



Video	Timer					Analogue I/O					Oscillators			Supply			Miscellaneous						
LCD Controller	16-bit Timers	PWM Controller	System Timer	Watchdog Timer	RTT	RTC	10-bit ADC	10-bit DAC	I/O Pins	High-Current-Pads	Brown Out Detection	Power On Reset	RC Oscillator	Cryst. Oscillator/PLL	PGM Clock Out	Vcc Core (V)	Vcc I/O (V)	Process Technology	Package	SAM-BA Support	Starter Kit	Status Q1 2006	Pin Compatible with
-	2	4	1	y	y	-	8	-	21	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP48	y	AT91SAM7S-EK	P	-
-	3	4	1	y	y	-	8	-	32	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP64	y		S	SAM7S321,64,128,256,512
-	3	4	1	y	y	-	8	-	32	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP64	y		P	SAM7S321,64,128,256,512
-	3	4	1	y	y	-	8	-	32	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP64	y		P	SAM7S321,64,128,256,512
-	3	4	1	y	y	-	8	-	32	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP64	y		P	SAM7S321,64,128,256,512
-	3	4	1	y	y	-	8	-	32	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP64	y		D	SAM7S321,64,128,256,512
-	3	4	1	y	y	-	8	-	94	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP128	y	AT91SAM7SE-EK	D	SAM7SE256,512
-	3	4	1	y	y	-	8	-	94	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP128	y		D	SAM7SE256,512
-	9	4	-	y	-	-	8	-	49	-	-	-	-	2/1	-	3.0-3.6	3.0-5.5	0.18μ	QFP144	-	AT91SAM7A1-EK	P	-
-	10	4	-	y	-	-	16	-	57	-	-	-	-	2/1	-	3.0-3.6	3.0-5.5	0.18μ	QFP176	-	AT91SAM7A2-EK	P	-
-	9	8	1	y	y	-	16	-	62	-	-	y	-	1/1	4	3.0-3.6	-	0.18μ	QFP100	-	AT91SAM7A3-EK AT91SAM7A3-Startup Paket	P	-
-	3	4	1	y	y	-	8	-	60	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP100	y	AT91SAM7X-EK	S	SAM7X(C) 32/256/512
-	3	4	1	y	y	-	8	-	60	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP100	y		S	SAM7X(C) 32/256/512
-	3	4	1	y	y	-	8	-	60	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP100	y	AT91SAM7XC-EK AT91SAM7A3-Startup Paket	S	SAM7X(C) 32/256/512
-	3	4	1	y	y	-	8	-	60	4	y	y	y	1/1	3	3.0-3.6	-	0.18μ	QFP100	y		S	SAM7X(C) 32/256/512
-	3	-	-	y	-	-	-	-	32	-	-	-	-	-	-	1.8-3.6	-	0.35μ	QFP100	-	AT91EB40A	P	-
-	3	-	-	y	-	-	-	-	32	-	-	-	-	-	-	1.65-1.95	2.7-3.6	0.18μ	QFP100	-		P	-
-	3	-	-	y	-	-	-	-	32	-	-	-	-	-	-	1.65-1.95	2.7-3.6	0.18μ	BGA121	-		P	AT91FR4042, AT91FR40162
-	6	-	1	y	y	-	-	-	54	-	-	-	-	1/2	1	2.7-3.6	2.7-5.5	0.35μ	QFP144 BGA144	-	AT91EB42	P	-
-	6	-	-	y	-	y	2x4	2	58	-	-	-	-	2/1	1	2.7-3.6	2.7-5.5	0.35μ	QFP176 BGA176	-	AT91EB55	P	-
-	6	-	1	y	y	y	-	-	63	-	-	-	-	2/2	4	1.65-1.95	1.65-3.6	0.18μ	QFP100	-	AT91RM3400-DK	P	-
-	6	-	1	y	y	y	-	-	94	-	-	-	-	2/2	4	1.65-1.95	1.65-3.6	0.18μ	QFP208 BGA256	-	AT91RM9200-EK	P	-
-	6	-	1	y	y	-	4	-	96	3	-	y	-	2/2	2	1.65-1.95	1.65-3.6	0.18μ	QFP208 BGA217	y	AT91RM9260-EK	D	-
1	3	-	1	y	y	-	-	-	96	-	-	y	-	2/2	4	1.08-1.32	1.65-3.6	0.13μ	BGA217	y	AT91RM9261-EK	S	-

TWI:

SSC:

MCI:

16-bit Timers:

PDC:

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

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

Multimedia Card Interface, supports the Multimedia Card specification V2.2 and the SD Memory Card specification V1.0

Capture/Compare, Waveform generation and PWM modes.

Peripheral DMA Controller, transfers data between on-chip USART, SSC, SPI, MCI, ADC and the on and off-chip memories without CPU intervention.

LCD Controller:

Supports Passive or Active Displays

- Up to 16-bits per Pixel in STN Color Mode
- Up to 16M Colors in TFT Mode (24-bit per Pixel), Resolution up to 2048 x 2048

AES/3DES:

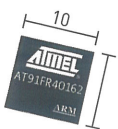
Hardware encryption with PDCs, Export restrictions may apply

Status:

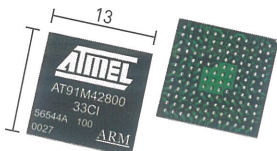
(D)evelopment, (S)ampling, (P)roduction

SAM-BA:

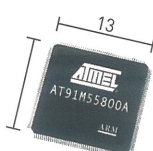
Free-of-charge Flash programming solution



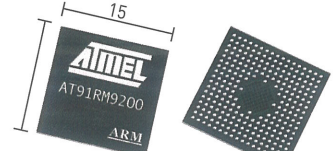
TFBGA121
Bs: 10 x 10 mm
Th: 1.2 mm
P: 0.8 mm



LFBGA144
Bs: 13 x 13 mm
Th: 1.4 mm
P: 1.0 mm



LFBGA176
Bs: 13 x 13 mm
Th: 1.5 mm
P: 0.8 mm



LFBGA256
Bs: 15 x 15 mm
Th: 1.25 mm
P: 0.8 mm