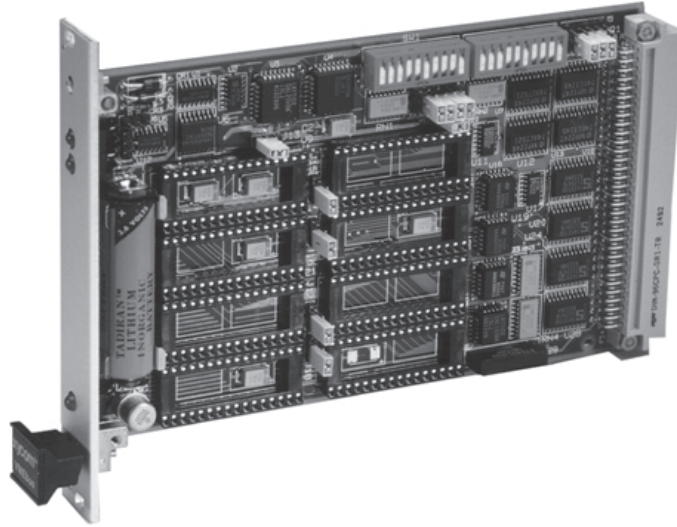# XVME-103
RAM/ROM/Flash
Memory Module

Features

- Eight 32-pin memory sockets

- Two independently configurable memory banks (via jumpers and switches)

- Supports read modify write (RMW) cycles

- Power-down memory protection circuitry

- Battery backup for CMOS RAM devices

- Completely user-configurable, allowing a variety of memory device speeds and types to be used

- Supports EPROM, CMOS RAM, Flash, EEPROM

- Backup power monitor with front panel battery low indicator

- Front panel bank activity LEDs

Overview

The XVME-103 RAM/ROM Memory Module is a single-high, VMEbus-compatible board. It can accommodate up to 4 MB of RAM, 8 MB of EPROM, 4 MB of Flash or 4 MB of EEPROM. The module is designed with an on-board battery backup circuit to provide power to CMOS RAM devices in the event of a power failure.

The XVME-103 has eight 32-pin JEDEC sockets that are logically divided into two separate memory banks, containing four sites each. Each bank is designed to employ memory devices of the same type and speed, and each bank can be independently configured (via jumpers and switches).

Power monitoring circuitry on the XVME-103 prevents access to memory, and optionally asserts SYSREST if the supply voltage falls below 4.75 VDC. This circuit also: checks the backup power source during power-up, will turn on a front panel "battery low" LED, and can be configured to assert SYSFAIL if the backup voltage is insufficient to back-up CMOS memory devices.

Environmental Specifications

Temperature
Operating	0º to 65º C (32º to 149º F)
Nonoperating	-40º to 85º C (-40º to 185º F)

Altitude
Operating	Sea level to 10,000 ft. (3048 m)
Nonoperating	Sea level to 40,000 ft (12192 m)

Vibration 5 to 2000 Hz
Operating	.015" (.38 mm) peak-to-peak displacement
	2.5 g (maximum) acceleration
Nonoperating	.030" (.76 mm) peak-to-peak displacement
	5.0 g (maximum) acceleration

Shock
Operating	30 g peak acceleration 11 msec duration
Nonoperating	50 g peak acceleration, 11 msec duration

Humidity
20% to 90% RH, non-condensing

VMEbus Compliance

- Complies with VMEbus Specification, IEEE 1014-1987 Rev. C1

- A24:D16/D08(EO) DTB Slave

- 4 BUS GRANT INs connected to their respective BUS GRANT OUTs

- IACKIN connected to IACKOUT

- SYSFAIL Driver

- Supports RMW

- Form Factor: SINGLE (3U)
  6.5" × 3.95" (165.1 mm × 100.3 mm)

Hardware Specifications

Power Requirements
+5 V @ .7A typical, .9 A maximum

Memory Capacity
(2 banks of 4 sites)
RAM	4 MB
EPROM	8 MB
Flash	4 MB
EEPROM	4 MB

Supported Device Sizes
(2 banks of 4 sites)
RAM	128K × 8, up to 512K × 8
EPROM	128K × 8, up to 1024K × 8
Flash	128K × 8, up to 512K × 8
EEPROM	128K × 8, up to 512K × 8

Supported Device Speeds
50 ns, 100 ns, 150 ns and 200 ns

Battery Rating
1.9 Amp hours

Battery Life
3 years typical (using Hitachi 628128 RAM, or equivalent devices)

Warranty Information

The XVME-103 carries a two-year parts and labor warranty.

Ordering Information

XVME-103	Single-high RAM/ROM Memory Module
XVME-945/2	6U Front Panel Kit