



**System Fact Sheet**

**SYSTEM**

**Introduced:** October 1993  
**Discontinued:** September 1994  
**Gestalt ID:** 60  
**Form Factor:** Centris 610  
**Weight (lbs.):** 14  
**Dimensions (inches):** 3.4 H x 16.3 W x 15.6 D

**Codename:** Tempest  
**Oder Number:** M1839LL/A  
**KB Article #:** 12707

**POWER**

**Max. Watts:** 86  
**Amps:** 1.70  
**BTU Per Hour:** 294.12  
**Voltage Range:** 100-240  
**Freq'y Range (Hz):** 50-60  
**Battery Type:** 3.6V lithium  
 **Soft Power**  
 **Monitor Power Outlet**

**PORTS**

**ADB:** 1  
**Video:** DB-15  
**Floppy:** none  
**SCSI:** DB-25  
**GeoPort Connectors:** 1  
**Ethernet:** AAUI-15  
**Microphone Port Type:** PlainTalk  
 **Printer**     **Speaker**  
 **Modem**     **Headphone**  
 **Airport**     **Remote Control**

*Includes S-video and RCA ports for video in and out.*

**VIDEO**

**Built-in Display:** none

**Maximum Color Bit-depth<sup>1</sup> At:**

	512	640	640	640	800	832	1024	1152	1280
<b>VRAM Speed:</b>	x384	x400	x480	x870 <sup>2</sup>	x600	x624	x768	x870	x1024
<b>VRAM Needed:</b>	80 ns	built in	1MB VRAM	24	24	16	8	16	8
<b>Video Configuration:</b>				24	24	16	8	16	8
									n/a

<sup>1</sup> 1-bit = Black & White; 2-bit = 4 colors; 4-bit = 16 colors; 8-bit = 256 colors; 16-bit = Thousands; 24-bit = Millions

<sup>2</sup> The maximum color depth listed for 640x870 is 8-bit, reflecting the capabilities of the Apple 15" Portrait Display.

**LOGIC BOARD**

**Main Processor:** 68040, 25 MHz  
**PMMU:** integrated  
**FPU:** integrated  
**Data Path:** 32-bit, 25 MHz  
**L1 Cache:** 8K  
**L2 Cache:** none  
**Secondary Processor:** AT&T 3210 DSP, 55 MHz  
**Slots:** one 7" NuBus or PDS

**MEMORY**

**Memory on Logic Board:** 4 MB  
**Minimum RAM:** 4 MB  
**Maximum RAM:** 68 MB  
**RAM Slots:** 2 72-pin  
**Minimum RAM Speed:** 70 ns  
**RAM Sizes:** 4, 8, 16, 32 MB  
**Install in Groups of:** 1

**SOFTWARE**

**Speech Recognition Supported**

**Addressing Modes:** 32-bit  
**Original SSW:** 7.1  
**Original Enabler:** System Enabler 088 v1.1

**ROM ID:** \$077D  
**ROM Version:** \$10  
**ROM Size:** 2MB  
**AppleTalk Version:** 57.0.5

**Supported Macintosh System Software:**

- |                                       |                                   |                                       |                          |
|---------------------------------------|-----------------------------------|---------------------------------------|--------------------------|
| <input type="checkbox"/> A/UX 1.0     | <input type="checkbox"/> NOS 1.11 | <input type="checkbox"/> ProDOS       | <input type="checkbox"/> |
| <input type="checkbox"/> A/UX 1.11    | <input type="checkbox"/> NOS 1.3  | <input type="checkbox"/> GS/OS        | <input type="checkbox"/> |
| <input type="checkbox"/> A/UX 2.0     | <input type="checkbox"/> NOS 2.0  | <input type="checkbox"/> NeXTStep 1.x | <input type="checkbox"/> |
| <input type="checkbox"/> A/UX 3.0.1   | <input type="checkbox"/> NOS 2.1  | <input type="checkbox"/> NeXTStep 2.x | <input type="checkbox"/> |
| <input type="checkbox"/> A/UX 4.1.4   | <input type="checkbox"/> LOS 7/7  | <input type="checkbox"/> NeXTStep 3.x | <input type="checkbox"/> |
| <input type="checkbox"/> A/UX 4.1.4.1 | <input type="checkbox"/> DOS 3.1  | <input type="checkbox"/> OpenStep     | <input type="checkbox"/> |
| <input type="checkbox"/> A/UX 4.1.5   | <input type="checkbox"/> SOS 1.3  | <input type="checkbox"/> <1.0         | <input type="checkbox"/> |

**SOUND**

**Microphone Port Type:** PlainTalk  
**Sound In:** stereo, 16-bit  
**Sound Out:** stereo, 16-bit

**Built-in Microphone**

**STORAGE**

**Supports Internal CD-ROM**

**Floppy Size:** 1.44MB  
**Floppy Inject:** auto  
**Internal HD Size:** 80-500MB  
**Internal HD Interface:** SCSI  
**Original CD-ROM Speed:** 2x

**HISTORY**

Originally announced as the Centris 660AV in July 1993, The Quadra 660AV got a name change in October, when Apple phased out the Centris name, and was one of the first Macs (along with the Quadra 840AV) to integrate audio-visual features into it's basic design. It came in a Centris 610-style low profile case, and was driven by a 25 MHz 68040 processor, with a 55 MHz AT&T 3210 Digital Signal Processor. The 660AV was also one of the first Macs to include Geoport serial port (the modem port), which could be used as a modem with a telecom adapter. The 660AV had s-video and composite video-in and out, and was originally priced at \$2300, making it Apple's first low priced AV option.