



System Fact Sheet

SYSTEM

Introduced: April 1997
Discontinued: January 1998
Gestalt ID: 67
Form Factor: PM 9600
Weight (lbs.): 35
Dimensions (inches): 17.3 H x 9.7 W x 17.3 D

Codename:
Order Number: M5646LL/A
KB Article #: 21193, 21194

POWER

Max. Watts: 390
Amps: 3.00
BTU Per Hour: 1333.8
Voltage Range: 100-125/200
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: 2
Ethernet: AAUI-15 &
Microphone Port Type: PlainTalk
 Printer **Speaker**
 Modem **Headphone**
 Airport **Remote Control**

VIDEO

Built-in Display: none

Maximum Color Bit-depth¹ At:

VRAM Speed:	VRAM Needed:	Video Configuration:	512	640	640	640	800	832	1024	1152	1280
x384	x400	x384	x400	x480	x870 ²	x600	x624	x768	x870	x1024	
n/a	n/a	video card (4MB)	24	n/a	24	8	24	24	24	24	24

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

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

A video card ships bundled with this system. The bundled video card is capable of resolutions up to 1600x1200.

LOGICBOARD

Main Processor: 604e, 233 MHz
PMMU: integrated
FPU: integrated
Data Path: 64-bit, 50 MHz
L1 Cache: 64K
L2 Cache: 512K
Secondary Processor: opt. PC Compatibility Card
Slots: 6 PCI

MEMORY

Memory on Logic Board: none
Minimum RAM: 64 MB
Maximum RAM: 768 MB
RAM Slots: 12 168-pin
Minimum RAM Speed: 70 ns
RAM Sizes: 8, 16, 32, 64 MB
Install in Groups of: 1

128MB DIMMs can be used, but have not been tested. Two identical DIMMs installed in corresponding slots may result in increased performance.

SOFTWARE

Speech Recognition Supported

Addressing Modes: 32-bit
Original SSW: 7.6.1
Original Enabler: none

ROM ID: \$077D
ROM Version: \$34
ROM Size: 4MB
AppleTalk Version: n/a

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: manual
Internal HD Size: 4GB, 2x4GB
Internal HD Interface: SCSI
Original CD-ROM Speed: 12x

HISTORY

The Workgroup Server 9650 was based on the motherboard of the PowerMac 9600, and included bundled server software. It was "speed bumped" to a 350 Mhz Mach 5 in late 1997.