Advance Information COM'L

PALCE22V10Z-25

Zero Standby Power 24-pin EE CMOS Versatile PAL® Device

Advanced Micro Devices

DISTINCTIVE CHARACTERISTICS

- Zero standby power allows battery operation

- 10 macrocells programmable as registered or combinatorial, and active high or active low to match application needs

- Varied product term distribution allows up to 16 product terms per output for complex functions

- Easy design with PALASM® software

- Global asynchronous reset and synchronous preset for initialization

- Power-up reset for initialization and register preload for testability

- Programmable on standard PAL device programmers

- 24-pin SKINNYDIP® and 28-pin PLCC packages save space

GENERAL DESCRIPTION

The PALCE22V10Z is a zero standby power version of the popular PAL22V10 programmable logic device. Zero standby power (100 µA max) and low operating power allow the PALCE22V10Z to be used in battery-powered systems. The PALCE22V10Z is pin-compatible with the other PAL22V10 devices.

The PALCE22V10Z utilizes Advanced Micro Devices' advanced low-power, high-speed EE CMOS technology. The device provides user-programmable logic for replacing conventional SSI/MSI gates and flip-flops at a reduced chip count.
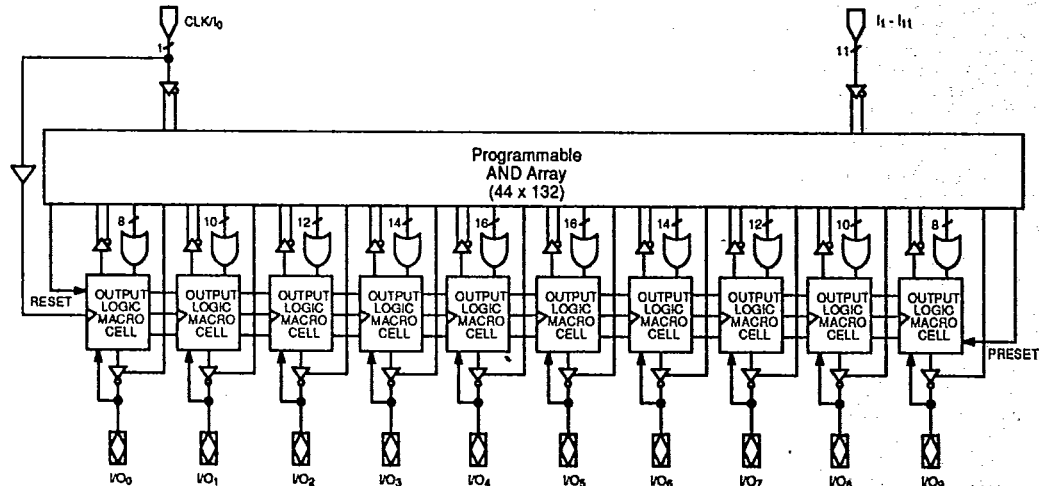
The PAL device implements the familiar Boolean logic transfer function, the sum of products. The PAL device is a programmable AND array driving a fixed OR array. The AND array is programmed to create custom product terms, while the OR array sums selected terms at the outputs.

The product terms are connected to the fixed OR array with a varied distribution from 8 to 16 across the outputs (see Block Diagram). The OR sum of the products feeds the output macrocell. Each macrocell can be programmed as registered or combinatorial, and active high or active low. The output configuration is determined by two bits controlling two multiplexers in each macrocell.

The entire PAL device family is supported by the PALASM software package. The PAL family is programmed on conventional PAL device programmers with appropriate personality and socket adapter modules.

BLOCK DIAGRAM

13003-001A