STM32
MCU family

32-bit Flash microcontrollers powered by the ARM® Cortex™-M processor

Welcome to the world of STM32

Releasing your creativity

The STM32 family of 32-bit Flash microcontrollers based on the ARM Cortex™-M processor is designed to offer new degrees of freedom to MCU users. It brings a complete 32-bit product range that combines high-performance, real-time, low-power and low-voltage operation, while maintaining full integration and ease of development.

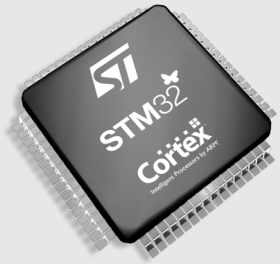
It eases migration from the 16-bit world with its high level of feature integration, its easy-to-use architecture, its low-power capability and cost effectiveness.

The STM32 family helps you create new applications and design in the innovations you have long been dreaming about.

STMicroelectronics is a lead partner in developing Cortex-M cores and, with the STM32, offers a comprehensive portfolio of advanced MCUs that we are committed to extending in capability, competitive price range and features to cover the needs of microcontroller convergence.

STM32 key benefits

- Leading-edge architecture with the latest Cortex-M3 core from ARM
- Excellent real-time behavior
- Outstanding power efficiency
- Superior and innovative peripherals
- Maximum integration
- Easy development, fast time to market



Real-time performance	Outstanding power efficiency	Superior and innovative peripherals	Maximum integration	Extensive tools and software
Leading-edge architecture Excellent real-time behavior	Sub µA RTC, low-voltage low-power modes	USB-OTG high speed, Ethernet, dual CAN, 12-bit ADC, advanced timers	Reset circuitry, clocks, oscillators, PLL regulator, RTC, watchdog	Various IDE, starter kits, libraries, RTOS and stacks
Future-proof design	**Environment friendly, suits low-power operation**	**Address all your needs and beyond**	**Cost and space saving**	**More time for innovation**

STM32 platform

More than 180 compatible devices

STM32, a solid foundation for growth

The STM32 platform forms a strong foundation on which to build our portfolio. With new products addressing new applications, the complete STM32 product family now comprises three series, each dedicated to a specific segment.

More choice with STM32 series

- The general-purpose F-1 series addresses a wide range of applications, from the lowest price-sensitive designs to computing-intensive, high memory footprint ones.
- Get the highest performance with the F-2 series for computing-intensive applications and advanced connectivity. The F-2 series maintains compatibility with the F-1 series.
- Design ultra-low-power applications with the L-1 series for those who are power conscious and seek the absolute lowest energy consumption. The L-1 series maintains compatibility with the F-1 series.

Outstanding performance, up to 120 MHz
F-2 series
Up to 120 MHz -150 DMIPS with ART Accelerator™
Highest performance Cortex-M MCU
Advanced features

General purpose
F-1 series
Five families
Ethernet USB OTG
From 16-Kbyte up to 1-Mbyte Flash
36 pins to 144 pins

Ultra-low power
L-1 series
EnergyLite™ technology
Ultra-low power consumption
Up to 128-Kbyte Flash

STM32 product lines

Common core peripherals and architecture:

- Communication peripherals: USART, SPI, I²C
- Multiple general-purpose timers
- Integrated reset and brown-out warning
- Multiple DMA
- 2x watchdogs Real-time clock
- Integrated regulator PLL and clock circuit
- External memory interface (FSMC)
- Dual 12-bit DAC
- Up to 3x 12-bit ADC (1 µs or 0.5 µs for F-2 series)
- Main oscillator and 32 kHz oscillator
- Low-speed and high-speed internal RC oscillators
- -40 to +85 °C and up to 105 °C operating temperature range
- Low voltage 2.0 to 3.6 V or 1.65 to 3.6 V (L-1 and F-2 series) 5.0 V tolerant I/Os
- Temperature sensor

+

F-2 series - STM32F207/217 and STM32F205/215

120 MHz Cortex-M3 CPU	Up to 128-Kbyte SRAM	Up to 1-Mbyte Flash	2x USB 2.0 OTG FS/HS	3-phase MC timer	2x CAN 2.0B	SDIO 2x I²S audio Camera IF	Ethernet IEEE 1588	Crypto/hash processor and RNG

F-1 series - Connectivity line STM32F105/STM32F107

72 MHz Cortex-M3 CPU	Up to 64-Kbyte SRAM	Up to 256-Kbyte Flash	USB 2.0 OTG FS	3-phase MC timer	2x CAN 2.0B	2x I²S audio	Ethernet IEEE 1588

F-1 series - Performance line STM32F103

72 MHz Cortex-M3 CPU	Up to 96-Kbyte SRAM	Up to 1-Mbyte Flash	USB FS device	3-phase MC timer	CAN 2.0B	SDIO 2x I²S

F-1 series - USB Access line STM32F102

48 MHz Cortex-M3 CPU	Up to 16-Kbyte SRAM	Up to 128-Kbyte Flash	USB FS device

F-1 series - Access line STM32F101

36 MHz Cortex-M3 CPU	Up to 80-Kbyte SRAM	Up to 1-Mbyte Flash

F-1 series - Value line STM32F100

24 MHz Cortex-M3 CPU	Up to 32-Kbyte SRAM	Up to 512-Kbyte Flash	3-phase MC timer	CEC

L-1 series - STM32L151/2

32 MHz Cortex-M3 CPU	Up to 16-Kbyte SRAM	Up to 128-Kbyte Flash	USB FS device	Data EEPROM 4 Kbytes	LCD 8x40	Comparator	BOR MSI VScal

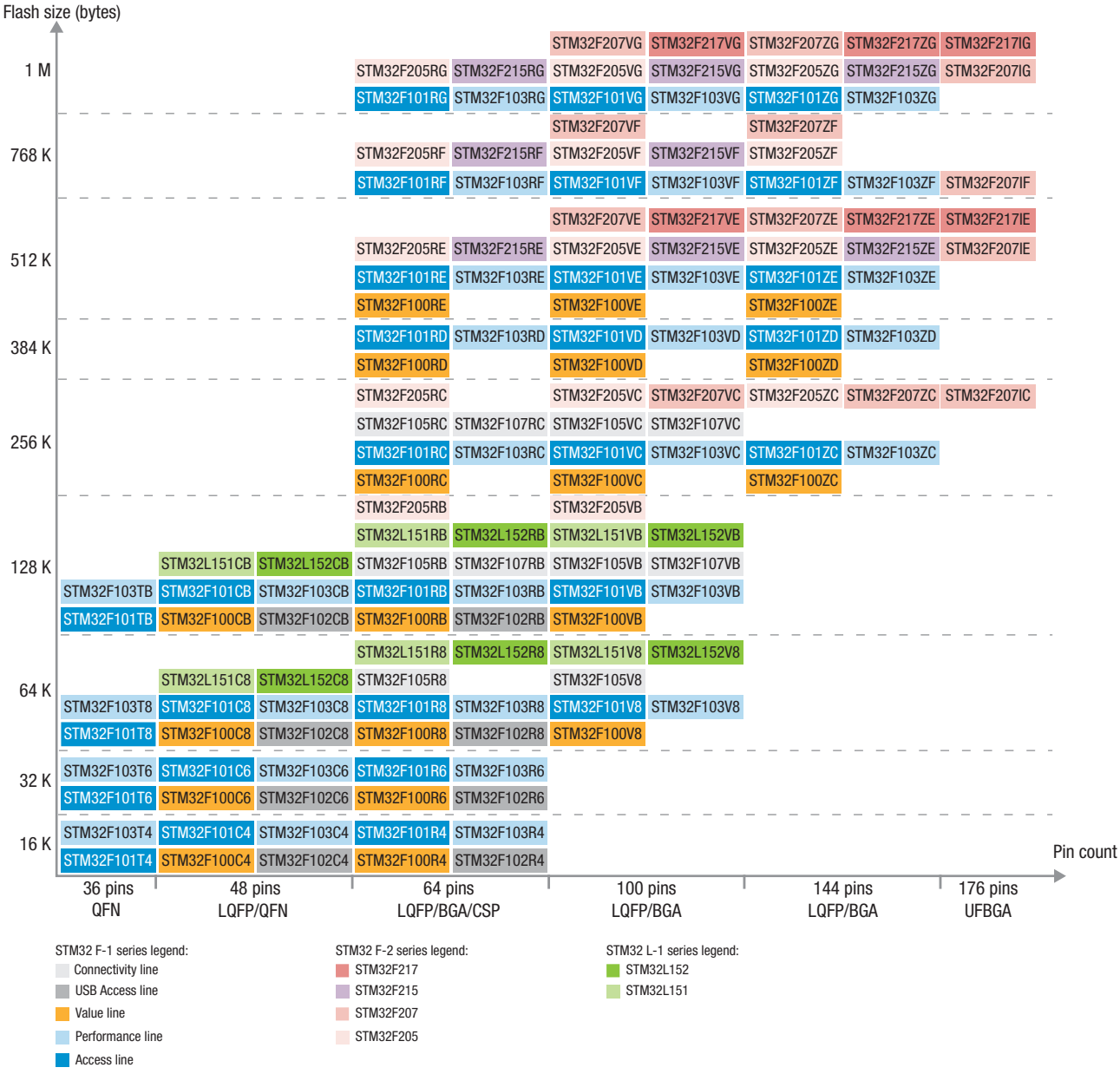
Abbreviations:
FS: Full speed
HS: High speed
MC: Motor control
MSI: Multi-speed internal oscillator
RNG: Random number generator
SDIO: Secure digital input/output
VScal: Voltage scaling

STM32, the optimal platform choice

The STM32 is the optimal choice to support many applications with the same platform.

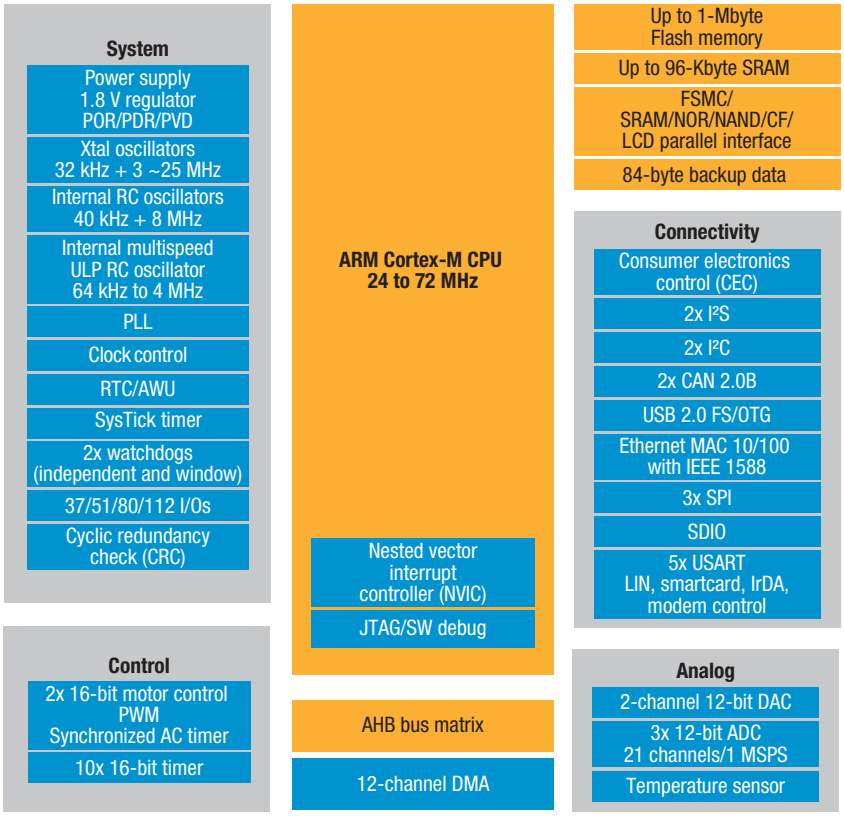
All product lines in the three series are pin-to-pin and software compatible, making it easy to upgrade to higher or downgrade to lower memory size. Numerous applications may be addressed using the sole STM32 platform.

STM32 portfolio



STM32 F-1 series block diagram

This block diagram shows all the available peripherals. For exact product content, refer to the device summary.



Applications

- Industrial
  - PLC
  - Inverters
  - Printers, scanners
  - Industrial networking
  - Solar inverters
- Building and security
  - Alarm systems
  - Access control
  - HVAC
  - Power meters
- Medical
  - Glucose meters
  - Portable medical care
  - VPAP, CPAP
  - Patient monitoring
- Appliances
  - 3-phase motor drives
  - Application control
  - User interfaces
  - Induction cooking
- Consumer
  - Home audio
  - Gaming
  - PC peripherals
  - Digital cameras, GPS

Superior and innovative peripherals

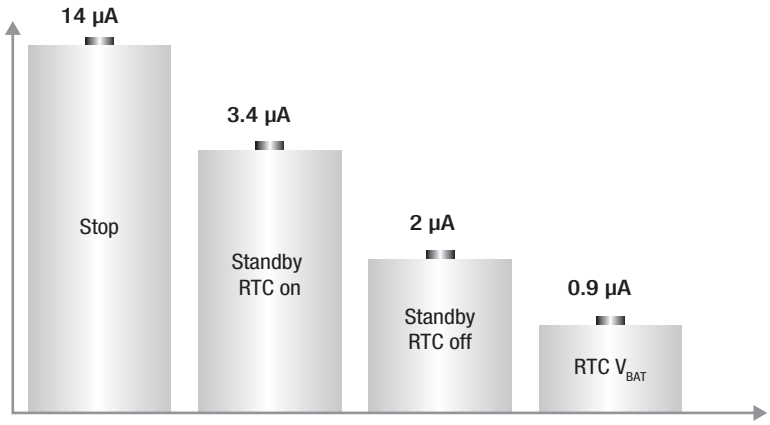
Peripherals	F-1 series	F-2 series
The need for speed		
USB FS	12 Mbit/s	12 Mbit/s
USB HS	-	480 bit/s
USART	Up to 4.5 Mbit/s	Up to 7.5 Mbit/s
SPI	Up to 18 Mbit/s	Up to 30 Mbit/s
I²C	400 kHz	400 kHz
GPIO	Up to 18 MHz	Up to 60 MHz
3-phase MC timer	72 MHz PWM timer clock input	120 MHz PWM timer clock input
SDIO	Up to 48 MHz	Up to 48 MHz
I²S	From 8 kHz to 96 kHz sampling frequencies	From 8 kHz to 96 kHz sampling frequencies
Camera interface	-	Up to 48 Mbytes/s at 48 MHz
Crypto/hash processor	-	AES 256 up to 106 Mbytes/s
FSMC	Up to 36 MHz	Up to 60 MHz
The need for analog		
ADC	1 µs conversion time (1 MSPS)	0.5 µs conversion time (2 MSPS)
DAC	2-channel, 12-bit	2 channel, 12-bit
The need for connectivity		
Dual CAN	Up to 2 independent CAN	Up to 2 independent CAN
Ethernet	10/100 Mbit/s MAC with hardware IEEE 1588	10/100 Mbit/s MAC with hardware IEEE 1588
USB OTG	Full speed host, device or OTG	Full speed and high speed host, device or OTG
CEC bus	Consumer electronic control for consumer devices	-
Flexible static memory interface	4 independent banks, 8/16-bit data bus, supports SRAM, PSRAM, NAND and NOR Flash, parallel graphic LCD	4 independent banks, 8/16-bit data bus, supports SRAM, PSRAM, NAND and NOR Flash, parallel graphic LCD
Camera interface	-	8- to 14-bit parallel

Outstanding power efficiency

STM32F10x power consumption

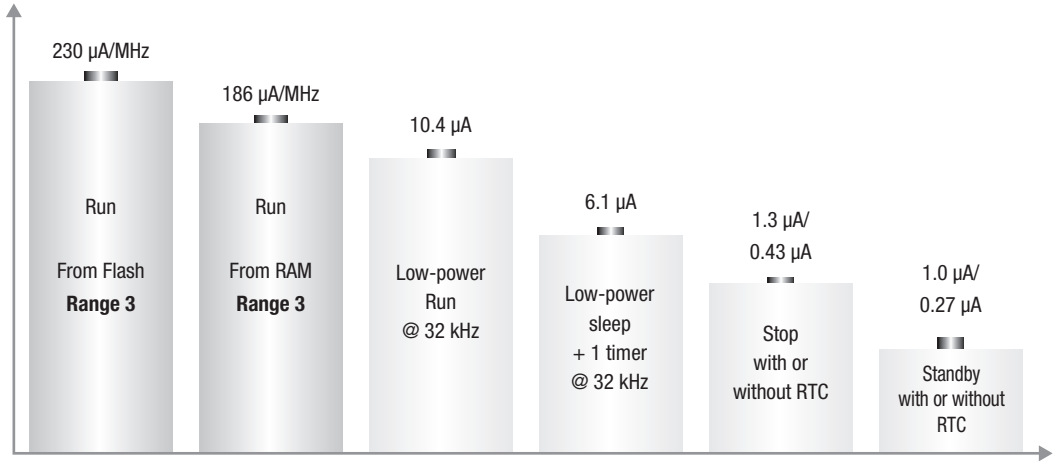
Typical current

(on 128-Kbyte device @ 25 °C)



STM32L power consumption

Typical @ 25 °C

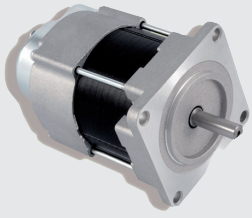


Notes:
- POR/PDR on
- RAM content preserved
- BOR option at 2.4 µA
- Startup time from Stop 8 µs
- Run and Sleep consumption value are independent of V_{DD}
- Stop and standby values measured at V_{DD} = 1.8 V

Motor control

The STM32 is perfectly suited to three-phase brushless motor control:

- Advanced PWM timer, fast ADC, high-performance core
- Free motor control firmware libraries supporting AC induction motor (sensored) and PMSM motor (sensorless, Hall-sensor or encoder) vector control
- Class B compliancy with the EN/IEC 60335-1 norm
- STM3210B-MCKIT full developer kit for vector drives



STM32 Value line

32-bit microcontrollers give greater choice for cost-sensitive applications

The STM32 Value line complements our STM32 Cortex-M microcontroller product portfolio by offering a low-cost product line that is pin-to-pin compatible with the STM32 portfolio. It brings new features such as new 16-bit timers, CEC function, new flexible static memory controller with LCD parallel interface support to expand the range of applications addressed in consumer, appliance and industrial segments. Based on the ARM Cortex-M3 core running at up to 24 MHz, the STM32 Value line offers excellent cost-performance-peripherals trade-offs. It provides all the essential features to make it the perfect choice to develop cost-effective applications traditionally addressed by 16-bit microcontrollers.

STM32 Connectivity line

Superior connectivity and superior audio support

The STM32 Connectivity line makes networking economical for a wide range of products, with its embedded Ethernet MAC with dedicated DMA and IEEE 1588 precision time protocol hardware support.

The USB 2.0 OTG peripheral makes the STM32 Connectivity line a turnkey solution to add a USB device, host or OTG function to a product. In addition, the line brings a dual CAN making it the MCU of choice for CAN gateways.

The two audio class I²S of the STM32 Connectivity line, combined with the embedded USB OTG peripheral, address requirements of most audio applications.

STM32 L-1 series

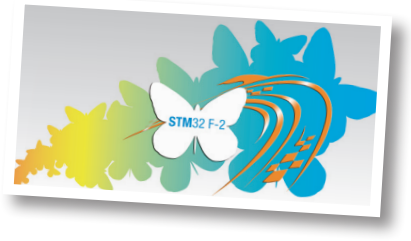
STM32L ultra-low-power MCU family

The STM32L15x enriches ST's ultra-low-power EnergyLite™ platform and the STM32 portfolio.

- High-performance ARM Cortex-M3: up to 33 DMIPS
- Ultra-low energy consumption: down to 185 µA/DMIPS
- Power supply: 1.65 to 3.6 V
- 6 ultra-low-power modes including new low-power run and low-power sleep
- Stop mode at 1.3 µA with RTC and full RAM retention
- Enhanced security and safety features

STM32 F-2 series

The F-2 series brings more performance, memory and advanced peripherals



- New technologies: 90 nm process, advanced real-time ART Accelerator™
- More performance: zero-wait execution at 120 MHz/150 DMIPS
- Outstanding dynamic power: 22.5 mA at 120 MHz

STM32 F-2 series - 32-bit with ART Accelerator™ and advanced peripherals

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{CC}) (V)	Supply current (I_{CC})		Temperature (°C)
				16-bit (IC/OC/ PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F205/215: 1x USB OTG (FS/HS[1]), crypto/hash processor[2]													
STM32F205RB	LQFP64 (10x10)	128	64	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205RC	LQFP64 (10x10)	256	96	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205RE	LQFP64 (10x10)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F215RE[1]	LQFP64 (10x10)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205RF	LQFP64 (10x10)	768	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205RG	LQFP64 (10x10), WLCSP64 (less than 4x4)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.65*/1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F215RG[1]	LQFP64 (10x10)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205VB	LQFP100 (14x14)	128	64	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205VC	LQFP100 (14x14)	256	96	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205VE	LQFP100 (14x14)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F215VE[1]	LQFP100 (14x14)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205VF	LQFP100 (14x14)	768	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205VG	LQFP100 (14x14)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F215VG[1]	LQFP100 (14x14)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105

STM32 F-2 series - 32-bit with ART Accelerator™ and advanced peripherals

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{CC}) (V)	Supply current (I_{CC})		Temperature (°C)
				16-bit (IC/OC/ PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F205ZC	LQFP144 (20x20)	256	96	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205ZE	LQFP144 (20x20)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F215ZE[1]	LQFP144 (20x20)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205ZF	LQFP144 (20x20)	768	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F205ZG	LQFP144 (20x20)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F215ZG[1]	LQFP144 (20x20)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 1xUSB OTG FS/HS, 2xCAN, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207/217: 2x USB OTG (FS + /HS[1]), camera IF, crypto/hash processor[2]													
STM32F207VC	LQFP100 (14x14)	256	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207VE	LQFP100 (14x14)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F217VE[1]	LQFP100 (14x14)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207VF	LQFP100 (14x14)	768	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207VG	LQFP100 (14x14)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F217VG[1]	LQFP100 (14x14)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	82(82)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207ZC	LQFP144 (20x20)	256	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105

STM32 F-2 series - 32-bit with ART Accelerator™ and advanced peripherals

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{CC}) (V)	Supply current (I_{CC})		Temperature (°C)
				16-bit (IC/OC/ PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32F207ZE	LQFP144 (20x20)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F217ZE[1]	LQFP144 (20x20)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207ZF	LQFP144 (20x20)	768	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207ZG	LQFP144 (20x20)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F217ZG[1]	LQFP144 (20x20)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	114(114)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207IC	UFBGA176 (10x10)	256	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	140(140)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207IE	UFBGA176 (10x10)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	140(140)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F217IE[1]	UFBGA176 (10x10)	512	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	140(140)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207IF	UFBGA176 (10x10)	768	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	140(140)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F207IG	UFBGA176 (10x10)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	140(140)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105
STM32F217IG[1]	UFBGA176 (10x10)	1024	128	12x16-bit (24/24/30)	2x32-bit timers (8/8/8), 2x WDG, XRTC, 24-bit down counter, 2x16-bit basic timers	24x12-bit	2x12-bit	140(140)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 3xUART, 2xUSB OTG (FS +FS/HS[1]), 2xCAN, Ethernet MAC10/100, SDIO	1.8 to 3.6	2.5	188	-40 to +85 or -40 to +105

Notes:
* 1.65 V min on WLCSP64 package only. 1.8 V min on other packages
1. HS requires an external PHY connected to ULPI interface
2. Crypto/hash processor on STM32F217 and STM32F115

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F100 Value line - 24 MHz CPU														
STM32F100C4	LQFP48 (7x7)	16	4	6x16-bit (16/16/21)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	10x12-bit	2x12-bit	37(37)	1xSPI, 1xI²C, CEC, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100C6	LQFP48 (7x7)	32	4	6x16-bit (16/16/21)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	10x12-bit	2x12-bit	37(37)	1xSPI, 1xI²C, CEC, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100C8	LQFP48 (7x7)	64	8	7x16-bit (18/18/21)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	10x12-bit	2x12-bit	37(37)	2xSPI, 2xI²C, CEC, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100CB	LQFP48 (7x7)	128	8	7x16-bit (18/18/21)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	10x12-bit	2x12-bit	37(37)	2xSPI, 2xI²C, CEC, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100R4	LQFP64 (10x10), TFBGA64 (5x5)	16	4	6x16-bit (16/16/21)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	1xSPI, 1xI²C, CEC, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100R6	LQFP64 (10x10), TFBGA64 (5x5), Unsawn wafer V.I. 100%	32	4	6x16-bit (16/16/21)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	1xSPI, 1xI²C, CEC, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100R8	LQFP64 (10x10), TFBGA64 (5x5)	64	8	7x16-bit (20/20/23)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	2xSPI, 2xI²C, CEC, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100RB	LQFP64 (10x10), TFBGA64 (5x5)	128	8	7x16-bit (20/20/23)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	2xSPI, 2xI²C, CEC, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100RC	LQFP64 (10x10)	256	24	11x16-bit (26/26/27)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100RD	LQFP64 (10x10)	384	32	11x16-bit (26/26/27)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100RE	LQFP64 (10x10)	512	32	11x16-bit (26/26/27)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100V8	LQFP100 (14x14)	64	8	7x16-bit (20/20/26)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	80(80)	2xSPI, 2xI²C, CEC, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100VB	LQFP100 (14x14)	128	8	7x16-bit (20/20/26)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	80(80)	2xSPI, 2xI²C, CEC, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	358	-	-40 to +85 or -40 to +105
STM32F100VC	LQFP100 (14x14)	256	24	11x16-bit (28/28/31)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100VD	LQFP100 (14x14)	384	32	11x16-bit (28/28/31)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100VE	LQFP100 (14x14)	512	32	11x16-bit (28/28/31)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F100ZC	LQFP144 (20x20)	256	24	11x16-bit (28/28/31)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100ZD	LQFP144 (20x20)	384	32	11x16-bit (28/28/31)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F100ZE	LQFP144 (20x20)	512	32	11x16-bit (28/28/31)	2xWDG, RTC, 24-bit down counter, 2x16-bit basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, CEC, 5xUSART (IrDa, ISO 7816)	2 to 3.6	2.2	396	LCD parallel interface	-40 to +85 or -40 to +105
STM32F101 Access line - 36 MHz CPU														
STM32F101C4	LQFP48 (7x7)	16	4	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101C6	LQFP48 (7x7)	32	6	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101C8	LQFP48 (7x7), VFQFPN48 (7x7)	64	10	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101CB	LQFP48 (7x7)	128	16	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101R4	LQFP64 (10x10)	16	4	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101R6	LQFP64 (10x10)	32	6	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101R8	LQFP64 (10x10)	64	10	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	391	-	-40 to +85
STM32F101RB	LQFP64 (10x10), TFBGA64 (5x5)	128	16	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	391	-	-40 to +85
STM32F101RC	LQFP64 (10x10)	256	32	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101RD	LQFP64 (10x10)	384	48	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101RE	LQFP64 (10x10)	512	48	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101RF	LQFP64 (10x10)	768	80	12x16-bit (19/19/19)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101RG	LQFP64 (10x10)	1024	80	12x16-bit (19/19/19)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101T4	VFQFPN36 (6x6) Pitch 0.50	16	4	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101T6	VFQFPN36 (6x6) Pitch 0.50	32	6	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	363	-	-40 to +85
STM32F101T8	VFQFPN36 (6x6) Pitch 0.50	64	10	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	391	-	-40 to +85

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F101TB	VFQFPN36 (6x6) Pitch 0.50	128	16	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	391	-	-40 to +85
STM32F101V8	LQFP100 (14x14)	64	10	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	80(80)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	391	-	-40 to +85
STM32F101VB	LQFP100 (14x14)	128	16	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	80(80)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816)	2 to 3.6	1.7	391	-	-40 to +85
STM32F101VC	LQFP100 (14x14)	256	32	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101VD	LQFP100 (14x14)	384	48	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101VE	LQFP100 (14x14)	512	48	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101VF	LQFP100 (14x14)	768	80	12x16-bit (23/23/23)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101VG	LQFP100 (14x14)	1024	80	12x16-bit (23/23/23)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101ZC	LQFP144 (20x20)	256	32	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101ZD	LQFP144 (20x20)	384	48	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101ZE	LQFP144 (20x20)	512	48	6x16-bit (16/16/16)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101ZF	LQFP144 (20x20)	768	80	12x16-bit (23/23/23)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F101ZG	LQFP144 (20x20)	1024	80	12x16-bit (23/23/23)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	112(112)	3xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART	2 to 3.6	1.9	433	-	-40 to +85
STM32F102 USB Access line - 48 MHz CPU														
STM32F102C4	LQFP48 (7x7)	16	4	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.55	348	-	-40 to +85
STM32F102C6	LQFP48 (7x7)	32	6	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.55	348	-	-40 to +85
STM32F102C8	LQFP48 (7x7)	64	10	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.7	373	-	-40 to +85
STM32F102CB	LQFP48 (7x7)	128	16	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.7	373	-	-40 to +85

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F102R4	LQFP64 (10x10)	16	4	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.55	348	-	-40 to +85
STM32F102R6	LQFP64 (10x10)	32	6	2x16-bit (8/8/8)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.55	348	-	-40 to +85
STM32F102R8	LQFP64 (10x10)	64	10	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.7	373	-	-40 to +85
STM32F102RB	LQFP64 (10x10)	128	16	3x16-bit (12/12/12)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB	2 to 3.6	1.7	373	-	-40 to +85
STM32F103 Performance line - 72 MHz CPU														
STM32F103C4	LQFP48 (7x7)	16	6	3x16-bit (12/12/14)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.55	337	-	-40 to +85 or -40 to +105
STM32F103C6	LQFP48 (7x7), VFQFPN48 (7x7)	32	10	3x16-bit (12/12/14)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.55	337	-	-40 to +85 or -40 to +105
STM32F103C8	LQFP48 (7x7)	64	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103CB	LQFP48 (7x7)	128	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	36(36)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103R4	LQFP64 (10x10), TFBGA64 (5x5)	16	6	3x16-bit (12/12/14)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.55	337	-	-40 to +85 or -40 to +105
STM32F103R6	LQFP64 (10x10), TFBGA64 (5x5)	32	10	3x16-bit (12/12/14)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.55	337	-	-40 to +85 or -40 to +105
STM32F103R8	LQFP64 (10x10), TFBGA64 (5x5)	64	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103RB	LQFP64 (10x10), TFBGA64 (5x5)	128	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103RC	LQFP64 (10x10), WLCSP64 (4.4x4.5)	256	48	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103RD	LQFP64 (10x10), WLCSP64 (4.4x4.5)	384	64	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103RE	LQFP64 (10x10), WLCSP64 (4.4x4.5)	512	64	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F103RF	LQFP64 (10x10)	768	96	12x16-bit (27/27/29)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103RG	LQFP64 (10x10)	1024	96	12x16-bit (27/27/29)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103T4	VFQFPN36 (6x6) Pitch 0.50	16	6	3x16-bit (12/12/14)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.55	337	-	-40 to +85 or -40 to +105
STM32F103T6	VFQFPN36 (6x6) Pitch 0.50	32	10	3x16-bit (12/12/14)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.55	373	-	-40 to +85 or -40 to +105
STM32F103T8	VFQFPN36 (6x6) Pitch 0.50	64	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103TB	VFQFPN36 (6x6) Pitch 0.50	128	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	10x12-bit	-	26(26)	1xSPI, 1xI²C, 2xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103V8	LFBGA100 (10x10), LQFP100 (14x14)	64	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	80(80)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103VB	LFBGA100 (10x10), LQFP100 (14x14)	128	20	4x16-bit (16/16/18)	2xWDG, RTC, 24-bit down counter	16x12-bit	-	80(80)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), USB, CAN	2 to 3.6	1.7	373	-	-40 to +85 or -40 to +105
STM32F103VC	LFBGA100 (10x10), LQFP100 (14x14)	256	48	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103VD	LFBGA100 (10x10), LQFP100 (14x14)	384	64	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103VE	LFBGA100 (10x10), LQFP100 (14x14)	512	64	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103VF	LQFP100 (14x14)	768	96	14x16-bit (29/29/33)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103VG	LQFP100 (14x14)	1024	96	14x16-bit (29/29/33)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F103ZC	LFBGA100 (10x10), LQFP144 (20x20)	256	48	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	21x12-bit	2x12-bit	112(112)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103ZD	LFBGA100 (10x10), LQFP144 (20x20)	384	64	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	21x12-bit	2x12-bit	112(112)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103ZE	LFBGA100 (10x10), LQFP144 (20x20)	512	64	8x16-bit (24/24/28)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	21x12-bit	2x12-bit	112(112)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103ZF	LQFP144 (20x20)	768	96	14x16-bit (33/33/35)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	21x12-bit	2x12-bit	112(112)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F103ZG	LQFP144 (20x20)	1024	96	14x16-bit (33/33/35)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	21x12-bit	2x12-bit	112(112)	3xSPI, 2xI²S, 2xI²C, 3xUSART (IrDa, ISO 7816), 2xUART, SDIO, USB, CAN	2 to 3.6	1.9	421	-	-40 to +85 or -40 to +105
STM32F105/107 Connectivity line - 72 MHz CPU														
STM32F105R8	LQFP64 (10x10)	64	20	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F105RB	LQFP64 (10x10)	128	32	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F105RC	LQFP64 (10x10)	256	64	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F105V8	LQFP100 (14x14)	64	20	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F105VB	LFBGA100 (10x10), LQFP100 (14x14)	128	32	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F105VC	LQFP100 (14x14)	256	64	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F107RB	LQFP64 (10x10)	128	48	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN, Ethernet MAC10/100	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105

STM32 F-1 series - 32-bit ARM Cortex-M3 MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Timer functions		A/D converter	D/A converter	I/Os (high current)	Serial interface	Supply voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)	Temperature (°C)
				16-bit (IC/OC/PWM)	Others						Lowest power mode (µA)	Run mode (per MHz) (µA)		
STM32F107RC	LQFP64 (10x10)	256	64	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	51(51)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN, Ethernet MAC10/100	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F107VB	LQFP100 (14x14)	128	48	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN, Ethernet MAC10/100	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105
STM32F107VC	LFBGA100 (10x10), LQFP100 (14x14), Unsawnwafer V.I. 100%	256	64	7x16-bit (20/20/22)	2xWDG, RTC, 24-bit down counter, 2x16-bit Basic timers	16x12-bit	2x12-bit	80(80)	3xSPI, 2xI²S, 2xI²C, 3xUSART, 2xUART, USB OTG FS, 2xCAN, Ethernet MAC10/100	2 to 3.6	1.9	393	-	-40 to +85 or -40 to +105

STM32L- 32-bit ultra-low-power MCUs

Part number	Package	Flash size (Kbytes)	Internal RAM size (Kbytes)	Data EEPROM (Bytes)	Timer functions		A/D converter	D/A converter	Comparator	I/Os (high current)	Serial interface	Supply Voltage (V_{cc}) (V)	Supply current (I_{cc})		Display controller (LCD)
					16-bit (IC/ OC/PWM)	Others							Lowest power mode (µA)	Run mode (per MHz) (µA)	
STM32L151 without LCD - 32 MHz CPU															
STM32L151C8	LQFP48 (7x7), VFQFPN48 (7x7)	64	10	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	16x12-bit	2x12-bit	2	37(37)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	-
STM32L151CB	LQFP48 (7x7), VFQFPN48 (7x7)	128	16	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	16x12-bit	2x12-bit	2	37(37)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	-
STM32L151R8	LQFP64 (10x10), TFBGA64 (5x5)	64	10	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	20x12-bit	2x12-bit	2	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	-
STM32L151RB	LQFP64 (10x10), TFBGA64 (5x5)	128	16	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	20x12-bit	2x12-bit	2	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	-
STM32L151V8	LQFP100 (14x14), UFBGA100 (7x7)	64	10	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	24x12-bit	2x12-bit	2	83(83)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	-
STM32L151VB	LQFP100 (14x14), UFBGA100 (7x7)	128	16	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	24x12-bit	2x12-bit		83(83)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	-
STM32L152 with LCD - 32 MHz CPU															
STM32L152C8	LQFP48 (7x7), VFQFPN48 (7x7)	64	10	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	16x12-bit	2x12-bit	2	37(37)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	4x16
STM32L152CB	LQFP48 (7x7), VFQFPN48 (7x7)	128	16	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	16x12-bit	2x12-bit	2	3737)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	4x16
STM32L152R8	LQFP64 (10x10), TFBGA64 (5x5)	64	10	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	20x12-bit	2x12-bit	2	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	4x32, 8x28
STM32L152RB	LQFP64 (10x10), TFBGA64 (5x5)	128	16	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	20x12-bit	2x12-bit	2	51(51)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	4x32, 8x28
STM32L152V8	LQFP100 (14x14), UFBGA100 (7x7)	64	10	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	24x12-bit	2x12-bit	2	83(83)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	4x44, 8x40
STM32L152VB	LQFP100 (14x14), UFBGA100 (7x7)	128	16	4096	8x16-bit (16/16/16)	SysTick, 2xWDG, RTC	24x12-bit	2x12-bit	2	83(83)	2xSPI, 2xI²C, 3xUSART (IrDa, ISO 7816), 1xUSB	1.65 to 3.6	0.27	230	4x44, 8x40

Touch sensing FW library available for all part numbers

Development tools

STMicroelectronics' STM32 family of 32-bit ARM Cortex™-M-core-based microcontrollers are supported by a complete range of high-end and low-cost evaluation, software, debugging and programming tools.

This complete line includes third-party solutions that come complete with C/C++ compiler, integrated development environment and in-circuit debugger/programmer featuring a JTAG application interface. Developers can also explore and start applications easily with any of a range of affordable, easy-to-use starter kits.

The superb combination of a state-of-the-art and efficient library of software drivers and extensive support for all major tool providers offers a fast route to best-fit and an optimized development process.

Promotion kits

STM32 new primer

Play, explore and develop applications on the **EvoPrimer** with Raisonance toolset, free demos and an online community at www.stm32circle.com to stimulate creative designs.

Order codes:

STM3210CPRIMER (STM32 Connectivity line)
STM3210EPRIMER (STM32 Performance line)

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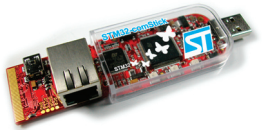
Evaluate STM32 performance in real time with the innovative **STM32-PerformanceStick** and the networking features of the STM32 Connectivity line with **STM32-ComStick**. These kits include an integrated debugging/ programming capability via USB and unlimited Hitex HiTOP5 and Tasking VX C compiler.



STM32 Value line Discovery

The **STM32 Value line Discovery (STM32VLDISCOVERY)** kit is the cheapest and quickest way to discover the STM32. Based on the STM32 Value line, this quick-start evaluation board includes the ST-LINK debugger and is delivered with IDE from Keil, IAR and Atollic. This low-cost evaluation kit will satisfy hobbyists, first-time developers and students.

Micrium book and board package

Micrium evaluation kit

Micrium's newest real-time kernel µC-OS/III designed to save time on embedded system projects. A two-part book dedicated to µC-OS/III is accompanied by an STM32 Connectivity line evaluation board.

Order code: STM32CMICOS-EVAL

STM32CMICOS-EVAL

Micrium TCP/IP book

Understand how a TCP/IP stack works using Micrium's µC/TCP-IP as a reference with the book *µC/TCP-IP: The Embedded Protocol Stack for the STM32F107*, Connectivity line. Examples run on the STM32F107 evaluation board available with the book *µC/OS-III*.

Order code: STM32CMICTCP-BK

STM32CMICTCP-BK

Starter kits

Part number	Featured product	Description
STM3210B-SK/HIT STM3210E-SK/HIT	STM32F103RBT6	Hitex kit with unlimited HiTOP5, Tasking VX compiler, STM32-PerformanceStick with integrated debugging/ programming via USB, extension I/O board with peripheral evaluation features, DashBoard GUI
STM3210B-SK/IAR STM3210C-SK/IAR STM3210E-SK/IAR	STM32F103RBT6 STM32F107RCT6 STM32F103RET6	IAR Embedded Workbench for ARM (for up to 32 Kbytes of code), IAR C/C++ compiler, J-Link (USB/JTAG), evaluation board
STM3210B-SK/KEIL STM3210C-SK/KEIL STM3210E-SK/KEIL	STM32F103RBT6 STM32F107RCT6 STM32F103RET6	Keil RealView MDK with uVision 3 (for up to 16 Kbytes of code), ARM C/C++ compiler, ULINK (USB/JTAG), evaluation board
STM3210B-SK/RAIS STM3210C-SK/RAIS	STM32F103RBT6 STM32F107RCT6	Raisonance REva kit with RIDE (debug up to 32 Kbytes of code), GNU C/C++ compiler, modular evaluation hardware with integrated RLink (USB/JTAG)
STM3210B-MCKIT	STM32F103RBT6	ST motor-control starter kit with complete sensor and sensorless libraries, evaluation hardware platform for vector drive of three-phase PMSM and induction motors, plus Segger J-Link for host PC interface

Evaluation board for STM32

Several hardware platforms from a range of third-party tool developers, and open-platform evaluation boards from ST implement the complete range of device peripherals for STM32 devices.

For more information, visit **www.st.com/stm32**

STM32 graphic user interface library

Fully developed in Strict ANSI-C, and software toolchain independent, this library provides the basic blocks needed to build a graphic user interface. It can be used to create and manipulate graphic objects such as pages, labels, push buttons, switch buttons, radio buttons, checkboxes, combo boxes, slidebars and icons. It can also be linked to touchscreens, and other HIDs (human interface devices) such as hardware push buttons and joysticks.

Available free of charge in January 2011.

Contact your local ST sales and marketing office for more information on this solution.

STM32 audio software

This professional audio engine from the leading technology company Spirit is a high-quality and fully-supported solution. It removes the hurdles associated with open source solutions, and insures a fast development with professional results for audio applications. The solution supports the popular MP3 and WMA key formats, supported by a set of must-have add-ons such as a channel mixer, standalone 3-band parametric equalizer and loudness control.

The STM32 audio software is available for the STM32F105 Connectivity line products, which feature several dedicated enhancements for high-quality audio processing.

Contact your local ST sales and marketing office for more information on this solution.

STM32 embedded firmware

STM32 firmware library: Complete set of device drivers for all the standard device peripherals.

STM32 USB developer kit: Complete firmware package for USB slave interface.

DSP Software Library: DSP (digital signal processor) software library including digital filters and FFT.

STM32 Speech Codec Software Library: Speech codec software to compress/ decompress speech data.

STM32 self-test routines Class B norm certification: Complete software for EN/ IEC 60335-1 Class B norm.

STM32 motor control software: Complete 3-phase motor-control library supporting PMSM motors in sensored and sensorless mode and AC induction motors in sensored mode, and a patented single-shunt algorithm. This software is included in the STM32 motor control starter kit.

Development tools, operating systems, solution stacks and more

Choose from a full range of development solutions from lead suppliers that deliver start-to-finish control of application development from a single integrated development environment. Access a variety of royalty-free, small-footprint operating systems and a wealth of off-the-shelf stacks from numerous third-party suppliers.

For detailed information, see **www.st.com/stm32tools**

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