

### 128Kx32 CMOS

### High Speed

### Static RAM Module

T-46-23-14

### Features

The EDI8M32128C is a high speed, high performance, four megabit density Static RAM module organized as 128Kx32 bits. The module contains four 128Kx8 SRAMs in a Ceramic Pin Grid Array Package.

Four Chip Enables and Write Enables are provided to independently enable each of the four bytes. Reading or writing can be executed on an individual byte or any combination of bytes through proper use of the chip and write enables.

Fully asynchronous circuitry is used, requiring no clocks or refreshing for operation and providing equal access and cycle times for ease of use.

The EDI8M32128C is offered in a 66 lead PGA package which enables 4 megabits of memory to be placed in one square inch of space.

The device is available for both military and commercial applications.

128Kx32 bit CMOS Static

Random Access Memory Module

- Fast Access Times: 20, 25, 35, 45, and 55ns
- Individual Byte Selects
- Output Enable Function
- TTL Compatible Inputs and Outputs
- Fully Static, No Clocks

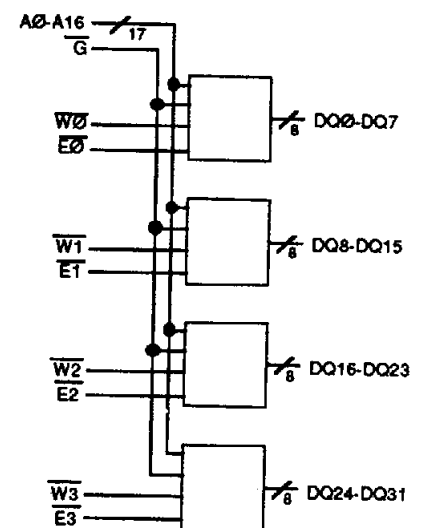
66 Lead Pin Grid Array Package, 1.1 in. sq. No. 168

- Multiple Ground Pins for Maximum Noise Immunity

Single +5V ( $\pm 10\%$ ) Supply Operation

### Pin Configuration and Block Diagram

|          |           |           |           |           |           |
|----------|-----------|-----------|-----------|-----------|-----------|
| DQ8 1 ●  | W1 12 ●   | DQ15 23 ● | 34 DQ24 ● | 45 VCC ●  | 56 DQ31 ● |
| DQ9 2 ●  | E1 13 ●   | DQ14 24 ● | 35 DQ25 ● | 46 E3 ●   | 57 DQ30 ● |
| DQ10 3 ● | VSS 14 ●  | DQ13 25 ● | 36 DQ26 ● | 47 W3 ●   | 58 DQ29 ● |
| A15 4 ●  | DQ11 15 ● | DQ12 26 ● | 37 A4 ●   | 48 DQ27 ● | 59 DQ28 ● |
| A1 5 ●   | A11 16 ●  | G 27 ●    | 38 A3 ●   | 49 A7 ●   | 60 A10 ●  |
| A16 6 ●  | A12 17 ●  | NC 28 ●   | 39 NC ●   | 50 A6 ●   | 61 A9 ●   |
| A0 7 ●   | A2 18 ●   | W0 29 ●   | 40 A14 ●  | 51 A5 ●   | 62 A8 ●   |
| NC 8 ●   | VCC 19 ●  | DQ7 30 ●  | 41 A13 ●  | 52 W2 ●   | 63 DQ23 ● |
| DQ0 9 ●  | E0 20 ●   | DQ6 31 ●  | 42 DQ16 ● | 53 E2 ●   | 64 DQ22 ● |
| DQ1 10 ● | NC 21 ●   | DQ5 32 ●  | 43 DQ17 ● | 54 VSS ●  | 65 DQ21 ● |
| DQ2 11 ● | DQ3 22 ●  | DQ4 33 ●  | 44 DQ18 ● | 55 DQ19 ● | 66 DQ20 ● |



### Pin Names

|          |                          |
|----------|--------------------------|
| A0-A16   | Address Inputs           |
| E0-E3    | Chip Enables             |
| W0-W3    | Write Enables            |
| G        | Output Enable            |
| DQ0-DQ31 | Common Data Input/Output |
| VCC      | Power (+5V $\pm 10\%$ )  |
| VSS      | Ground                   |
| NC       | No Connection            |

Commercial and Military

EDI8M32128C Rev. 1.0 6/92 367

## Ordering Information

### Military

| Part No.        | Speed<br>ns | Leads | Package<br>Style | No. |
|-----------------|-------------|-------|------------------|-----|
| EDI8M32128C20GB | 20          | 66    | PGA              | 168 |
| EDI8M32128C25GB | 25          | 66    | PGA              | 168 |
| EDI8M32128C35GB | 35          | 66    | PGA              | 168 |
| EDI8M32128C45GB | 45          | 66    | PGA              | 168 |
| EDI8M32128C55GB | 55          | 66    | PGA              | 168 |

### Commercial

| Part No.        | Speed<br>ns | Leads | Package<br>Style | No. |
|-----------------|-------------|-------|------------------|-----|
| EDI8M32128C20GC | 20          | 66    | PGA              | 168 |
| EDI8M32128C25GC | 25          | 66    | PGA              | 168 |
| EDI8M32128C35GC | 35          | 66    | PGA              | 168 |
| EDI8M32128C45GC | 45          | 66    | PGA              | 168 |
| EDI8M32128C55GC | 55          | 66    | PGA              | 168 |