



# Tech Info Library

## Macintosh Monitor and Video Chart (3 of 4) (12/96)

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TOPIC -----

This article provides a list of Apple Macintosh systems and the monitor and video options each can use.

DISCUSSION -----

Begin\_Table

	16-in Color*	Portrait Display	21-in Mono- chrome	MS 14* MS 15* MS 17* MS 20* 1710AV* 1710* 1705* 832 x 624	MS 17** MS 20** 1710AV** 1710** 1705** 1024 x 768
Part Number	M1044LL/A	M0404	M0402	M3935LL/B M3089LL M2611LL M2612LL M3323LL M3322LL M4434LL	M2611LL M2612LL M3323LL M3322LL M4434LL
Resolution (pixels)	832 x 624	640 x 870	1152 x 870	832 x 624	1024 x 768
Power Frequency (Hz)	47-63	47-63	47-63	47-63	47-63
Power Voltage (VAC)	90-270	90-270	85-270	90-132 198-260	90-132 198-260
Vertical	75 Hz	75 Hz	75 Hz	75 Hz	74.93 Hz

Refresh					
Horizontal Refresh	50 kHz	68.9 kHz	68.7 kHz	49.73 kHz	60.24 kHz
Dots Per Inch (DPI)	70	80	77	69-79	69-79
Dot Pitch	0.26 mm	N/A	N/A	0.31 mm	0.31 mm

\* Note: All of these monitors display the same video depth at this resolution, so only one column is listed in the chart for all monitors.

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Note: The 21-in. Monochrome display requires the DB-15 to DB-25 cable (590-0615) on all Macintosh computers with built-in video or with graphic cards using the standard DB-15 connector.

LC Family	VRAM	16-in Color Multi-Scan 15, 17, 20 @ 832x624	Portrait Display	21-in Monochrome	Multi-Scan 17 and 20 @ 1024x768
LC/LC II	256K 512K	N/A N/A	N/A N/A	N/A N/A	N/A N/A
LC III	512K 768K	256 C (1) 256 C (1)	16 G 256 G	N/A N/A	N/A N/A
LC 475	512K 1MB	256 C 32,768 C	16 G 256 G	16 G 256 G	16 C 256 C
630 (2)		256 C	N/A	N/A	N/A

C = Number of Colors  
G = Number of Grays

(1) Requires Display adapter to use Multiple Scan Displays at this resolution.

Performa Family	VRAM	16-in Color Multi-Scan 15, 17, 20 @ 832x624	Portrait Display	21-in Monochrome	Multi-Scan 17 and 20 @ 1024x768
400/405	256K	N/A	N/A	N/A	N/A
/410/430	512K	N/A	N/A	N/A	N/A
450	512K	256 C (1)	16 G	N/A	N/A
	768K	256 C (1)	256 G	N/A	N/A
460/466	512K	256 C (1)	16 G	N/A	N/A
/467	768K	256 C (1)	256 G	N/A	N/A
475/476	512K	256 C	16 G	16 G	16 C
	1MB	32,768 C	256 G	256 G	256 C
550/560		N/A	N/A	N/A	N/A
/575/577					
/578					
600/600CD	512K	N/A	N/A	N/A	N/A
	1MB	N/A	N/A	N/A	N/A
630 (2)		256 C	N/A	N/A	N/A
6200		256 C	N/A	N/A	N/A
6300		256 C	N/A	N/A	N/A
6400	1 MB	256 C	N/A	N/A	256 C
Mac TV		N/A	N/A	N/A	N/A

C = Number of Colors

G = Number of Grays

(1) Requires Display adapter to use Multiple Scan Displays at this resolution.

Macintosh II Family	VRAM	16-in Color Multi-Scan 15, 17, 20 @ 832x624	Portrait Display	21-in Monochrome	Multi-Scan 17 and 20 @ 1024x768
IIsi		N/A	16 G	N/A	N/A

IIci		N/A	16 G	N/A	N/A
IIvi/IIvx	512K	N/A	N/A	N/A	N/A
	1MB	N/A	N/A	N/A	N/A
II, IIx, IIcx, IIfx		<=====See note*=====>			

C = Number of Colors

G = Number of Grays

\* No built-in video and requires a video card.

Centris /Quadra Family	VRAM	16-in Color Multi-Scan 15, 17, 20 @ 832x624	Portrait Display	21-in Monochrome	Multi-Scan 17 and 20 @ 1024x768
605	512K 1MB	256 C 32,768 C	16 G 256 G	16 G 256 G	16 C 256 C
610/650	512K 1MB	256 C 32,768 C	16 G 256 G	16 G 256 G	16 C 256 C
660AV	1MB	32,768 C	256 G	256 G	256 C
630 family (2)		256 C	N/A	N/A	N/A
700	512K 1MB 2MB	256 C 256 C 16.7M C	16 G 256 G 256 G	16 G 256 G 256 G	N/A N/A N/A
800	512K 1MB	256 C 256 C	16 G 256 G	16 G 256 G	16 C 256 C
840AV	1MB 2MB	32,768 C 16.7M C	256 G 256 G	256 G 256 G	256 C 32,768 C
900	1MB 2MB	256 C 16.7M C	256 G 256 G	256 G 256 G	N/A N/A
950	1MB 2MB	256 C 16.7M C	256 G 256 G	256 G 256 G	256 C 256 C

C = Number of Colors

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(2) The Macintosh 630 family computers can use larger monitors such as the Multiple Scan 17 and Multiple Scan 20 however the maximum resolution on these monitors is 832x624, and at this resolution, they cannot support the TV/Video System.

The following computers are in the Macintosh 630 family: Performa 630, Performa 635, Performa 636, Performa 637, Performa 638, LC 630, and Quadra 630.

Note:

For the Quadra/Centris AV computers, pixel and viewable color numbers are for computer graphics only. When video is enabled, VRAM is split evenly between graphics and video.

Power Macintosh Family	VRAM	16-in Color Multi-Scan 15, 17, 20 @ 832x624	Portrait Display	21-in Monochrome (3)	Multi-Scan 17 and 20 @ 1024x768
5400	1MB	256 C (8)	N/A	N/A	N/A
6100	HDI45*	256 C	256 G	N/A	N/A
6100AV	2MB	16.7M C	256 G	256 G	32,768 C
7100	HDI45*	256 C	256 G	N/A	N/A
	1MB	32,768 C	256 G	256 G	256 C
	2MB	16.7M C	256 G	256 G	32,768 C
7100AV	2MB	16.7M C	256 G	256 G	32,768 C
7200	1MB	32,768 C	256 G	256 G	256 C
	2MB	16.7M C	256 G	256 G	32,768 C
	4MB	16.7M C	256 G	256 G	16.7M C
7500	2MB	16.7M C	256 G	256 G	32,768 C
	4MB	16.7M C	256 G	256 G	16.7M C
7600	2MB	16.7M C	256 G	256 G	32,768 C
	4MB	16.7M C	256 G	256 G	16.7M C
8100	HDI45*	256 C	256 G	N/A	N/A
	2MB	16.7M C	256 G	256 G	32,768 C
	4MB	16.7M C	256 G	256 G	16.7M C
8100AV	2MB	16.7M C	256 G	256 G	32,768 C
8500	2MB	16.7M C	256 G	256 G	32,768 C
	4MB	16.7M C	256 G	256 G	16.7M C
9500/120	2MB	16.7M C	256 G	256 G	32,768 C

	4MB	16.7M C	256 G	256 G	16.7M C
<p>* = HDI-45 port makes use of 640K of internal DRAM memory.  C = Number of Colors  G = Number of Grays</p> <p>Note: For the Power Macintosh AV computers pixel and viewable color numbers are for computer graphics only. When video is enabled, VRAM is split evenly between graphics and video.</p> <p>(8) - This is a built-in 15-in display.</p>					

		16-in Color Multi-Scan	Portrait Display	21-in Monochrome	Multi-Scan 17 and 20 @ 1024x768
PowerBook Family	VRAM	15, 17, 20 @ 832x624			
160/165 /c/180/c		256 C (1)	256 G	N/A	N/A
500 Series		256 C	256 G	N/A	N/A
5300 Series		256 C	256 G	N/A	N/A
190 Series		256 C	256 G	N/A	N/A
Duo Dock	512K 1MB	256 C 32,768 C (3)	256 G 256 G	N/A N/A	N/A N/A
MiniDock	512K	256 C	16 G	N/A	N/A
Duo Dock II		32,768 C	256 G	256 G	256 C

C = Number of Colors  
G = Number of Grays

(3) The Duo Dock requires a video adapter to change resolutions unless System 7.5 is installed.

		16-in Color Multi-Scan	Portrait Display	21-in Monochrome	Multi-Scan 17 and 20 @ 1024x768
Display Cards		15, 17, 20 @ 832x624			

Macintosh II	N/A	N/A	N/A	N/A
2-Page Mono Card	N/A	N/A	4 G	N/A
Portrait	N/A	4 G	N/A	N/A
Mono	N/A	N/A	N/A	N/A
High-Res Card (4)	N/A	N/A	N/A	N/A
Ext High-Res Card	N/A	N/A	N/A	N/A
4•8 (5)	256 C (1,6)	16 G	16 G	N/A
8•24	256 C (1,7)	256 G	256 G	N/A
8•24GC	32,768 C(1,7)	256 G	256 G	N/A
Display Card 24 AC	16.7M C	256 G	256 G	16.7M C

C = Number of Colors  
G = Number of Grays

- (1) Requires Display adapter to use Multiple Scan Displays at this resolution.
- (4) Can be upgraded with eight (8) Mac II Video Expansion RAM chips (Service PN: 334-002) for 256 grays/colors.
- (5) The 4•8 can be upgraded to a 8•24 by adding two (2) VRAM SIMMs (Service PN: 661-0609).
- (6) Available with rev. B ROM.
- (7) Available with rev. B card.

End\_Table

Article Change History:

- 06 Dec 1996 - Corrected Portrait Display Info for Minidock.
- 27 Nov 1996 - Added 6300 Series information.
- 18 Nov 1996 - Added 6400 information.
- 19 Sep 1996 - Removed keyword.

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