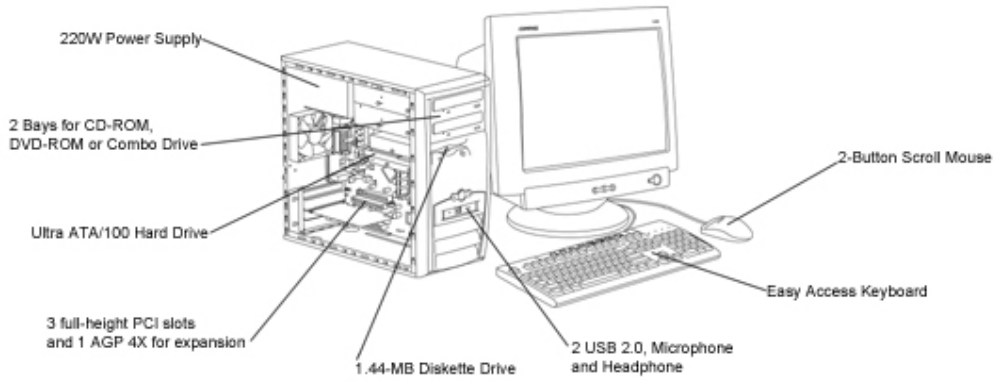


### Overview

#### Microtower

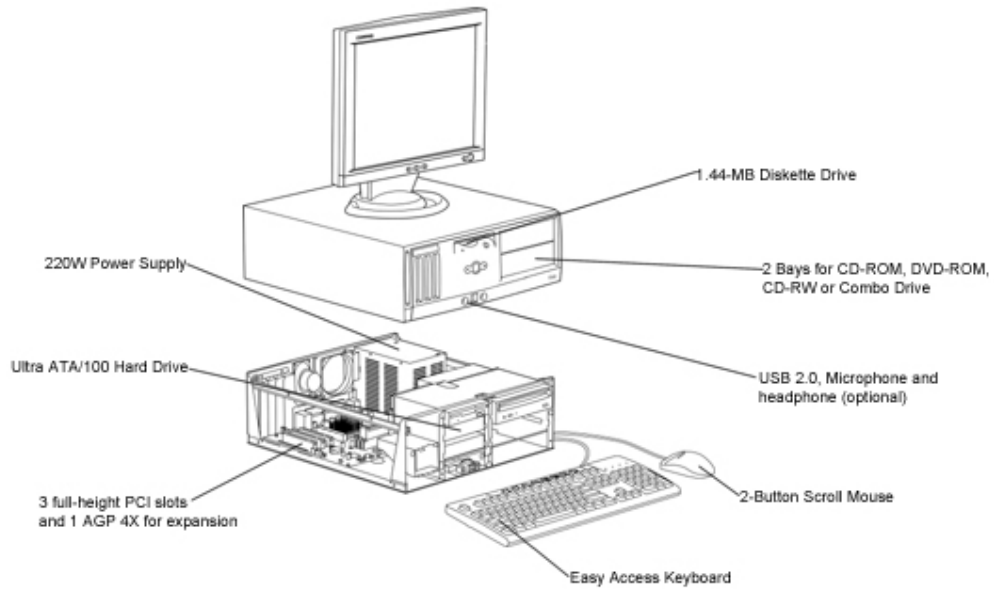
36.83 x 17.48 x 42.04 centimeters / 14.5 x 6.88 x 16.55 inches



Monitor Sold Separately

#### Desktop

14.5 x 38.8 x 45.5 centimeters / 5.7 x 15.3 x 17.9 inches



Monitor Sold Separately

### Overview

#### At A Glance

- Intel® Pentium® 4 and Celeron® processors
- Intel 845G chipset with Intel Extreme integrated graphics
- 400- and 533-MHz Front Side Bus
- DDR Synch Dram PC2100 (266-MHz) Memory Support
- 4 USB 2.0 ports standard, 2 additional front USB ports optional
- Ultra ATA/100 Hard Drives
- Pre-Installed Microsoft Operating Systems
- Linux Operating System
- Integrated audio with internal speaker
- Integrated Intel PRO/100 NIC
- Energy Star compliant with energy-saving features
- Protected by Compaq Services, including a 3-1-1 or 1-1-1, standard warranty. Terms and conditions vary by country. Certain restrictions and exclusions apply.

### Standard Features - Select Models

#### Compaq Evo D310 Models with Intel 845G Chipset

All D310's come with:

- Integrated Intel Extreme graphics
- Integrated Intel PRO/100 VM NIC
- Integrated Intel PRO/100 VE NIC
- Integrated Intel Audio

#### Model Key

##### Example:

D3Dt/P1.5/20j/2/128c/vn

D5S = Evo D310 Desktop  
P1.8 = Pentium 4 1.8-GHz processor  
20 = Hard Drive  
P = XP/2K dual install  
128 = Memory  
c = CD-ROM

#### Pre-Configured Models

##### Desktop

xxxxxx- xxx	D3DT/C1.7
xxxxxx- xxx	D3DT/P1.8
xxxxxx- xxx	D3DT/P1.8
xxxxxx- xxx	D3DT/P2.0
xxxxxx- xxx	D3DT/P2.0

##### Microtower

xxxxxx- xxx	D3MT/P1.8
xxxxxx- xxx	D3MT/P1.8
xxxxxx- xxx	D3DT/P2.0

### Standard Features - Custom Components

		Custom Component	
		uMT	DT
<b>Processor and Speed</b> - One of the following			
<b>Intel Celeron Processors</b> with 400-MHz Front Side Bus, 128-KB L2 Cache			
	1.7-GHz with 400-MHz Front Side Bus	*	*
	1.8-GHz with 400-MHz Front Side Bus	*	*
	2.0-GHz with 400-MHz Front Side Bus	*	*
<b>Intel Pentium 4 Processors</b> with 400-MHz Front Side Bus, 256-KB L2 Cache			
	1.8-GHz with 400-MHz Front Side Bus	*	*
<b>Intel Pentium 4 Processors</b> with 400-MHz Front Side Bus, 512-KB L2 Cache			
	1.8-GHz with 400-MHz Front Side Bus	*	*
	2.0-GHz with 400-MHz Front Side Bus	*	*
<b>Intel Pentium 4 Processors</b> with 533-MHz Front Side Bus, 512-KB L2 Cache			
	2.26-GHz with 533-MHz Front Side Bus	*	*
	2.4-GHz with 533-MHz Front Side Bus	*	*
	2.53-GHz with 533-MHz Front Side Bus	*	*
	2.66-GHz with 533-MHz Front Side Bus	*	*
	2.80-GHz with 533-MHz Front Side Bus	*	*
	3.06-GHz with 533-MHz Front Side Bus	*	*
<b>Hard Drives</b> - One of the following			
	20-GB 7200 rpm SMART III Ultra ATA/100	*	*
	20-GB 5400 rpm SMART III Ultra ATA/100	*	*
	40-GB 7200 rpm SMART III Ultra ATA/100	*	*
	40-GB 5400 rpm SMART III Ultra ATA/100	*	*
	60-GB 5400 rpm SMART III Ultra ATA/100	*	*
	80-GB 7200 rpm SMART III Ultra ATA/100	*	*
	120-GB 7200 rpm SMART III Ultra ATA/100	*	*
<b>Standard Memory</b> - One of the following			
	128-MB DDR Synch Dram PC2100 (266-MHz) Non ECC	*	*
	256-MB DDR Synch Dram PC2100 (266-MHz) Non ECC	*	*
	512-MB DDR Synch Dram PC2100 (266-MHz) Non ECC	*	*
	1-GB DDR Synch Dram PC2100 (266-MHz) Non ECC	*	*
<b>Removable Storage</b>			
	1.44-MB Diskette Drive	*	*
	8-MB USB Disk-on-Key	*	*
	32-MB USB Disk-on-Key	*	*

### Standard Features - Custom Components

<b>Optical Storage</b>	48X Max CD-ROM Drive (also available for Linux operating systems)	*	*
	48X/12X/48X CD-RW Drive (also available for Linux operating systems)	*	*
	32X Combo CD-RW/DVD-ROM Drive	*	*
	16X/40X DVD-ROM with +R Read (reads DVD +R, +RW, -R, and -RW)	*	*
	4.7 GB DVD+R/RW Drive	*	*
<hr/>			
<b>Keyboard</b> - One of the following	PS/2 Easy Access Keyboard	*	*
	USB Easy Access Keyboard	*	*
<hr/>			
<b>Mouse</b> - One of the following	PS/2 2-Button Scroll Mouse	*	*
	USB 2-Button Scroll Mouse	*	*
	USB 2-Button Optical Scroll Mouse	*	*
<hr/>			
<b>Audio</b>	Integrated SoundMax with premium internal speaker	*	*
	Labtec Spin-52 External Speakers	*	*
<hr/>			
<b>Modem</b>	Lucent V.90 56K Win Modem	*	*
<hr/>			
<b>NIC</b>	Integrated Intel PRO/100 Network Connection	*	*
	3COM 3C905C-TX Network Connection	*	*
	Broadcom NetXtreme <sup>®</sup> 10/100/1000 Management Gigabit Adapter	*	*
<hr/>			
<b>Graphics</b>	Intel Extreme Graphics (integrated with Intel 845G chipset)	*	*
	NVIDIA GeForce2 MX200 64-MB with DVI-I	*	*
	NVIDIA GeForce MX400 32-MB	*	*
	NVIDIA GeForce4 MX420 64-MB DDR with TV Out	*	*
<hr/>			
<b>Operating System</b> - One of the following	Microsoft Windows 2000 SP2	*	*
	Microsoft Windows XP Professional SP1*	*	*
	Microsoft Windows XP Home SP1*	*	*
	Mandrake Linux 8.2 (only available on limited configurations)	*	*
	Microsoft Windows NT 4.0 (drivers Softpaqs only)	*	*
	Microsoft Windows 98 SE (drivers Softpaqs only)	*	*
	Microsoft Windows 98 SE (drivers Softpaqs only)	*	*

**\*NOTE:** Hyperthreading Support - Systems shipped after February 1st, 2003 will include support for Hyperthreading. To take advantage of Hyperthreading, the system must be configured with a minimum processor speed of 3.06GHz. HP has performed qualification testing under both Windows XP Home and Windows XP Professional. HP strongly recommends that customers upgrade to the latest version of the Microsoft Service Pack for these operating systems. This will ensure the best possible user experience.

**NOTE:** Microsoft Windows NT 4.0 and Windows 98 SE are not available on system, but Softpaq drivers are downloadable from [Compaq.com](http://Compaq.com).

### Standard Features - Custom Components

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#### Software

Norton Internet Security/Norton AntiVirus 2002	*	*
Microsoft Office XP Small Business Edition	*	*
Microsoft Office XP Professional	*	*
Microsoft Office XP Personal	*	*
Roxio CD Creator Roxio EZ CD Creator (v. 5.3)	*	*
Intervideo WinDVD Player (v 3.2)	*	*

**NOTE:** Norton AntiVirus 2002 is preinstalled, but Norton Internet Security software is available on CD.

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**Intelligent Manageability** Downloadable from Intelligent Manageability at: <http://www.compaq.com/im>

## Standard Features - Base Unit Details

Base Unit Contents	Microtower	Desktop
Chassis	*	*
Intel processor / heatsink	*	*
Systemboard with Intel 845G Chipset with Integrated 4X AGP	*	*
Cables	2 ATA Cables	2 ATA Cables
Optical Media	Diskette with Cable	Diskette with Cable
Quick Setup Poster	Quick Setup Poster	Quick Setup Poster
Product Documentation on CD	Available on web	Available on web
Compaq OS CD	*	*
Compaq Restore CD	*	*
Power Cord	*	*
Keyboard	* (PS/2)	* (PS/2)
Mouse	* (PS/2)	* (PS/2)

### Expansion Capability

Memory Expansion Slots (Non-ECC)	2 DIMM's - DDR Synch Dram PC2100 (266-MHz)	2 DIMM's - DDR Synch Dram PC2100 (266-MHz)
Maximum Memory	2-GB	2-GB

**NOTE:** Intel 845G Chipsets support DDR Synch Dram PC2100 (266-MHz) and DDR Synch Dram PC1600 (200-MHz) Non-ECC Memory only. Compaq PCs ship with DDR Synch Dram PC2100 (266-MHz) Non-ECC Memory.

### Slots

PCI	3 full-height, full length slots on PCA	3 full-height, full-length slots on PCA
AGP	1 AGP 4X, 1.5V	1 AGP 4X, 1.5V

Bays	Microtower	Desktop
Total Bays =	5	5
Internal:	(2) 3.5 inch ATA Hard Drive	(2) 3.5 inch ATA Hard Drive
External:	(2) 5.25 inch half-height	(2) 5.25 inch half-height
Floppy	(1) 3.5 inch Diskette Drive	(1) 3.5 inch Diskette Drive

<b>Wireless Support</b>	PCI card or external USB	PCI card or external USB
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### USB Support

Front USB 2.0 ports	(2) optional	(2) optional
Rear USB 2.0 ports	(4)	(4)

### Interfaces (Legacy)

Parallel Port	1	1
Serial Port	1	1
PS/2 Keyboard	1	1
PS/2 Mouse	1	1
VGA Adapter	1	1

### Standard Features - Base Unit Details

#### Chassis Dimensions (H x W x D)

Centimeters	36.83 x 17.48 x 42.04 centimeters	14.5 x 38.8 x 45.5 centimeters
Inches	14.5 x 6.88 x 16.55 inches	5.7 x 15.3 x 17.9 inches

#### Chassis Weight

System Weight	10.92 kilograms/23.8 pounds	11.8 kilograms/26.0 pounds
Weight Supported	45.5 kilograms/100 pounds	45.5 kilograms/100 pounds

#### System Memory

Type/Speed	DDR Synch Dram PC2100 (266-MHz) Non-ECC	DDR Synch Dram PC2100 (266-MHz) Non-ECC
Maximum Memory	2-GB	2-GB
Memory Parity	Not Needed for non-ECC	Not Needed for non-ECC
ECC Memory	Not Supported by chipset	Not Supported by chipset
Serial Presence Detect Support	Supported	Supported

#### Supported Features

##### Microtower

##### Desktop

Processor	Intel Pentium 4 Socket N - 478	Intel Pentium 4 Socket N - 478
CPU Bus Speed Supported	400-MHz / 533-MHz FSB	400-MHz / 533-MHz FSB
Memory Type Supported	DDR (ECC not supported by Chipset)	DDR (ECC not supported by Chipset)
Memory Speed Supported	DDR Synch Dram PC2100 (266-MHz) Non-ECC	DDR Synch Dram PC2100 (266-MHz) Non-ECC
SPD Support	*	*
Hard Drive Interfaces Supported	SMART III Ultra ATA/100/66/33	SMART III Ultra ATA/100/66/33
Hard Drive Controller (PCI) Supported	SMART III Ultra ATA/100/66/33	SMART III Ultra ATA/100/66/33

#### Intel Pentium 4

Coprocessor	Integrated	Integrated
CPU Socket Type/Number	Socket N 478 pin	Socket N 478 pin
CPU Package	FC-PGA2	FC-PGA2
Front Side Bus Speed	400-MHz or 533-MHz	400-MHz or 533-MHz
Standard L2 Cache	256-KB ECC or 512-KB ECC depending on processor speed	256-KB ECC or 512-KB ECC depending on processor speed
L2 Cache Architecture / Speed	Full core clock speed	Full core clock speed
Cache Upgradeable To	Not upgradeable - Integrated into Processor	Not upgradeable - Integrated into Processor

#### Intel Celeron

Coprocessor	Integrated	Integrated
CPU Socket Type/Number	Socket N 478 pin	Socket N 478 pin
CPU Package	FC-PGA2	FC-PGA2
Front Side Bus Speed	400-MHz	400-MHz
Standard L2 Cache	256-KB ECC depending on processor speed	256-KB ECC depending on processor speed
L2 Cache Architecture / Speed	Full core clock speed	Full core clock speed
Cache Upgradeable To	Not upgradeable - Integrated into Processor	Not upgradeable - Integrated into Processor



## Standard Features - Base Unit Details

### System Board

Architecture	P4 / PCI / AGP 4X	P4 / PCI / AGP 4X
Chipset	Intel 845G Chipset	Intel 845G Chipset
I/O Controller	Super I/O 3	Super I/O 3
System Board Form Factor	Standard uATX	Standard uATX
Processor Socket - 478 Pin ZIF	*	*
DIMM Connectors (2.5V)	* (2)	* (2)
AGP Connector (1.5V)	* (1)	* (1)
Integrated AGP Graphics	*	*
PCI Connectors (5.0V)	* (3 on motherboard)	* (3 on motherboard)
Flash ROM	*	*
Audio	*	*
CD ROM IN (Audio)	*	*
Clear CMOS	*	*
CPU Fan Header	*	*
Chassis Fan Header	*	*
Chassis Speaker Header	*	*
CMOS Battery Holder - Lithium	*	*
Hood Lock Header	x	x
Hood Sense Header	x	x
Multibay Header	x	x
Multport Header	x	x
NIC (PRO/100 VM)	*	*
Wake-On-Lan®	*	*
Alert-On-LAN®	x	x
Power Supply Header	*	*
Power Switch, Power LED & Hard Drive LED Header	*	*
Password Clear Header	*	*
Riser Connector	x	x
SCSI LED Header	x	x
Boards that connect to System Board	Front I/O Board – USB, Microphone and Headphone (Optional)	Front I/O Board – USB, Microphone and Headphone (Optional)

## Standard Features - Base Unit Details

### Chassis

Color	Carbon/Silver	Carbon/Silver
System Board Form Factors Supported	Standard uATX	Standard uATX
Flash ROM	*	*
Cooling Solutions Supported	*	*
Power Supply Fan (Variable Speed)	*	*
Processor Fan-Heatsink (Variable Speed)	*	*
Chassis Fan Slots Supported	3 full length, full height PCI slots	3 full length, full height PCI slots
AGP Slot	1 AGP	1 AGP
Front I/O	Front Headphone, Microphone, and 2 USB (optional)	Front Headphone, Microphone, and 2 USB (optional)
Rear I/O	Standard ATX I/O Connectors	Standard ATX I/O Panel
Internal Speaker	*	*
Power Supply	ATX Power Supply – PFC/Non PCF with a 115v/230v line switch	ATX Power Supply – PFC/Non PCF with a 115v/230v line switch
Security Locks Supported	Kensington Cable Lock	Kensington Cable Lock
	Hood Cover Security Loop (Lock not included)	Hood Cover Security Loop (Lock not included)

### Interfaces

I/O Chip	Super IO 3	Super IO 3
Serial Port	Two One Serial Ports / SN75185	One Serial Port
Parallel Port	One Parallel Port	One Parallel Port
USB (2.0)	6 ports (USB 2.0) 4 rear/2 front	4 ports (USB 2.0) 4 rear 2 additional front ports (optional)
Infrared Port	x	x
RJ-45 Network	*	*
Keyboard	* (PS2)	* (PS2)
Mouse	* (PS2)	* (PS2)
Multibay	x	x
Multiport	x	x
Video (VGA)	*	*
Audio	*	*

### Standard Features - Base Unit Details

Power Supply	Microtower	Desktop
Power Supply	ATX Power Supply – PFC/Non PCF with a 115v/230v line switch	ATX Power Supply – PFC/Non PCF with a 115v/230v line switch
Full Ranging Input (No Line Select Switch)	x	x
Active Power Factor Correction (APFC) (Input Current is nearly 1/2 a non-APFC PS)	x	x
Passive Power Factor Correction (PFC)	* (with line switch set to 230v - No PFC in 115v line switch position)	* (with line switch set to 230v - No PFC in 115v line switch position)
Operating Voltage Range	90 to 132VAC, or 180 to 264VAC	90 to 132VAC, or 180 to 264VAC
Rated Voltage Range	100 to 127 VAC, or 200 to 240VAC	100 to 127 VAC, or 200 to 240VAC
Rated Line Frequency	50-60 Hz	50-60 Hz
Operating Line Frequency Range	47-63 Hz	47-63 Hz
Rated Input Current	6A @ 100VAC/3A @ 200VAC	6A @ 100VAC/3A @ 200VAC
Maximum Rated Power	220W	220W
Heat Dissipation	Max (338W input): 1061 BTU/hr Typical (65W input): 222 BTU/hr Max (338W input): 267 kg-cal/hr Typical (65W input): 56 kg-cal/hr	Max (338W input): 1061 BTU/hr Typical (65W input): 222 BTU/hr Max (338W input): 267 kg-cal/hr Typical (65W input): 56 kg-cal/hr
PS Fan	92mm fan integrated in power supply - variable speed for optimum acoustics	92mm fan integrated in power supply - variable speed for optimum acoustics
Processor Fan	Variable speed fan	Variable speed fan

### Power Conservation 'Energy Saver'

Energy Star Compliant	*	*
APM 1.2 Support	*	*
Screen Blanking	*	*
Hard Disk 'Idle' Mode	*	*
System Idle Mode	*	*
Cache Memory Power-Down	x	x
Blue Angel Compliant (<5w in S5--Power Off)	*	*
Power Consumption in ES Mode - Suspend to RAM (S3) (Instantly Available PC)	~2W	~2W
Processor/Cache Memory Power-Down (S3)	*	*
CD-Rom Spins Down when not in use	*	*
Environmental and Mechanical Engineering Support Center	<a href="http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm">http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm</a>	

## Standard Features - Base Unit Details

Software	Microtower	Microtower
Windows 3.1	x	x
Windows 95	x	x
Windows 98	x (drivers available on web) Softpaqs Only	x (drivers available on web) Softpaqs Only
Windows NT 4.X	x (drivers available on web) Softpaqs Only	x (drivers available on web) Softpaqs Only
Windows 2000 SP2	*	*
Windows XP Professional SP1	*	*
Windows XP Home SP1	*	*
Linux	*	*
Office XP Small Business	*	*
Office XP Professional	*	*
Office 2000	*	*
Word Perfect	*	*
Corel	*	*
Computer Setup Utility	*	*
Diagnostics for Windows	*	*
Microsoft Internet Explorer	*	*

### Intelligent Manageability

Intelligent Manageability Home Page	<a href="http://www.compaq.com/im">http://www.compaq.com/im</a>	
Insight Management Agent	*	*
Plug and Play Ready		
Windows 2000	*	*
Windows XP Pro	*	*
Windows XP Home	*	*

### Boot Support

Local Diskette Boot	*(Windows 95, Windows 98, DOS)	*(Windows 95, Windows 98, DOS)
Network Boot	*	*

ROM Features	Description	Microtower	Desktop
Instantly Available PC (Suspend to RAM - S3)	Allows for very low power consumption with quick resume time.	*	*
ROM Based F10 Setup	Allows for reviewing and customizing BIOS settings.	*	*
Remote System Installation via F12 (PXE)	Allows a new or existing system to boot over the network and download software, including the operating system, that is stored on a management server	*	*
Emergency ROM Flash Recovery with Video	Allows for recovery of corrupted system BIOS.	*	*
CMOS Archive and CMOS Restore	Saves and restores BIOS settings to diskette in human-readable file.	*	*
Auto Setup when New Hardware Installed	System automatically detects addition of new hardware (e.g. memory, floppy, etc.)	*	*
Serial, Parallel, USB Enable/Disable Port Control	Allows the user to enable or disable serial, parallel or USB ports	*	*

## Standard Features - Base Unit Details

Removable Media Write / Boot Control	Prevents the computer from being booted from removable media (and can disable writes to media)	*	*
Remote Boot from Server	Allows a new or existing system to boot over the network and download software, including the operating system, that is stored on a management server	*	*
Network Server Mode	Allows for keyboard-less operation	*	*
Power-On Password	Prevents an unauthorized person from booting up the computer	*	*
Setup Password	Prevents an unauthorized person from changing the system configuration	*	*
Memory Change Alert (Requires Insight Management Agent)	Alerts management console if memory is removed or changed	*	*
Thermal Alert (Requires Insight Management Agent)	<ul style="list-style-type: none"> <li>● Monitors the temperature within the chassis.</li> <li>● There are three operational states that a computer can experience:             <ul style="list-style-type: none"> <li>○ NORMAL – operating under under normal temperature ranges</li> <li>○ ALERTED - operation when excessive temperatures are detected. Will raise a flag so that appropriate action can be taken to avoid shutdown or provide for a smoother system shutdown</li> <li>○ SHUTDOWN – when excessive temperatures are encountered. Will automatically shutdown the computer without warning before hardware component damage occurs</li> </ul> </li> </ul>	*	*
Cover Removal Alert (Requires Insight Management Agent)	<ul style="list-style-type: none"> <li>● Assists with asset security and control by notifying the Network</li> <li>● Administrator and end user when the cover has been removed without authorization.</li> </ul> <p>Is an electronic switch residing inside the computer which can be set to any one-of-three modes depending on the amount of control desired:</p> <ul style="list-style-type: none"> <li>○ DISABLED - the network administrator does not want to be made aware of the computer hood removal</li> </ul>	x	x

## Standard Features - Base Unit Details

	<ul style="list-style-type: none"> <li>○ NOTIFY USER - notifies network administrator that the hood has been removed, but no administrator action required before re-booting the computer</li> <li>○ UP PASSWORD – notifies network administrator that the hood has been removed and administrator password is required before re-booting the computer</li> </ul>		
Master Boot Record Security	Allows for detection of changes to MBR and optional restoration, useful in protecting from viruses	*	*
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console	*	*
Remote Wakeup	<ul style="list-style-type: none"> <li>● Allow a system administrator to power on, restart, and power off a client computer from a remote location.</li> <li>● This enables cost-effective power consumption when the administrator needs to distribute software, perform security management, or update the ROM.</li> </ul>	*	*
ACPI Power Management	<ul style="list-style-type: none"> <li>● Advanced Configuration and Power Management Interface (ACPI).</li> <li>● It allows the system to wake from a low power mode.</li> <li>● It controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system</li> </ul>	*	*
ACPI	System Management BIOS, previously known as DMI BIOS, for system management information	*	*
SMBIOS		*	*

### Standard Features - Base Unit Details

#### System Environmental Specs

Acoustics: Advanced Power Management - On	-----	Idle (HDD spinning but not seeking) = 29 dB)	Idle (HDD spinning but not seeking) = 29 dB)
Shock			
Operating (*Using 11 ms half-sine shock pulse)	-----	5 G's*(with NO damage being incurred)	5 G's*(with NO damage being incurred)
Non-Operating (*Using 11 ms half-sine shock pulse)	-----	10 G's*, positive and negative directions front to back axis: 20 G's* in all other axes.	10 G's*, positive and negative directions front to back axis: 20 G's* in all other axes.
Vibration			
Operating	-----	Random vibration at 0.000215 G <sup>2</sup> /Hz, 10Hz to 300Hz, (0.25G's nominal).	Random vibration at 0.000215 G <sup>2</sup> /Hz, 10Hz to 300Hz, (0.25G's nominal).
Non-Operating	-----	Random vibration at 0.0005 G <sup>2</sup> /Hz, 10Hz to 500Hz, (0.5G's nominal).	Random vibration at 0.0005 G <sup>2</sup> /Hz, 10Hz to 500Hz, (0.5G's nominal).
Relative Humidity			
Operating (maximum wet bulb temp., non-condensing)	-----	10% to 90% relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.	10% to 90% relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
Non-operating (maximum wet bulb temp., non-condensing)	-----	5% to 95% relative humidity (Rh), 38.7°C maximum wet bulb temperature, non-condensing.	5% to 95% relative humidity (Rh), 38.7°C maximum wet bulb temperature, non-condensing.
Altitude Max (un-pressurized)			
Operating	-----	0 to 10,000 feet – This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 1500 ft/min.	0 to 10,000 feet – This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 1500 ft/min.
Non-operating (Maximum allowable altitude change rate is 1500 ft/min)	-----	0 to 30,000 ft 9,144 m – Maximum allowable altitude change rate is 1500 ft/min	0 to 30,000 ft 9,144 m – Maximum allowable altitude change rate is 1500 ft/min
Environmental and Mechanical Engineering Support Center (EMESC) - Intranet Web Site only		<a href="http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm">http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm</a>	

## Standard Features - Base Unit Details

### Initial Configuration and Deployment

HP/Compaq Client Manager (free)	A FREE solution that provides asset tracking, alerting, diagnostics, and SoftPaq distribution for Compaq business desktops, notebooks, and workstations. Compaq Client Manager "plugs" into the Altiris eXpress infrastructure to provide value-add Compaq specific information that can be leveraged by all Altiris eXpress solutions delivering cost saving features		
Altiris eXpress Solutions (30-day trial version)	A suite of solutions that focus on business needs in four areas, saving time and freeing resources to address other crucial issues:		
		<ul style="list-style-type: none"> <li>● Deployment &amp; Migration</li> <li>● Software &amp; Operations Management</li> <li>● Inventory &amp; Asset Management</li> <li>● Help Desk &amp; Problem Resolution</li> </ul>	
PC Transplant Pro (30-day trial version)	Makes transferring the files and settings that make your PC unique - its personality - a quick and intuitive process		
System Software Manager (free)	A utility that automatically detects and updates BIOS, device drivers, and management agent versions on your networked PCs		
Insight Manager	----		
Support Software CD	-----	*	*
Compaq Software Restore CD	Allows the computer to be restored to its original factory shipping image	*	*



## Standard Features - Base Unit Details

Asset Tracking and Security	Description	Microtower	Desktop
Asset Tag	<ul style="list-style-type: none"> <li>Intended to be used as a repository for storing company-specific property asset numbers for easy tracking</li> <li>Initially set equal to the system serial number</li> <li>Stored in a protected section of non-volatile memory which can be accessed and modified with the F10 Setup program</li> </ul>	*	*
DIMM Serial Presence Detect	----	*	*
Hard drive serial number, model, & manufacturer	Hard drive manufacturer, model, and serial number is stored in the hard drive firmware	*	*
Monitor serial number, model & manufacturer	----	*	*
System serial number, model, & manufacturer	System serial number, model, & manufacturer stored in a non-volatile memory and can be retrieved with management SW	*	*
ROM revision levels	<ul style="list-style-type: none"> <li>System ROM revision levels are identified by the date of release</li> <li>Date is stored in an industry standard memory location so that management SW applications can use and report this information</li> </ul>	*	*
System board revision level	<ul style="list-style-type: none"> <li>Allows management SW to read the revision level of the system board</li> <li>Revision level is digitally encoded into the hardware and cannot be modified</li> </ul>	*	*
Memory Change Alert	Alerts management console if memory is removed or changed	*	*
Ownership Tag	----	*	*
<b>Standard Security Features</b>			
Kensington Lock Support	----	*	*
Cable Lock Provision	Allows the user to physically secure computer hardware from theft	*	*
Serial, Parallel, Audio, USB Enable/Disable	Allows the user to enable or disable serial, parallel or USB ports	*	*
Removable Media Write / Boot Control	Prevents the computer from being booted from removable media (and can disable writes to media)	*	*
Power-On Password	Prevents an unauthorized person from booting up the computer	*	*
Other	----	Hood Cover Security Loop	Hood Cover Security Loop
Setup Password	Prevents an unauthorized person from changing the system configuration	*	*

## Standard Features - Base Unit Details

### Fault Notification and Recovery

SMART Hard Drives, Fault Notification, & Prefailure Warranty	<ul style="list-style-type: none"> <li>● Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted *</li> <li>● Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count</li> <li>● By helping users avoid actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure</li> </ul>	*
Proactive Backup	<ul style="list-style-type: none"> <li>● Initiates an automatic backup of the computers SMART hard (to a local tape device for example) when an imminent failure is predicted *</li> <li>● Prevents data loss and end-user down time due to a failing hard drive</li> </ul>	*
Surge Tolerant Power Supply	Withstands power surges up to 2000V *	*
Thermal Sensor	<ul style="list-style-type: none"> <li>● Monitors the temperature within the chassis. *</li> <li>● There are three operational states that a computer can experience:               <ul style="list-style-type: none"> <li>○ NORMAL – operating under normal temperature ranges</li> <li>○ ALERTED - operation when excessive temperatures are detected. Will raise a flag so that appropriate action can be taken to avoid shutdown or provide for a smoother system shutdown</li> <li>○ SHUTDOWN – when excessive temperatures are encountered. Will automatically shutdown the computer without warning before hardware component damage occurs</li> </ul> </li> </ul>	*
Ultra ATA Integrity Monitoring (CRC Checking)	<ul style="list-style-type: none"> <li>● Provides data transfer verification. Provides proactive notification of hard drive data transmission problems and recommendations for enhancing system *</li> </ul>	*

## Standard Features - Base Unit Details

- performance
- Detects all the following errors types:
  - single bit errors
  - double bit errors
  - an odd number of errors
  - error bursts up to 32-bits long

System Software Updating	Description	Microtower	Desktop
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console	*	*
Remote Wakeup / Remote Shutdown	<ul style="list-style-type: none"> <li>● Allow a system administrator to power on, restart, and power off a client computer from a remote location.</li> <li>● This enables cost-effective power consumption when the administrator needs to distribute software, perform security management, or update the ROM.</li> </ul>		
ROM Based Setup (F10) and Start-up Diagnostics	-----	*	*
Support Software CD & website	-----	*	*

Other Features			
ACPI-Ready Hardware	<ul style="list-style-type: none"> <li>● Advanced Configuration and Power Management Interface (ACPI).</li> <li>● It allows the system to wake from a low power mode.</li> <li>● It controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system</li> </ul>	*	*
SMBIOS	System Management BIOS, previously known as DMI BIOS, for system management information	*	*
Wired for Management 2.0 Support	Intel-driven, industry-wide initiative to make Intel architecture-based PCs, servers and mobile computers more inherently manageable right out of the box and over the network	*	*
Dual-State Power Button	Power button acts as both an on/off button and suspend-to-sleep button	*	*

### Standard Features - Base Unit Details

#### Serviceability Features - System

Feature	Description	*(Indicates Normal Operations and Fault Conditions)	*(Indicates Normal Operations and Fault Conditions)
Dual Color Power LED on Front of Computer (Indicates normal operations and fault conditions)	-----		
Blinking Diagnostic Keyboard LED Codes	Allows for easy problem resolution	*	*
Diagnostic LED Explanation Table	-----	* (Available at <a href="http://www.compaq.com/support/techpubs/illustrated_parts_map">http://www.compaq.com/support/techpubs/illustrated_parts_map</a> )	
Compaq Diagnostic for Windows Software	-----	*	*
Compaq Configuration Record Software	-----	*	*
Over-Temp Warning on Screen (Requires IM Agents)	-----	*	*
Compaq OS CD (Restore OS CD)	Allows the computer to be restored to its original factory shipping image	*	*
Compaq Restore CD (Restore Drivers CD)	Allows the computer to be restored to its original factory shipping image	*	*
Flash ROM	-----	*	*
3.3V Aux Power LED on System PCA	-----	*	*
Dual Function 5V Aux Power LED (ON) / PS_ON LED (OFF) on System PCA	-----	*	*
Diagnostic Power Switch LED on board	-----	*(On when power switch pushed)	*(On when power switch pushed)
Clear Password Jumper	-----	*	*
Clear CMOS	-----	*	*
CMOS Battery Holder for easy Replacement	-----	*	*
Processor ZIP Socket for easy Upgrade	-----	*	*
DIMM Connectors for easy Upgrade	-----	*	*
NIC LEDs (integrated) (Green & Amber)	Used to determine NIC status	*(Green On = Network Activity; Amber On = 100Base-TX; Amber Off = 10Base-TX)	*(Green On = Network Activity; Amber On = 100Base-TX; Amber Off = 10Base-TX)

#### Serviceability Features of Chassis

Dual Color Power and HD LED - To Indicate Normal Operations and Fault Conditions	-----	*	*
Diagnostic LED Explanation Table	-----	** (See Illustrated Parts Maps: <a href="http://wws1.pro.compaq.com/support/home/index.asp">http://wws1.pro.compaq.com/support/home/index.asp</a> )	
Smart Cover Sensor	<ul style="list-style-type: none"> <li>Assists with asset security and control by notifying the Network Administrator and end user when the cover has been removed without authorization.</li> </ul> <p>Is an electronic switch residing inside the computer which can be set to any one-of-three modes depending on the amount of control desired: DISABLED - the</p>	x	x

## Standard Features - Base Unit Details

		network administrator does not want to be made aware of the computer hood removal		
		○ NOTIFY USER - notifies network administrator that the hood has been removed, but no administrator action required before re-booting the computer		
		○ UP PASSWORD – notifies network administrator that the hood has been removed and administrator password is required before re-booting the computer		
Smart Cover Lock	Remote operated system lock		x	x
Front power switch	-----		*	*
Green Pull Tabs, and Quick Release Latches for easy Identification	-----		*	*
System memory can be upgraded without removing the system board or any internal components	Eases memory upgrading		*	*
Tool-less Hood Removal	Eases entry to the chassis without use of special tools		* (with captive thumbscrews)	* (with captive thumbscrews)
Tool-less Hard Drive, CD & Diskette Removal	-----		*	*
Tool-less System Board Removal	No special tools required for system board removal or maintenance		x	x
Towerable	Product can be oriented as a tower (in addition to desktop orientation)		*	*
Universal Tower Stand	Necessary to safely orient as a tower	N/A		* (optional)

## Standard Features - Base Unit Details

Serviceability Features – Hard Drives	Description	Microtower	Desktop
Drive Self Tests (DPS)	<ul style="list-style-type: none"> <li>● Drive Protection System</li> <li>● A diagnostic hard drive self test. It scans critical physical components and every sector of the hard drive for physical faults and then reports any faults to the user.</li> </ul>	*	*
DPS Access through F10 Setup during Boot	<ul style="list-style-type: none"> <li>● Running independently of the operating system, it can be accessed through a Windows-based diagnostics utility or through the computer's setup procedure. It produces an evaluation on whether the hard disk drive is the source of the problem and needs to be replaced.</li> </ul>	*	*
DPS Access through Diagnostics for Windows	<ul style="list-style-type: none"> <li>● The system expands on the Self-Monitoring, Analysis, and Reporting Technology (SMART), a continuously running systems diagnostic that alerts the user to certain types of failures</li> </ul>	*	*
SMART Technology (Self-Monitoring, Analysis and Reporting Technology)	<ul style="list-style-type: none"> <li>● Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted</li> </ul>	*	*
SMART Technology (Self-Monitoring, Analysis and Reporting Technology)	<ul style="list-style-type: none"> <li>● Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count</li> </ul>	*	*
SMART II - Off-Line Data Collection	<ul style="list-style-type: none"> <li>● By helping users avoid actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure</li> </ul>	*	*
SMART III - Off-Line Read Scanning with Defect Reallocation		*	*

### Standard Features - Base Unit Details

#### Other Features

Support Home - Help for Drivers, ROM, and Software, Documentation	<a href="http://www.compaq.com/support/home/">http://www.compaq.com/support/home/</a>
Software & Drivers	<a href="http://www.compaq.com/support/home/">http://www.compaq.com/support/home/</a>
Ask Compaq	<a href="http://www.compaq.com/support/home/">http://www.compaq.com/support/home/</a>
Reference Library (Product Documents)	<a href="http://www.compaq.com/support/home/">http://www.compaq.com/support/home/</a>
Forums and Communities	<a href="http://www.compaq.com/support/home/">http://www.compaq.com/support/home/</a>
Warranty Information	<a href="http://www.compaq.com/support/home/">http://www.compaq.com/support/home/</a>
Your System Hardware: Look up your Hardware, Auto Serial Number Detect	<a href="http://www3.compaq.com/support/parts/">http://www3.compaq.com/support/parts/</a>
Support Tools	<a href="http://www3.compaq.com/support/tools/">http://www3.compaq.com/support/tools/</a>
Contact Support	<a href="http://www3.compaq.com/support/parts/">http://www3.compaq.com/support/parts/</a>
Compaq Active Update Support	<a href="http://www.compaq.com/products/servers/management/activeupdate/">http://www.compaq.com/products/servers/management/activeupdate/</a>
End User Replaceable Parts Program	<a href="http://www.compaq.com/support/eurp/">http://www.compaq.com/support/eurp/</a>
ActiveUpdate	<a href="http://web14.compaq.com/pcn/pcnbridge.asp">http://web14.compaq.com/pcn/pcnbridge.asp</a>

#### Service and Support

On-site Warranty and Service **Note 1**: This three-year (3-1-1), limited warranty and service offering delivers three years of on-site, next business-day **Note 2** service for parts and labor and includes free telephone support **Note 3** 24 x 7. Global coverage **Note 2** ensures that any product purchased in one country and transferred to another, non-restricted country will remain fully covered under the original warranty and service offering.

On-site Warranty **Note 1**: This one-year (1-1-1), limited warranty delivers one year of on-site, next business-day **Note 2** service for parts and labor and includes free telephone support **Note 3** 24 x 7. Global coverage **Note 2** ensures that any product purchased in one country and transferred to another non-restricted country will remain fully covered under the original warranty and service offering. One-year onsite and labor are not available in all countries.

**NOTE 1**: Terms and conditions may vary by country. Certain restrictions and exclusions apply.

**NOTE 2**: On-site service may be provided pursuant to a service contract between Compaq and an authorized Compaq third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.

**NOTE 3**: Technical telephone support applies only to Compaq-configured, Compaq and Compaq-qualified, third-party hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

### After-Market Options

		uMT	DT		
<b>Communications</b>	<b>Modems</b>				
		Lucent V.90 56K PCI Win Modem	*	*	239137-xxx
		V.92 56K International Soft Windows Modem	*	*	259032-B24
		Compaq USB 56K Fax Modem	*	*	228141-xxx
		<b>NICs</b>			
		Intel 10/100S Management Adapter	*	*	212953-B21
		Intel 10/100S Management Adapter (20-pack)	*	*	212954-B21
		Broadcom NetXtreme Based 10/100/1000 Management Gb Adapter	*	*	266997-B21
		Compaq WL215 USB Wireless adapter (802.11b)	*	*	191810-B21
		WL210 Wireless PCI adapter (802.11B)	*	*	191809-B21
<b>Chassis Enhancements</b>		Front I/O Panel Kit	*	*	302480-B21
		Blank Bezel Kit (Carbon - 50/PK)	*		271027-B21
		Tower Stand (Carbon - All)		*	234489-B22
		Tower Stand (Carbon - All) 100 unit bulk pack (50 pairs)		*	321985-B21
<b>Graphics</b>	<b>2D Single Head Graphics</b>				
		Intel DVI AGP Digital Display (ADD) Card	*	*	283016-B21
		NVIDIA GeForce2 MX400 32-MB DDRAM AGP	*	*	309055-B21
		NVIDIA GeForce2 MX200 64-MB with DVI-I	*	*	283051-B21
	NVIDIA GeForce2 MX420 64-MB DDRAM with VGA and Svideo	*	*	301087-B21	
<b>Hard Drives &amp; Controllers</b>	<b>SMART III Ultra ATA/100 Hard Drives with Drive Protection System (DPS)</b>				
		120-GB 7200 rpm SMART III Ultra ATA/100 Hard Drive with DPS	*	*	250021-B21
		80-GB 7200 rpm SMART III Ultra ATA/100 Hard Drive with DPS	*	*	250020-B21
		40-GB 7200 rpm SMART III Ultra ATA/100 Hard Drive with DPS	*	*	201066-B21
		20-GB 7200 rpm SMART III Ultra ATA/100 Hard Drive with DPS	*	*	251974-B21
		Promise FastTrak100 TX2 RAID Card	*	*	238051-B21
		<b>Cables</b>			
	2 Device IDE Cable	*	*	260626-B21	



### After-Market Options

#### Input/Output Devices

##### Keyboards

Compaq Wireless Easy Access Keyboard with Wireless/Optical Mouse	*	*	300403-XX8
Compaq PS/2 Easy Access Keyboard (Carbon/Silver)	*	*	267145-XX8
Compaq USB Easy Access Keyboard (Carbon/Silver)	*	*	267146-XX8
Compaq USB Easy Access Smartcard Keyboard (Carbon/Silver)	*	*	267147-XX8
Compaq PS/2 Easy Access Keyboard (all grey) BG1650	*	*	267145-XX4
hp PS/2 Easy Access Keyboard for Workstations- (Carbon/Silver)	*	*	267145-XX5
Compaq (Logitech) Cordless Desktop (Keyboard and Mouse)	*	*	251385-XX8
Compaq Wireless Easy Access Keyboard with Wireless/Optical Mouse	*	*	300403-XX8

##### Mice

Metrostar Wireless Optical Mouse	*	*	301991-B22
Compaq PS/2 2-Button Scroll Mouse (carbon)	*	*	170299-B22
Compaq USB 2-Button Scroll Mouse (carbon)	*	*	195255-B25
Compaq USB 2-Button Optical Scroll Mouse (carbon/silver)	*	*	265985-B21

#### Memory (DIMMs)

##### 266-MHz (PC2100) DDR DIMMs Non-ECC

1-GB DDR Synch Dram PC2100 (266-MHz) Non-ECC	*	*	282436-B21
512-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC	*	*	282435-B21
256-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC	*	*	282434-B21
128-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC	*	*	282433-B21

#### Monitors

##### TFTs

TFT8030 Flat Panel Color Monitor (18-inch, Carbon/Silver)	*	*	234362-xxx
TFT7020 Flat Panel Color (Monitor 17-inch, Carbon/Silver, baseless)	*	*	253218-xxx
TFT7020 Flat Panel Color Monitor (17-inch, Carbon/Silver, built in speakers)	*	*	253217-xxx
TFT5030 Flat Panel Color Monitor (15-inch, Carbon/Silver)	*	*	228134-xxx
TFT5030 Flat Panel Monitor (15-inch, Carbon/Silver, baseless)	*	*	250198-xxx
TFT5017 Flat Panel Color Monitor (15-inch, Carbon/Silver)	*	*	263874-xxx
TFT5017 Flat Panel Color Monitor (15-inch, built-in speakers)	*	*	279414-xxx
TFT1520 Flat Panel Color Monitor (15-inch, Carbon/Silver)	*	*	295925-xxx
TFT1720 Flat Panel Color (Monitor 17-inch, Carbon/Silver)	*	*	295926-xxx
TFT1501 Flat Panel Color Monitor (15-inch, Carbon/Silver)	*	*	301042-xxx
TFT1701 Flat Panel Color (Monitor 17-inch, Carbon/Silver)	*	*	292847-xxx

##### CRTs

###### Professional Series

P1220 CRT Color Monitor (22-inch, Carbon/Silver)	*	*	244374-xxx
P920 CRT Color Monitor (19-inch, Carbon/Silver)	*	*	244375-xxx
P720 CRT Color Monitor (17-inch, Carbon/Silver)	*	*	244373-xxx

###### Value Series

V7550 CRT Color Monitor (17-inch, Carbon/Silver)	*	*	261611-xxx
--	---	---	------------

###### Standard Series

S9500 CRT Monitor (19-inch, Carbon/Silver)	*	*	261615-xxx
S7500 CRT Monitor (17-inch, Carbon/Silver)	*	*	261606-xxx
S5500 CRT Monitor (15-inch Carbon/Silver)	*	*	261602-xxx

### After-Market Options

<b>Multimedia</b>	Labtec Spin-22 Speakers (carbon)	*	*	246637-001
	JBL Platinum Series Speakers - Carbon (Monitors accessory kit)			263872-001
	PC Comm station (no keyboard or mouse)			304251-008
	PC Comm station pro (with wireless keyboard & optical mouse)			302002-xxx
<hr/>				
<b>Optical Drives</b>	<b>DVD-ROM Drives</b>			
	16X/40X DVD-ROM Read +/- Drive (carbon)	*	*	280625-B22
	16X/40X DVD-ROM with +R Read Drive (carbon)	*	*	303123-B22
	<b>CD-ROM Drives</b>			
	48X Max CD-ROM Drive (carbon)	*	*	187217-B22
	<b>DVD-RW Drives and Media</b>			
	4.7-GB DVD-R/RW Drive (carbon) R4	*	*	272851-B22
	<b>CD-RW Drives</b>			
	48X/12X/48X CD-RW Drive (carbon)	*	*	303125-B22
	<b>Combo Drives</b>			
	32X Combo DVD-ROM/CD-RW Drive (carbon)	*	*	303124-B22
<b>DVD+RW Drives</b>				
2.4X GB DVD+R/+RW Drive for Evo Desktop Systems	*	*	287189-B22	
<hr/>				
<b>PCI Card</b>	1394 Firewall PCI Card	*	*	277824- B21
	Hi Speed USB 2.0 PCI Card	*	*	287636- B21
<hr/>				
<b>Removable Storage</b>	<b>Diskette Drives and Media</b>			
	ZIP 250 Drive (carbon)	*	*	294416-B22
	ZIP 250 Media 3-Pack	*	*	217896-B21
	32-MB Disk-on-Key	*	*	301993-B21
	<b>Tape Drives and Media</b>			
	33/66-GB VXA-1 SCSI Tape Drive (carbon)	*	*	237108-B22
	33/66-GB VXA-1 IDE Tape Drive (carbon)	*	*	237109-B22
	33/66-GB VXA-1 Media 2-Pack	*	*	237111-B21
	VXA-1 Cleaning Cartridge	*	*	237110-B21
	TR5 10/20-GB IDE Tape Drive (carbon)	*	*	294243-B22
	TR5 10/20-GB Media 3-Pack	*	*	125782-B21
<hr/>				
<b>Security</b>	Covadis USB Enhanced Smartcard Reader (Off-white)	*	*	240154-B21
	Identix BioTouch USB Fingerprint Reader (Carbon)	*	*	240238-B21
	Solonoid Lock (Desktop)		*	252076-B21
	Kensington Chassis Lock Bracket (50-PK)		*	240859-B21

### Memory

#### 845G chipset

#### DDR SYNCH DRAM DIMM Non-ECC Memory

It is not necessary to add memory in pairs or kits. Memory upgrades are accomplished by adding single or multiple DIMMs of the same or varied sizes. This chart does not represent all possible memory configurations.

#### Maximum Memory

Intel 845G Chipset supports up to 2-GB of DDR SYNCH DRAM.

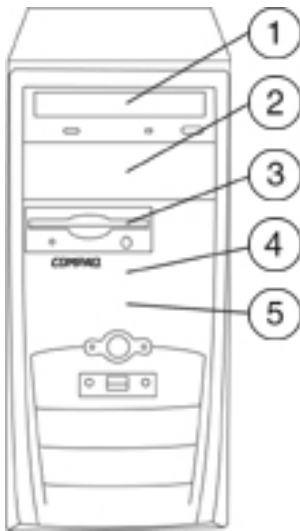
#### Possible Memory Configurations

Memory	Slot	
	1	2
TOTAL	1	2
128-MB	128-MB	empty
256-MB	256-MB	empty
512-MB	256-MB	256-MB
512-MB	512-MB	empty
1-GB	512-MB	512-MB
1-GB	1-GB	empty
2-GB - Maximum Memory	1-GB	1-GB

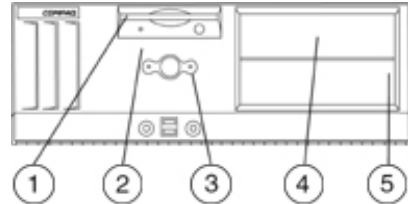
**NOTE:** It is not necessary to add memory in pairs or kits. Memory upgrades are accomplished by adding single or multiple DIMMs of the same or varied sizes. This chart does not represent all possible memory configurations.

## Storage

### Storage



Microtower



Desktop

	Quantity Supported	Position Supported	Controller
<b>Microtower</b>			
Diskette Drives	1	3	Diskette
Tape Drive	2	1, 2	IDE
CD-ROM Drives	2	1, 2	IDE
DVD-ROM Drives	2	1, 2	IDE
CD-RW Drives	2	1, 2	IDE
SMART III Ultra ATA Hard Drives	Up to 2	4, 5	Ultra ATA
<b>Desktop</b>			
Diskette Drives	1	1	Diskette
Tape Drives	2	4, 5	IDE
CD-ROM Drives	2	4, 5	IDE
DVD-ROM Drives	2	4, 5	IDE
CD-RW Drives	2	4, 5	IDE
SMART III Ultra ATA Hard Drives	Up to 2	2, 3	Ultra ATA

### Technical Specifications

Integrated ADI 1981A Audio	Type	Integrated	
	AC '97 Stereo Codec	Yes	
	OPL3 FM Synthesis Support	Yes	
	Sound Blaster Compatibility	Yes	
	Audio Jacks	Mic-In (20-K ohm Input Impedance)	
		Line-In (12-K ohm Input Impedance)	
		Line-Out * (less than 800 ohms Output Impedance, expects at least a 10-K ohm load)	
		Headphone-Out (2.5 Ohms Output Impedance, expects at least a 32 ohm load)	
	<b>NOTE:</b> *Internal Speaker Amplifier is for Internal Speaker only. External Speakers need to be powered externally.		
	Sampling	7KHz-48KHz	
	Compression	ADPCM, ESPCM	
	Wavetable Syntheses (software)	Yes	
	3D Positional Sound	No	
<b>Analog Audio:</b>			
Number of Channels on Line-Out (mono/stereo)	Stereo (Left & Right channels)		
Internal Audio Speaker Power Rating	3W		
Internal Speaker	Yes (1)		
Internal Tuned Port Speaker	Yes		
Hardware Equalizer for Internal Speaker	5 Band EQ		
External Speaker Jack (Line-Out)	Yes		

## Technical Specifications

<b>Integrated Intel PRO/100 VM Network Connection with WOL</b>	<b>Manufacturer</b>	Intel®		
	<b>Interface</b>	Intel SingleDriver™ technology (10/100-Mbps support)		
	<b>Connector</b>	RJ-45		
	<b>Expansion bus architecture</b>	PCI 2.2		
	<b>Configuration</b>	Network transfer rate	10BASE-T (Half-Duplex)	10 Mbps
			10BASE-T (Full-Duplex)	20 Mbps
			100BASE-TX (Half-Duplex)	100 Mbps
			100BASE-TX (Full-Duplex)	200 Mbps
		Data interface	PCI, 32-bit bus mastering	
		I/O address	Integrated connectivity with Intel I/O Controller Hub (ICH2)-based platforms	
<b>Software support</b>	Instrumentation support for CIM/WBEM SNMP, DMI, PXE 2.0, Intel PROSet utility for installation and configuration			
<b>Remote wakeup</b>	PME through PCI 2.2, no cable required			
<b>Boot PROM support</b>	Yes, Intel PRO/100 Boot Agent (PXE 2.0, RPL)			
<b>Special features</b>	Digital adaptive equalization control, link status interrupt capability, boundary scan support, 3-port LED support (speed, link, activity), 10BASE-T auto polarity correction, diagnostic loopback mode, 1:1 transmit transformer ratio support, automatic detection of unplugged mode, remote monitoring (alerting)			
<b>F12 BIOS support</b>	Yes			
<b>Environmental requirements</b>	Operating temperature	32° to 131° F (0° to 55° C)		
	Operating humidity (non-condensing)	85% at 131° F (55° C)		
	Altitude	10,000 feet (3,048 meters)		
	Non-operating temperature	-40° to 158° F (-40° to +70° C)		
	Altitude	5,000 feet (15,240 meters)		
<b>Power</b>	300 mW typical in active transmit mode; reduced power in unplugged mode (<50 mW); 3.3 V device			
<b>Power management</b>	ACPI 1.0			
<b>Flash package</b>	48-pin Shrink Small Outline Package (SSOP)			
<b>Network management</b>	PCI 2.2			
<b>LED indicators</b>	Three-port support (speed, link, and activity)			
<b>Standards compliance</b>	IEEE 802.2, IEEE 802.3 and IEEE 802.3u, (100-Mbps ethernet), SCO UnixWare OpenDesktop and OpenServer, PC'99			

### Technical Specifications

<b>3COM 3C905C-TX Network Connection</b>	<b>Manufacturer</b>	3Com
	<b>Connector</b>	RJ-45
	<b>Bus</b>	32-bit PCI
	<b>Media</b>	10BASE-T/100BASE-TX
	<b>System requirements</b>	Computer running on 486, Intel® Pentium®, or Intel Pentium II, Intel Pentium III and Intel Pentium 4 processor; available PCI slot
	<b>Configuration</b>	
	<b>Network transfer rate</b>	10BaseT (half-duplex) 10 Mbps 10BaseT (full-duplex) 20 Mbps 100BaseTX (half-duplex) 100 Mbps 100BaseTX (full-duplex) 200 Mbps
	<b>Data interface</b>	PCI, 32-bit bus mastering
	<b>I/O address</b>	Automatic I/O address
	<b>Interrupt level</b>	Automatic IRQ setup
	<b>Standards compliance</b>	PCI 2.2, PC'99, DMI 2.0, WfM 2.0, ACPI 1.0, PXE, RWU
	<b>Remote wakeup</b>	Yes, WAKE signal
	<b>Operating distance</b>	10BASE2 up to 607 feet (185 meters); 10BASE5 up to 1,639 feet (500 meters); 10BASE-T/100BASE-TX up to 328 feet (100 meters)
	<b>Proactive alert technology</b>	No
	<b>Environmental operating requirements</b>	
	Temperature	32° to 131° F (0° to 55° C)
	Humidity (non-condensing)	10% to 90%
	<b>Power management</b>	ACPI
	<b>Network management</b>	Any SNMP management medium including 3Com Transcend® Network Supervisor, 3Com DynamicAccess® boot services, and 3Com DynamicAccess Managed PC Boot Agent
	<b>Power</b>	+ 3.3 V, 340 mA
	<b>LED indicators</b>	100-Mbps link, 10-Mbps link, activity
	<b>Dimensions</b>	4.7 x 2.2 inches (12.0 x 5.6 cm)
<b>Certifications</b>	CE Mark, FCC Class B, VCCI Class B, CISPR 22 Class B	

### Technical Specifications

<b>Broadcom NetXtreme Based 10/100/1000 Management Gb Adapter</b>	<b>Connector</b>	RJ-45	
	<b>Controller</b>	Broadcom 5702 PCI LAN Controller	
	<b>Memory</b>	Integrated 96Kb frame buffer memory	
	<b>Data rates supported</b>	10/100/1000 Mbps	
	<b>Compliance</b>	IEEE 802.1A, 802.1P, 802.1P, 802.1Q, 802.2, 802.3, 802.3AB and 802.3u compliant, 802.3x flow control	
	<b>Bus architecture</b>	PCI 2.2	
	<b>Data path width</b>	32-bit, 33/66 MHz bus interface	
	<b>Data transfer mode</b>	Bus-master DMA	
	<b>Hardware certifications</b>	FCC, B, CE, TUV- cTUVus Mark Canada and United States, TUV- GS Mark for European Union	
	<b>Power requirement</b>	1.48 watts @ +3.3V AUX supply with 5V tolerance	
	<b>Boot ROM support</b>	Yes	
	<b>Network transfer rate</b>	10Base-T (half-duplex) 10 Mbps	
		10Base-T (full-duplex) 20 Mbps	
		100Base-TX (half-duplex) 100 Mbps	
		100Base-TX (full-duplex) 200 Mbps	
		1000Base-T, 1000Mbps	
	<b>Environmental</b>	Operating temperature	32° to 131° F (0° to 55° C)
		Operating humidity	85% at 131° F (55° C)
	<b>Dimensions</b>	4.721 x 2.0 x 0.08 in (12.02 x 5.09 x 1.9 cm)	
<b>Management capabilities</b>	ACPI, WOL and DMI 2.0, PXE 2.0, WfM 2.0, Broadcom management utility		



### Technical Specifications

<b>Lucent V.90 56K PCI Win Modem</b>	<b>Data Transmission</b>	V.90/K56flex technology speeds: 56,000 Kbps maximum downstream data, controllerless
		<b>NOTE:</b> 56 Kbps technology refers to download speeds only and requires compatible modems at server sites. Other conditions may limit modem speed. FCC limitations allow a maximum of 53 Kbps during download transmissions.
	<b>Data Speeds</b>	(Upload only) 33,600 / 31,200 / 28,800 / 26,400 / 21,600 / 19,200 / 16,800 / 14,400 / 12,000 / 9,600 / 7,200 / 4,800 / 2,400 / 1,200 / 300
	<b>Data Standards</b>	ITU V.90, ITU-T, V.34bis, V.22bis, V.22bis, V.21, V.23, Bell 212A, and Bell 103
	<b>Fax speeds</b>	14,400 / 12,000 / 9,600 / 7,200 / 4,800 / 2,400 / 1,200 / 300 b/s
	<b>Fax mode capabilities</b>	Group3 FAX, V. 17, V.29, V.27ter, and V.21 Channel 2, Class 1
	<b>Error Correction and Data Compression</b>	V.44 (software upgradeable), 4.2bis, V.42 and MNP2-5
	<b>Power Management</b>	APM and ACPI states D0, D1, D2, and D3; meets PCI 2.2 requirements and PC'99 requirements
	<b>Upgradability</b>	Software driver upgradeable for v.92 and future enhancements
	<b>Video</b>	ITU-T V.80 video ready interface
	<b>Other</b>	TIA/EIA 602 standard AT command set
		Integrated DTE interface with speeds of up to 115.2 Kbps, parallel 16550a UART-compatible interface
		Optional ring wakeup signal
	<b>Operating temperature</b>	32° to 104° F/0° to 40° C
	<b>Operating humidity</b>	20% to 80%, non-condensing
	<b>Power</b>	Requires a 3.3-V auxiliary power rail on PCI bus
		Uses only one PCI load (i.e., one grant/request pair), one shared IRQ, one electrical load
	<b>Chipset</b>	Agere Systems 1648C (Mars 3.2)—Integrated PCI interface with 5-V tolerant buffers and CardBus support
	<b>Dimensions (L X H)</b>	Complies with PCI low profile specifications—6.7 x 2.3 inches (17.0 x 5.8 cm) and supports high- and low-profile brackets
	<b>Connection</b>	Dual, parallel RJ-11 support with auxiliary Tip/Ring connector
	<b>Other features</b>	Digital line protection, call progress monitoring via on-board piezo device, transformer-based DAA design, support for high profile and low profile brackets, PnP ID supports via external EEPROM
	<b>Safety</b>	UL recognized to UL 1950, 3rd edition (U.S. and Canada); IEC 950 (TUV, NEMKO, DEMKO, SEMKO); CE Mark, EC 950 (TUV, NEMKO, DEMKO, SEMKO, CE mark
	<b>EMC</b>	FCC Part 15, IC ES003, EN 55022, 3rd edition, EN 55024, annex A, EN 61000-4-6, EN 61000-4-8
	<b>Telecom</b>	FCC Part 68, IC-CS-03 (Canada); Worldwide PTT approvals
	<b>Health</b>	Bare PCB material compliant to 94V-0 or better (marked as such), Microsoft Windows Me health compliant
	<b>Other</b>	PC'99 compliant, PCI version 2.2, WHQL approved; support for ACPI revision 1.1,

## Technical Specifications

<b>NVIDIA GeForce2 MX200 64MB with DVI-I</b>	<b>Vertical frequency</b>	60-85 Hz
	<b>Graphics controller</b>	NV11
	<b>Bus type</b>	AGP 4X
	<b>RAMDAC</b>	Integrated 350 MHz RAMDAC
	<b>Memory type</b>	SDRAM
	<b>Memory amount</b>	64 MB unified frame buffer and texture memory
	<b>Maximum memory</b>	64 MB
	<b>Memory speed</b>	166 MHz
	<b>Data path</b>	256-bit
	<b>Controller clock speed</b>	175 MHz
	<b>Maximum vertical refresh rate</b>	85 Hz
	<b>Maximum pixel clock</b>	350 MHz
	<b>Graphics API support</b>	OpenGL 1.2, DirectX 5, 6, 7, & 8.1
	<b>Operating systems support</b>	Microsoft Windows XP, Microsoft Windows 2000 (preinstalled) Microsoft Windows NT 4.0, and Microsoft Windows 98 (supported via SoftPaqs)
	<b>Buffer</b>	96-bit (per pixel)
	<b>Image planes</b>	24-bit double buffered
	<b>Z-buffer</b>	32-bit (24-bit with stencil planes)
	<b>Overlay</b>	Supported
	<b>Stencil planes</b>	8-bit (maximum)
	<b>Alpha planes</b>	8-bit
<b>External interface</b>	DVI-I; an included DVI to VGA adapter provides an analog video output port (female, 15-pin, D-SUB connector) for connection to an analog display.	

<b>Resolutions supported (DVI)</b>	<b>Resolution</b>	<b>Refresh Rate/Hz</b>	<b>High Color</b>	<b>True Color</b>
	1600 x 1200	60	Yes	Yes
	1600 x 900	60	Yes	Yes
	1280 x 1024	60	Yes	Yes
	1280 x 960	60	Yes	Yes
	1152 x 864	60	Yes	Yes
	1024 x 768	60	Yes	Yes
	960 x 720	60	Yes	Yes
	800 x 600	60	Yes	Yes
	640x 480	60	Yes	Yes

## Technical Specifications

Resolutions supported (VGA)	Resolution	Refresh Rate/Hz	High Color	True Color
	1920 x 1440	75	Yes	Yes
	1920 x 1200	85	Yes	Yes
	1920 x 1080	85	Yes	Yes
	1600 x 1200	85	Yes	Yes
	1600 x 900	85	Yes	Yes
	1280 x 1024	85	Yes	Yes
	1280 x 960	85	Yes	Yes
	1152 x 864	85	Yes	Yes
	1024 x 768	85	Yes	Yes
	960 x 720	85	Yes	Yes
	800 x 600	85	Yes	Yes
	640x 480	85	Yes	Yes

<b>Intel Extreme Graphics</b> (Integrated with Intel 845G chipset)	<b>Bus Type</b>	Integrated
	<b>AGP Interface</b>	Supports a single 1.5v Accelerated Graphics Port Interface, Specification 2.0 compliant device Supports 1x/2x/4x data transfers and 2x/4x fast writes 32-deep AGP request queue AGP signals multiplexed with two DVO ports Supports ADD (AGP Digital Display) cards
	<b>Core frequency</b>	200-Mhz
	<b>3D setup and render engine</b>	Discrete Triangles, Strips, and Fans support Indexed vertex and flexible vertex formats Pixel accurate fast scissoring and clipping operation Backface culling support Supports D3D and OGL pixelization rules Anti-aliased lines support Spirte points support
	<b>High quality texture engine</b>	Per pixel perspective corrected texture mapping Single pass texture compositing (multi-textures) at rate 12 levels of detail MIP map sizes from 1x1 to 2Kx2K All texture formats including 32-bit RGBA Alpah and luminance maps Texture chroma-keying Bilinear, trilinear and anisotropic MIP-mapped filtering Cubic environment reflection mapping Embossed bump-mapping DOT3-based bump-mapping DXTn texture decompression FXT1 texture decompression
	<b>3D graphics rasterization enhancements</b>	200 megapixel / sec fill rate Flat and Gouraud shading Color alpha blending for transparency Vertex and programmable pixel fog and atmospheric effects Color specular lighting Z Bias support Dithering Anti-Aliased lines 16 and 24 bit Z buffering 16 and 24 bit W buffering 8 bit stencil buffering Double and triple render buffer support 16 and 32 bit color Destination alpha Maximum 3D resolution supported 1600 x 1200 x 32 @ 85Hz

## Technical Specifications

<b>2D Graphics</b>	<p>Fast clear support</p> <p>Optimized 256 bit BLT (Block Transfer) Engine</p> <p>GDI+ feature support</p> <p>Alpha stretch blitter</p> <p>Anti aliased lines</p> <p>32-bit alpha blended cursor</p> <p>Programmable 3-color transparent cursor</p> <p>Color space conversion</p> <p>8, 16, and 32 bit color</p> <p>ROP support</p>
<b>Video DVD / PC-VCR</b>	<p>Dynamic Bob and Weave support for video streams</p> <p>Synclock display and TV out to video source</p> <p>Source resolution up to 720 x 480 with 2 vertical taps</p> <p>Software DVD at 30 fps (frames per second), full screen</p>
<b>Video Overlay</b>	<p>Single scalable overlay</p> <p>Multiple overlay functionality provided via stretch blitter (PIP, video conferencing, etc.)</p> <p>5 tap horizontal, 2 tap vertical filtered scaling</p> <p>Independent gamma correction</p> <p>Independent brightness / contrast / saturation</p> <p>Independent tint / hue support</p> <p>Destination color keying</p> <p>Source chroma keying</p> <p>Maximum source resolution: 720 x 480 (576)</p> <p>Maximum overlay display resolution: 1600 x 1200 x 32 @ 60Hz, 1280 x 1024 x 32 @ 85Hz.</p>
<b>Display</b>	<p>Analog display support</p> <p>350Mhz integrated 24-bit RAMDAC</p> <p>Up to 2048 x 1536 @ 60Hz refresh</p> <p>Hardware color cursor support</p> <p>DD2CB compliant interface</p> <p>Multiplexed digital display channel</p> <p>Two channels multiplexed with AGP</p> <p>165Mhz dot clock on each 12 bit interface</p> <p>Can combine two 12 bit channels to form one 24 bit channel</p> <p>Supports flat panels up to 2048 x 1536 @ 60Hz or dCRT / HDTV @ 1920 x 1080 @ 85Hz.</p> <p>Supports hot plug and display</p> <p>Supports LVDS, TMDS transmitters or TV-out encoders</p> <p>ADD card utilizes AGP connector</p> <p>Three Display Control Interfaces (I2C/DDC) multiplexed on AGP</p>

### Refresh Rate with Memory Indicated

Resolution (Horizontal x Vertical)	Color Depth (Bits per Pixel)	Refresh Rate (Hz)
640 x 480	8,16 and 32	85, 85 and 85
800 x 600	8,16 and 32	85, 85 and 85
1024 x 768	8,16 and 32	85, 85 and 85
1280 x 1,024	8,16 and 32	85, 85 and 85
1600 x 1200	8,16 and 32	85, 85 and 85
1900 x 1440	8,16 and 32	75, 75 and N/A

## Technical Specifications

<b>NVIDIA GeForce2 MX400 32-MB</b>	<b>Vertical frequency</b>	60-85 Hz		
	<b>Graphics controller</b>	NV11		
	<b>Bus type</b>	AGP 4X		
	<b>RAMDAC</b>	Integrated 350 MHz RAMDAC		
	<b>Memory type</b>	SDRAM		
	<b>Memory amount</b>	32 MB unified frame buffer and texture memory		
	<b>Maximum memory</b>	32 MB		
	<b>Memory speed</b>	166 MHz		
	<b>Data path</b>	256-bit		
	<b>Controller clock speed</b>	175 MHz		
	<b>Maximum vertical refresh rate</b>	85 Hz		
	<b>Maximum pixel clock</b>	350 MHz		
	<b>Graphics API support</b>	OpenGL 1.2, DirectX 7		
	<b>Operating systems support</b>	Microsoft Windows 2000, Microsoft Windows NT 4.0, and Microsoft Windows 98		
	<b>Buffer</b>	96-bit (per pixel)		
	<b>Image planes</b>	24-bit double buffered		
	<b>Z-buffer</b>	32-bit (24-bit with stencil planes)		
	<b>Overlay</b>	Supported		
	<b>Stencil planes</b>	8-bit (maximum)		
	<b>Alpha planes</b>	8-bit		
<b>External interface</b>	Analog Video Output port—the video port (female, 15-pin, D-SUB connector) provides connection to an analog display			
<b>Resolutions supported</b>	<b>Resolution</b>	<b>Refresh Rate/Hz</b>	<b>High Color</b>	<b>True Color</b>
	2048 x 1536	75	Yes	No
	1920 x 1440	85	Yes	No
	1920 x 1440	85	Yes	Yes
	1920 x 1200	85	Yes	Yes
	1920 x 1080	85	Yes	Yes
	1792 x 1120	85	Yes	Yes
	1600 x 1280	85	Yes	Yes
	1600 x 1200	85	Yes	Yes
	1600 x 1000	85	Yes	Yes
	1536 x 960	85	Yes	Yes
	1280 x 1024	85	Yes	Yes
	1152 x 864	85	Yes	Yes
	1024 x 768	85	Yes	Yes
	800 x 600	85	Yes	Yes
	640x 480	85	Yes	Yes

## Technical Specifications

<b>NVIDIA GeForce2 MX420 3D/2D Controller</b>	NV17 128-bit Graphics Processing Unit (GPU)			
<b>64-MB DDR with TV Out VGA Controller</b>	Integrated			
<b>Bus Type</b>	AGP4X			
<b>RAMDAC</b>	Dual 350-MHz DACs			
<b>Memory</b>	64-MB 128-bit DDR frame buffer memory			
<b>Controller Clock Speed</b>	250 MHz			
<b>Overlay Planes</b>	1			
<b>Stencil Planes</b>	8-bit			
<b>Alpha Planes</b>	8-bit			
<b>Z-buffer</b>	32-bit			
<b>Total Bits/Pixel</b>	32-bits/pixel			
<b>Maximum Vertical Refresh Rate</b>	75 Hz at 2048 x 1536			
<b>Maximum Colors</b>	32-bit color			
<b>Multi-display Support</b>	Includes support for one CRT and TV simultaneously (VGA and S-Video connectors)			
<b>Operating Systems</b>	Microsoft® Windows® XP, Windows 2000, Windows Me, Windows NT®, Windows 98, Windows 95, Linux®, Macintosh®			
<b>Graphics API Support</b>	Complete Microsoft DirectX® support, including DirectX 8.1; complete OpenGL® 1.3 support			
<b>Resolutions supported</b>	<b>Resolution</b>	<b>Maximum Refresh Rate (Hz)</b>	<b>Resolution</b>	<b>Maximum Refresh Rate (Hz)</b>
	320 x 200	150	1152 x 864	120
	320 x 240	150	1280 x 960	100
	400 x 300	150	1280 x 1024	100
	480 x 360	150	1600 x 900	100
	512 x 384	150	1600 x 1200	85
	640 x 400	150	1920 x 1080	75
	640 x 480	150	1920 x 1200	75
	800 x 600	150	1920 x 1440	75
	1024 x 768	120	2048 x 1536	75
<b>Option kit contents</b>	Includes the following: NVIDIA GeForce4 MX 420 Graphics Controller Software Installation guide Bracket – required to install the card in a Compaq Evo D310 Microtower			

<b>7200 rpm SMART III Ultra ATA/100 Hard Drives</b>	<b>120-GB Capacity</b>	120,000 MB		
	<b>Rotational Speed</b>	7200 rpm		
	<b>Interface</b>	Ultra ATA/100		
	<b>Height</b>	1 in/25.4 mm		
	<b>Width</b>	3.5 in/88.9 mm		
	<b>Transfer Rate Synchronous (Maximum)</b>	100 MB/s		
	<b>Seek Time</b> (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)	
		Average	8 ms (10.1 ms quiet seek)	
		Full-Stroke	18 ms (21.1 ms quiet seek)	
	<b>Physical Configuration</b>	Logical Blocks	78,165,360	
<b>Operating Temperature</b>	41° to 131° F/5° to 55° C			
<b>80-GB Capacity</b>	<b>Capacity</b>	80,000 MB		
	<b>Rotational Speed</b>	7200 rpm		

### Technical Specifications

	<b>Interface</b>	Ultra ATA/100	
	<b>Height</b>	1 in/25.4 mm	
	<b>Width</b>	3.5 in/88.9 mm	
	<b>Transfer Rate</b> Synchronous (Maximum)	100 MB/s	
	<b>Seek Time</b> (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
		Average	8 ms (10.1 ms quiet seek)
		Full-Stroke	18 ms (21.1 ms quiet seek)
	<b>Physical Configuration</b>	Logical Blocks	78,165,360
	<b>Operating Temperature</b>	41° to 131° F/5° to 55° C	
<b>40-GB</b>	<b>Capacity</b>	40,000 MB	
	<b>Rotational Speed</b>	7200 rpm	
	<b>Interface</b>	Ultra ATA/100	
	<b>Height</b>	1 in/25.4 mm	
	<b>Width</b>	3.5 in/88.9 mm	
	<b>Transfer Rate</b> Synchronous (Maximum)	100 MB/s	
	<b>Seek Time</b> (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
		Average	8 ms (10.1 ms quiet seek)
		Full-Stroke	18 ms (21.1 ms quiet seek)
	<b>Physical Configuration</b>	Logical Blocks	78,165,360
	<b>Operating Temperature</b>	41° to 131° F/5° to 55° C	
<b>20-GB</b>	<b>Capacity</b>	20,000 MB	
	<b>Rotational Speed</b>	7200 rpm	
	<b>Interface</b>	Ultra ATA/100	
	<b>Height</b>	1 in/25.4 mm	
	<b>Width</b>	3.5 in/88.9 mm	
	<b>Transfer Rate</b> Synchronous (Maximum)	100 MB/s	
	<b>Seek Time</b> (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
		Average	8 ms (10.1 ms quiet seek)
		Full-Stroke	18 ms (21.1 ms quiet seek)
	<b>Physical Configuration</b>	Logical Blocks	39,102,336
	<b>Operating Temperature</b>	41° to 131° F/5° to 55° C	

### Technical Specifications

#### 5400 rpm SMART III Ultra ATA/100 Hard Drives

<b>60-GB Capacity</b>	60,000 MB	
<b>Rotational Speed</b>	5400 rpm	
<b>Interface</b>	Ultra ATA/100	
<b>Transfer Rate</b> Synchronous (Maximum)	66 MB/s	
<b>Height</b>	1 in/25.4 mm	
<b>Width</b>	3.5 in/88.9 mm	
<b>Seek Time</b> (typical reads, including settling)	Single Track	1.5 ms (2.9 ms quiet seek)
	Average	10.5 ms (12.4 ms quiet seek)
	Full-Stroke	23 ms (23 ms quiet seek)
<b>Physical Configuration</b>	Logical Blocks	39,102,336
<b>Operating Temperature</b>	41° to 131° F/5° to 55° C	

<b>40-GB Capacity</b>	40,000 MB	
<b>Rotational Speed</b>	5400 rpm	
<b>Interface</b>	Ultra ATA/100	
<b>Transfer Rate</b> Synchronous (Maximum)	66 MB/s	
<b>Height</b>	1 in/25.4 mm	
<b>Width</b>	3.5 in/88.9 mm	
<b>Seek Time</b> (typical reads, including settling)	Single Track	1.5 ms (2.9 ms quiet seek)
	Average	10.5 ms (12.4 ms quiet seek)
	Full-Stroke	23 ms (23 ms quiet seek)
<b>Physical Configuration</b>	Logical Blocks	39,102,336
<b>Operating Temperature</b>	41° to 131° F/5° to 55° C	

<b>20-GB Capacity</b>	20,000 MB	
<b>Rotational Speed</b>	5400 rpm	
<b>Interface</b>	Ultra ATA/100	
<b>Transfer Rate</b> Synchronous (Maximum)	66 MB/s	
<b>Height</b>	1 in/25.4 mm	
<b>Width</b>	3.5 in/88.9 mm	
<b>Seek Time</b> (typical reads, including settling)	Single Track	1.5 ms (2.9 ms quiet seek)
	Average	10.5 ms (12.4 ms quiet seek)
	Full-Stroke	23 ms (23 ms quiet seek)
<b>Physical Configuration</b>	Logical Blocks	39,102,336
<b>Operating Temperature</b>	41° to 131° F/5° to 55° C	



### Technical Specifications

<b>Compaq Easy Access Keyboard</b> (PS/2 or USB)	<b>Dimensions (HxWxD)</b>	1.4 x 18.3 x 6.3 in/36 x 465 x 160 mm		
	<b>Weight</b>	Approximately 2 lbs/0.9 kg		
	<b>Electrical</b>	Operating Voltage	+ 5VDC $\pm$ 5%	
		Power Consumption	50 mA maximum (with 3 LEDs on)	
		System Interface	PS/2 mini-din connector	
		ESD	CE level 4, 15 kV air discharge	
		EMI-RFI	Conforms to FCC rules for a Class B computing device	
		PC98	Functionally compliant	
		<b>Mechanical</b>	Languages	30+ available
			Keycaps	Low-profile design
			Switch Actuation	55 g nominal peak force with tactile feedback
			Switch Life	20 million keystrokes (using Hasco modified tester)
	Switch Type		Contamination resistant membrane	
	Key Leveling Mechanism		For all double wide and greater length keys	
	<b>Environmental</b>	Cable Length	6 ft/1.8 m	
		PC98-99	Mechanically compliant	
		Acoustics	50 dBA maximum sound pressure level	
		Operating Temperature	50° to 122° F/10° to 50° C	
		Non-operating Temperature	- 22° to 140° F/- 30° to 60° C	
		Operating Humidity	10% to 90% (non condensing at ambient)	
		Non-operating Humidity	20% to 80% (non condensing at ambient)	
Operating Shock		40 g, 6 surfaces		
Non-operating Shock		80 g, 6 surfaces		
Operating Vibration		2 g peak acceleration		
Non-operating Vibration	4 g peak acceleration			

## Technical Specifications

**Compaq 2-Button Scroll  
Mouse**  
(PS/2 or USB)

<b>Scroll Wheel</b>	8 mm
<b>Maximum Rotation Speed</b>	30 mm/s
<b>Switch Type</b>	Light force micro-switch
<b>Switch Life</b>	1 million operations
<b>Mechanical Life</b>	Minimum 200,000 revolutions
<b>Environmental</b>	Operating Temperature 50° to 122° F/10° to 50° C Non-operating Temperature - 22° to 140° F/- 30° to 60° C Operating Humidity 10% to 90% (non condensing at ambient) Non-operating Humidity 20% to 80% (non condensing at ambient) Operating Shock 40 g, 6 surfaces Non-operating Shock 80 g, 6 surfaces Operating Vibration 2 g peak acceleration Non-operating Vibration 4 g peak acceleration
<b>Electrical</b>	Operating Voltage + 5VDC ± 10% Power Consumption 15mA System Consumption PS/2 mini-din connector ESD CE level 4, 15 kV air discharge EMI-RFI Conforms to FCC rules for a Class B computing device
<b>Mechanical</b>	PC98 Functionally compliant Resolution 400 ± 20% DPI Tracking Speed 10 in/s maximum Acceleration 100 in/s Switch Actuation 85 g nominal peak force Switch Life 1,000,000 operations (using Hasco modified tester)
<b>Regulatory Approvals</b>	Cable Length 2 m PC98-99 Mechanically compliant UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BCiQ, C-Tick

### Technical Specifications

<b>Compaq USB Optical Scroll Mouse</b> (Carbon/Silver)	<b>Dimensions</b> (H x L x W)	1.48 x 4.76x 2.44 in/3.75 x 12.09 x 6.2 cm
	<b>Weight</b>	0.27 lb/0.12 kg
	<b>Cable length</b>	72.8 in/185 cm
	<b>System requirements</b>	IBM-compatible PC Microsoft® Windows® 95, 98, 2000, Me, and XP Available USB port
	<b>Scroll Wheel Width</b>	8 mm
	<b>Maximum Rotation Speed</b>	30 mm/s
	<b>Switch Type</b>	Light force micro-switch
	<b>Wheel Button Life</b>	1 million operations
	<b>Mechanical Life</b>	Minimum 500,000 revolutions
	<b>Environmental</b>	Operating Temperature 50° to 122° F/10° to 50° C Non-operating Temperature - 22° to 140° F/- 30° to 60° C Operating Humidity 10% to 90% (non condensing at ambient) Non-operating Humidity 10% to 90% (non condensing at ambient) Operating Shock 40 g, 6 surfaces Non-operating Shock 80 g, 6 surfaces Operating Vibration 2 g peak acceleration Non-operating Vibration 4 g peak acceleration
	<b>Electrical</b>	Operating Voltage + 5VDC ± 10% Power Consumption <30mA in average value System Consumption PS/2 mini-din connector ESD CE level 4, 15 kV air discharge EMI-RFI Conforms to FCC rules for a Class B computing device
	<b>Mechanical</b>	PC98 Functionally compliant Resolution 400 ± 20% DPI Tracking Speed 10 in/s maximum Acceleration 100 in/s Switch Actuation 85 g nominal peak force Switch Life 1,000,000 operations (using Hasco modified tester)
	<b>Regulatory Approvals</b>	PC98-99 Mechanically compliant UL, CSA, FCC, CE Mark, VDE/TUV, CISPR, ICES, VCCI

### Technical Specifications

<b>48X Max CD-ROM Drive</b>	<b>Interface</b>	ATAPI IDE		
	<b>Data Buffer</b>	16.6 Mbps		
	<b>Data Transfer Rate</b>	Sustained—150 Kbps minimum (audio)	Variable (CD)—3,000 to 7,200 Kbps	
	<b>Disk Rotation Technology</b>	CAV (Constant Angular Velocity)		
	<b>Access Time (ms)</b>	Random: < 100 ms	Full-stroke seek: < 150 ms	
	<b>Average Access Time</b>	< 80 ms		
	<b>Cache Buffer</b> (standard/maximum)	128 KB		
	<b>Disk Formats Read</b>	Multi-session Photo CD, multi-read CD-ROM, CD text, audio CD, CD-I, CD-RW, CD-R, CD-Extra, CD-ROM XA		
	<b>Disk Formats Written</b>	None		
	<b>Disk Capacity (CD)</b>	650 MB		
	<b>Block Size</b>	Mode 1—2,048 bytes Mode 2—2,340/2,336 bytes CD-DA—2,352 bytes CD-XA—2,328 bytes		
	<b>Diameter</b>	12 cm; 8 cm		
	<b>Thickness</b>	1.2 mm		
	<b>Track Pitch</b>	1.6 $\mu$ m		
	<b>Audio Output Level</b>	Line-out—0.7 V @ 47 Kohm	Headphone—0.6 V @ 32 ohm	
	<b>Startup Time</b>	< 7 seconds (typical); < 30 seconds with multi-session		
	<b>Operating Conditions</b>	Temperature	41° to 113° F (5° to 45° C)	
		Relative Humidity	10% to 80%	
	<b>Dimensions</b> (H x W x D, maximum)	1.7 x 5.9 x 8.2 inches (4.3 x 15.0 x 20.8 cm)		
	<b>Weight</b>	2.6 pounds (1200 g)		
<b>MPEG Playback Graphics Solution Support</b>	None			

<b>48X/12X/48X CD-RW Drive</b>	<b>Orientation</b>	Either horizontal or vertical		
	<b>Disc Loading Mechanism</b>	Half-height, tray load		
	<b>Interface Type</b>	ATAPI IDE		
	<b>Dimensions—external</b> (W x H x D)	203 x 149.5 x 43.5 mm (7.99 x 5.88 x 1.71 inches)		
	<b>Weight</b>	1.2 kg (2.6 pounds)		
	<b>Disc Diameter</b>	12 cm, 8 cm		
	<b>Disc Thickness</b>	1.2 mm		
	<b>Track Pitch</b>	1.6 mm		
	<b>Disc Center Hole Diameter</b>	15 mm		
	<b>Reference Scanning Velocity</b>	1.2 m/s		
	<b>Recording/Playing Time</b>	80 minutes with CD-R media		
	<b>Read Only Disc Parameters Supported</b>	<b>Formats and Modes</b>	CD-ROM—Mode 1; CD-ROM XA—Mode 2 (forms 1 and 2); CD digital audio; CD Extra; CD-I—Mode 2 (forms 1 and 2) and CD-I-Ready; Photo CD (single and multi-session); video CD	
		<b>Capacity</b>	185 MB (Mode 2, 8cm); 540 MB (Mode 1, 12 cm); 650 MB (Mode 2, 12 cm); 700 MB (Mode 2, 12 cm)	
		<b>Block Size</b>	Mode 1—2,048 and 2,352 bytes; mode 2, form 1—2,048;	

### Technical Specifications

		2,328; 2,336; 2,340 and 2,352 bytes; mode 2, form 2—2,328; 2,336; 2,340 and 2,352 bytes; CD-DA—2,352 and 2,368 bytes
<b>Writeable Disc Parameters</b>	<b>Disc Type</b>	CD-R and CD-RW
	<b>Write Methods</b>	Disc at Once, Track at Once, Session at Once, Variable Packet, Fixed Packet
	<b>Format and Modes Supported</b>	CD-ROM (mode 1); CD-ROM XA (mode 2, forms 1 and 2); CD digital audio, CD-I (mode 2, forms 1 and 2); video CD
	<b>Capacity</b>	185 MB (Mode 2, 8cm); 540 MB (Mode 1, 12 cm); 650 MB (Mode 2, 12 cm); 700 MB (Mode 2, 12 cm)
	<b>Block Size</b>	Mode 1—2,048 bytes; mode 2, form 1—2,048 and 2,352 bytes; mode 2, form 2—2,352 bytes; CD-DA ---2,352 bytes
<b>Access Times (typical)</b>	<b>Random</b>	< 120 ms
	<b>Full Stroke</b>	< 200 ms
<b>Data Transfer Rates</b>	<b>Sustained</b>	CD-R write—1,800 KB/s (12X) CD-R write—2400 KB/s (16X) CD-RW write (1-4X media) —600 KB/s (4X) CD-RW write (4-10X media) —1,500 KB/s (10X) CD-RW write (4-12X media) —1,800 KB/s (12X) CD-RW read—3,600 KB/s (24X) Digital audio extraction (minimum) —7,200 KB/s (48X)
	<b>Variable</b>	CD-RW write—2,400 to 3,600 KB/s (16X to 24X) CD-RW write—2,400 to 4,800 KB/s (16X to 32X) CD-RW write—2,400 to 6,000 KB/s (16X to 40X) CD-RW write—2,400 to 7,200 KB/s (16X to 48X) CD-ROM, CD-R read—1,500 to 7,200 KB/s (10X to 48X)
<b>Data Transfer Modes</b>		ATA PIO mode 4 (16.7MB/s) ; ATA multi-word DMA mode 2 (16.7 MB/s); ATA UltraDMA mode 0 (16.7 MB/s) ;ATA UltraDMA mode 1 (24 MB/s) ; ATA UltraDMA mode 2 (33 MB/s) – default.
<b>Cache Buffer</b>		2 MB (minimum)
<b>Start-up Time (single)</b>		< 7 seconds typical
<b>Start-up Time (multi-session)</b>		< 30 seconds typical
<b>Stop Time</b>		< 4 seconds
<b>Power</b>	<b>Source</b>	Four-pin, DC power receptacle
	<b>DC power requirement</b>	5 VDC $\pm$ 5%—100 mV ripple p-p 12 VDC $\pm$ 5%—200 mV ripple p-p
	<b>DC current</b>	5 VCD < 1A (typical) < 1200 mA (maximum) 12 VCD < 600 mA (typical) < 1.2A (maximum)
		Total Drive Power (Standby mode) < 2.5 watt
<b>Audio Output Level</b>		0.7 Vrms
<b>Configuration Jumper Block</b>		Master, slave and cable select modes
<b>Data Interface Connector</b>		50-pin IDE interface
<b>Environmental (all conditions, non-condensing)</b>	<b>Temperature (operating)</b>	Operating 41° to 122° F (5° to 50° C)
	<b>Relative Humidity (operating)</b>	10% to 90%
	<b>Maximum Wet Bulb Temperature (operating)</b>	84° F (29° C)
<b>Certifications, Requirements</b>		ACA AS/NZS 3548, ANSI C63.4–1992, CB Test Certificate for IEC 950, CE Mark, CFR 47 part 15, CNS 13438, CSA C22.2 No. 60950, DHHS/FDA - 1040, EN60825,

### Technical Specifications

<b>Operating Systems Supported</b>	EN55022:1998, EN55024, EN60 950:2000, ICES-003 class B, IEC 61000 4-2 – 4-11, Nordic EN60 950, TUV or VDE EN60 950, UL 60950, C.I.S.P.R. Publication 22 Class B, BSMI, Microsoft P2001, Microsoft Logo for Windows XP, 2000, NT4, ME, 98
<b>Option Kit Contents</b>	Microsoft® Windows® XP, Microsoft Windows 2000, Microsoft Windows NT® 4.0
	CD-RW drive, CD-R media, High-Speed CD-RW media, Roxio™ Easy CD Creator, Dantz Retrospect Express Backup for CD-RW, audio cable and installation guide.

<b>32X Combo CD-RW/ DVD-ROM Drive</b>	<b>Tray load</b>	5.25-inch, half-height, tray-load	
	<b>Orientation</b>	Either horizontal or vertical	
	<b>Interface Type</b>	ATAPI	
	<b>Dimensions—external, excluding bezel (W x H x D)</b>	5.77 x 1.71 x 7.36 inches (146.5 x 43.5 x 187 mm)	
	<b>Disc Diameter</b>	12 cm, 8 cm	
	<b>Disc Thickness</b>	1.2mm (0.05 inch)	
	<b>Track Pitch</b>	1.6 um (CD), 0.74 um (DVD)	
	<b>Disc Center Hole Diameter</b>	15mm (0.6 inch)	
	<b>Reference Scanning Velocity</b>	1.2 m/s (CD); 3.49 m/s (DVD SL); 3.84 m/s (DVD DL)	
	<b>Read Only Disc Parameters</b>	<b>Formats and Modes Supported</b>	CD-ROM—Mode 1; CD-ROM XA—Mode 2 (forms 1 and 2); CD-Bridge; CD digital audio; CD Extra; CD-I—Mode 2 (forms 1 and 2) and CD-I-Ready; Photo CD (single and multi-session); video CD; DVD (single- and double-layer); DVD-R; DVD-RW; DVD-RW Multi-Border; DVD+R; DVD+R Multi-Session, and DVD+RW
		<b>Capacity</b>	180 MB (mode 2, 8 cm); 540 MB (mode 1, 12 cm); 650 MB (mode 2, 12 cm); 700 MB (Mode 2, 12 cm); 4.7 GB (DVD-5); 8.54 GB (DVD-9); 9.4 GB (DVD-10)
		<b>Block Size</b>	Mode 1—2,048 and 2,352 bytes; mode 2, form 1—2,048; 2,328; 2,336; 2,340 and 2,352 bytes; mode 2, form 2—2,328; 2,336; 2,340 and 2,352 bytes; CD-DA—2,352 bytes; DVD—2,048 bytes
		<b>Writeable Disc Parameters</b>	
		<b>Disc Type</b>	CD-R and CD-RW
		<b>Write Methods</b>	Disc at Once, Track at Once, Session at Once, Variable Packet, Fixed Packet
		<b>Format and Modes Supported</b>	CD-ROM (mode 1); CD-ROM XA (mode 2, forms 1 and 2); CD digital audio, CD-I (mode 2, forms 1 and 2); video CD; CD-Bridge; Video CD
		<b>Capacity</b>	180 MB (mode 2, 8 cm); 540 MB (mode 1, 12 cm); 650 MB (mode 2, 12 cm); 700 MB (mode 2, 12 cm);
		<b>Block Size</b>	CD-DA—2,352 bytes; mode 0— 2,336 and 2,352 bytes; mode 1—2,048 and 2,352 bytes; mode 2—2,336 and 2,352; mode 2, form 1—2,048 and 2,352 bytes; mode 2, form 2—2,324 and 2,352 bytes
	<b>Access Times (typical reads, including settling)</b>	<b>Random DVD</b>	< 130 ms (typical)
		<b>Random CD</b>	< 90 ms, (typical)
<b>Full Stroke DVD</b>		< 210 ms (seek)	
<b>Full Stroke CD</b>		< 160 ms (seek)	
<b>Data Transfer Rates</b>	<b>Sustained — CD-R write</b>	600 KB/s (4X), 1800 KB/s (12X)	
	<b>Sustained — CD-RW write</b>	600 KB/s (4X, 1-4X media), 1500 KB/s (10X, 4-10X media)	
	<b>Sustained — CD-RW read</b>	3600 KB/s (24X)	

### Technical Specifications

	Sustained — Digital audio extraction (minimum)	6000 KB/s (40X)
	Variable — CD-R write	2400 KB/s (16X), 3600 KB/s (24X), 4800 KB/s (32X)
	Variable — CD-ROM, CD-R read	1500 – 6000 KB/s (10X to 40X)
	Variable — DVD ROM	8112 - 21,632 KB/s (6X - 16X)
	Variable — DVD Video	1352 – 3268 KB/s (2.4X)
	Variable — DVD-R, DVD-RW	1352 – 3268 KB/s (2.4X)
	Variable — DVD+R, DVD-RW	1352 – 3268 KB/s (2.4X)
<b>Data Transfer Modes</b>	ATA PIO mode 4 (16.7 MB/s); ATA Multi-word DMA mode 2 (16.7 MB/s); ATA UltraDMA mode 0 (16.7 MB/s); ATA UltraDMA mode 1 (24 MB/s), mode 2 (33 MB/s); ATA UltraDMA Mode 3 44 Mbytes/s (default)	
	Cache Buffer	2 MB (minimum)
	Startup Time (single)	< 7 seconds (typical)
	Startup Time (multi-session)	< 30 seconds (typical)
	Stop Time	< 4 seconds
<b>Power</b>	Source	Four-pin, DC power receptacle
	DC Power Requirement	5 VDC $\pm$ 5%—100 mV ripple p-p 12 VDC $\pm$ 5%—200 mV ripple p-p
	DC Current	5 VDC (< 1000 mA typical, < 1600 mA maximum) 12 VDC (< 600 mA typical, < 1400 mA maximum)
	Total Drive Power (standby mode)	< 2.5 Watt
<b>Audio Output Level</b>	0.7 Vrms (typical)	
<b>Configuration Jumper Block</b>	Master, slave, and cable select modes	
<b>Data Interface Connector</b>	40-pin, shrouded and keyed, flat ribbon	
<b>Environmental</b> (all conditions non-condensing)	Temperature (operating)	41° to 122° F (5° to 50° C)
	Relative humidity (operating)	10% to 90%
	Maximum wet bulb temperature (operating)	86° F (30° C)
<b>Certifications, Requirements</b>	MPC-3 compliant, multi-read requirements, ACA AS/NZS 3548, ANSI C63.4–1992, ATAPI Spec SFF-8020, ATA Spec X3T9.2, CB Bulletin No. 92A, CSA C22.2 No. 950-1995, C.I.S.P.R. Pub 22, EMKO-TSE 207/94, TUV or VDE EN60 950, EN60825-1, Microsoft PC2001 certification, Microsoft Logo for Windows XP, 2000, and NT4	

#### 16X/40X DVD-ROM with +R Read Drive

<b>Height</b>	5.25-in, half-height
<b>Interface Type</b>	ATAPI
<b>Dimensions— External, Excluding Bezel (W x H)</b>	5.88 x 1.71 in (149.5 x 43.5 mm)
<b>Disc Diameter</b>	12 cm, 8 cm
<b>Disc Thickness</b>	1.2 mm
<b>Track Pitch</b>	1.6 $\mu$ m (CD), 0.74 $\mu$ m (DVD)
<b>Disc Center Hole Diameter</b>	15 mm
<b>Disc Formats</b>	DVD-ROM (single and dual layer); DVD-video; DVD-R version 1.0 and 2.0; DVD-RW version 1.0 and 1.1; DVD-R multi-border; DVD+RW; DVD+R ; CD-ROM Mode 1 and 2; CD-DA; CD-ROM XA Mode 2, Form 1 and 2; CD-extra; CD-text; CD-I Mode 2, Form 1 and 2; CD-I ready; video CD, CD-bridge; PhotoCD (single and multi-session); CD-R; CD-RW

### Technical Specifications

<b>Disc Capacity</b>	<b>DVD-ROM</b>	4.7 GB (DVD-5), 8.54 GB (DVD-9), 9.4 GB (DVD-10), 3.95 GB (DVD-R version 1.0), 4.7 GB (DVD-R version 2.0), 4.7 GB (DVD-RW version 1.0 and 1.1), 4.7 GB (DVD+RW), 4.7G (DVD+R)
	<b>CD-ROM</b>	540 MB (Mode 1, 12 cm), 640 MB (Mode 2, 12 cm), 700 MB (80 minimum CD-R and CD-RW), 180 MB (8 cm)
<b>Block Size</b> (bytes)	DVD-ROM – 2048; CD-ROM Mode 0 – 2352; CD-ROM Mode 1 – 2352, 2340, 2336, 2048; CD-ROM Mode 2 – 2352, 2340, 2336, 2048	
<b>Access Times</b> (typical reads, including settling)	<b>DVD-ROM Single Layer</b>	< 120 ms
	<b>CD-ROM Mode 1</b>	< 90 ms
	<b>Full Stroke DVD</b>	< 240 ms (seek)
	<b>Full Stroke CD</b>	< 160 ms (seek)
<b>Data Transfer Rates</b>	2600 – 6000 KB/s (40X CAV CD-ROM mode)	
	8100 – 21,600 KB/s (16X CAV DVD-ROM mode)	
<b>Data Transfer Modes</b>	PIO Mode 4 (16.6 MB/s); Multi-word DMA mode 2 (16.6 MB/s); UltraDMA Mode 3 (44.4 MB/s)	
<b>Power</b>	<b>Source</b>	Four-pin, DC power receptacle
	<b>DC Power Requirement</b>	5 VDC $\pm$ 5% – 100 mV ripple p-p
		12 VDC $\pm$ 5% – 200 mV ripple p-p
	<b>DC Current</b>	5 VDC – < 800 mA typical, < 1000 mA maximum
12 VDC – < 870 mA typical		
<b>Audio Output Level</b>	0.7 Vrms (typical)	
<b>Configuration Jumper Block</b>	Master, slave, and cable select modes	
<b>Data Interface Connector</b>	40-pin, shrouded and keyed, flat ribbon	
<b>Environmental</b> (all conditions non-condensing)	<b>Temperature</b> (operating)	41° to 122° F (5° to 50° C)
	<b>Relative Humidity</b> (operating)	10% to 85%
	<b>Maximum Wet Bulb Temperature</b> (operating)	86° F (30° C)
	<b>Certifications, Approvals</b>	MMC II support, multi-read certification, Microsoft WHQL certification, ACA AS/NZS 3548 class B, CNS 13438, C.I.S.P.R. Pub 22, TUV or VDE EN60950, EN 55022, EN55024, SEMKO, NEMKO, DEMKO, FIMKO, EN 60825-1, UL 60950, and CSA C22.2 60950-2000.
<b>Operating Systems Supported</b>	Microsoft Windows NT, Microsoft Windows 2000, and Microsoft Windows XP.	
<b>Kit Contents</b>	16X/40X DVD-ROM Drive, InterVideo™ WinDVD™ MPEG Movie Playback software, CD-R media, high-speed CD-RW media, audio cable, and installation guide.	



### Technical Specifications

<b>4.7 GB DVD+R/RW Drive</b>	<b>Recording Method</b>	Disc-at-once and incremental write; re-recordable
	<b>Interface</b>	ATAPI ATA/ATAPI-5 and SFFC INF8090 Version 5
	<b>Disc Recording Capacity</b>	4.7 GB
	<b>Write Support</b>	DVD-R (4.7 GB for general disc only), DVD-RW, CD-R, CD-RW
	<b>Read Support</b>	DVD-ROM (single- and dual-layer), DVD-R (all types), CD-ROM Mode 1, CD-ROM XA (Mode 2, forms 1 and 2), CD TEXT, Photo CD (single- and multi-session), CD-DA (Audio CD), CD-Extra, CD-R, CD-RW (supports AM2)
	<b>Write Speed</b>	DVD-R 2X CLV (2.8 Mbps), 1X CLV (1.4 Mbps) DVD-RW 1X CLV (1.4 Mbps) CD-R 8X CLV (1.4 Mbps), 4X CLV (0.7 Mbps) CD-RW 4X CLV (0.7 Mbps)
	<b>Read Speed</b>	DVD-ROM 6X (single) Maximum CAV (5.5 Mbps) DVD-ROM (dual) 2X CLV (2.8 Mbps) DVD-R, DVD-RW 2X CLV (2.8 Mbps) CD-ROM Maximum 24X CAV (4.2 Mbps) CD-R 24X, CD-RW 16X Maximum CAV (2.8 Mbps) CD-Audio Maximum 10X CAV (1.8 Mbps) Video CD 4X CLV (0.7 Mbps)
	<b>Data Buffer</b>	Read 2 MB Write 2 MB
	<b>Access Time</b> (random average)	DVD—200 Msec; CD—180 Msec (when DVD-ROM single layer disc and CD-ROM Mode 1 disc are used)
	<b>System Configuration</b>	Intel® Pentium® III Processor or later with 128 MB of memory (required); 256 MB recommended  2-D or 3-D graphics cards on primary disk drive for operating system and application software; second disk drive for audio and video data
	<b>Operating System Support</b>	Microsoft® Windows® 2000 and XP
	<b>Mounting Orientation</b>	Horizontal and vertical
	<b>Power Requirement</b>	+ 5V, + 12V/1.2A, 0.9A
	<b>Power Consumption</b>	23.8 watts maximum
	<b>Size</b>	Fits standard 5.25 in drive bay
	<b>Front Panel Features</b>	Disc loading tray, forced eject hole, headphone jack, volume control, ventilation holes, disc indicator, read/write indicator, eject button
	<b>Rear Panel Features</b>	ATAPI interface, digital audio output 1, analog audio output, device configuration jumper, DC input
	<b>Regulatory Approvals</b>	UL, CSA, CB Report, FIMKO, SEMKO, FCC Class B, FDA, CE Marking, C-Tick, CISPR-229, Korean EMC, Taiwan EMC
	<b>Kit Contents</b>	DVD-RW drive, Sonic DVDit! authoring software, CD-R/CD-RW mastering software, and DVD-R and DVD-RW media
	<b>Optional Kit</b>	Compaq DV Option Kit Part Number 22996-0xx for digital video editing on Compaq workstations

### Technical Specifications

<b>1.44-MB Diskette Drive</b>	LED Indicators (front panel)	3.5 in.	
	Read/Write Capacity per diskette (high/low density)	Green	
	Drive Supported	1.44 MB/720 KB	
	Drive Height	One	
	Drive Rotation	One-third	
	Transfer Rate (high/low)	300 rpm	
	Bytes/Sector	500/250 Kb/s	
	Sectors/Track (high/low)	512	
	Tracks/Side (high/low)	18/9	
	Access Times	80/80	
		Track-to-Track (high/low)	3/6 ms
		Average (high/low)	169/94 ms
		Settling Time	15 ms
	Latency Average	100 ms	

<b>USB Disk on Key</b>	<b>Dimensions</b> (L x W x H)	0.9 x 0.6 x 3.2 inches (2.3 x 1.5 x 8.2 cm)
	<b>Weight</b>	0.05 pounds (0.02 kg)
	<b>USB Specification</b>	1.1
	<b>Transfer Rate</b>	Read-1023 KB/Sec; Write-850 KB/Sec
	<b>Storage Media</b>	Solid state flash memory, no moving parts
	<b>Power Supply</b>	USB Bus-powered, no external power required
	<b>Capacity</b>	8MB, 16MB, and 32MB

HP recommends Microsoft® Windows® XP Professional for Business.

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