This is an abbreviated datasheet.
Contact a Cypress representative for complete specifications.

T-46-13-29

CY7C245

CYPRESS SEMICONDUCTOR

Reprogrammable 2048 x 8 Registered PROM

Features

- Windowed for reprogrammability
- CMOS for optimum speed/power
- High speed
  - —25 ns max set-up
  - —12 ns clock to output
- Low power
  - —330 mW (commercial) for −35 ns, −45 ns
  - —660 mW (military)
- Programmable synchronous or asynchronous output enable
- On-chip edge-triggered registers
- Programmable asynchronous register (INIT)
- EPROM technology, 100% programmable
- Slim, 300-mil, 24-pin plastic or hermetic DIP
- 5V ±10% V_{CC}, commercial and military
- TTL-compatible I/O
- Direct replacement for bipolar PROMs
- Capable of withstanding greater than 2000V static discharge

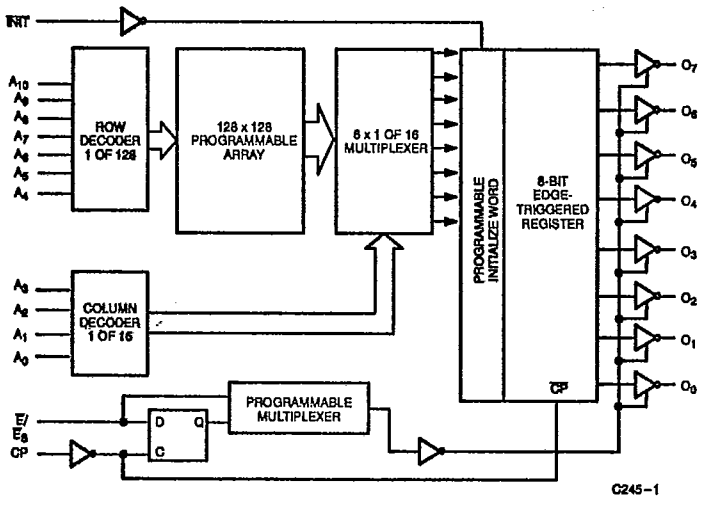
Product Characteristics

The CY7C245 is a high-performance 2048-word by 8-bit electrically programmable read only memory packaged in a slim 300-mil plastic or hermetic DIP. The ceramic package may be equipped with an erasure window; when exposed to UV light the PROM is erased and can then be reprogrammed. The memory cells utilize proven EPROM floating-gate technology and byte-wide intelligent programming algorithms.

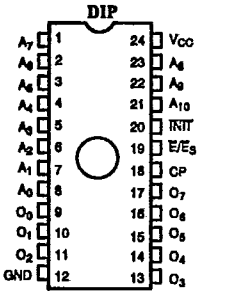
The CY7C245 replaces bipolar devices and offers the advantages of lower power, reprogrammability, superior performance, and high programming yield. The EPROM cell requires only 13.5V for the supervoltage and low current requirements allow for gang programming. The EPROM cells allow each memory location to be tested 100% because each location is written into, erased, and repeatedly exercised prior to encapsulation. Each PROM is also tested for AC performance to guarantee that after customer programming the product will meet AC specification limits.

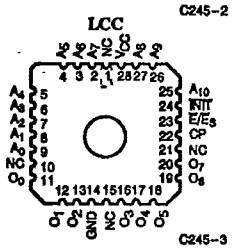
The CY7C245 has an asynchronous initialize function (INIT). This function acts as a 2049th 8-bit word loaded into the on-chip register. It is user programmable with any desired word, or may be used as a PRESET or CLEAR function on the outputs.

Logic Block Diagram



Pin Configurations





Selection Guide

			7C245–25	7C245–35	7C245–45
Maximum Set-up Time (ns)			25	35	40
Maximum Clock to Output (ns)			12	15	25
Maximum Operating Current (mA)	STD	Commercial	90	90	90
		Military		120	120
	L	Commercial		60	60