



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	



Atmel Corporation 2325 Orchard Parkway San Jose, CA 95131 USA Tel: (+1)(408) 441-0311 Fax: (+1)(408) 487-2600 www.atmel.com	Atmel Asia Limited Unit 01-5 & 16, 19F BEA Tower, Millennium City 5 418 Kwun Tong Road Kwun Tong, Kowloon HONG KONG Tel: (+852) 2245-6100 Fax: (+852) 2722-1369	Atmel Munich GmbH Business Campus Parkring 4 D-85748 Garching b. Munich GERMANY Tel: (+49) 89-31970-0 Fax: (+49) 89-3194621	Atmel Japan 9F, Tonetsu Shinkawa Bldg. 1-24-8 Shinkawa Chuo-ku, Tokyo 104-0033 JAPAN Tel: (+81)(3) 3523-3551 Fax: (+81)(3) 3523-7581
--	---	--	---

© 2011 Atmel Corporation. All rights reserved. / Rev.: 6280I-A4-E-08/11

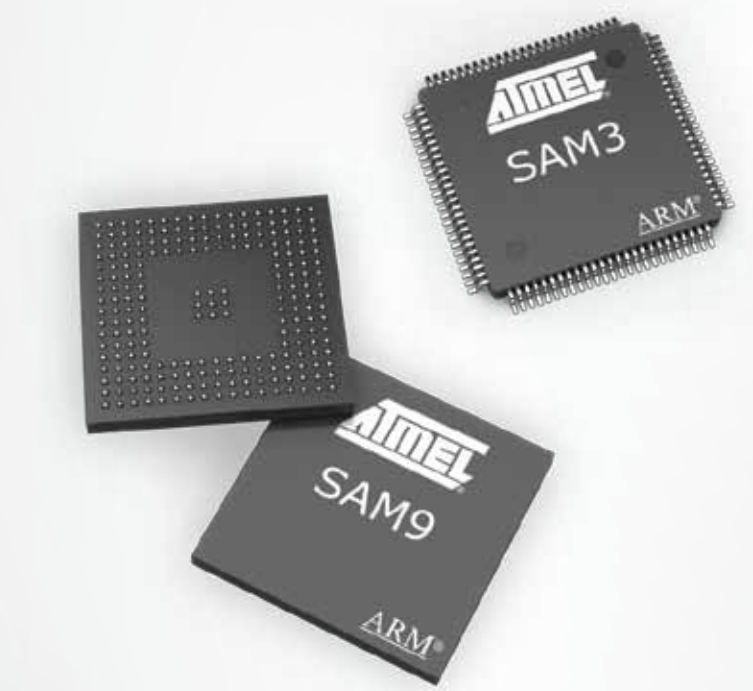
Atmel®, Atmel logo and combinations thereof, and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. ARM®, ARMPowered® logo and others are registered trademarks or trademarks of ARM Ltd. Other terms and product names maybe trademarks of others.

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. EXCEPT AS SET FORTH IN THE ATMEL TERMS AND CONDITIONS OF SALES LOCATED ON THE ATMEL WEBSITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and products descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.



Atmel AT91SAM

One-stop shop for ARM-based Microcontrollers





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	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	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	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	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	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	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	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	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	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	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	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																

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	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	BGA127	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	1/1	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	