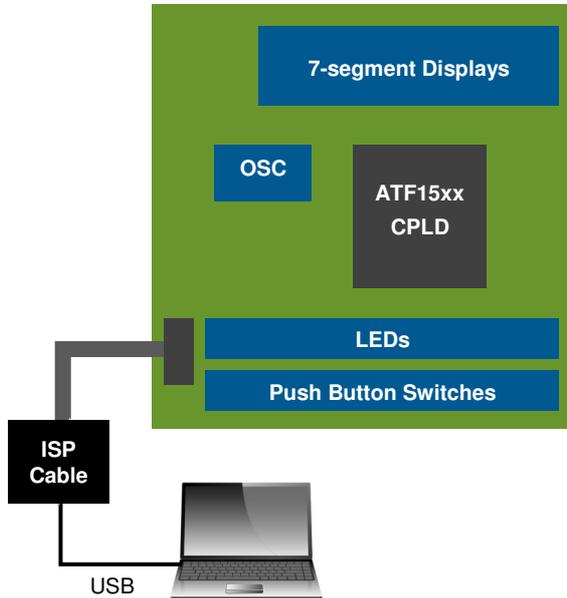




# ATF15xx-DK3-U CPLD Development/Programmer Kit



The ATF15xx-DK3-U is a third-generation low-cost development/programmer kit for designers who wish to begin working with the Atmel ATF15xx family of industry-standard pin-compatible Complex Programmable Logic Devices (CPLDs) with Logic Doubling<sup>®</sup> architecture. This kit contains all the necessary hardware for designers to quickly and easily develop prototypes and evaluate new designs for the ATF15xx CPLDs. It includes an ATF15xx-DK3 base board, an ATF15xxDK3-SAA44 44-TQFP socket adapter module, an ATDH1150USB-K USB-based JTAG ISP download cable, and ATF15xxAS/ASV 44-TQFP samples. Socket adapter modules that support the 44-PLCC, 84-PLCC, and 100-TQFP packages are available separately. With the availability of these socket adapter modules to support the different package types, this kit can be used as an ISP programmer to program the ATF15xx ISP CPLDs through the industry standard JTAG interface (IEEE 1149.1).



## Development/Programmer Base Board

- JTAG ISP Port
- Expansion Headers for Socket Adapter Modules
- 2 MHz Crystal Oscillator
- Four 7-segment Displays
- Eight Individual LEDs
- Global Clear, Output Enable, I/O and Power Switches
- $V_{CC}$  Operation: 1.8V, 3.3V and 5.0V

## Socket Adapter Module Board

- 44-TQFP socket
- Easy Access to CPLD I/O Pins
- Socket adapter modules for other packages available separately

## ISP Download Cable

- USB Port
- $V_{CC}$  Operation: 1.8V, 3.3V and 5.0V

## Logic Doubling CPLDs

- ATF15xx 44-TQFP samples

## User-friendly Atmel PLD Software

Various development and programming software tools are available from Atmel to support different design flows. Atmel WinCUPL supports the CUPL design flow and it is available for free from Atmel. Atmel ProChip Designer supports VHDL and Verilog design flows for the ATF15xx family of CPLDs and a license is required. The Atmel POF2JED utility converts the programming output files (.POF) for industry standard CPLDs to JEDEC programming files (.JED) for the comparable ATF15xx CPLDs. The Atmel ATMISP utility is used in conjunction with the ATDH1150USB-K to program the ATF15xx CPLDs through the JTAG port. More details are contained in the "PLD Design Software Overview" available on the Atmel website at <http://www.atmel.com/Images/Atmel-3629-PLD-Design-Software-Overview.pdf>.

## Ordering Information

Ordering Code	Description
ATF15xx-DK3-U	Development/Programming Kit
ATF15xxDK3-SAA44	44-lead TQFP Socket Adapter Module*
ATF15xxDK3-SAJ44	44-lead PLCC Socket Adapter Module
ATF15xxDK3-SAJ84	84-lead PLCC Socket Adapter Module
ATF15xxDK3-SAA100	100-lead TQFP Socket Adapter Module
ATDH1150USB-K	USB based ISP Download Cable*

 ATF15xxDK3-SAA44 and ATDH1150USB-K are included in the ATF15xx-DK3-U kit.

## Application Support

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