

Description

The Atmel AT40KEL-DK design kit allows designers to evaluate and prototype applications using the AT40KEL040 rad hard FPGA.

Kit Content

2 design kits are available:

- The AT40KEL-DK160 with a package specific daughter board for the MQFPF-160 package.
- The AT40KEL-DK256 with a package specific daughter board for the MQFPF-256 package.

Both design kits contain:

- A prototyping mother board which is populated with a commercial serial configuration EEPROM AT17LV010.
- A package specific daughter board ATDH40D160M or ATDH40D256M.
- A standard parallel cable (PC parallel port DB25).
- An ISP cable for AT17 EEPROM series configuration memory.
This configurator in-system programming cable (ISP cable) is a PC-only based cable that attaches to the parallel port of a computer. This cable allows in-situ programming so as to download the bitstream into the configuration memory.
- Atmel FPSLIC® System Designer CD-ROM, of which the IDS (Integrated Development System) is a subset. IDS software allows for place and route, and for back-annotation. In case you are already licensed with the Mentor ModelSim HDL simulator (for VHDL/Verilog RTL simulation and post place and route simulation) and the LeonardoSpectrum (logic synthesis from a VHDL/Verilog model entry), the tool encompasses the relevant libraries.
- The AT40KEL040 CD-ROM contains all available documentation, datasheets and software patches. First document to read to start with the design kit is the 'User Guide'.
- An AT40K40EL FPGA engineering component that has to be plugged into the daughter board (see figures).

Reference Material

The AT40KEL-DK User Guide offers in-depth explanations to operate the kit.

Furthermore, additional documents are available to help designer using both hardware and software elements incorporated in the kit. They can be retrieved on Atmel web site along with software patches.

Support

Application support is provided by the two following E-mail hotlines:

North America hotline: radhard-fpga@atmel.com

Rest of the World hotline: radhard-fpga@nto.atmel.com



Rad Hard FPGA

AT40KEL-DK Design Kit Content



Figure 1. AT40KEL-DK160

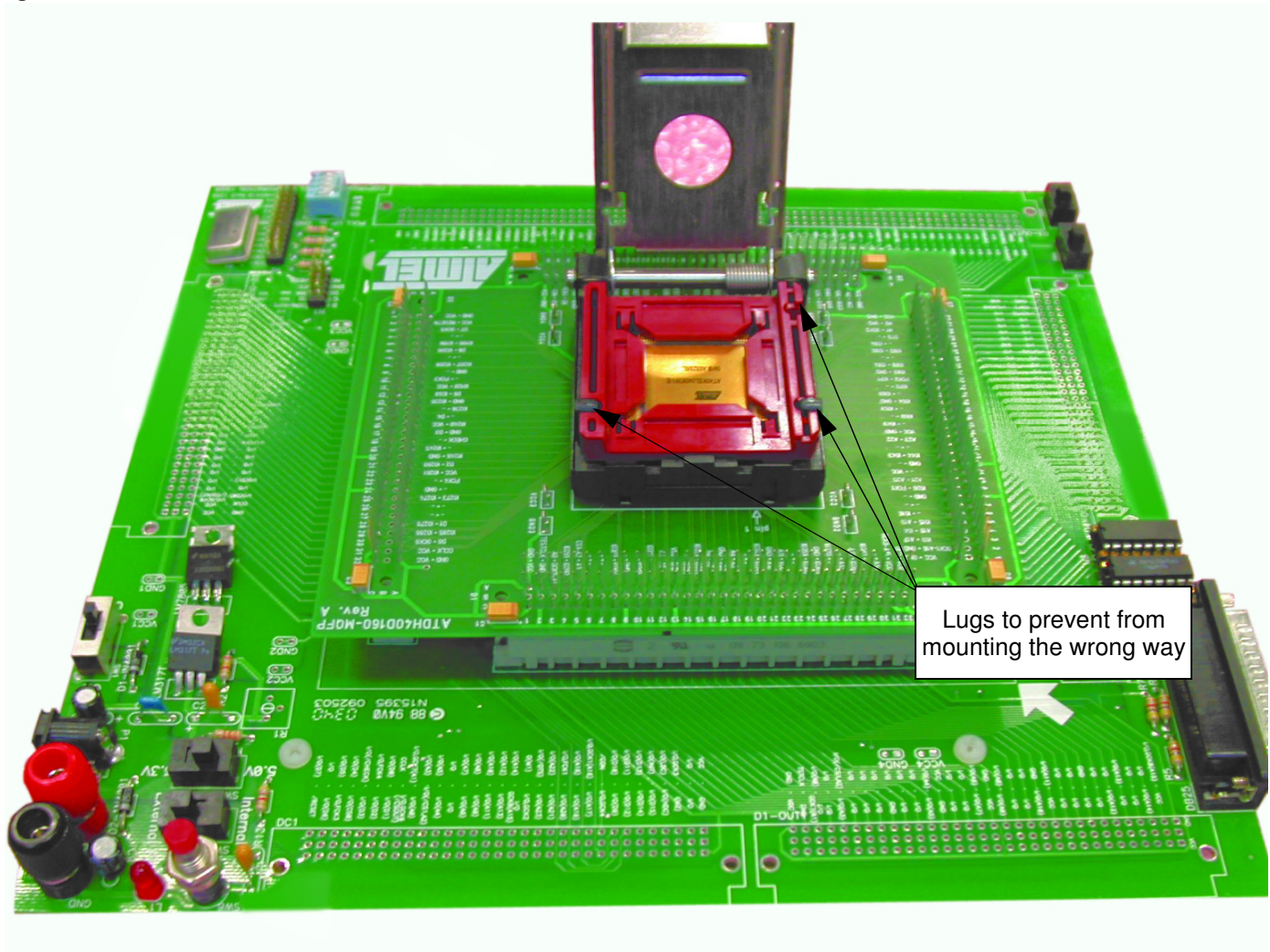
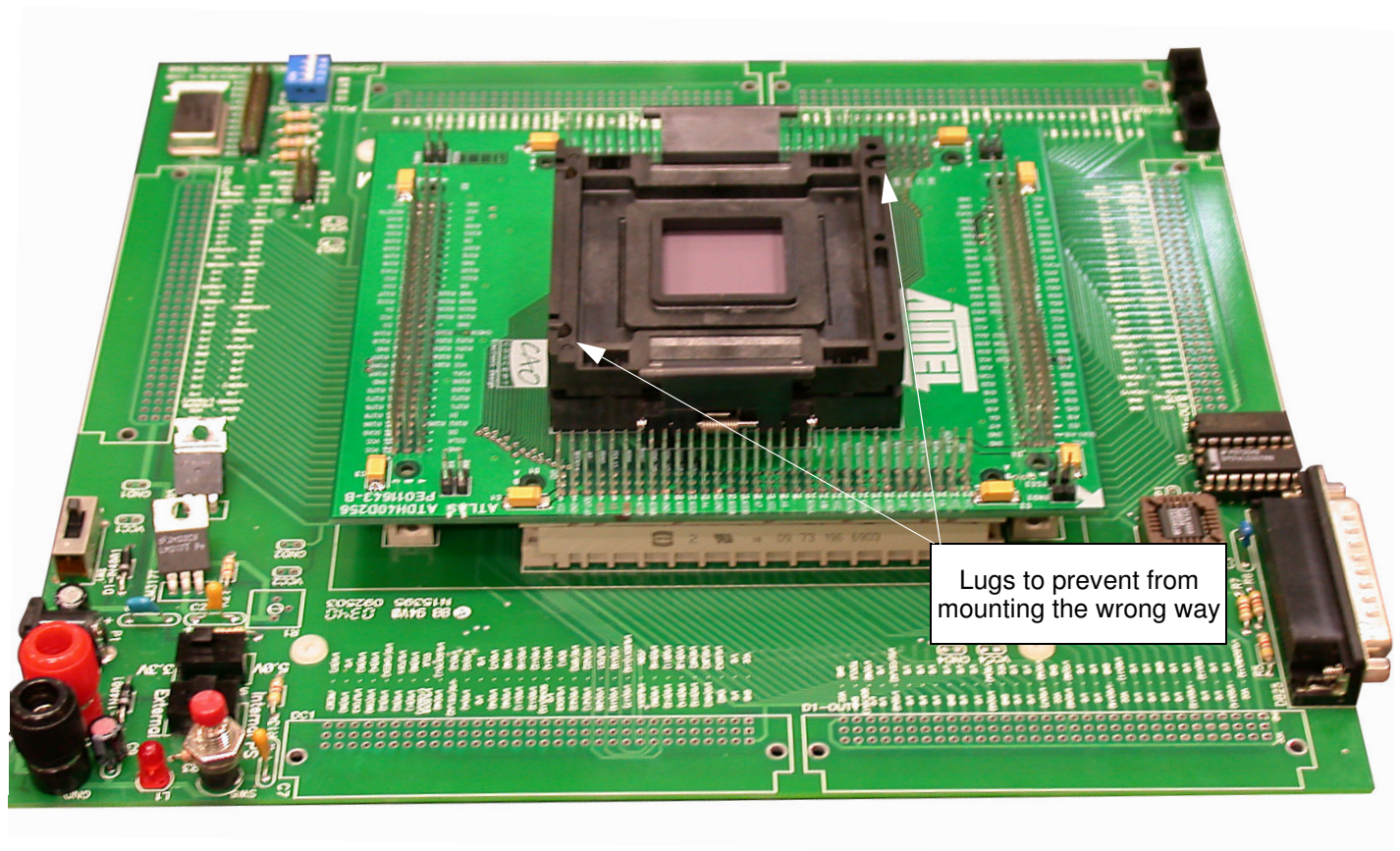


Figure 2. AT40KEL-DK256





Ordering Information

AT40KEL-DK160	Design Kit dedicated to MQFPF160 Package
AT40KEL-DK256	Design Kit dedicated to MQFPF256 Package
ATDH40D160M	Additional Daughter board for MQFPF160 Package
ATDH40D256M	Additional Daughter board for MQFPF256 Package
AT40KEL040KW1-C-E	Additional AT40KEL040 FPGA sample in MQFPF160 Package
AT40KEL040KZ1-C-E	Additional AT40KEL040 FPGA sample in MQFPF256 Package



Atmel Corporation

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

Regional Headquarters

Europe

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

Asia

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

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

Atmel Operations

Memory

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

Microcontrollers

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

La Chantrerie
BP 70602
44306 Nantes Cedex 3, France
Tel: (33) 2-40-18-18-18
Fax: (33) 2-40-18-19-60

ASIC/ASSP/Smart Cards

Zone Industrielle
13106 Rousset Cedex, France
Tel: (33) 4-42-53-60-00
Fax: (33) 4-42-53-60-01

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Scottish Enterprise Technology Park
Maxwell Building
East Kilbride G75 0QR, Scotland
Tel: (44) 1355-803-000
Fax: (44) 1355-242-743

RF/Automotive

Theresienstrasse 2
Postfach 3535
74025 Heilbronn, Germany
Tel: (49) 71-31-67-0
Fax: (49) 71-31-67-2340

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Biometrics/Imaging/Hi-Rel MPU/ High Speed Converters/RF Datacom

Avenue de Rochepleine
BP 123
38521 Saint-Egreve Cedex, France
Tel: (33) 4-76-58-30-00
Fax: (33) 4-76-58-34-80

Literature Requests

www.atmel.com/literature

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. Atmel's products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

©2007 Atmel Corporation. All rights reserved. Atmel®, logo and combinations thereof, are registered trademarks, and Everywhere You Are® are the trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others.



Printed on recycled paper.

4333E-AERO-05/07