ATF15xx-DK3 CPLD Development Kit

LOGIC DOUBLING®

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

ATMEL

Everywhere You Are®

		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