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

CYPRESS SEMICONDUCTOR

CYM1610

16K x 16 Static RAM Module

Features

- **High-density 256K-bit SRAM module**
- **High-speed CMOS SRAMs**
  - **— Access time of 12 ns**
- **Low active power**
  - **— 3W (max.)**
- **Hermetic SMD technology**
- **TTL-compatible inputs and outputs**
- **Low profile**
  - **— Max. height of .215 in.**
- **Small PCB footprint**
  - **— 1.2 sq. in.**
- **JEDEC-defined pinout**
- **Independent byte select**
- **2V data retention (L version)**

Functional Description

The CYM1610 is a high-performance 256-kbit static RAM module organized as 16K words by 16 bits. This module is constructed from four 16K x 4 SRAMs in leadless chip carriers mounted on a ceramic substrate with pins.

Selecting the device is achieved by a chip select input pin as well as two byte select pins ($\overline{UB}$, $\overline{LB}$) for independently selecting upper or lower byte for read or write operations.

Writing to the memory module is accomplished when the chip select ($\overline{CS}$), byte select ($\overline{UB}$, $\overline{LB}$) and write enable ($\overline{WE}$) inputs are LOW. Data on the input/output pins of the selected byte ($I/O_8 - I/O_{15}$, $I/O_0 - I/O_7$) is written into the memory location specified on the address pins (A_0 through A_{13}).

Reading the device is accomplished by taking chip select ($\overline{CS}$), byte select ($\overline{UB}$, $\overline{LB}$) and output enable ($\overline{OE}$) LOW, while $\overline{WE}$ remains inactive or HIGH. Under these conditions, the contents of the memory location specified on the address pins will appear on the appropriate data input/output pins.

The input/output pins remain in a high-impedance state when chip select ($\overline{CS}$), byte select ($\overline{UB}$, $\overline{LB}$) or output enable ($\overline{OE}$) is HIGH, or write enable ($\overline{WE}$) is LOW.

Logic Block Diagram
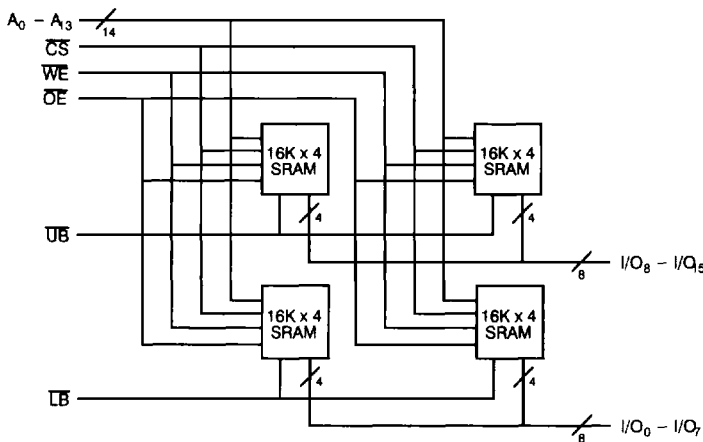
Pin Configuration
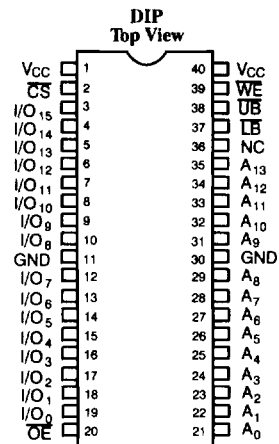
Selection Guide

		1610HD-12	1610HD-15	1610HD-20	1610HD-25	1610HD-35	1610HD-45	1610HD-50
Maximum Access Time (ns)		12	15	20	25	35	45	50
Maximum Operating Current	Com'l	550	550	330	330	330	330	330
(mA)	Mil		550	550	360	330	330	330
Maximum Standby Current	Com'l	250	250	60	60	60	60	60
(mA)	Mil		250	250	60	60	60	60