

Description

The Atmel® ATF15xx family of Complex Programmable Logic Devices (CPLDs) delivers enhanced functionality and flexibility with no additional design effort. Our superior Atmel Logic Doubling® architecture consists of wider fan-in, additional global routing and clock options, and Macrocell enhancements that allow PLD designers to pack in more logic, particularly shifters and latches. This dense packing of logic stretches CPLD resources by as much as 200% or more, enabling the use of a smaller device or spare room for revisions.

Features

- Logic Doubling
 - Bury Either Register or COM While Using the Other for Output
 - Independent Feedback Allows Double Latch Functions per Macrocell
 - Enhanced Routing Resources
 - Five Product Terms per Macrocell, Expandable up to 40 Product Terms
 - D/T/L Configurable Flip-flops
 - Global and/or per Macrocell Register Control Signals
 - Multiple Global and per Macrocell Clocks
 - Global and/or per Macrocell Output Enable
- EEPROM CPLDs
 - Pin-compatible with Industry-standard Devices
 - Completely Reprogrammable
 - 10,000 Program/Erase Cycles
 - 20-year Data Retention for ATF15xxAS/ASV Devices
 - 2000V ESD Protection
 - 200mA Latch-up Immunity
 - 100% Tested
- Advanced Features for ATF15xxAS/ASV Devices
 - Input Transition Detection Standby/10µA typical for “L” Version
 - Pin-controlled Standby Mode
 - Globally Programmable Pin-keeper Inputs and I/Os
 - Per Macrocell Low-power Option
 - Power-up Reset Hysteresis Option

