

## A.5 PM511V - Processor Module

- Futurebus+ Board
- 25 MHz 68040 Processor
- 8 or 16 Mbyte Dynamic RAM with ECC
- Hardware support for redundant processors
- S100 I/O Interface
- PCMCIA slot for flash memory card
- Service tool connector on front
- Boot PROM and SRAM

### Description

PM511V is a processor module for Advant Controller 450. It is designed to fit into RF533 series controller subracks.

The Motorola 68040 processor is a 32-bit virtual memory microprocessor with an integrated floating point unit and with dual independent instruction and data demand paged memory management units (MMUs). It also has two separate 4 kbyte caches, one for data and one for instructions.

The dynamic RAM memory is organized as a 64-bit memory with an 8-bit cyclic redundancy check sum.

The module has a Futurebus+ type interface with 32-bit address/data lines supporting compelled transfers.

Distributed arbitration is used. Arbitration messages are supported.

To support a configuration with two redundant processor modules with one running in backup mode, PM511V is equipped with logic that transfers a copy of all writes in the primary processor to the backup processor, thereby keeping a complete updated copy of the primary processor's memory in the backup processor. This makes it possible for the backup processor to resume the operation directly in the event of a failing primary processor.

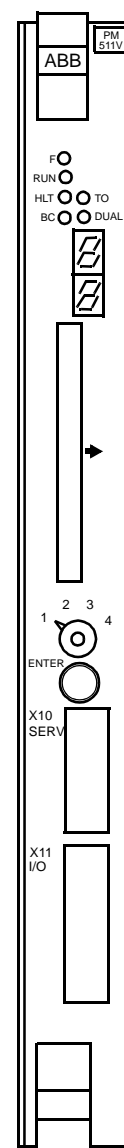
The module has an interface to the S100 I/O extension bus which makes it possible to connect it to the bus extension board DSBC 174 or DSBC 176 in a S100 I/O rack.

The PCMCIA slot accepts flash memory cards for system software.

The module front has LED indicators for status information, a start mode selector switch and an ENTER push button to manually initialize the controller.

You can find the operation description of these facilities in this manual.

A label on module side gives the full identification and information of actual memory size. Available versions are designated PM511V08 or PM511V16.



Front view

## Technical Data

### Memory

8 or 16 Mbyte dynamic RAM for system software and application program.

### Indicators

LEDs on module front:

F (red)	Module error
RUN (green)	Module running normally
HLT (red)	CPU halted
TO (yellow)	Bus time-out
BC (green)	Backup voltage for RAM connected
DUAL (green)	Redundant processor ready

### Power Supply

5 V d.c.	typical	4900 mA
	max.	6000 mA
24 V d.c.	typical	200 mA
	max.	280 mA
Power loss (heat)	typical	25 W

### Mechanical Data

Module size	12 SU, 6 mp
Module weight	0.8 kg (1.8 lbs.)