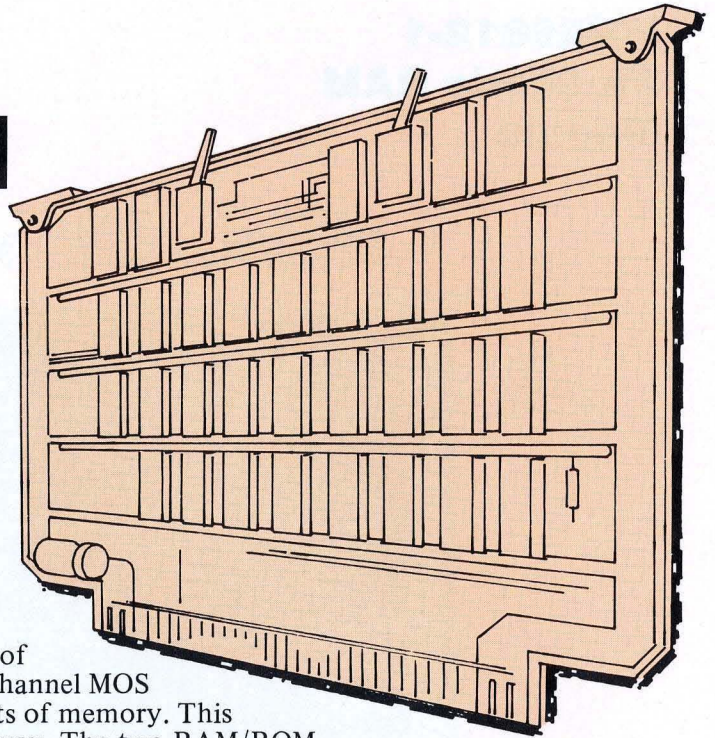


# MEX6812-1 2K Static RAM Module



- 2048 x 8 bits of static N-channel MOS memory in 1K byte arrays
- Switch-selectable base memory address for each 1K RAM array
- Switch-selectable RAM/ROM (inhibited memory write function) capability for each array
- 500 nanosecond memory access time
- TTL voltage compatible
- Bus interface driver capability

The MEX6812-1 2K Static RAM Module, consisting of sixteen 2102-1 1024 x 1-bit RAMs or equivalent N-channel MOS memories, provides the EXORciser with 2048 x 8 bits of memory. This memory is organized into two separate 1024 byte arrays. The two RAM/ROM switches on the module determine whether their respective arrays are to simulate one (1024 x 8-bit) MCM6830 ROM or eight (128 x 8-bit) MCM6810 RAMs. Three-state bus buffers interface this module to the M6800 MPU over the EXORciser system bus.

The designer can select the base memory address, in 1024 bit increments, for each memory array by setting of the base memory address switches. Address decoders on this module monitor the 16 address lines and determine when the EXORciser's MPU is addressing their respective memory arrays. A logic circuit decodes three inputs, reads the RAM/ROM switches, and determines the memory function to be performed – read data from the memory, write data into the memory, or inhibit the memory write function.

## Specifications

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

Type Memory	MOS Static RAM
Memory Organization	2048 x 8 bits organized into two 1024 x 8 bit arrays
Memory Cycle Time	500 ns
Input Signals	TTL voltage compatible
Logic "0"	0.0-0.85 V (-200 $\mu$ A max at 0.4 V)
Logic "1"	2.0-5.25 V (25 $\mu$ A max at 5.25 V)
Data Bus	Three-state TTL voltage compatible
Input Logic "0"	0.0-0.85 V (-200 $\mu$ A max at 0.4 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 <sub>CC</sub>
Output Logic "1"	2.6 V min at -10 mA through a resistor to ground
Output Off-State Leakage Current	100 $\mu$ A max at 2.6 V
Power Requirements	5 Vdc @ 1 A Max.
Physical Dimensions W x H x T	9.75 x 5.75 x 0.062 in.

