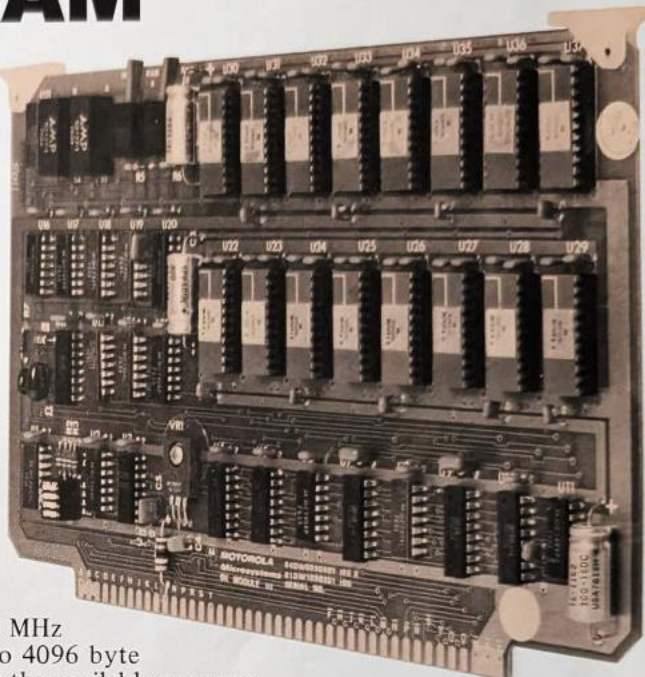


# MEX6815-3

## 8K Dynamic RAM Module

- 8192 x 8 bits of dynamic NMOS memory in two 4096 byte arrays
- Switch selectable base memory address for each memory array
- Each array switch selectable as RAM or ROM (RAM protected by inhibiting memory write function)
- Fully decoded or partial decoded module address selection
- Cycle stealing memory refresh operation
- TTL voltage compatible
- Bus driver capability
- Operates up to 1.5 MHz system clock



The MEX6815-3 8K Dynamic RAM Module consists of sixteen MCM6605, or equivalent, N-Channel MOS memory devices that provide the EXORciser with 8192 x 8 bits of memory which will operate up to 1.5 MHz system clock. This memory module is divided into two 4096 byte memory arrays which may be located anywhere within the available memory map by means of two base memory address switches (0000, 4096, 8192, etc.). For added flexibility, this module has an address line select switch for full or partial decoding of address lines and two ROM/RAM switches that inhibit the memory write capability thereby causing the RAM memory to look like ROM memory.

This module interfaces to the M6800 MPU over the EXORciser system bus via three-state bus buffers. Control logic initiates a memory refresh operation once every 32  $\mu$ s; the module refreshes its memory on a cycle stealing basis.

### Specifications

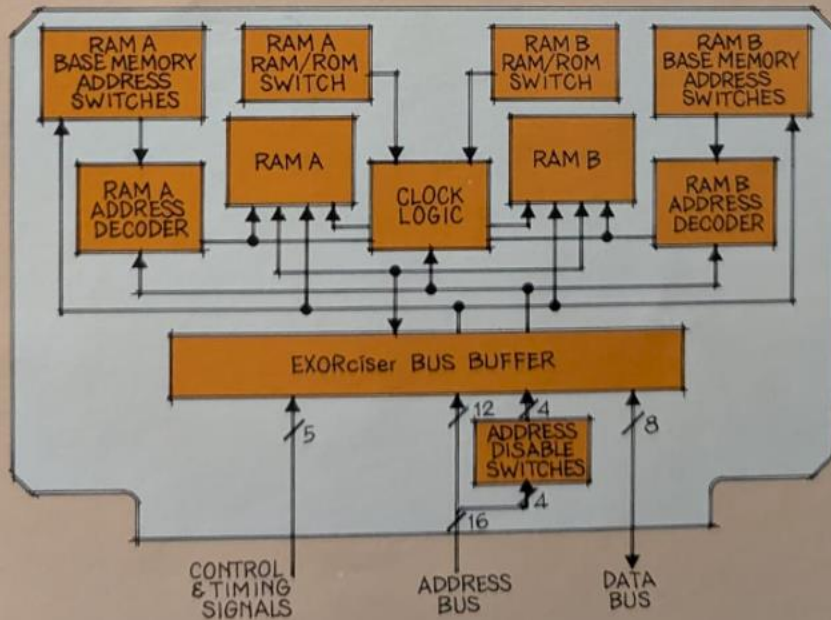
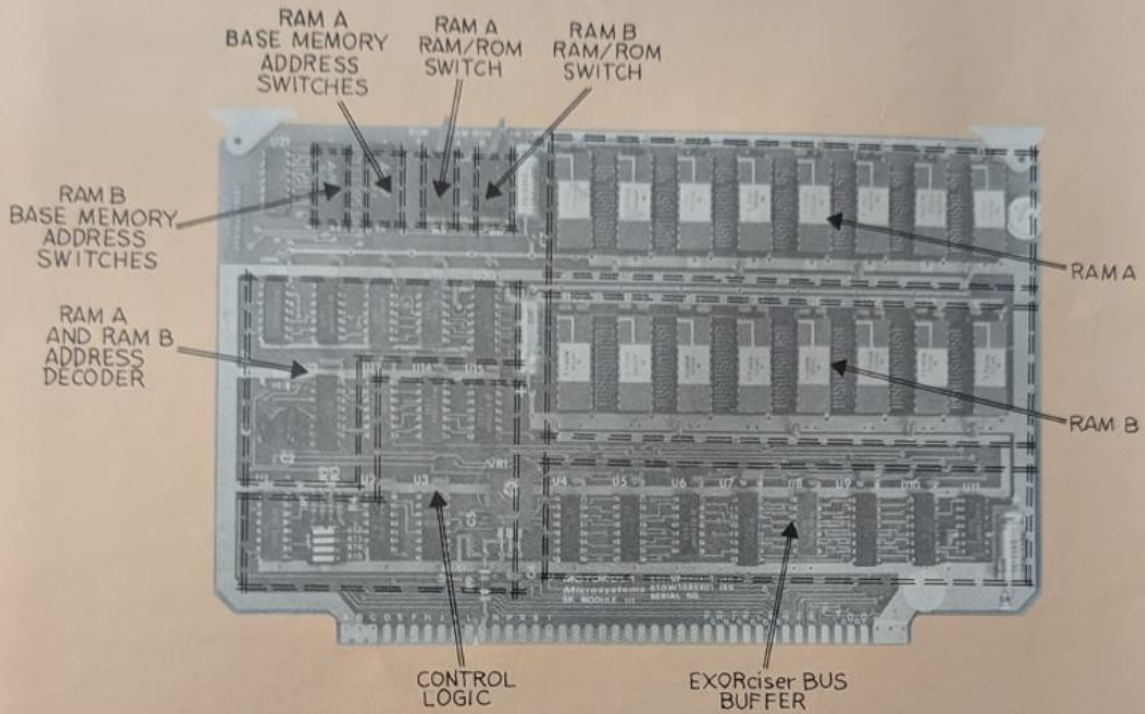
(Note: Positive current flow is defined as flowing into the terminal, negative current flow as flowing from the terminal.)

Memory Type	N-Channel MOS Dynamic RAM
Memory Organization	8192 x 8 bits organized into two 4096 x 8-bit arrays
Cycle Time	750 ns
Read Access Time	350 ns from memory clock
Input Signals	
Control Bus	
Logic "0"	0.0-0.8 V (-200 $\mu$ A max at 0.5 V)
Logic "1"	2.0-5.25 V (25 $\mu$ A max at 5.25 V)
Address Bus	
Logic "0"	0.0-0.8 V (-500 $\mu$ A max at 0.5 V)
Logic "1"	2.0-5.5 V (80 $\mu$ A max at 5.5 V)
Data Bus	
Input Logic "0"	0.0-0.8 V (200 $\mu$ A max at 0.5 V)
Input Logic "1"	2.0-5.25 V (25 $\mu$ A max at 5.25 V)
Output Logic "0"	0.5 V max at 40 mA through a resistor to $V_{CC}$
Output Logic "1"	2.6 V min at -10 mA through a resistor to ground
Operating Temperature	0 $^{\circ}$ to 70 $^{\circ}$ C
Power Requirements	+5 V at 600 mA +12 V at 250 mA -12 V at 50 mA
Physical Dimensions	
W x H x T	9.75 x 5.75 x 0.062 in.

EXORciser is a trademark of Motorola Inc.

# MEX6815-3 8K Dynamic RAM Module

Option



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