



# Low Power and Reliability.

Fast static memories with low power, reliable RAM's.  
 A battery back-up, too, to  
 preserve memory during power failures.

## 4KRA Static Memory Module

**Processor  
Technology**  
 Corporation  
 Emeryville, CA 94608

The 4KRA is a 4096 word read/write static memory module. Its operation is **more reliable, less expensive, and requires less power** than any other available 4K memory module.

This static memory does not require periodic refreshing, thus it can run at the processor's maximum speed. Compare this to dynamic memories, requiring at least 32,000 refresh periods per second. During such periods, data cannot be written or read from the memory, while the computer sits idle in a "wait" condition. Static memories eliminate this delay.

The RAM's used in the 4KRA typically require one-half the power of the standard

2102A-4 or 8101 type RAM's. Even under the worst case conditions, the 4KRA RAM's draw only 30% more than any currently available dynamic memory. However, the low power feature does **not** mean decreased reliability. **Each RAM is manufactured to military specification MIL STD-883C.**

Our module draws so little standby current, memory can actually be maintained using "D" size flashlight batteries. This allows long term retention of data, even under possible power failure. Recharging circuitry and a battery connector are resident on the board.

## Specifications:

<b>Maximum Capacity:</b>	4096 eight-bit words	<b>Power Requirements, Operating:</b>	+7.5 to +10VDC at 1.0A maximum (0°C), 0.8 typical at 25°C.
<b>Operating Mode:</b>	Static	<b>Power Requirements, Standby:</b>	+1.6 to 2.5VDC at 0.5A maximum worst case, 0.4A typical
<b>Access Time:</b>	520 nano-seconds, worst case maximum	<b>Dimensions:</b>	5.3" x 10.0" (13.46cm x 25.4cm)
<b>Cycle Time:</b>	520 nano-seconds maximum, read or write		
<b>Bus Pinout:</b>	Plug-in compatible with Sol System, Altair 8800 and IMSAI 8080 bus.		
<b>Edge Contacts:</b>	Gold-plated, 100 pins (dual 50) on .125" centers		