Integrated Device Technology, Inc.

1 MEGABIT (128K x 8-BIT) CMOS STATIC RAM PLASTIC MODULE

ADVANCE INFORMATION
IDT8MP824S

FEATURES:

- High-density 1024K (128K x 8) CMOS static RAM module
- Equivalent to JEDEC standard for future monolithic 128K x 8 static RAMs
- Fast access times
  —60ns (max.) over commercial temperature range
- Low-power consumption
  —Active: less than 500mW (typ.)
  —Standby: less than 150μW (typ.)
- CEMOS™ process virtually eliminates alpha particle soft error rates (with no organic die coating)
- Cost-effective plastic surface-mounted RAM packages on an epoxy laminate (FR4) substrate
- Offered in both DIP and SIP (single in-line) packages for maximum space-saving flexibility
- Utilizes IDT71256s — high-performance 256K static RAMs produced with advanced CEMOS technology
- Single 5V (±10%) power supply
- Inputs and outputs directly TTL-compatible

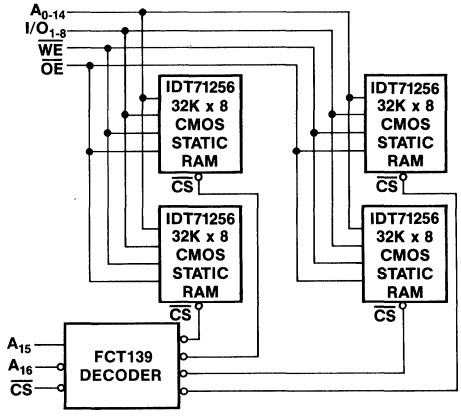
DESCRIPTION:

The IDT8MP824 is a 1024K (131,072 x 8-bit) high-speed static RAM constructed on an epoxy laminate substrate using four IDT71256 32K x 8 static RAMs in plastic surface mount packages. Functional equivalence to proposed monolithic one megabit static RAMs is achieved by utilization of an on-board decoder that interprets the higher order addresses A_{15} and A_{16} to select one of the four 32K x 8 RAMs. Extremely fast speeds can be achieved with this technique due to use of 256K static RAMs and the decoder fabricated in IDT's high-performance, high-reliability technology, CEMOS.

The IDT8MP824 is available with maximum access times as fast as 60ns for commercial range, with maximum power consumption of 1.0 watts. The circuit also offers a reduced power standby mode. When $\overline{CS}$ goes high, the circuit will automatically go to a substantially lower power mode with maximum power consumption of only 85mW.

The IDT8MP824 is offered in a 30-pin SIP (single in-line) package, as well as a 32-pin DIP which conform to JEDEC standard pinouts for future monolithic devices.

All inputs and outputs of the IDT8MP824 are TTL-compatible and operate from a single 5V supply. Fully asynchronous circuitry is used requiring no clocks or refreshing for operation, and provides equal access and cycle times for ease of use.



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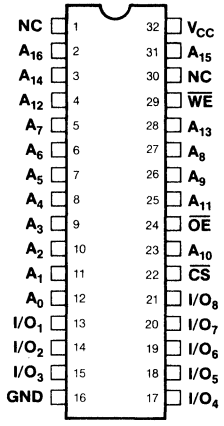
PIN CONFIGURATIONS

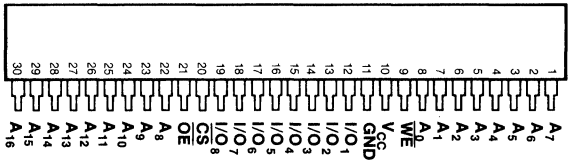


DIP
TOP VIEW

SSD8MP824-002

PIN NAMES

A_{0-16}	Addresses
I/O_{1-8}	Data Input/Output
$\overline{CS}$	Chip Select
V_{CC}	Power
$\overline{WE}$	Write Enable
$\overline{OE}$	Output Enable
GND	Ground



SIP SIDE VIEW

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