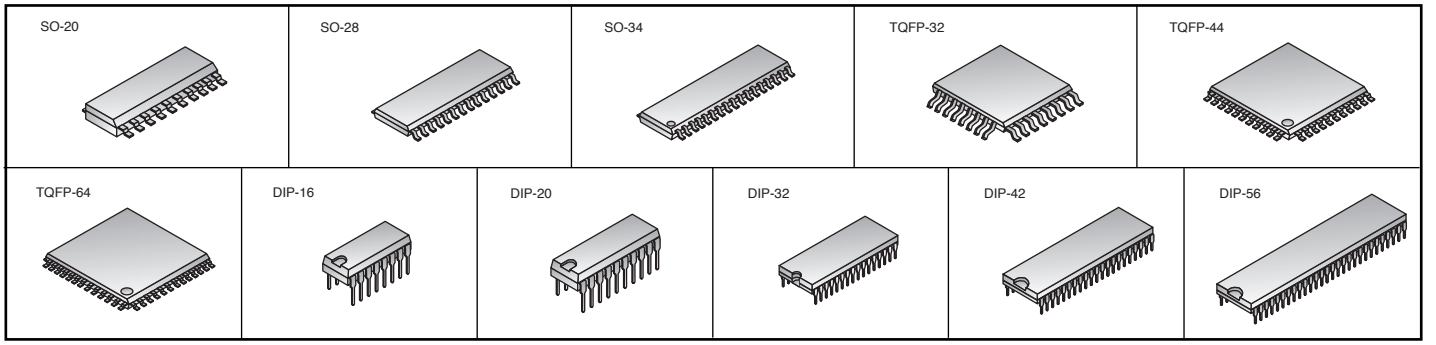
STMICROELECTRONICS 8 and 16-Bit Microcontrollers

STMicroelectronics



ST7 INDUSTRY STANDARD FAST CORE ARCHITECTURE 8-BIT (CONT.)

The ST7 core is based on an industry standard 8-bit architecture, extended by STMicroelectronics to improve support for high level language programming and to provide additional interrupt handling features. The accumulator-based core has six internal registers including a 16-bit program counter. The instruction set has 63 instructions with 17 addressing modes offering 8x8-bit unsigned multiply, true bit manipulation, various bit/byte transfer modes and powerful branching logic. Peripheral resources are handled via dedicated interrupts and registers.

- Fast multiplication: 11 cycles or 1.37 μsecs for 8 x 8 bits (16-bit result)
- Rich choice of addressing modes for efficient handling of data in RAM (fast manipulation of tables).
- Direct memory addressing (no page handling overhead)
- Up to 16 interrupt vectors for flexible interrupt management.
- Fast interrupt response: 1.5μs typical (with 5-byte context save).
- Powerful bit manipulation instructions

Abbreviations:

ADC = Analog to digital converter
CAN = Controller area network
DALI = Digital addressable lighting interface
I2C = Inter-integrated circuit
IAP = In-application programming
ICP = In-circuit programming
ISP = In-situ programming
LVD = Low-voltage detection
PLL = Phase locked loop
ROP = Readout protection
SCI = Serial communications interface
SPI = Serial peripheral interface
SWG = Square wave generator
USB = Universal serial bus
WDG = Watchdog timer

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Features & Characteristics									Price Each
Mfr.	Mfr. Part Number		Prog. Mem.	Memory Type	RAM	E²PROM	A/D inputs	Timers	Serial Interface	I/Os (HI-Curr)	Special Features	1-99
Surface Mount												
511—	ST72F264G2M6	SO-28	8K	Flash	256	-----	6x10-Bit	2x16-Bit	SPI	22 (8)	WDG, RTC, ROP, ICP, IAP, PLL, nested interrupts	4.20
511—	ST7FLITE20F2M6	SO-20	8K	Flash	384	256	7x10-Bit	2x8-Bit, 1x12-Bit	SPI/DALI	15 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	3.08
511—	ST7FLITE25F2M6	SO-20	8K	Flash	384	256	7x10-Bit	2x8-Bit, 1x12-Bit	SPI/DALI	15 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	3.20
511—	ST7FLITE29F2M6	SO-20	8K	Flash	384	256	7x10-Bit	2x8-Bit, 1x12-Bit	SPI/DALI	15 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	4.64
511—	ST72F324K2T6	TQFP-32	8K	Flash	384	-----	8x10-Bit	2x16-Bit	SPI/SCI	24 (10)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	3.90
511—	ST72C314J2T6	TQFP-44	8K	Flash	384	-----	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	6.12
511—	ST72C334J2T6	TQFP-44	8K	Flash	384	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	8.99
511—	ST72C334N2T6	TQFP-64	8K	Flash	384	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	7.72
511—	ST72F324J2T6	TQFP-44	8K	Flash	384	-----	12x10-Bit	2x16-Bit	SPI/SCI	32 (12)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	4.06
511—	ST72F324K4T6	TQFP-32	16K	Flash	512	-----	8x10-Bit	2x16-Bit	SPI/SCI	24 (10)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	4.22
511—	ST72C314N4T6	TQFP-64	16K	Flash	512	-----	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	9.34
511—	ST72C334J4T6	TQFP-44	16K	Flash	512	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	9.38
511—	ST72C334N4T6	TQFP-64	16K	Flash	512	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	9.66
511—	ST72F324J4T6	TQFP-44	16K	Flash	512	-----	12x10-Bit	2x16-Bit	SPI/SCI	32 (12)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	4.72
511—	ST72F324K6T6	TQFP-32	32K	Flash EEPROM	1K	-----	8x10-Bit	10x16-Bit	SPI/SCI	24 (10)	ICP, IAP, nested interrupts, TLI, clock security system, ROP, SWG	6.37
511—	ST72F324J6T6	TQFP-44	32K	Flash EEPROM	1K	-----	12x10-Bit	10x16-Bit	SPI/SCI	32 (12)	ICP, IAP, nested interrupts, TLI, clock security system, ROP, SWG	5.80
511—	ST72F321AR6T6	TQFP-64	32K	Flash	1K	-----	16x10-Bit	2x16-Bit, 1x8-Bit	SPI/SCI/I2C	48 (16)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	6.14
511—	ST72F321R6T6	TQFP-64	32K	Flash	1K	-----	16x10-Bit	2x16-Bit, 1x8-Bit	SPI/SCI/I2C	48 (16)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	6.62
511—	ST72F321J7T6	TQFP-44	48K	Flash	1.5K	-----	12x10-Bit	2x16-Bit, 1x8-Bit	SPI/SCI/I2C	32 (12)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	6.14
511—	ST72F321J9T6	TQFP-44	60K	Flash	2K	-----	12x10-Bit	2x16-Bit, 1x8-Bit	SPI/SCI/I2C	32 (12)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	7.12
511—	ST72F321R9T6	TQFP-64	60K	Flash	2K	-----	16x10-Bit	2x16-Bit, 1x8-Bit	SPI/SCI/I2C	48 (16)	WDG, RTC, ICP, IAP, nested interrupts, TLI, ROP, beep	8.56
Thru Hole												
511—	ST7FLITES2Y0B6	DIP-16	1K	Flash	128	-----	-----	2x8-Bit	SPI	13 (6)	WDG, RTC, 1% RC internal oscillator, PLL, ROP, ICP, IAP	1.50
511—	ST7FLITES5Y0B6	DIP-16	1K	Flash	128	-----	5x8-Bit	2x8-Bit	SPI	13 (6)	WDG, RTC, 1% RC internal oscillator, PLL, ROP, ICP, IAP	1.56
511—	ST7FLITE02Y0B6	DIP-16	1.5K	Flash	128	-----	-----	2x8-Bit	SPI	13 (6)	WDG, RTC, 1% RC, PLL, ROP, ICP, IAP	1.66
511—	ST7FLITE05Y0B6	DIP-16	1.5K	Ext. Flash	128	-----	5x8-Bit	1x8-Bit, 1x12-Bit	SPI	13 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	2.00
511—	ST7FLITE09Y0B6	DIP-16	1.5K	Ext. Flash	128	128	5x8-Bit	1x8-Bit, 1x12-Bit	SPI	13 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	2.28
511—	ST7FLITE10F1B6	DIP-20	4K	Flash	256	-----	7x10-Bit	2x8-Bit	SPI	15 (7)	WDG, RTC, PLL, 32MHz timer, auto wake-up from halt, ADC, with op amp, ROP, ICP, IAP, debug module	2.74
511—	ST7FLITE15F1B6	DIP-20	4K	Flash	256	-----	7x10-Bit	2x8-Bit	SPI	15 (7)	WDG, RTC, 1% RC internal RC oscillator, PLL, 32MHz timer, auto wake-up from halt, ADC with op amp, ROP, ICP, IAP, debug module	2.86
511—	ST7FLITE19F1B6	DIP-20	4K	Flash	256	128	7x10-Bit	2x8-Bit	SPI	15 (7)	WDG, RTC, 1% internal RC oscillator, PLL, 32MHz timer, auto wake-up from halt, ADC with op amp, ROP, ICP, IAP, debug module	3.12
511—	ST72C216G1B6	DIP-32	4K	Flash	256	-----	6x8-Bit	1x16-Bit	SPI	22 (8)	RC oscillator, clock security system, ISP, ROP	5.02
511—	ST72C254G1B6	DIP-32	4K	Flash	256	-----	6x8-Bit	2x16-Bit	SPI/I2C	22 (8)	RC oscillator, clock security system, ISP, ROP	6.28
511—	ST72C104G2B6	DIP-32	8K	Flash	256	-----	-----	1x16-Bit	SPI	22 (8)	RC oscillator, clock security system, ISP, ROP	5.02
511—	ST72C215G2B6	DIP-32	8K	Flash	256	-----	6x8-Bit	2x16-Bit	SPI	22 (8)	RC oscillator, clock security system, ISP, ROP	5.56
511—	ST72C254G2B6	DIP-32	8K	Flash	256	-----	6x8-Bit	2x16-Bit	SPI/I2C	22 (8)	RC oscillator, clock security system, ISP, ROP	6.66
511—	ST7FLITE20F2B6	DIP-20	8K	Flash EEPROM	384	256	7x10-Bit	2x8-Bit, 1x12-Bit	SPI/DALI	15 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	3.08
511—	ST7FLITE25F2B6	DIP-20	8K	Flash EEPROM	384	256	7x10-Bit	2x8-Bit, 1x12-Bit	SPI/DALI	15 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	3.20
511—	ST7FLITE29F2B6	DIP-20	8K	Flash EEPROM	384	256	7x10-Bit	2x8-Bit, 1x12-Bit	SPI/DALI	15 (6)	ADC with op amp, PLL, ROP, ICP, IAP, 1% RC oscillator	4.64
511—	ST72C334J2B6	DIP-42	8K	Flash	384	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	7.82
511—	ST72C314J4B6	DIP-42	16K	Flash	512	-----	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	7.50
511—	ST72C334J4B6	DIP-42	16K	Flash	512	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	9.38
511—	ST72C334N4B6	DIP-56	16K	Flash	512	256	8x8-Bit	2x16-Bit	SPI/SCI	32 (4)	RC oscillator, clock security system, ISP, ROP, SWG	10.64
511—	ST72F324J4B6	DIP-42	16K	Flash	512	-----	12x10-Bit	2x16-Bit	SPI/SCI	32 (12)	WDG, RTC, ICP, IAP, nested interrupt, TLI, ROP, beep	4.78
511—	ST72F324J6B6	DIP-42	32K	Flash	1K	-----	12x10-Bit	2x16-Bit	SPI/SCI	32 (12)	WDG, RTC, ICP, IAP, nested interrupt, TLI, ROP, beep	4.40