

Only  
\$189.00

# AT43DK320A

## USB HUB DEVELOPMENT KIT



The AT43DK320A development kit comes complete with everything you need to develop your full-featured USB application using AT43USB320A. It comes complete as a working hub with a programmable embedded USB function and up to four USB downstream ports. Any number of the downstream USB ports can be turned off (use of the hub is not required). USB source code for an embedded function and a USB library for the HUB are provided, thus relieving the user from the tedious task of developing such code on their own. Dedicate your time entirely to the application at hand! The AT43USB320A is based on the AT90S8515, Atmel's 8-bit RISC AVR<sup>®</sup> Microcontroller. You can use all of the development tools for the Atmel AVR microcontrollers, including C compilers, macro assemblers, program debuggers/simulators and in-circuit emulators. The kit features:

- Instant Prototyping
- Simple Coding in C
- Atmel-supplied USB Firmware Interface
- Reduced Design Cycle
- Reduced System Debugging





### Corporate Headquarters

2325 Orchard Parkway  
San Jose, CA 95131  
Tel: (408) 441-0311  
Fax: (408) 487-2600

### Europe

Atmel Sarl  
Route des Arsenaux 41  
Case Postale 80  
CH-1705 Fribourg  
Switzerland  
Tel: (41) 26-426-5555  
Fax: (41) 26-426-5500

### Asia

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

### Japan

Atmel Japan K.K.  
9F, Tonetsu Shinkawa Bldg.  
1-24-8 Shinkawa  
Chuo-ku, Tokyo 104-0033  
Japan  
Tel: (81) 3-3523-3551  
Fax: (81) 3-3523-7581

### e-mail

literature@atmel.com

### Web Site

<http://www.atmel.com>

©Atmel Corporation 2002

Atmel Corporation makes no warranty for the use of its products, other than those expressly contained in the Company's standard warranty which is detailed in Atmel's Terms and Conditions located on the Company's web site. The Company assumes no responsibility for any errors which may appear in this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No licenses to patents or other intellectual property of Atmel are granted by the Company in connection with the sale of Atmel products, expressly or by implication. Atmel's products are not authorized for use as critical components in life support devices or systems.

Atmel®, AVR® and AVR Studio® are the registered trademarks of Atmel.

Other terms and product names may be the trademarks of others.

2332B-09/02/15M

The 64K x 16 Flash (AT49F1025) with a maximum access time of 55 ns configures the AT43USB320A as a compound device with up to four downstream ports and one embedded/permanently attached port. The external downstream ports have individual overcurrent protection and power switching. The LEDs indicate the status of the external ports.

The AT43USB320A automatically resets as the board powers up.

There are three switches on the board. SW1 is used to disable/enable ports 1 and 2 and SW2 for ports 3 and 4. Therefore, SW1 and SW2 will allow AT43USB320A to be configured as a compound device or function only. SW3 is used to disable/enable the LED's status operation.

The Flash already contains the code for USB hub, which occupies about 8K of code.

### Included in the AT43DK320A Development Kit:

- AVR Studio® and AVR Instruction Set
- AT43USB320A and AT90S8515 Datasheets
- Source Code for an Embedded Function and USB Hub Library Routines
- USB Hub Firmware Already Programmed In
- Bill of Materials
- Complete Schematics
- Gerber Files
- USB Cable

