

STMICROELECTRONICS STM32³² (CORTEX™-M3)

The STM32 family of 32-bit Flash Microcontrollers is based on the breakthrough ARM Cortex™-M3 core - a core specifically developed for embedded applications. The STM32 family benefits from the Cortex-M3 architectural enhancements including the Thumb-2 instruction set to deliver improved performance with better code density, significantly faster response to interrupts, all combined with industry leading power consumption. ST is now the first leading MCU supplier to introduce a product family based on this core. The STM32 family is built to offer new degrees of freedom to MCU users. It offers a complete 32-bit product range that combines high performance, low power and low voltage, while maintaining full integration and ease of development.



RoHS Compliant



For quantities of 500 and up, call for quote.

MOUSER STOCK NO.		Package	Prog. (Bytes)	RAM (Bytes)	A/D Converter	Serial Interface	I/Os (High Current 2)	Supply Voltage	Price Each		
Mfr.	Mfr. Part Number								1	10	100
511	—STM32F101C8T6	LQFP 48	64KB	10KB	1x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C	32-32	2 to 3.6 V	6.86	5.74	4.86
511	—STM32F101R6T6	LQFP 64	32KB	32KB	1x12-bit ADC, 3x16-bit timer	2xUSART, 1xSPI, 1xI2C	49-49	2 to 3.6 V	7.13	5.77	4.63
511	—STM32F101R8T6	LQFP 64	64KB	64KB	1x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C	49-49	2 to 3.6 V	7.38	6.17	5.22
511	—STM32F101RB76	LQFP 64	128KB	128KB	1x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C	49-49	2 to 3.6 V	8.87	7.41	6.28
511	—STM32F101V8T6	LQFP 100	64KB	64KB	1x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C	80-80	2 to 3.6 V	8.45	7.06	5.98
511	—STM32F101VB76	LQFP 100	128KB	128KB	1x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C	80-80	2 to 3.6 V	9.93	8.30	7.01
511	—STM32F103C8T6	LQFP 48	64KB	64KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	32-32	2 to 3.6 V	8.45	7.06	5.98
511	—STM32F103R6T6	LQFP 64	32KB	32KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 1xSPI, 1xI2C, PWM timer, USB/CAN	49-49	2 to 3.6 V	7.59	6.85	4.30
511	—STM32F103R8T6	LQFP 64	64KB	64KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	49-49	2 to 3.6 V	9.07	7.59	6.42
511	—STM32F103RB76	LQFP 64	128KB	128KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	49-49	2 to 3.6 V	10.56	8.83	7.47
511	—STM32F103V8H6	BGA 100	64KB	64KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	80-80	2 to 3.6 V	10.19	8.52	7.21
511	—STM32F103V8T6	LQFP 100	64KB	64KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	80-80	2 to 3.6 V	10.19	8.52	7.21
511	—STM32F103VBH6	BGA 100	128KB	128KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	80-80	2 to 3.6 V	11.78	9.85	8.33
511	—STM32F103VB76	LQFP 100	128KB	128KB	2x12-bit ADC, 3x16-bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	80-80	2 to 3.6 V	11.78	9.85	8.33
511	—STM32F101CB76	LQFP 48	128KB	128KB	10x12-bit ADC, 3x16 bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	80-80	2 to 3.6 V	8.45	7.06	5.98
511	—STM32F103CB76	LQFP 48	128KB	128KB	2x12-bit ADC, 4x16 bit timer	3xUSART, 2xSPI, 2xI2C, PWM timer, USB/CAN	80-80	2 to 3.6 V	9.98	8.35	7.07
511	—STM32F101ZET6	LQFP 144	512KB	48KB	1x12-bit ADC, 4x16 bit timer	5xUSART, 2xSPI, 2xI2C	112-112	2 to 3.6 V	16.70	13.92	10.65
511	—STM32F101VET6	LQFP 100	512KB	48KB	1x12-bit ADC, 4x16 bit timer	5xUSART, 2xSPI, 2xI2C	80-80	2 to 3.6 V	14.81	12.34	9.44
511	—STM32F101RET6	LQFP 64	512KB	48KB	1x12-bit ADC, 4x16 bit timer	5xUSART, 2xSPI, 2xI2C	51-51	2 to 3.6 V	14.33	11.94	9.14
511	—STM32F103ZET6	LQFP 144	512KB	64KB	3x12-bit ADC, 4x16 bit timer	5xUSART, 2xSPI, 2xI2C, 1xI2S, USB/CAN	112-112	2 to 3.6 V	16.45	15.21	11.51
511	—STM32F103VET6	LQFP 100	512KB	64KB	3x12-bit ADC, 4x16 bit timer	5xUSART, 2xSPI, 2xI2C, 1xI2S, USB/CAN	80-80	2 to 3.6 V	14.98	13.85	10.48
511	—STM32F103RET6	LQFP 64	512KB	64KB	3x12-bit ADC, 4x16 bit timer	5xUSART, 2xSPI, 2xI2C, 1xI2S, USB/CAN	51-51	2 to 3.6 V	14.12	13.06	9.88
511	—STM32F107VCT6	LQFP 100	256KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	12.44	11.19	10.57
511	—STM32F107RCT6	LQFP 64	256KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	11.34	10.21	9.64
511	—STM32F107VB76	LQFP 100	128KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	10.48	9.43	8.91
511	—STM32F107RB76	LQFP 64	128KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	9.38	8.44	7.98
511	—STM32F105VCT6	LQFP 100	256KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	11.30	10.17	9.61
511	—STM32F105RCT6	LQFP 64	256KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	10.30	9.27	8.75
511	—STM32F105VB76	LQFP 100	128KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	9.52	8.57	8.09
511	—STM32F105RB76	LQFP 64	128KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	8.52	7.67	7.24
511	—STM32F105V8T6	LQFP 100	8KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	8.26	7.41	7.01
511	—STM32F105R8T6	LQFP 64	8KB	64KB	2x16-bit ADC, 4x16 bit timer	OGT, 5xUSART, 3xSPI, 2xI2C, USB/2CAN, PWM	5180	2 to 3.6 V	7.32	6.59	6.23
511	—STM32F101C4T6A	LQFP 48	32KB	6KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3636	2 to 3.6 V	5.45	5.27	4.25
511	—STM32F101R4T6A	LQFP 48	64KB	10KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	5151	2 to 3.6 V	5.69	5.27	4.35
511	—STM32F101T4U6A	VFQFPN 36	64KB	10KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	2626	2 to 3.6 V	5.45	5.27	4.25
511	—STM32F101T8U6	VFQFPN	64KB	10KB	2x16-bit ADC, 2x24 bit timer	2xSPI, 2xI2C, 3xUSART, IrDA/ISO78/LIN	2626	2 to 3.6 V	5.64	5.56	4.84
511	—STM32F102C4T6A	LQFP 48	16KB	4KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	5.96	5.45	4.48
511	—STM32F102C6T6A	LQFP 48	32KB	6KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	6.54	6.20	4.78
511	—STM32F102C8T6	LQFP 48	64KB	8KB	2x16-bit ADC, 2x24 bit timer	2xSPI, 2xI2C, 3xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	7.21	6.72	5.46
511	—STM32F102CB76	LQFP 48	128KB	16KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	8.88	8.29	7.15
511	—STM32F102R4T6A	LQFP 64	16KB	4KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	6.19	5.31	4.83
511	—STM32F102R6T6A	LQFP 48	32KB	6KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	7.03	6.23	5.14
511	—STM32F102R8T6	LQFP 64	64KB	8KB	2x16-bit ADC, 2x24 bit timer	2xSPI, 2xI2C, 3xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	7.61	6.72	5.86
511	—STM32F102RB76	LQFP 64	32KB	6KB	2x16-bit ADC, 2x24 bit timer	2xSPI, 2xI2C, 3xUSART, IrDA/ISO78/LIN	3751	2 to 3.6 V	8.88	8.80	7.53
511	—STM32F103C4T6A	LQFP 48	64KB	20KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	3636	2 to 3.6 V	6.43	5.94	4.90
511	—STM32F103R4T6A	LQFP 64	32KB	10KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	5151	2 to 3.6 V	6.63	5.94	5.08
511	—STM32F103T4U6A	VFQFPN 36	64KB	20KB	2x16-bit ADC, 2x24 bit timer	1xSPI, 1xI2C, 2xUSART, IrDA/ISO78/LIN	2626	2 to 3.6 V	6.43	5.94	4.90
511	—STM32F103T8U6	VFQFPN	64KB	20KB	2x16-bit ADC, 2x24 bit timer	2xSPI, 2xI2C, 3xUSART, IrDA/ISO78/LIN	2626	2 to 3.6 V	6.44	6.34	5.53
511	—STM32F103VEH6	LFPGA	32KB	10KB	2x16-bit ADC, 2x24 bit timer	2xSPI, 2xI2C, 3xUSART, IrDA/ISO78/LIN	8080	2 to 3.6 V	14.81	13.60	10.43

DEVELOPMENT TOOLS

MOUSER STOCK NO.		Description	Price Each
Mfr.	Mfr. Part Number		
511	—STM3210B-MCKIT	Integrated system designed to provide complete, ready-to-use motor control application developed around STM32 MCU.	1125.00
511	—STM3210E-EVAL	512K version of complete hardware evaluation platform with the STM32F103, implementing the full range of device peripherals and features.	218.40
511	—STM3210C-EVAL	Complete Connectivity Platform w/full speed USB-OTG, MAC, 2 CAN2.0, 2I2C, 5 USART, Smartcard, 3ch SPI, 64KB SRAM, 256 KB Flash, JTAG and SWD debugging support.	278.14

THIRD-PARTY SOFTWARE AND TOOLS

Users can choose from a full range of development solutions that deliver start to finish control of application development from a single environment. Solutions come with in-circuit emulators, and offer project management, source editing, application building and debugging from a single, easy-to-use graphical interface. They are available for all popular C/C++ compilers compatible with ARM cores.

MOUSER STOCK NO.		Description	Price Each
Mfr.	Mfr. Part Number		
511	—STM3210B-PRIMER	Complete, ultra low-cost kit for evaluation and application development.	41.60
511	—STM3210E-PRIMER	Complete, ultra low-cost kit for evaluation and on Primer 2 applications.	59.85
511	—STM3210B-SK/KEIL	Kit includes RealView Microcontroller Development, Kit for ARM (16 K code-size limited version) with ARM C/C++ compiler, ULINK (USB/JTAG) in-circuit emulator and evaluation board for STM32 with external 1M RAM, 8M flash, and joystick.	202.80
511	—STM3210E-SK/KEIL	Kit includes RealView Microcontroller Development, Kit for ARM (16 K code-size limited version) with ARM C/C++ compiler, ULINK (USB/JTAG) in-circuit emulator and evaluation board for STM32 with external 1M RAM, 8M flash, and joystick for primer 2 applications.	245.00
511	—STM3210B-SK/RAIS	Kit includes RIDE (32 K code-size limited version) with GNU C/C++ compiler, debugger, RLink (USB/JTAG) in-circuit emulator, demonstration motherboard and daughter board for STM32.	208.75
511	—STM32103B-D/RAIS	Daughter card that converts the STM3210B-SK/RAIS to the Performance line.	92.30
511	—STM3210B-SK/HIT	Kit includes HiTOP5 (16 K code-size limited version), GNU C/C++ compiler, debugger and USB stick with STM32 device evaluation features and integrated in-circuit debugging/programming capability.	128.70
511	—STM3210B-PFSTICK	Kit includes Hitex STM32-Performance Stick complete tool package for STM32 evaluation and development.	67.60
511	—STM3210E-SK/IAR	Kit includes IAR Embedded Workbench for ARM (EWARM - 32 K code-size limited version), J-Link (USB/JTAG) in-circuit emulator and evaluation board for STM32, E-version 512Kb flash memory for Primer 2 applications.	248.30