

**Board Name:** Goliath  
**Series Number:** 730  
**Date:** 05/21/96

**Goliath DIMM Memory Requirements**

The memory modules in Goliath are different from the x36 SIMMs used by all other boards. This is a new module defined for 8 byte wide common CAS memory. This is a JEDEC standard and many memory module suppliers support it. Most new servers which require large memory capacity are designed to use DIMMs.

Specifications are as follows:

3.3 volt	The memory chips used on the module must be 3.3 volt parts.
168 pin	The module pinout is 168 pin (Simms have 72 pins).
x72	It is a 72 data bit module.
ECC	“Raw” single CAS DRAM. There is no ECC (error correction code) logic on the module. ECC is implemented in the motherboard chipset. ECC does not require parity chips.
DIMM	Dual in-line memory module
Buffered	This uses 3.3 volt buffers (typically 163244 or 16244LVT) to buffer the CAS, address lines and write enables.
FPM	Goliath uses fast page mode (FPM). EDO is a superset of FPM. The EDO feature will not be used by the board.
60ns	The speed required.

**DRAM Sizes** Typical sizes for DRAM modules are 1Mx72, 2Mx72, 4Mx72, 8Mx72 and 16Mx72. A maximum of 8 modules can be used to provide 1 gigabyte total. It is advised that no less than 128 megabytes be used in a Goliath system. Do not mix module types or sizes within a bank. The modules should be no more than 1.5” to avoid a conflict with the PCI slots.

Description	Manufacturer	Part Number
2MB x 72 (16 MB Module)	Micron	MT9LD272G-60 (FPM)
	Micron	MT9LD272G-60X ( EDO)
	Advantage	A16/ECCDIMM
	Samsung	KMM372V213AJ6
	IBM	11M2730HBE
4MB x 72 (32 MB Module)	Micron	MT18LD472G-60X (EDO)
	Advantage	A32ECCDIMM
	Samsung	KMM372V400AK6
	Samsung	KMM372F400AK6 (EDO)
	IBM	11M4730CBD
	NEC	MC-424000LAB72

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Description	Manufacturer	Part Number
8MB x 72 (64 MB Module)	Micron	MT36LD872G-60 (FPM)
	Micron	MT36LD872G-60X (EDO)
	Advantage	A64/ECCDIMM
	Samsung	KMM372V803J6/AJ6
	IBM	11M8730CBD
16MB x 72 (128MB Module)	Advantage	A128ECCDIMM
	IBM	11M16730CBD
	Samsung	KMM372V1680J6
	Samsung	KMM372V1680AJ6

Supplier	Phone Number	Fax Number	Contact
Advantage Memory Corp	800 245 5299	714 453 8158	Dwayne Abrades
Centon	714 855 9111	714 855 1144	Paul Kindly/ Steve Rick
Samsung	770 447 6154	770 447 6714	Greg Mordecai
Netmemory	714 631 5388	714 631 8724	John Deters

This information will be updated as we continue testing. The part numbers for NEC and Hitachi modules may not be complete. These parts have not been tested by us. Please read the manufacturer's specifications completely before using these parts.