



➤ **AT91CAP7A-STK® Starter Kit** for CAP Customizable Microcontroller

The CAP™ Starter Kit is the ideal vehicle for low-cost, no-risk evaluation of the customization capabilities of Atmel's CAP microcontroller. It is intended to familiarize the user with the CAP concept and architecture, and is an ideal vehicle for students of electronic engineering to consolidate their knowledge of system-on-chip design, both hardware and software.

CAP comprises a microcontroller-based system-on-chip with ARM® processor, memories, peripherals and standard interfaces, together with a Metal Programmable (MP) Block for application-specific functions. The CAP Starter Kit facilitates the mapping of application-specific IP blocks into its FPGA that emulates the functionality of the CAP MP Block, while at the same time providing a development platform for software for the ARM processor. This enables the hardware and software of simple applications, or modules of more complex applications, to be tested at close to operational speed.

CAP Starter Kit Board

The AT91CAP7A-STK Starter Kit is built on a single PCB, including:

- AT91CAP7E ARM7TDMI®-Based Microcontroller System-On-Chip
- 64M Bytes SDRAM Memory, 3.3V
- 256M Bytes NAND Flash, 3.3V
- Altera® Cyclone® II EP2C8F256C7N (256BGA)
- Altera Configuration PROM -EPCS4SI8N
- 40-Lead Extension Connector (x3) for I/O Access
- 2.8 inch TFT Color LCD
- Two Serial Ports (One Connected to the CAP7 Debug Unit)
- One USB 2.0 Full Speed Device Port
- Mini Joy Stick
- Four Analog Inputs
- Light Sensor
- Temperature Sensor
- Voltage Potentiometer
- Voltage Regulators (1.2V, 2.5V and 3.3V)
- Access Points for CAP7 Power Measurements
- Eight LED's Four Push Buttons
- JTAG ICE Connector (CAP7)
- JTAG ISP Connector (FPGA)
- POR Circuit for FPGA
- POR Circuit for CAP7
- 50 MHz OSC

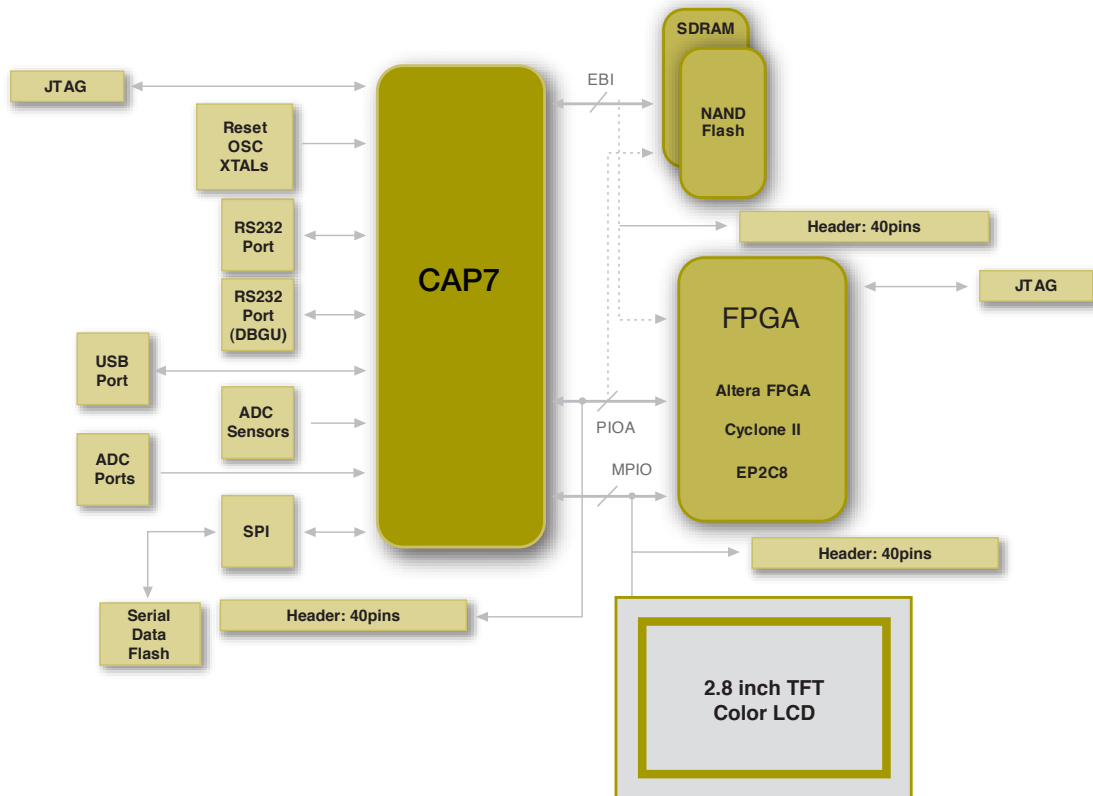
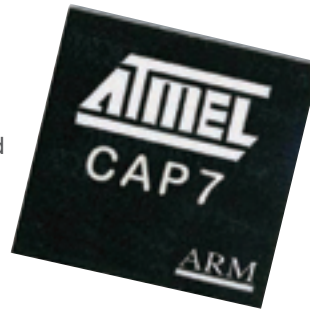


➔ AT91CAP7A-STK® Starter Kit for CAP Customizable Microcontroller

CAP Starter Kit Development Tools

The CAP Starter Kit is supplied with an essential set of development tools in order to get started immediately. These include:

- Instructions for downloading IAR™ KickStart version of IAR Embedded Workbench® for ARM
- Instructions for downloading Altera's free Quartus® 2 Web Edition tools for FPGA programming
- The CAP7 Starter Kit Standalone Board
- A CD for documentation and software, including everything a user needs to evaluate the CAP7 products, including software development tools and FPGA development tools
- The board power supply with adaptors for Europe, United Kingdom, China and the United States
- A set of communication cables, including cables for USB and serial ports



The CAP Customizable Microcontroller

Atmel's CAP is an ARM microcontroller-based system-on-chip with fast local memory, a wide range of industry standard peripherals and interfaces, and a Metal Programmable (MP) Block that allows the designer to add custom logic. By combining the performance, density and low power consumption of the fixed portion of the device with the flexibility of the MP Block, CAP enables application-specific products to be developed in a fraction of the time and at a fraction of the cost of standard-cell ASICs, but at a unit price close to that of standard cell devices. CAP also offers superior performance, smaller form factor and lower power consumption at a unit price significantly lower than an MCU-plus-FPGA combination for the same functionality.



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 SALE 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 OF 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 product 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.

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 St.-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



© 2008 Atmel Corporation.
All rights reserved.

Atmel®, logo and combinations thereof, and others, are registered trademarks, STK® and others are registered trademarks, CAP™ and others are trademarks of Atmel Corporation or its subsidiaries. ARM®, ARM7TDMI®, ARM Powered® logo and others are registered trademarks or trademarks of ARM Ltd. Other terms and product names may be trademarks of others.

REV: 8521A-06/08/1K

