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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Atmel | SMART SAM3S Series MCU

ARM Cortex-M3 Flash Microcontroller Delivers High Integration and Low Power

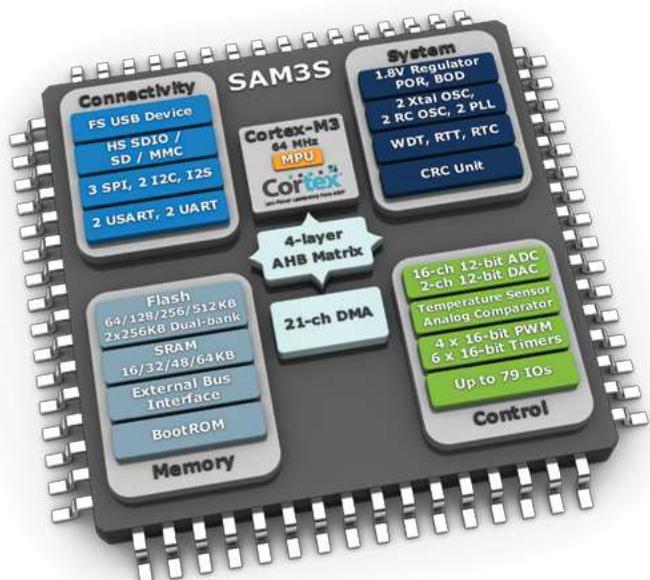


### Benefits

- ARM® Cortex®-M3 technology
- Pin-to-pin compatible with best-selling Atmel® | SMART SAM7S series MCU
- Highly-integrated peripheral set, including Full Speed USB device
- Native Atmel QTouch® capacitive touch support
- Low power consumption
- Simplified PCB design and low system cost
- Parallel input/output (I/O) signal capture
- Safety features

### Key Features

- 1.62V to 3.6V supply
- ARM Cortex-M3 rev 2.0 processor running at up to 64MHz
- Memory protection unit (MPU)
- Optional dual-bank Flash
- Native 4-layer AHB bus matrix, 21 DMA channels
- Embedded regulator, power-on reset, brown-out detection and multiple clock sources, including 32kHz oscillator and factory-trimmed RC
- High-speed peripherals, including USB2.0 FS device, HS SD/SDIO/MMC, USART, SPI
- Up to 16-channel 12-bit 1Msps ADC with PGA stage and differential inputs, 2-channel 12-bit 1Msps DAC, analog comparator
- Powerful and flexible 16-bit timers with quadrature decoder and gray counter. Powerful PWM unit, calendar RTC, watchdog timer
- Power consumption 2.3mW@1MHz, 1.3mW@500kHz, backup mode down to 1.8µA
- ECC on Flash, independent watchdog, dual-bank Flash, clock failure detection. On-the-fly external memory scrambling.
- 8-bit parallel data capture on PIO controller
- Up to 79 I/O lines with integrated serial resistors (on-die termination)
- 48-, 64- and 100-pin packages



### Application Areas

- Consumer goods and toys
- Industrial control
- Metering
- Medical
- Test and measurement
- 802.15.4 wireless networking
- PC, cell phone, gaming peripherals



# Atmel | SMART SAM3S Series MCU

## ARM Cortex-M3 Flash Microcontroller Delivers High Integration and Low Power

### Evaluation Kit and Ecosystem

- Full-featured evaluation board and software library
- Atmel BitCloud® (ZigBee PRO) stack available
- QTouch library support for buttons, sliders and wheels
- Worldwide support ecosystem of industry-leading suppliers of development tools, real-time operating systems and middleware products
- **Kit Ordering Code ATSAM3S-EK2**



### Device Ordering Information

Ordering Code	Flash	Package
ATSAM3S8CA-AU	512kB	LQFP100
ATSAM3S8CA-CU	512kB	BGA100
ATSAM3S8BA-AU	512kB	LQFP64
ATSAM3S8BA-MU	512kB	QFN64
ATSAM3SD8CA-AU	512kB*	LQFP100
ATSAM3SD8CA-CU	512kB*	BGA100
ATSAM3SD8BA-AU	512kB*	LQFP64
ATSAM3SD8BA-MU	512kB*	QFN64
ATSAM3S4CA-AU	256kB	LQFP100
ATSAM3S4CA-CU	256kB	BGA100
ATSAM3S4BA-AU	256kB	LQFP64
ATSAM3S4BA-MU	256kB	QFN64
ATSAM3S4AA-AU	256kB	LQFP48

\* 2x256kB dual-bank Flash

Ordering Code	Flash	Package
ATSAM3S4AA-MU	256kB	QFN48
ATSAM3S2CA-AU	128kB	LQFP100
ATSAM3S2CA-CU	128kB	BGA100
ATSAM3S2BA-AU	128kB	LQFP64
ATSAM3S2BA-MU	128kB	QFN64
ATSAM3S2AA-AU	128kB	LQFP48
ATSAM3S2AA-MU	128kB	QFN48
ATSAM3S1CA-AU	64kB	LQFP100
ATSAM3S1CA-CU	64kB	BGA100
ATSAM3S1BA-AU	64kB	LQFP64
ATSAM3S1BA-MU	64kB	QFN64
ATSAM3S1AA-AU	64kB	LQFP48
ATSAM3S1AA-MU	64kB	QFN48



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