

➤ AT91CAP9HA-DK Development Kit for CAP Customizable Microcontroller

The AT91CAP9HA-DK Development Kit is the ideal platform to start developing designs on the ARM926EJ-S™-based CAP9H customizable microcontroller. The fixed portion of the CAP9H device is implemented as a microcontroller standard product, coupled to a high-density FPGA, integrating the equivalent of 2 million ASIC gates, that emulates the metal programmable block. The kit can be rapidly configured to emulate the behavior of a design under development. This saves time and reduces development costs, enabling customer designs to be fully debugged before commitment to metal programmed silicon, making right-first-time silicon easier to achieve.

The kit consists of three associated boards, the motherboard, mezzanine and memory extension, to be used jointly. The boards include a range of memories and physical interfaces/connectors representing external system components. This configuration enables parallel hardware/software testing of the application under development at close to operational speed, with no penalty for hardware modifications. Software development proceeds in parallel with hardware development, and significantly reduces the design cycle time, increasing confidence in a right-first-time system solution.

Motherboard

- ATX power supply connector
- 2x Full-speed Host USB interfaces
- 100-base T Ethernet PHY with three status LEDs
- DBGU serial communication port
- 4x analog inputs
- AC97 interface with three 3.5 mm audio jack connectors
- I2S audio codec with two 3.5 mm audio jack connectors
- 2x SD/MMC card slots
- Atmel TWI serial EEPROM
- 3.5 inch QVGA display LCD with Touch Panel
- Touch Screen Controller
- Image Sensor expansion connector
- Push button keyboard and user LEDs
- CAN bus interface
- PIO expansion connectors (PIOA, PIOB, PIOC, PIOD)
- Extension connectors
- 3x USB device PHY interfaces with USB B connectors (FPGA controlled)

Mezzanine Board

- AT91CAP9 ARM926EJ-S-based microcontroller
- Altera® Stratix® III FPGA, equivalent to 2 million ASIC gates (lower cost version available equivalent to 1.5 million ASIC gates)

Memory Extension Board

- 1.8V option hosting Burst Cellular RAM, NAND Flash, Mobile DDR SDRAM and a service TWI EEPROM
- 3.3V option hosting SDRAM, NAND Flash, NOR Flash and a service TWI EEPROM



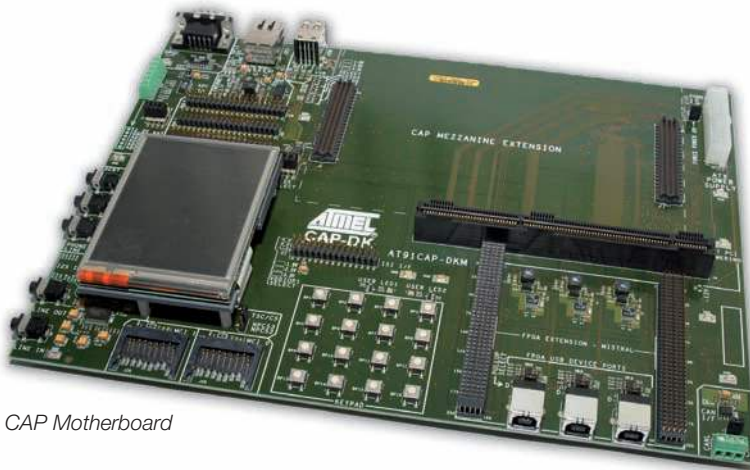


➤ AT91CAP9HA-DK Development Kit for CAP Customizable Microcontroller

CAP Product Family Development Kits

The CAP family of ARM7™- and ARM9™-based products is supported by a full range of development kits. The motherboard is common to all kits. Mezzanine boards and memory extension boards are available in different variants to respond to customer needs in gate count and memory type.

Product	Gate Count	Memory Type
AT91CAP7X Dev Kit	Xilinx® Virtex® 4 FPGA (equivalent 500K ASIC gates)	1.8V Memory Board 3.3V Memory Board
AT91CAP9A Dev Kit	Altera® Stratix® II FPGA (equivalent 500K ASIC gates)	1.8V Memory Board 3.3V Memory Board
AT91CAP9HA15 Dev Kit	Altera® Stratix® III FPGA (equivalent 1.5M ASIC gates)	1.8V Memory Board 3.3V Memory Board
AT91CAP9HA20 Dev Kit	Altera® Stratix® III FPGA (equivalent 2M ASIC gates)	1.8V Memory Board 3.3V Memory Board



CAP Motherboard



CAP7X Mezzanine Board



CAP9HA Mezzanine Board



CAP9A Mezzanine Board

Headquarters

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

International

Atmel Asia
Unit 1-5 & 16, 19/F
BEA Tower
Millennium City 5
418 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
Tel.: (852) 2245 6100
Fax: (852) 2722 1369

Atmel Europe

Le Krebs
8, rue Jean-Pierre Timbaud
B.P. 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 Contacts

Technical Support
www.atmel.com/products/AT91CAP/

Sales Contacts
www.atmel.com/contacts

Web Site
www.atmel.com



© 2009 Atmel Corporation.
All rights reserved.

Atmel®, Atmel logo and combinations thereof, and others, are registered trademarks, CAP™ and others are trademarks of Atmel Corporation or its subsidiaries. ARM®, the ARMPOWERED® logo, and others are registered trademarks or trademarks of ARM Ltd. Other terms and product names may be trademarks of others.

Rev.: 6460A-CAP-02/09/2M



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 ATMEL'S TERMS AND CONDITIONS OF SALES LOCATED ON ATMEL'S WEB SITE, 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's products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

