

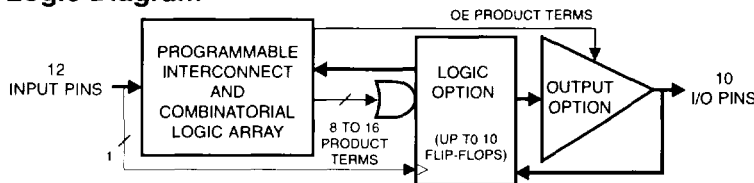
## Features

- User-Controlled Power Down Pin
- Low Voltage Equivalent of ATF22V10B
- Wide Supply Range 2.7 V to 5.5 V
- Edge-Sensing Zero Standby Power (10  $\mu$ A Typical)
- Ideal for Battery Powered Systems
  - Low-Cost, Easy-To-Use Software Tools
- High Speed Electrically Erasable Programmable Logic Device
  - 5 ns Max Propagation Delay
- CMOS and TTL Compatible Inputs and Outputs
  - Latch Feature Hold Outputs to Previous Logic States
- Advanced Flash Technology
  - Reprogrammable
  - 100% Tested
- High Reliability CMOS Technology
  - 20 Year Data Retention
  - 100 Erase/Write Cycles
  - 2,000 V ESD Protection
  - 200 mA Latchup Immunity
- Full Military, Commercial and Industrial Temperature Ranges
- Dual-In-Line and Surface Mount Packages in Standard Pinouts
- Virtually Zero Standby Power

**High Performance Flash PLD**

**Advance Information**

## Logic Diagram



## Description

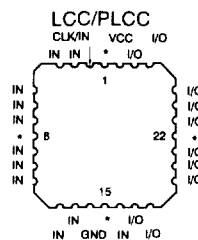
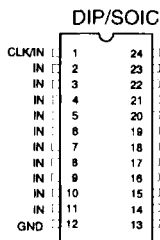
The ATF22LV10CZ is a low voltage compatible CMOS high performance Programmable Logic Device (PLD) which utilizes Atmel's proven electrically erasable Flash memory technology. Speeds down to 10 ns with "zero" standby power dissipation are offered. All speed ranges are specified over the 2.7 V to 5.5 V range. All pins offer low  $\pm 10 \mu$ A leakage.

The ATF22LV10CZ provides the low voltage and edge-sensing zero power CMOS PLD solution with 10  $\mu$ A typical stand-by power.

*(continued)*

## Pin Configurations

Pin Name	Function
CLK	Clock
IN	Logic Inputs
I/O	Bidirectional Buffers
*	No Internal Connection
VCC	+5 V Supply



0419A



## Description (Continued)

The ATF22LV10CZ is capable of operating at supply voltages down to 2.7 V. It powers-down automatically through IDT circuiting down to "zero" stand-by power (10 $\mu$ A) when all inputs are idle. The device operates in a full power low voltage mode. Pin "keeper" circuits on the input and output pins hold pin to their previous logic level when idle. This can reduce static power consumed by pull-up resistors.

The ATF22LV10CZ macrocell incorporates a variable product term architecture, each output is allocated from eight to 16 prod-

uct terms, which allows highly complex logic functions to be realized.

Two additional product terms are included to provide synchronous preset and asynchronous reset. These terms are common to all 10 registers. All registers are automatically cleared upon power up.

Register Preload simplifies testing. A Security Fuse prevents unauthorized copying of programmed fuse patterns.

## Logic Options



## Output Options



## D.C. and A.C. Operating Conditions

	Commercial	Industrial	Military
Operating Temperature (Case)	0°C - 70°C	-40°C - 85°C	-55°C - 125°C
V <sub>CC</sub> Power Supply	3 V $\pm$ 10%	3 V $\pm$ 10%	3 V $\pm$ 10%