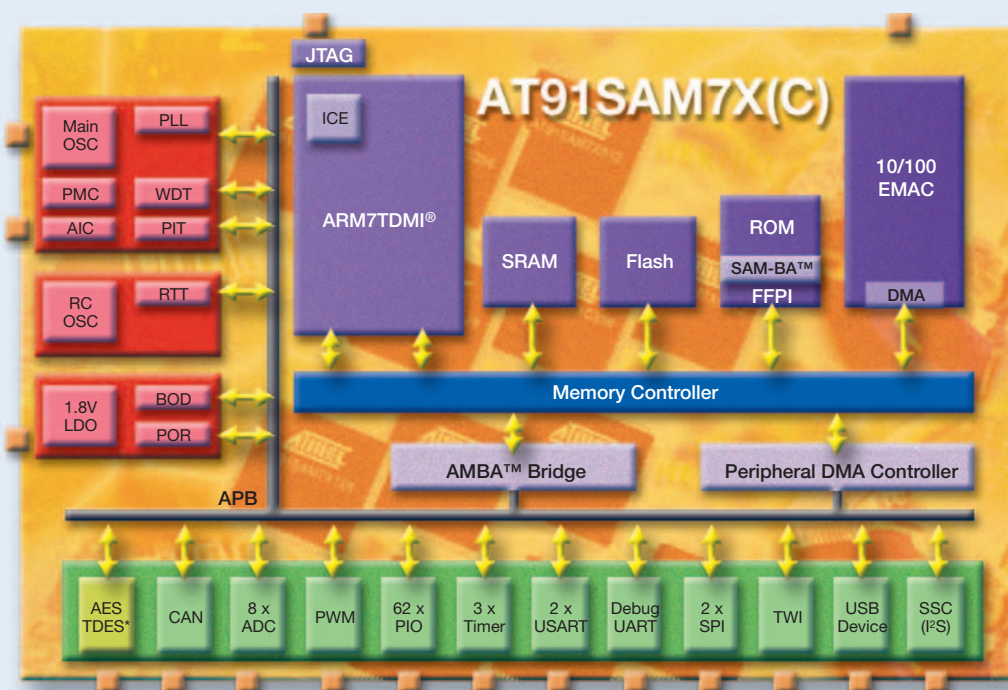


➔ AT91SAM7X and AT91SAM7XC ARM Microcontrollers For Real-time Ethernet Networking

Atmel's AT91SAM7X and AT91SAM7XC 32-bit microcontrollers are designed for extensively networked, real-time embedded control applications that require USB, Ethernet and CAN. Based on the industry-standard ARM7TDMI® core, the AT91SAM7X(C) boosts performance via deterministic processing, ensuring high-speed communication with low CPU overhead. For applications requiring maximum security for streaming content, the AT91SAM7XC integrates crypto co-processors.

- 55 MHz, 50 MIPS
- 25 ns internal Flash with sector lock capabilities and hardware chip lock
- Single-cycle access SRAM at maximum operating frequency
- USB (Full speed 2.0), configurable Ethernet MAC, CAN Controller
- SPIs, USARTs, SSC (I²S), TWI, 10-bit A/D converter
- 11-channel DMA engine between peripherals and on-chip memory (PDC)
- System Controller includes Advanced Interrupt Controller, Brownout Detector, Power-On-Reset, Watchdog Timer, Real Time Timer, RC Oscillator
- AT91SAM7XC integrates AES and TDES with encryption rates of up to 80 Mbps
- Green 100-lead LQFP (16x16x1.6 mm) and 100-ball TFBGA (9x9x1.1 mm) packaging options
- Atmel and industry leading third-party development tools and low-priced evaluation boards



*AES/TDES available on AT91SAM7XC only.



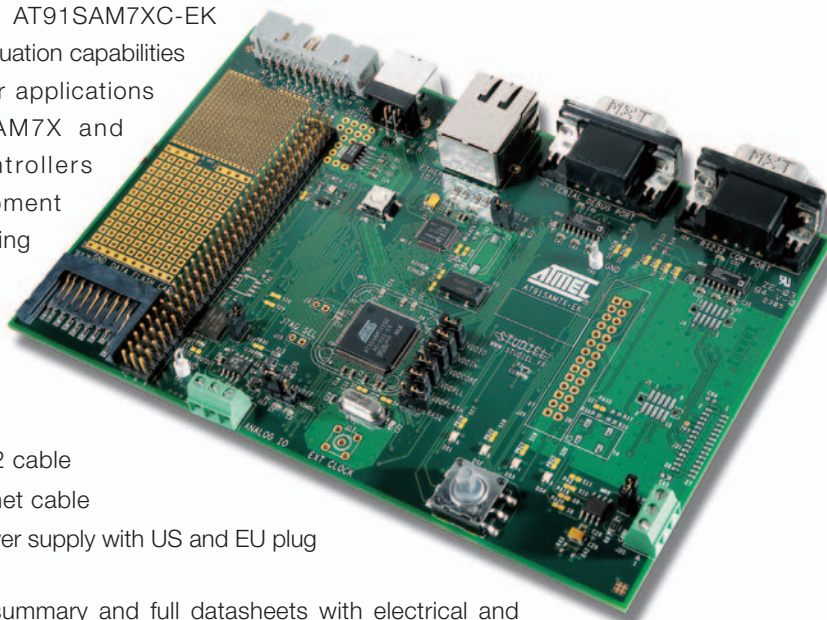
➤ AT91SAM7X and AT91SAM7XC ARM Microcontrollers

For Real-time Ethernet Networking

The AT91SAM7X-EK and AT91SAM7XC-EK development kits enable evaluation capabilities and code development for applications running on the AT91SAM7X and AT91SAM7XC microcontrollers respectively. The development kit package contains following items:

- an AT91SAM7X or AT91SAM7XC Evaluation Board
- one A/B-type USB cable
- one crossed serial RS232 cable
- one RJ45 crossed Ethernet cable
- universal input AC/DC power supply with US and EU plug adapter
- a DVD-ROM containing summary and full datasheets with electrical and mechanical characteristics, application notes and getting started documents for all AT91 microcontrollers. An AT91 software package with C and Assembly listings is also provided. All this allows a user to begin evaluating an AT91 ARM® Thumb® 32-bit microcontroller quickly and easily.
- more information on tools and software is available on:

http://www.atmel.com/dyn/products/tools.asp?family_id=605



Headquarters
Atmel Corporation
 2325 Orchard Parkway
 San Jose, CA 95131, USA
 Tel.: (1)408 441-0311
 Fax: (1)408 487-2600

International
Atmel Asia
 Room 1219
 Chinachem Golden Plaza
 77 Mody Road Tsimshatsui
 East Kowloon
 Hong Kong
 Tel.: (852) 2721-9778
 Fax: (852) 2722-1369

Atmel Europe
 Le Krebs
 8, rue Jean-Pierre Timbaud
 BP 309
 78054 Saint-Quentin-en-Yvelines
 Cedex France
 Tel.: (33) 1-30-60-70-00
 Fax: (33) 1-30-60-71-11

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

Product Contact
 Zone Industrielle
 13106 Rousset Cedex
 France
 Tel.: (33) 442-53-6000
 Fax: (33) 442-53-6001

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Rev.: 6262B-ATARM-04/07/5M

| Open Source Software Offering | Commercial Software Offering | | |
|-------------------------------|------------------------------|-----------|-----------|
| FreeRTOS™ | µC/OS-II | EmbOS | RTL-ARM |
| NUT/OS | Tiny+ | Nucleus | MQX™ RTOS |
| eCOS | ThreadX® | AMX™ RTOS | RTXC™ |
| | eCosPro™ | smx® | Salvo™ |
| | IAR PowerPac™ | | |

| Product | Flash | SRAM | Package | Ordering Code | Green Compliance |
|---------------|--------|--------|---------|---------------------------------|------------------|
| AT91SAM7X512 | 512 KB | 128 KB | LQFP100 | AT91SAM7X512-AU | Yes |
| | | | BGA100 | AT91SAM7X512-CU | Yes |
| AT91SAM7XC512 | 512 KB | 128 KB | LQFP100 | AT91SAM7XC512-AU ⁽¹⁾ | Yes |
| | | | BGA100 | AT91SAM7XC512-CU ⁽¹⁾ | Yes |
| AT91SAM7X256 | 256 KB | 64 KB | LQFP100 | AT91SAM7X256-AU | Yes |
| | | | BGA100 | AT91SAM7X256-CU | Yes |
| AT91SAM7XC256 | 256 KB | 64 KB | LQFP100 | AT91SAM7XC256-AU ⁽¹⁾ | Yes |
| | | | BGA100 | AT91SAM7XC256-CU ⁽¹⁾ | Yes |
| AT91SAM7X128 | 128 KB | 32 KB | LQFP100 | AT91SAM7X128-AU | Yes |
| | | | BGA100 | AT91SAM7X128-CU | Yes |
| AT91SAM7XC128 | 128 KB | 32 KB | LQFP100 | AT91SAM7XC128-AU ⁽¹⁾ | Yes |
| | | | BGA100 | AT91SAM7XC128-CU ⁽¹⁾ | Yes |

(1) Contains crypto hardware. Export restrictions may apply.

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