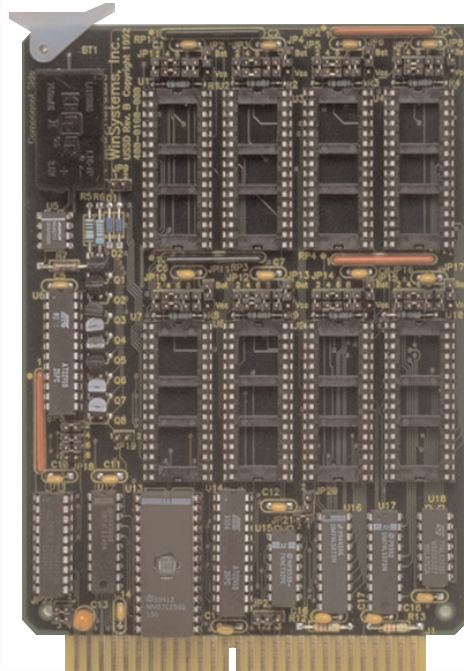


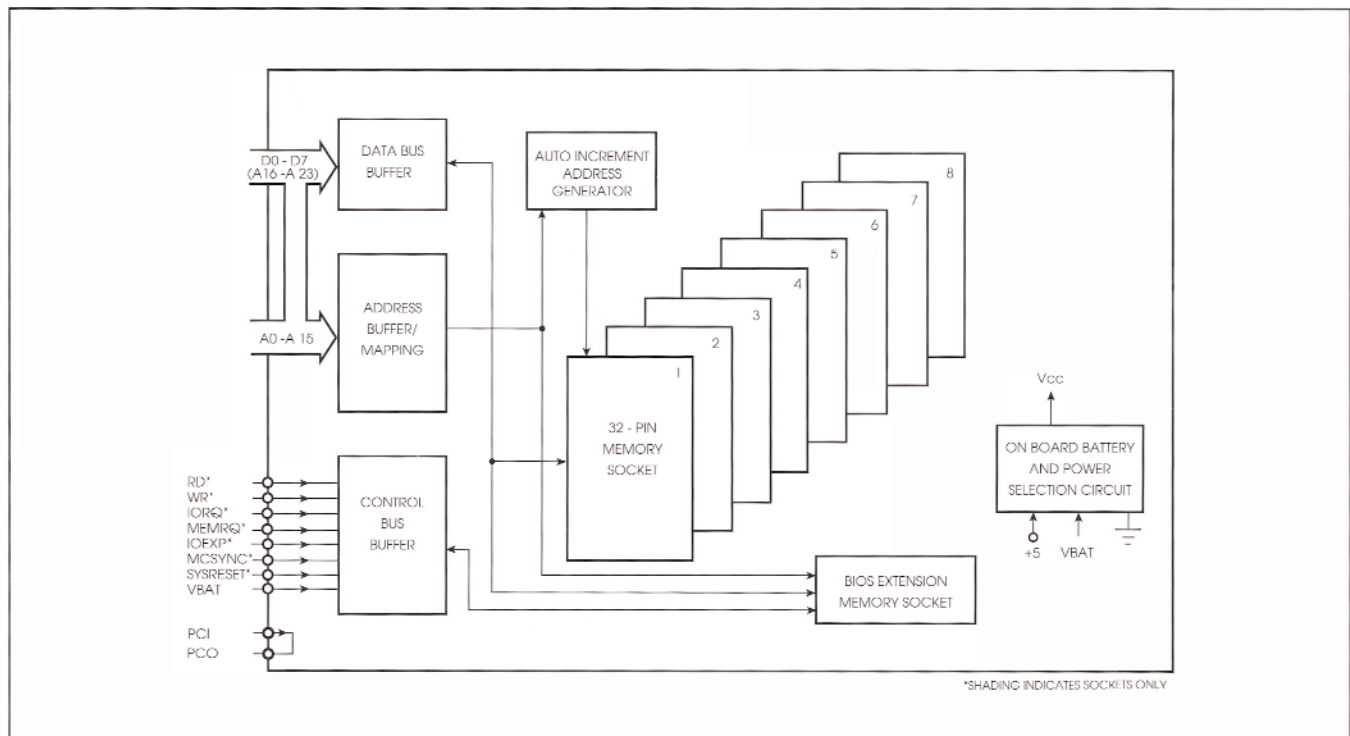
## FEATURES

- Supports up to 4MBytes of RAM, PEROM (Flash) EPROM, or battery backed SRAM per board
- Eight bytewise memory sockets that will accept 128K x 8, 256K x 8, or 512K x 8 SRAMs, EPROMs or PEROMs (+5V only Flash memory)
- I/O mapped board requires no system memory
- Up to 4 boards can be mapped together to provide 16 MB of contiguous storage per solid state disk
- Multiple solid state disk are supported
- RAM/EPROM disk driver software available for WinSystems' DOS and ROM-DOS systems
- EPROM socket supports BIOS extension for bootable STD-AT and XT systems
- High speed data access and storage
- Resistant to dirt, moisture, vibration, and temperature variations
- Onboard battery power for SRAM support
- CMOS STD Bus extended temperature range  
LPM-USSD = -40°C to +85°C
- Single +5 volt operation



The LPM/MCM-USSD is an I/O mapped, universal STD Bus Solid State Disk (SSD). It can be populated by the user with up to 4 megabytes of RAM, EPROM, or PEROM (Flash). The card allows a user to substitute onboard semiconductor devices in applications where the environment is too harsh for mechanical hard

disks or floppy disk drives, plus it has significant speed advantages. It is designed to store programs and data for applications such as data collection and logging, diagnostics, etc.



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## **FUNCTIONAL CAPABILITY**

**STD Bus Interface** - The MCM-USSD is the STD Bus version and the LPM-USSD is the CMOS STD Bus version off the card. Programming, bus pin assignments, and jumper configurations are identical for both. The LPM/MCM prefix indicates the card has the same features and functionality but a different bus interface logic, power requirements and operational temperature range.

The LPM/MCM-USSD is I/O mapped and does not require any memory in the 1 megabyte main system memory map for normal operation as a non-bootable solid state disk. Only 4 contiguous I/O ports are required.

Up to 4 boards can be mapped at the same port block to provide up to 16 MB of solid state storage. Additional 16 MB SSD drives can be mapped at different I/O port blocks if more storage is required.

The LPM/MCM-USSD offers nearly instantaneous data access since there is no track-to-track seeking. Data transfers are very quick since the board contains an auto-incrementing address pointer for use with 256 byte string move instructions from the CPU.

An additional socket is decoded for 20-bit (XT) or 24-bit (AT) addressing in the memory map for the installable BIOS extension required for bootable DOS systems.

**RAM/ROM Disk Storage Capacity** - The standard LPM/MCM-USSD is unpopulated and has eight, 32-pin byte-wide memory sockets that will accept 128K x 8, 256K x 8, or 512K x 8 SRAMs, EPROMs, or PEROMs (+5 volt only Flash memory) for a total of up to 4 megabytes per board.

**ROM DISK** - A LPM/MCM-USSD, populated with EPROMs and BIOS extension, will create a bootable ROM DISK for either WinSystems' STD-AT or XT DOS or ROM-DOS systems.

**RAM DISK** - The RAM disk uses the LPM/MCM-USSD with the onboard 750 mA-hour battery jumper enabled to the memory sockets. It can be populated with up to eight 128KB, 256KB or 512KB low power CMOS SRAMs for a total of up to 4 MB per board.

An installable device driver is supplied with the RAM disk which can work with WinSystems' ROM-DOS, XT and STD-AT compatible systems.

## **SPECIFICATIONS**

### **Electrical**

STD Bus compatible

Addressing: 20-bit (1MB XT mode) or  
24-bit (16MB AT mode) for BIOS socket  
10-bit page for the eight 32-pin sockets

Power required with no memory installed

LPM-USSD = +5 VDC  $\pm 10\%$  @ 95 mA

MCM-USSD = +5 VDC  $\pm 5\%$  @ 300 mA

Memory Capacity: Eight, 32-pin byte-wide sockets for  
128KB, 256KB, 512KB EPROMs,  
SRAMs, or Flash PEROMs

Battery: 750 mA-Hour Lithium

### **Mechanical**

Meets STD Bus mechanical specifications: 4.5" x 6.5"

### **Environmental**

Operating temperature:

LPM-USSD -40°C to +85°C

MCM-USSD 0°C to +65°C

Non-condensing relative humidity: 5% to 95%

## **ORDERING INFORMATION**

LPM-USSD CMOS STD Bus 4MB SSD

MCM-USSD STD Bus 4MB SSD

