



CYPRESS

This is an abbreviated datasheet. Contact a Cypress representative for complete specifications. For new designs, please refer to the FLASH370 family

CY7C361

Ultra High Speed State Machine EPLD

Features

- High speed: 125-MHz state machine output generation
 - Token passing
 - Multiple, concurrent processes
 - Multiway branch or join
- One clock with programmable clock doubler
- Programmable miser bits for power savings
- 8 to 12 inputs with input macrocells
 - Metastability hardened: 10-year MBTF
 - 0, 1, or 2 input registers
 - 3 programmable clock enables
- 32 synchronous state macrocells
- 10 to 14 outputs

- Skew-controlled OR output array
- Outputs are sum of states like PLA
- Security fuse
- Available in 28-pin slimline DIP and 28-pin HLCC
- UV-erasable and reprogrammable
- Programming and operation 100% testable

Product Characteristics

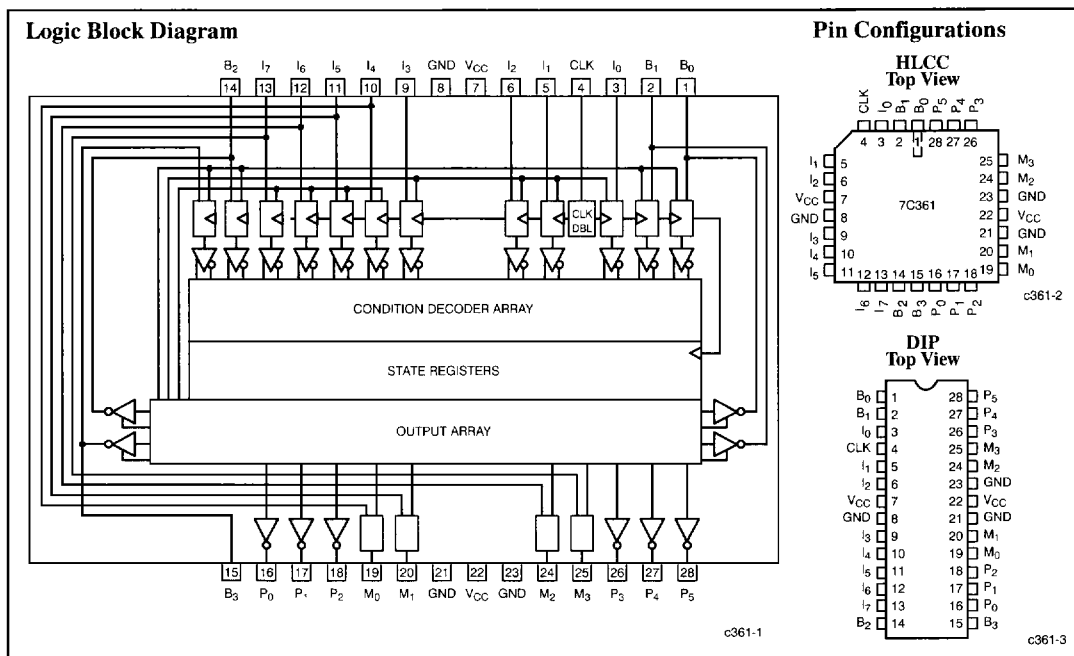
The CY7C361 is a CMOS erasable, programmable logic device (EPLD) with very high speed sequencing capabilities.

Applications include high-speed cache and I/O subsystems control, control of high-speed numeric processors, and high-speed arbitration between synchronous or asynchronous systems.

A programmable on-board clock doubler allows the device to operate at 125 MHz internally based on a 62.5-MHz input clock reference. The clock doubler is not a phase-locked loop. It produces an internal pulse on each edge of the external clock. The length of each internal pulse is determined by the intrinsic delays within the CY7C361. When the doubler is enabled, all macrocells in the CY7C361 are referenced to the doubled clock. If the clock doubler is disabled, a 125-MHz input clock can be connected to pin 4, and it will be used as a clock to all macrocells.

The CY7C361 has two arrays, similar to those in a PLA except that the registers are placed between the two arrays so that the long feedback path of the PLA is eliminated.

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Selection Guide

Generic Part Number	I _{CC} mA at f _{MAX}		f _{MAX} MHz		t _{IS} ns		t _{CO} ns	
	Com	Mil	Com	Mil	Com	Mil	Com	Mil
CY7C361-125	200		125		2		15	
CY7C361-100	200	200	100	100	3	3	19	19
CY7C361-83			83.3	83.3	5	5	23	23