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Quadra 840AV: RAM Configurations and Details (2/94)

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TOPIC -----

This article describes the RAM configurations of the Macintosh Quadra 840AV.

DISCUSSION -----

General Information

The Quadra 840AV ships with 8MB of RAM in a single 8MB SIMM.

A Quadra 840AV supports up to 128MB of RAM. The required speed is 60ns. Eight banks (four actual SIMM slots) are installed with four 72-pin, 32-bit SIMMs. Each Bank uses up to eight DRAMs, with either one or two banks per SIMM.

SIMMs may be built from any of the DRAM organizations listed below, with either one or two banks per SIMM.

Mode	Bank Size	DRAM Organization
Normal	1MB	256K x 4
	1MB	1MB x 4
	2MB	512K x 8
	4MB	4MB x 4
	8MB	2MB x 8
Wide	4MB	4MB x 4
	8MB	2MB x 8
	16MB	1MB x 16

Detailed Information

Norm	256K	x 32	1MB	256K	x 4	8	1	9	9	512	8
Norm	512K	x 32	2MB	256K	x 4	16	2	9	9	512	8
Norm	1M	x 32	4MB	1M	x 4	8	1	10	10	1024	16
Norm	2M	x 32	8MB	1M	x 4	16	2	10	10	1024	16
Norm	4M	x 32	16MB	2M	x 8	8	2	10	11	2048	32
Norm	4M	x 32	16MB	4M	x 4	8	1	11	11	2048	32
Norm	8M	x 32	32MB	4M	x 4	16	2	11	11	2048	32
Norm	512K	x 32	2MB	512K	x 8	4	1	10	9	1024	16
Norm	1M	x 32	4MB	512K	x 8	8	2	10	9	1024	16
Norm	2M	x 32	8MB	2M	x 8	4	1	11	10	2048	32
Norm	4M	x 32	16MB	2M	x 8	8	2	11	10	2048	32
Wide	4M	x 32	16MB	4M	x 4	8	1	12	10	4096	64
Wide	4M	x 32	16MB	2M	x 8	8...2		12	9	4096	64
Wide	8M	x 32	32MB	4M	x 4	16	2	12	10	4096	64
Wide	2M	x 32	8MB	2M	x 8	4...1		12	9	4096	64
Wide	4M	x 32	16MB	2M	x 8	8...2		12	9	4096	64
Wide	2M	x 32	8MB	1M	x16	2	1	11	9	4096	64
Wide	4M	x 32	16MB	1M	x16	4	2	11	9	4096	64

The following configurations are NOT supported because of Row/Column Address Count:

Wide	2M	x 32	8MB	1M	x16	2	1	12	8	4096	64
Wide	4M	x 32	16MB	1M	x16	4	2	12	8	4096	64

Notes:

- (1) Mode is a control bit in the memory controller, programmed during the memory sizing routine during boot.
- (2) Single bank SIMMs must have memory in Bank 0.
- (3) Dual bank SIMMs must have the same memory configuration in each bank.
- (4) Composite SIMMs (Where more than one Chip is used per data bit per bank) are not recommended due to system data and address bus loading.
- (5) DRAMS must support CAS before RAS refresh and fast page mode.
- (6) The Quadra 840AV requires 60 ns or faster parts.
- (7) The Centris 660AV requires 70 ns or faster parts.
- (8) SIMMs with parity support can be used, (ie: SIZE x 36) the parity bits are ignored.
- (9) The 840AV has 4 SIMM slots, any size SIMM may be placed in any socket.
- (10) The 660AV has 4MB soldered down, and 2 SIMM sockets, any size SIMM may be placed in each socket

Article Change History:

23 February 1994 - Added additional RAM configurations

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