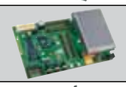
Atmel Evaluation Kits

Ordering Code	Supported Device	Photos
ATSAM3N-EK	SAM3N4, SAM3N2, SAM3N1	
ATSAM3S-EK	SAM3S4, SAM3S2, SAM3S1	
ATSAM3U-EK	SAM3U4, SAM3U2, SAM3U1	
AT91SAM7L-STK	SAM7L64, SAM7L128	
AT91SAM7S-EK	SAM7S16, SAM7S32, SAM7S64, SAM7S256, SAM7S161, SAM7S321, SAM7S128, SAM7S512	
AT91SAM7SE-EK	SAM7SE32, SAM7SE256 SAM7SE512	
AT91SAM7X-EK	SAM7X128, SAM7X256, SAM7X512	
AT91SAM9G20-EK	SAM9G20	
AT91SAM9260-EK	SAM9260	
AT91SAM9XE-EK	SAM9XE128, SAM9XE256, SAM9XE512	
AT91SAM9261-EK	SAM9261	
AT91SAM9G10-EK	SAM9G10	
AT91SAM9263-EK	SAM9263	
AT91SAM9RL-EK	SAM9RL64, SAM9R64	
AT91SAM9M10-G45-EK	SAM9M10, SAM9G45	
AT91SAM9G15-EK	SAM9G15	
AT91SAM9G25-EK	SAM9G25	
AT91SAM9G35-EK	SAM9G35	
AT91SAM9X25-EK	SAM9X25	
AT91SAM9X35-EK	SAM9X35	
AT91SAM-ICE	All products	

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Atmel AT91SAM

One-stop shop for ARM-based Microcontrollers



ARM POWERED

Atmel 32-bit Flash-based ARM Microcontrollers

Product Name	ARM Core	MMU / MPU	Clock Speed (MHz)*	SRAM (Bytes)	Cache Memory (Bytes)	Flash (Bytes)	External Bus Interface	SDRAM Interface	NAND Flash / ECC	DMA Channels	Parallel I/O Capture	UART	SPI / TWI / SSC	MCI	SDIO	CAN	USB Device (Full/High Speed)	USB Host (Full/High Speed)	Ethernet MAC 10/100	LCD Controller & Drivers	Triple DES Engine	AES Engine (Bits)	Image Sensor Interface	16-bit Timers	PWM Controller	RTC / RTT	10-bit ADC Channel	12-bit ADC Channel	On-chip RC Oscillator	Crystal Oscillator / PLL	I/O Pins	I/O Voltage domain (V)	Package	Status
SAM3N1A	Cortex-M3	-	48	8K	-	64K	-	-	-	9	-	3	2/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	8	-	2	2/1	34	1.62/3.6	QFP48/QFN48	P
SAM3N2A	Cortex-M3	-	48	16K	-	128K	-	-	-	9	-	3	2/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	8	-	2	2/1	34	1.62/3.6	QFP48/QFN48	P
SAM3N4A	Cortex-M3	-	48	24K	-	256K	-	-	-	9	-	3	2/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	8	-	2	2/1	34	1.62/3.6	QFP48/QFN48	P
SAM3N1B	Cortex-M3	-	48	8K	-	64K	-	-	-	10	-	4	3/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	10	-	2	2/1	47	1.62/3.6	QFP64/QFN64	P
SAM3N2B	Cortex-M3	-	48	16K	-	128K	-	-	-	10	-	4	3/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	10	-	2	2/1	47	1.62/3.6	QFP64/QFN64	P
SAM3N4B	Cortex-M3	-	48	24K	-	256K	-	-	-	10	-	4	3/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	10	-	2	2/1	47	1.62/3.6	QFP64/QFN64	P
SAM3N1C	Cortex-M3	-	48	8K	-	64K	-	-	-	10	-	4	3/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	16	-	2	2/1	79	1.62/3.6	QFP100/BGA100	P
SAM3N2C	Cortex-M3	-	48	16K	-	128K	-	-	-	10	-	4	3/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	16	-	2	2/1	79	1.62/3.6	QFP100/BGA100	P
SAM3N4C	Cortex-M3	-	48	24K	-	256K	-	-	-	10	-	4	3/2/-	-	-	-	-	-	-	-	-	-	6	4	1/1	16	-	2	2/1	79	1.62/3.6	QFP100/BGA100	P
SAM3S1A	Cortex-M3	-/1	64	16K	-	64K	-	-	-	18	Y	3	2/2/1	-	-	-	FS	-	-	-	-	-	-	3	4	1/1	-	8	2	2/2	34	1.62/3.6	QFP48/QFN48	P
SAM3S2A	Cortex-M3	-/1	64	32K	-	128K	-	-	-	18	Y	3	2/2/1	-	-	-	FS	-	-	-	-	-	-	3	4	1/1	-	8	2	2/2	34	1.62/3.6	QFP48/QFN48	P
SAM3S4A	Cortex-M3	-/1	64	48K	-	256K	-	-	-	18	Y	3	2/2/1	-	-	-	FS	-	-	-	-	-	-	3	4	1/1	-	8	2	2/2	34	1.62/3.6	QFP48/QFN48	P
SAM3S1B	Cortex-M3	-/1	64	16K	-	64K	-	-	-	23	Y	4	3/2/1	1	Y	-	FS	-	-	-	-	-	-	3	4	1/1	-	10	2	2/2	47	1.62/3.6	QFP64/QFN64	P
SAM3S2B	Cortex-M3	-/1	64	32K	-	128K	-	-	-	23	Y	4	3/2/1	1	Y	-	FS	-	-	-	-	-	-	3	4	1/1	-	10	2	2/2	47	1.62/3.6	QFP64/QFN64	P
SAM3S4B	Cortex-M3	-/1	64	48K	-	256K	-	-	-	23	Y	4	3/2/1	1	Y	-	FS	-	-	-	-	-	-	3	4	1/1	-	10	2	2/2	47	1.62/3.6	QFP64/QFN64	P
SAM3S1C	Cortex-M3	-/1	64	16K	-	64K	1	-	1/-	23	Y	4	3/2/1	1	Y	-	FS	-	-	-	-	-	-	6	4	1/1	-	16	2	2/2	79	1.62/3.6	QFP100/BGA100	P
SAM3S2C	Cortex-M3	-/1	64	32K	-	128K	1	-	1/-	23	Y	4	3/2/1	1	Y	-	FS	-	-	-	-	-	-	6	4	1/1	-	16	2	2/2	79	1.62/3.6	QFP100/BGA100	P
SAM3S4C	Cortex-M3	-/1	64	48K	-	256K	1	-	1/-	23	Y	4	3/2/1	1	Y	-	FS	-	-	-	-	-	-	6	4	1/1	-	16	2	2/2	79	1.62/3.6	QFP100/BGA100	P
SAM3U1C	Cortex-M3	-/1	96	20K	-	64K	1	-	1/1	18	-	4	4/1/1	1	Y	-	HS	-	-	-	-	-	-	3	4	1/1	4	4	2	2/2	57	1.62/3.6	QFP100/BGA100	P
SAM3U2C	Cortex-M3	-/1	96	36K	-	128K	1	-	1/1	18	-	4	4/1/1	1	Y	-	HS	-	-	-	-	-	-	3	4	1/1	4	4	2	2/2	57	1.62/3.6	QFP100/BGA100	P
SAM3U4C	Cortex-M3	-/1	96	52K	-	256K	1	-	1/1	18	-	4	4/1/1	1	Y	-	HS	-	-	-	-	-	-	3	4	1/1	4	4	2	2/2	57	1.62/3.6	QFP100/BGA100	P
SAM3U1E	Cortex-M3	-/1	96	20K	-	64K	1	-	1/1	22	-	5	5/2/1	1	Y	-	HS	-	-	-	-	-	-	3	4	1/1	8	8	2	2/2	96	1.62/3.6	QFP144/BGA144	P
SAM3U2E	Cortex-M3	-/1	96	36K	-	128K	1	-	1/1	22	-	5	5/2/1	1	Y	-	HS	-	-	-	-	-	-	3	4	1/1	8	8	2	2/2	96	1.62/3.6	QFP144/BGA144	P
SAM3U4E	Cortex-M3	-/1	96	52K	-	256K	1	-	1/1	22	-	5	5/2/1	1	Y	-	HS	-	-	-	-	-	-	3	4	1/1	8	8	2	2/2	96	1.62/3.6	QFP144/BGA144	P
SAM7L64	7TDMI	-	36	6K	-	64K	-	-	-	11	-	3	1/1/-	-	N	-	-	-	-	1	-	-	-	3	4	1/-	4	-	2	1/1	80	1.8/3.6	QFP128/BGA144	P
SAM7L128	7TDMI	-	36	6K	-	128K	-	-	-	11	-	3	1/1/-	-	N	-	-	-	-	1	-	-	-	3	4	1/-	4	-	2	1/1	80	1.8/3.6	QFP128/BGA144	P
SAM7S16	7TDMI	-	55	4K	-	16K	-	-	-	9	-	2	1/1/1	-	N	-	-	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	21	1.8/3.3	QFP48/QFN48	P
SAM7S161	7TDMI	-	55	4K	-	16K	-	-	-	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	32	1.8 3.3	QFP64	P
SAM7S32	7TDMI	-	55	8K	-	32K	-	-	-	9	-	2	1/1/1	-	N	-	-	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	21	1.8/3.3	QFP48/QFN48	P
SAM7S321	7TDMI	-	55	8K	-	32K	-	-	-	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	32	1.8/3.3	QFP64/QFN64	P
SAM7S64	7TDMI	-	55	16K	-	64K	-	-	-	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	32	1.8/3.3	QFP64/QFN64	P
SAM7S128	7TDMI	-	55	32K	-	128K	-	-	-	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	32	1.8/3.3	QFP64/QFN64	P
SAM7S256	7TDMI	-	55	64K	-	256K	-	-	-	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	32	1.8/3.3	QFP64/QFN64	P
SAM7S512	7TDMI	-	55	64K	-	512K	-	-	-	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	32	1.8/3.3	QFP64/QFN64	P
SAM7SE32	7TDMI	-/1	55	8K	-	32K	1	1	1/1	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	88	1.8/3.3	QFP128/BGA144	P
SAM7SE256	7TDMI	-/1	55	32K	-	256K	1	1	1/1	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	88	1.8/3.3	QFP128/BGA144	P
SAM7SE512	7TDMI	-/1	55	32K	-	512K	1	1	1/1	11	-	3	1/1/1	-	N	-	FS	-	-	-	-	-	-	3	4	-/1	8	-	1	1/1	88	1.8/3.3	QFP128/BGA144	P
SAM7X128	7TDMI	-	55	32K	-	128K	-	-	-	13	-	3	2/1/1	-	N	1	FS	-	1	-	-	-	-	3	4	-/1	8	-	1	1/1	62	3.3	QFP100/BGA100	P
SAM7X256	7TDMI	-	55	64K	-	256K	-	-	-	13	-	3	2/1/1	-	N	1	FS	-	1	-	-	-	-	3	4	-/1	8	-	1	1/1	62	3.3	QFP100/BGA100	P
SAM7X512	7TDMI	-	55	128K	-	512K	-	-	-	13	-	3	2/1/1	-	N	1	FS	-	1	-	-	-	-	3	4	-/1	8	-	1	1/1	62	3.3	QFP100/BGA100	P
SAM7XC128	7TDMI	-	55	32K	-	128K	-	-	-	17	-	3	2/1/1	-	N	1	FS	-	1	-	1	128	-	3	4	-/1	8	-	1	1/1	62	3.3	QFP100/BGA100	P
SAM7XC256	7TDMI	-	55	64K	-	256K	-	-	-	17	-	3	2/1/1	-	N	1	FS	-	1	-	1	128	-	3	4	-/1	8	-	1	1/1	62	3.3	QFP100/BGA100	P
SAM7XC512	7TDMI	-	55	128K	-	512K	-	-	-	17	-	3	2/1/1	-	N	1	FS	-	1	-	1	256	-	3	4	-/1	8	-	1	1/1	62	3.3	QFP100/BGA100	P
SAM9XE128	926EJ-S	1/-	180	16K	16K+8K	128K	1	1	1/1	24	-	6	2/2/1	1	Y	-	FS	2 FS	1	-	-	-	1	6	-	-/1	4	-	1	2/2	96	1.8/3.3	QFP208/BGA217	P
SAM9XE256	926EJ-S	1/-	180	32K	16K+8K	256K	1	1	1/1	24	-	6	2/2/1	1	Y	-	FS	2 FS	1	-	-	-	1	6	-	-/1	4	-	1	2/2	96	1.8/3.3	QFP208/BGA217	P
SAM9XE512	926EJ-S	1/-	180	32K	16K+8K	512K	1	1	1/1	24	-	6	2/2/1	1	Y	-	FS	2 FS	1	-	-	-	1	6	-	-/1	4	-	1	2/2	96	1.8/3.3	QFP208/BGA217	P

Atmel 32-bit Embedded ARM Microprocessors

Product Name	ARM Core	Cache Memory (Bytes)	Clock Speed (MHz)*	SRAM (Bytes)	External Bus Interface	SDRAM Interface	LPDDR / DDR2 Interface	NAND Flash / SLC ECC / MLC ECC	DMA Channels	UART	SPI / TWI / SSC	MCI	SDIO	e•MMC	CAN	USB Device (Full/High Speed)	USB Host (Full/High Speed)	Ethernet MAC 10/100	LCD Controller	R-Touch	Video Decoder	Triple DES / SHA / AES / TRNG	Image Sensor Interface	16-bit Timers	32-bit Timers	PWM Controller	Watchdog Timer	RTC / RTT	10-bit ADC Channel	Power-On Reset	On-chip RC Oscillator	Crystal Oscillator / PLL	High Current Pads	Slew Rate Control I/O	I/O Pins	I/O Voltage domain (V)	Packages	Status
SAM9G20	926EJ-S	2x32K	400	2x16K	1	1	-	1/1/0	28	7	2/1/1	1	Y	-	-	FS	2 FS	1	-	-	-	-	1	6	-	-	1	-/1	4	2	1	2/2	3	Y	96	1.8/3.3	BGA217/BGA247	P
SAM9260	926EJ-S	2x8K	210	2x4K	1	1	-	1/1/0	26	7	2/1/1	1	Y	-	-	FS	2 FS	1	-	-	-	-	1	6	-	-	1	-/1	4	2	1	2/2	3	N	96	1.8/3.3	QFP208/BGA217	P
SAM9261	926EJ-S	2x16K	240	160K	1	1	-	1/1/0	21	4	2/1/3	1	N	-	-	FS	2 FS	-	1	-	-	-	-	3	-	-	1	-/1	-	2	-	2/2	-	N	96	1.8/3.3	BGA217	P
SAM9G10	926EJ-S	2x16K	266	16K	1	1	-	1/1/0	21	4	2/1/3	1	Y	-	-	FS	2 FS	-	1	-	-	-	-	3	-	-	1	-/1	-	2	-	2/2	-	Y	96	1.8/3.3	BGA217	P
SAM9263	926EJ-S	2x16K	240	96K	2	2	-	2/2/0	28	4	2/1/2	2	Y	-	1	FS	2 FS	1	1	-	-	-	1	3	-	4	1	-/2	-	2	-	2/2	-	N	160	1.8/3.3	BGA324	P
SAM9R64	926EJ-S	2x4K	240	64K	1	1	-	1/1/0	21	5	1/1/1	1	Y	-	-	HS	-	-	-	-	-	-	-	3	-	3	1	1/1	3	2	1	2/2	-	N	49	1.8/3.3	BGA144	P
SAM9RL64	926EJ-S	2x4K	240	64K	1	1	-	1/1/0	26	5	1/2/2	1	Y	-	-	HS	-	-	1	Y	-	-	-	3	-	4	1	1/1	6	2	1	2/2	-	N	118	1.8/3.3	BGA217	P
SAM9G45	926EJ-S	2x32K	400	64K	2	1	Y	1/1/0	35	5	6/2/2	2	Y	Y	-	HS	2 HS	1	1	Y	-	-	1	6	-	4	1	1/	8	2	1	2/2	-	Y	160	1.8/3.3	BGA324	P
SAM9G46	926EJ-S	2x32K	400	64K	2	1	Y	1/1/0	38	5	6/2/2	2	Y	Y	-	HS	2 HS	1	1	Y	-	Y	1	6	-	4	1	1/1	8	2	1	2/2	-	Y	160	1.8 /3.3	BGA324	P
SAM9M10	926EJ-S	2x32K	400	64K	2	1	Y	1/1/0	36	5	6/2/2	2	Y	Y	-	HS	2 HS	1	1	Y	1	-	1	6	-	4	1	1/1	8	2	1	2/2	-	Y	160	1.8/3.3	BGA324	P
SAM9M11	926EJ-S	2x32K	400	64K	2	1	Y	1/1/0	39	5	6/2/2	2	Y	Y	-	HS	2 HS	1	1	Y	1	Y	1	6	-	4	1	1/1	8	2	1	2/2	-	Y	160	1.8/3.3	BGA324	P
SAM9G15	926EJ-S	2x16K	400	32K	1	1	Y	1/1/1	20	6	2/3/1	2	Y	-	-	HS	1HS, 1FS	-	1	Y	-	-	-	-	6	4	1	1/-	12	2	2	2/2	-	Y	105	1.8/3.3	BGA217	P
SAM9G25	926EJ-S	2x16K	400	32K	1	1	Y	1/1/1	21	7	2/3/1	2	Y	-	-	HS	1HS, 1FS	1	-	-	-	-	1	-	6	4	1	1/-	12	2	2	2/2	-	Y	105	1.8/3.3	BGA217/BGA247	P
SAM9G35	926EJ-S	2x16K	400	32K	1	1	Y	1/1/1	21	6	2/3/1	2	Y	-	-	HS	1HS, 1FS	1	1	Y	-	-	-	-	6	4	1	1/-	12	2	2	2/2	-	Y	105	1.8/3.3	BGA217	P
SAM9X25	926EJ-S	2x16K	400	32K	1	1	Y	1/1/1	21	7	2/3/1	2	Y	-	2	HS	1HS, 1FS	2	-	-	-	-	-	-	6	4	1	1/-	12	2	2	2/2	-	Y	105	1.8/3.3	BGA217	P
SAM9X35	926EJ-S	2x16K	400	32K	1	1	Y	1/1/1	21	6	2/3/1	2	Y	-	2	HS	1HS, 1FS	1	1	Y	-	-	-	-	6	4	1	1/-	12	2	2	2/2	-	Y	105	1.8/3.3	BGA217	P

UART: Support for RS485, ISO7816, IrDA, modem control lines and SPI on selected UARTs.

DBGU: Debug Unit provides single entry to all debug capabilities as well as UART function.

TWI: Two Wire Interface, interconnects components on a two-wire bus.

SSC: Serial Synchronous Controller, supports many serial synchronous communications protocols used in audio and telecom applications such as I2S, short or long frame sync.

16-bit Timers: Capture/Compare, Waveform generation and PWM modes.

ECC: Error Corrected Code controller.

* Clock Speed: Max clock speed @ +85°C.

ISI: Image Sensor Interface for CMOS-type image sensor, ITU-R BT. 601/656 External Interface, Programmable Frame Capture Rate, up to 12-bit Data Interface, SAV and EAV Synchronization, Preview Path with Scaler, YCbCr Format.

LCD Controller: Supports STN & TFT displays, up to 16-bits per Pixel in STN Color Mode, up to 16M Colors in TFT Mode.

Video Decoder: Hardware video decoding & Image Post Processing : H.264, MPEG4, H.263, MPEG2, JPEG.

MCI: Multimedia Card Interface (SDCard, MMC).

e•MMC™: MLC NandFlash supported through MMC interface.

Status: (D)evelopment, (S)ampling, (P)roduction.

Peripheral implementation may vary among products, please consult individual product datasheet for detailled description