x12-bit	29	1	1	1		1.65 to 3.6	0.35	180	-40 to +125	4x17
STM8L152R6	32	2	1024	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	4x40/8x36
STM8L152K8	64	4	2048	WLCSP32	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	29	2	1	3		1.65 to 3.6	0.4	200	-40 to +85	4x17
STM8L151C8	64	4	2048	LQFP48 UFQFPN48	1x8-bit / 4x16-bit		25x12-bit	2x12-bit	41	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	

STM8L SERIES – ULTRA-LOW-POWER MCUs

Part number	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (bytes)	Package	Timer functions		ADC	DAC	I/Os	Serial interface				Supply voltage (V)	Supply current (Icc)		Maximum operating temperature range (°C)	Display controller (LCD)
					8-/16-bit timers	Others				SPI	I²C	USART (IrDA, ISO 7816)	IRTx		Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM8L151M8	64	4	2048	LQFP80	1x8-bit / 4x16-bit	2 x WDG, AWU, RTC, Beeper	28x12-bit	2x12-bit	68	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	
STM8L151R8	64	4	2048	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	
STM8L152C8	64	4	2048	LQFP48 UFQFPN48	1x8-bit / 4x16-bit		25x12-bit	2x12-bit	41	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	4x32/8x28
STM8L152M8	64	4	2048	LQFP80	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	68	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	4x44/8x40
STM8L152R8	64	4	2048	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	4x40/8x36
STM8L162 - 16 MHz CPU																		
STM8L162M8	64	4	2048	LQFP80	1x8-bit / 4x16-bit	2 x WDG, AWU, RTC, Beeper	28x12-bit	2x12-bit	68	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	4x44/8x40
STM8L162R8	64	4	2048	LQFP64	1x8-bit / 4x16-bit		28x12-bit	2x12-bit	54	2	1	3		1.65 to 3.6	0.4	200	-40 to +125	4x40/8x36

Note:  
1. 8 Kbytes Flash up to 2 Kbytes of EEPROM

## Abbreviations and packages

### ABBREVIATIONS

ADC	: Analog-to-digital converter
ART	: Auto-reload timer
ATAPI	: AT attachment packet interface
AWU	: Auto wake-up from halt
BLPD	: Byte level protocol decoder
BOD	: Brown-out detector
CAN	: Controller area network
CAPCOM	: Capture compare
CSS	: Clock security system
DALI	: Digital addressable lighting interface
DDC	: Data display channel
DiSEqC	: Digital satellite equipment control
DMA	: Direct memory access
DSC	: Dual supply control
DTC	: Data transfer coprocessor
ETM	: Embedded trace macrocell
EMI	: External memory interface
HDLC	: High-level data link control
IAP	: In-application programming
IC/OC	: Input capture/output compare
ICP	: programming
IR	: Infrared
IrDA	: Infrared data association
ISP	: In-situ programming
I <sup>2</sup> C	: Inter-integrated circuit
I <sup>2</sup> S	: Inter-IC sound

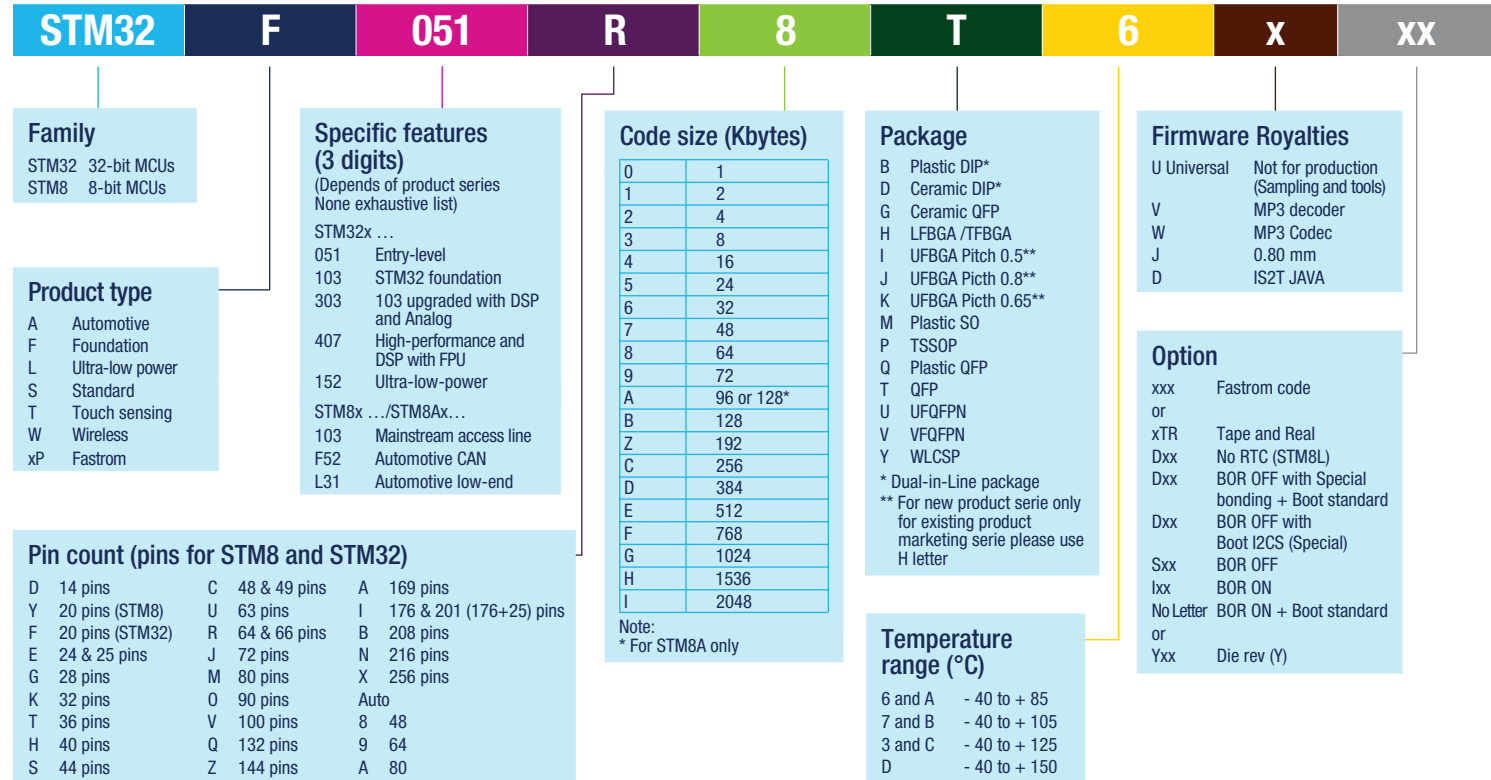
LCD	: Liquid crystal display
LIN	: Local interconnect network
LVD	: Low voltage detection
MAC	: Multiply accumulator
MC	: Motor control
MFT	: Multifunction timer
MMC	: MultiMediaCard
NMI	: Non-maskable interrupt
OSG	: Oscillator safeguard
PCA	: Programmable counter array
PDR	: Power-down reset
PHW	: Programmable halt wake-up
PEC	: Peripheral event controller
PLD	: Programmable logic device
PLL	: Phase locked loop
POR	: Power-on reset
PVD	: Programmable voltage detector
PVR	: Programmable voltage regulator
PWM	: Pulse width modulation
ROP	: Readout protection
RTC	: Real-time clock timer
SAI	: Serial Audio Interface
SC	: Smartcard
SCI	: Serial communication interface
SCR	: Smartcard reader
SDIO	: Secure digital input output
SDMMC	: Secure Digital / Multi Media Card
SMI	: Serial memory interface

SPI	: Serial peripheral interface
SSC	: Single-cycle switching support
SSP	: Synchronous serial port
TBU	: Time base unit
TLI	: Top level interrupt
UART	: Universal asynchronous receiver transmitter
USART	: Universal sync/async receiver transmitter
USB	: Universal Serial Bus
WDG	: Watchdog timer
WWDG	: Window watchdog timer

### PACKAGES

DIP	: Dual in-line package
LCC	: Leaded chip carrier
PDIP Shrink	: Shrink Plastic 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
WLCSP	: Wafer-Level Chip-Scale Package

# STM32 & STM8 Part Numbers

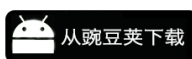




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