

ATF15xx-DK3 CPLD DEVELOPMENT KIT



The ATF15xx-DK3 is a third-generation low-cost development/programmer kit for the designer who wishes to begin working with Atmel's ATF15xx family of industry-standard pin-compatible Complex Programmable Logic Devices (CPLDs) with Logic Doubling. Like the ATF15xx-DK2, the ATF15xx-DK3 allows designers to design, synthesize, simulate, program and evaluate their designs using either the free Atmel WinCUPL software or an evaluation version of Atmel's ProChip Designer® as well as the included 44-lead TQFP package adapter.

The leading-edge synthesis and simulation software from Mentor Graphics® and Altium® are included in the ProChip Designer tool. The kit can be extended to be used to program all the different packages of the ATF15xx family by simply adding the package adapter options.

Once the design is completed, the designer can install a sample ATF15xx family device in the provided PCB and program it using the built-in In-System Programmable (ISP) industry-standard 4-pin JTAG interface, the ATMISP software, and the provided PC parallel port cable. The included tutorial takes the designer through the complete CPLD development process. All the software runs on Windows® platforms. LEDs, switches, and expansion headers for all pins are provided to allow comprehensive prototyping and evaluation. The ATF15xx-DK3, includes everything a designer needs to get started with the Atmel Logic Doubling CPLDs.

CPLD Demo/Programmer Board

- ◆ 44-lead TQFP Adapter
- ◆ ISP (JTAG) Port
- ◆ Expansion Headers
- ◆ 2 MHz Crystal Oscillator
- ◆ Four 7-segment LED Displays
- ◆ Eight Individual LEDs
- ◆ V_{CC} Operation: 1.8V, 3.3V and 5.0V
- ◆ Easy Access to CPLD I/O Pins
- ◆ Global Clear, Output Enable, I/O and Power Switches

CPLD Programming Cable

- ◆ 5V, 3.3V and 1.8V ISP Cable for PC Parallel Port

Logic Doubling CPLDs

- ◆ ATF1502BE-7AU44, 1.8V, 32 Macrocell CPLD with ISP
- ◆ ATF1504ASV-15AU44, 3.3V, 64 Macrocell CPLD with ISP

LOGIC DOUBLING®



Everywhere You Are®

ATMEL ATF15xx-DK3 EPLD SOFTWARE MATRIX

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 Arsenaux 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

Product Contact

Programmable Logic Products

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 487-2600
www.atmel.com/products/PLD

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. 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.

©Atmel Corporation 2006. All rights reserved. Atmel®, logo and combinations thereof, Everywhere You Are®, ProChip Designer®, Logic Doubling® and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. Windows® and others are registered trademarks or trademarks of Microsoft Corporation. Mentor Graphics®, ModelSIM® and others are registered trademarks or trademarks of Mentor Graphics Corporation or its subsidiaries in US and/or other countries. Other terms and product names may be trademarks of others.

		ProChip Designer Evaluation	Atmel WinCupl
Design Entry	VHDL®	✓	
	Verilog®	✓	
	CUPL®	✓	✓
	Schematic	✓	
Synthesis	Mentor Graphics Precision Synthesis ⁽¹⁾		
	VHDL Synthesis	✓	
	Verilog Synthesis	✓	
	Altium PeakFPGA™ ⁽²⁾		
	VHDL Synthesis	✓	
	Altium Design Explorer 99SE ⁽²⁾		
	Schematic	✓	
CUPL	✓		
Simulation	ModelSIM® ⁽¹⁾		
	VHDL Simulation	✓	
	Verilog Simulation	✓	
	Altium PeakSIM ⁽²⁾		
VHDL Simulation	✓		
Fitters & Devices	Atmel's Fitters with Logic Doubling	✓	✓
	CPLD Devices		
	ATF15xxAS/ASL	✓	✓
	ATF15xxASV/ASVL	✓	✓
	ATF15xxBE	✓	✓
	ATF1500A/AL		✓
	ATF2500C		✓
SPLD Devices			
			✓

Notes: 1. The evaluation period for Mentor Graphics Precision Synthesis and ModelSIM is six months.
2. The evaluation period for Altium tools is 30 days.

Ordering Information

Ordering Code	Description	Price (USD)
ATF15xx-DK3	Development/Programming Kit	\$99
ATF15xx-DK3-SAA44	44-lead TQFP Package Adapter	Included in DK3 Kit
ATF15xx-DK3-SAJ44	44-lead PLCC Package Adapter	\$35
ATF15xx-DK3-SAJ84	84-lead PLCC Package Adapter	\$35
ATF15xx-DK3-SAA100	100-lead TQFP Package Adapter	\$135
ATF15xx-DK3-SAA144	144-lead TQFP Package Adapter	\$149

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Microchip:](#)

[ATF15XXDK3-SAJ84](#)