## Overview

What's New

- New Chassis Designs
  - *Desktop*
  - *Minitower*
  - *Microtower*
- PC133 Memory
- Enhanced Graphics
- Easy Access Keyboard
- Scroll Mouse
- Windows 2000 Support
- Suspend to RAM support

At A Glance

- Intel® 815 chipset available on:
  Desktop
  Minitower
- Intel 810E chipset available on:
  Microtower
- Intel Pentium® III processors
- Intel Celeron™ processors
- 66- or 133-MHz Front Side Bus
- Service-friendly design
- Energy Star compliant with energy-saving features
  Desktop
  Minitower
- Desktop & Minitower
  Windows 98 SE
  Windows 2000/Windows NT 4.0
- Microtower
- *Windows 98 SE*
- Desktop and Minitower are protected by Compaq Services, including a three-year (3-1-1), limited warranty. Terms and conditions vary by country. Certain restrictions and exclusions apply. Latin American countries are protected by Compaq Services, including a one-year (1-1-1), limited warranty.
- Microtower is covered by a one year (1-1-1), limited warranty

Note: On the Desktop EX Series, the SMART capable drive will run a POST (power on self-test) only. This self-diagnostic test will be run at every system boot up, and will provide customers with a warning of drive failure problems.
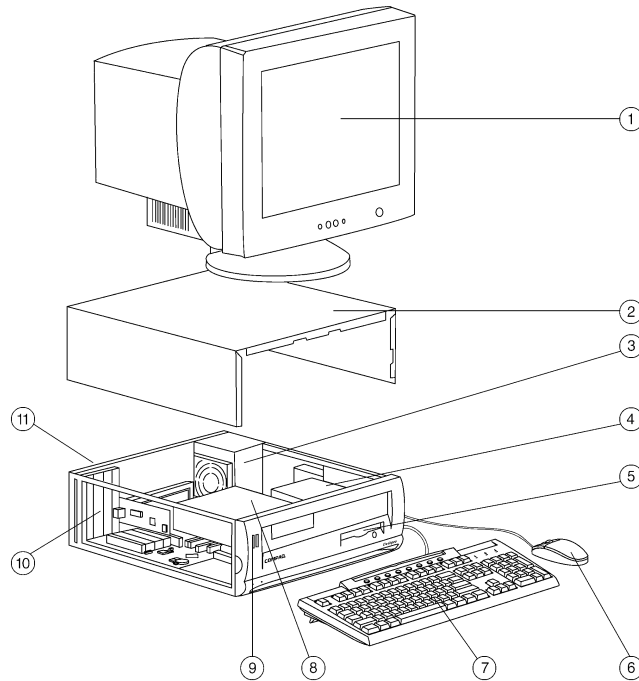

Desktop
1. S710 Monitor (sold separately)
2. Access Panel
3. 120-Watt Power Supply
4. Ultra ATA/100 Hard Drive
5. 1.44-MB Diskette Drive
6. Scroll Mouse
7. Easy Access Keyboard
8. 48X CD-ROM Drive (optional)
9. Dual-State Power Button
10. Expansion Slots
11. Access Panel Release Latch
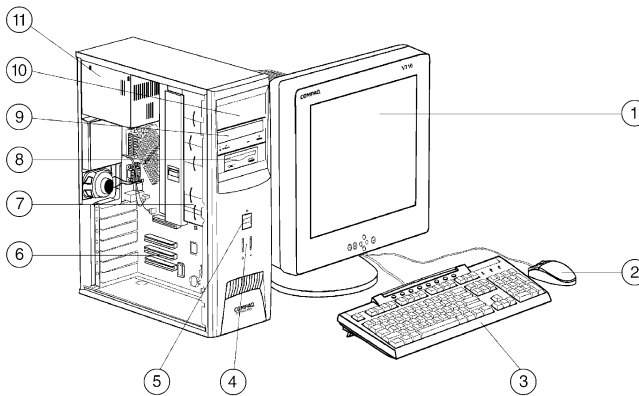
Minitower
1. V710 Monitor (Sold separately)
2. Scroll Mouse
3. Easy Access Keyboard
4. LED
5. Dual-State Power Button
6. Expansion Slots
7. Ultra ATA/100 Hard Drive
8. 1.44-MB Diskette Drive
9. 48X CD-ROM Drive (optional)
10. Expansion Bays
11. 200-Watt Power Supply
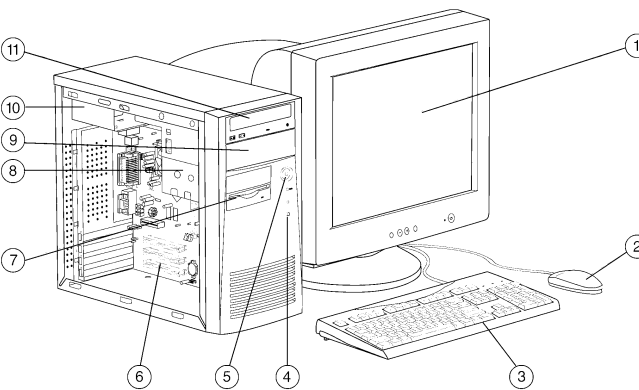
Microtower
1. S710 Monitor (Sold separately)
2. Standard Mouse
3. Standard Keyboard
4. LED
5. Dual-State Power Button
6. Expansion Slots
7. 1.44-MB Diskette Drive
8. Ultra ATA/100 Hard Drive
9. Expansion Bays
10. 145-Watt Power Supply
11. 48X CD-ROM Drive (standard)

COMPAQ

Standard Features – Desktop and Minitower Pre-Configured Models

Chipset – Intel 815 (Available in pre-configured and custom configuration models)

Pre-Configured Models

(Geos to localize with pre-configured models and part numbers)

Model Key

Example:

P600E/810E/13.5/64/C/I/9

P600 =	Pentium 600 MHz processor
815E=	Chipset designation
13.5 =	Hard Drive
64 =	Memory
I =	Intel 3D Direct AGP graphics
N =	NVIDIA TNT Pro AGP graphics
C =	CD-ROM
9 =	Windows 98 SE
4 =	Microsoft Windows NT 4.0
6 =	Dual Installation Windows 2000/Windows NT 4.0

Desktop

P866/815E/20/128/N/C/6   xxxxxx-xxx

P866/815E/20/128/N/C/9   xxxxxx-xxx

Minitower

QuickSpecs

Standard Features – Desktop and Minitower Pre-Configured Components

Chipset – Intel 815

Processor and Speed	Intel Pentium III Processors	Standard L2 Cache	256-KB Integrated ECC
One of the following	1 GHz	Front Side Bus	133 MHz
	933 MHz	Maximum Memory	512 MB
	866 MHz		
	800 MHz		
	Intel Celeron Processors	Standard L2 Cache	128-KB Integrated ECC
	800 MHz with 100 MHz FSB	Front Side Bus	66 MHz or 100 MHz
	733 MHz	Maximum Memory	512 MB
	700 MHz		

Note: Intel Celeron processors that are 800 MHz or higher have 100 MHz Front Side Bus

Hard Drives	**7200 rpm**
One of the following	40-GB 7200 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	20-GB 7200 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	5400 rpm
	40-GB 5400 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	20-GB 5400 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)

Note: Deskpro EX Series will support a maximum interface speed of 66 Mb/s.

Note: On the Desktop EX Series, the SMART capable drive will run a POST (power on self-test) only. This self-diagnostic test will be run at every system boot up, and will provide customers with a warning of drive failure problems.

Standard Memory *(2 DIMMs)*	64 MB (PC133MHz SDRAM Memory)
One of the following required	128MB (PC133MHz SDRAM Memory)

Removable Storage	1.44-MB Diskette Drive

Optical Storage *On select models*	48X CD-ROM Drive
	16X DVD-ROM Drive

Keyboard/Mouse	Easy Access Keyboard
	2-Button Scroll Mouse

Audio	Integrated Intel Audio (speakers sold separately)

Network Controller	Standard 10/100 PCI NIC with WOL

Graphics	NVIDIA GeForce2 GTS 32-MB AGP
	NVIDIA Vanta 16-MB AGP
	NVIDIA Vanta LT 8-MB AGP
	NVIDIA M64 Pro 16-MB AGP
	NVIDIA M64 Pro 32-MB AGP

Standard Features – Desktop and Minitower Custom Configuration Components

Deskpro EX Series – Flexible Solutions Configured to Order *(not available for Deskpro EX Series Microtower)*

Order the Compaq **Deskpro EX Series** the way the customer wants it by selecting the processor, hard drive, memory, graphics controller, and more. Purchase directly from Compaq or a Compaq Authorized Agent. Configurable components and Options change frequently. Check the Compaq Product Bulletin or www.compaq.com for the latest options available from Compaq. Note: This Web site is available in English only.

Chipset – Intel 815

Processor and Speed	Intel Pentium III Processors	Standard L2 Cache	256-KB Integrated ECC
One of the following required	1 GHz	**Front Side Bus**	133 MHz
	933 MHz	**Maximum Memory**	512 MB
	866 MHz		
	800 MHz		
	733 MHz		
	Intel Celeron Processors	**Standard L2 Cache**	128-KB Integrated ECC
	850 MHz with 100 MHz FSB	**Front Side Bus**	66 MHz or 100 MHz
	800 MHz with 100 MHz FSB	**Maximum Memory**	512 MB
	733 MHz		
	700 MHz		

Note: Intel Celeron processors that are 800 MHz or higher have 100 MHz Front Side Bus

Hard Drives	**7200 rpm**
	60-GB 7200 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	40-GB 7200 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
One of the following	30-GB 7200 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	20-GB 7200 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	5400 rpm
	40-GB 5400 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)
	20-GB 5400 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)

Note: Deskpro EX Series will support a maximum interface speed of 66 Mb/s.

Note: On the Desktop EX Series, the SMART capable drive will run a POST (power on self-test) only. This self-diagnostic test will be run at every system boot up, and will provide customers with a warning of drive failure problems.

Memory *(2 DIMMs)*	256-MB SDRAM (PC133) (utilizes one DIMM slot)
One of the following required	128-MB SDRAM (PC133) (utilizes one DIMM slot)
	64-MB SDRAM (PC133) (utilizes one DIMM slot)

Removable Storage *(Optional)*	1.44-MB Diskette Drive

Optical Storage *(Optional)*	48X CD-ROM Drive
	16X DVD-ROM Drive
	10X/40X DVD-ROM Drive
	12X/4X/32X CD-RW Drive
	8X/4X/32X CD-RW Drive
	DVD-RAM

QuickSpecs

Standard Features – Desktop and Minitower Custom Configuration Components

Chipset – Intel 815 *(continued)*	
Keyboard/Mouse	Compaq Easy Access Keyboard
	Compaq Enhanced Keyboard
	Compaq Smart Card Keyboard
	Compaq 2-Button Scroll Mouse
	2-Button Mouse
Audio *(Optional)*	Integrated Intel Audio (speakers sold separately)
Network Controller *(Optional)*	Intel PRO/100+ Management Adapter
	Standard 10/100 PCI NIC with WOL
	Intel PRO/100+S
	3COM 3C905C-TX
Graphics *(Optional)*	Intel 3D Direct AGP with optional Graphics Performance Accelerator (GPA)
	NVIDIA GeForce2 GTS 32-MB AGP
	NVIDIA Vanta 16-MB AGP
	NVIDIA Vanta LT 8-MB AGP
	NVIDIA M64 Pro 16-MB AGP
	NVIDIA M64 Pro 32-MB AGP

QuickSpecs

Standard Features – Desktop and Minitower System Features

Chipset – Intel 815

Expansion Capability		Desktop	Minitower
	Memory Expansion Slots (DIMMS)		
	Memory Type	168-pin Synchronous DRAM DIMM	168-pin Synchronous DRAM DIMM
	Maximum Memory Device	256MB DIMM Module	256MB DIMM Module
	Maximum Memory	512MB	512MB

Expansion Slots		Desktop	Minitower
	AGP	1	1
	PCI	3	3

Expansion Bays		Desktop	Minitower
	Internal	1 internal hard drive bay	2 internal hard drive bay
	External	2 external 5.25″ drive bays	2 external 5.25″ drive bays
		1 external floppy disk drive bay	1 external floppy disk drive bay

Power Supply		Desktop	Minitower
		120 Watts	200 Watts

Operating System	Windows 98 SE
One of the following required	Dual Installation Windows 2000/Windows NT 4.0 SP6a
	Windows Millennium

Note: Dual Installation- End-user must make a one-time selection between Windows NT 4.0 and Windows 2000. If end-user desires the rejected product(s) after selection is made, the end-user must acquire and pay for rejected product(s) separately.

Interfaces	I/O Chip	SMC LPC 47B357
	Serial Port / UART Type	2
	Game	0
	Parallel Port	1
	USB	2
	Infrared Port	0
	Network	optional
	Keyboard	1
	Mouse	Fast Boot
	Video	1
	Audio	2
	Microphone	1

Power Conservation 'Energy Saver'	Energy Star Compliant
	Instantly Available PC Compliant
	Suspend to RAM
	APM Support
	Screen Blanking
	Hard Disk 'Idle' Mode
	Clock Slow Down
	System Idle Mode
	Cache Memory Power-Down
	CD-ROM and Audio Board Support Power-Down

Computer Setup Utility	Diagnostics for Windows - preloaded

QuickSpecs

Standard Features – Desktop and Minitower System Features

Chipset – Intel 815 *(continued)*		
Boot Support	Local Diskette Boot	
	Remote Diskette Boot – with appropriate NIC	
	Network Server Mode (Service Boot) – with appropriate NIC	
	Network Boot – with appropriate NIC	
Initial Configuration and Deployment	Remote System Installation	No (DMI 2.0 compliant)
	Replicated Setup	No (DMI 2.0 compliant)
	Compaq OS Restore CD	Yes
Asset Control	Asset Tag	Yes
	DIMM Serial Presence Detect	Yes
	Hard drive serial number, model & manufacturer	Yes, inF10 setup
	Monitor serial number, model & manufacturer	Available through Windows, not supported in F10 setup
	System serial number, model & manufacturer	Model and chassis serial number available in F10 setup
	ROM revision levels	Yes
	Systemboard revision level	No, not in F10 setup
	Compaq Fingerprint Identification Technology	No
	DMI BIOS	Yes
	Memory Change Alert	Yes
	Ownership Tag	Yes
	Smart Cover Lock	No
	Kensington Lock Support	Yes (only on Minitower)
	Compaq Lock Bracket Support	Yes (only on Minitower)
	Smart Cover Sensor	No
Standard Security Features	Boot Integrity Services (BIS) – Secure PXE	
	Master Boot Record Security	
	Power-On Password	
	Serial, Parallel & USB Port Control	
	Removable Media Write / Boot Control – with supported devices	
	Setup Password	
Software Updating and Management	Remote Security Management - supported in BIOS	
	Remote ROM Flash – supported in BIOS	
	Remote Wakeup / Remote Shutdown – Wake-on-LAN supported with appropriate NIC	
	ROM Based Setup	
Fault Notification and Recovery	DMI BIOS	
	SMART Hard Drives - Power on Self Test (POST) only	
	Surge Tolerant Power Supply	
	Ultra ATA Integrity Monitoring – DPS is supported in BIOS	
Other Features	Version of PCI Bus Supported – PCI Revision 2.2	
	Wake-on-LAN supported – with PCI PME# Signal	
	AOL Support – "No Boot" and "Processor Over Temp" signal are supported. Supported via a cable for 3-COM NICs. Other NICs use signals on the PCI connector (former SBO# and SDONE# Signals) as the AOL clock and data signals.	
	ACPI Compliant	
	Dual-State Power Button	
	Fast Boot	
	Wired for Management 1.1a Support – upgradable with appropriate NIC & Software	

Standard Features – Desktop and Minitower System Features

Chipset – Intel 815 *(continued)*

Desktop Chassis			
	Dimensions (HxWxD)	5.1 x 14.5 x 15.7 in/12.95 x 36.83 x 39.88 cm	
	Weight	15 lbs/6.8 kg	
	Weight Supported	92 lbs/41.73 kg	
	Power Supply	Operating Voltage Range	90 to 132 VAC/180 to 264 VAC (switch select)
		Rated Voltage Range	100 to127 VAC/220 to 240 VAC
		Rated Line Frequency	47 to 63 Hz
		Rated Input Current	4A/2A @ 120W
		Maximum Rated Power	120 Watts
	Temperature	Operating	50° to 95°F/10° to 35°C
		Non-operating	–4° to 140°F/–20° to 60°C
	Humidity	Operating	20% to 80%
		Non-operating	10% to 90%
	Maximum Altitude	Operating	10,000 ft/3,048 m
		Non-operating	30,000 ft/9,144 m
		Maximum Rate of Change	1500 feet per minute/457 meters per minute

Minitower Chassis			
	Dimensions (HxWxD)	17.65 x 6.6 x 17.11 in/44.83 x 16.76 x 43.46 cm	
	Weight	20 lbs/9.07 kg	
	Weight Supported	100 lbs/45.36 kg	
	Power Supply	Operating Voltage Range	90 to 132 VAC/180 to 264 VAC (switch select)
		Rated Voltage Range	100 to127 VAC/220 to 240 VAC
		Rated Line Frequency	47 to 63 Hz
		Rated Input Current	5.5A/3A @ 200W 6A/3A
		Maximum Rated Power	200 Watts
	Temperature	Operating	50° to 95°F/10° to 35°C
		Non-operating	–4° to 140°F/–20° to 60°C
	Humidity	Operating	20% to 80%
		Non-operating	10% to 90%
	Maximum Altitude	Operating	0 to 10,000 ft/0 to 3,048 m
		Non-operating	0 to 30,000 ft/0 to 9,144 m
		Maximum Rate of Change	1500 feet per minute/457 meters per minute

Service and Support
(Deskpro EX Series Desktop and Minitower only)

On-site Warranty [Note 1]: This three-year, limited warranty covers all parts for three years and provides free, next-business-day [Note 2] service (parts and labor) for the first year and includes free telephone support [Note 3] 24 hours a day, 7 days a week. The customer may extend or upgrade the warranty to provide labor and/or on-site service for the second and third years. 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.

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 third-party Compaq-qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

Standard Features – Microtower Pre-Configured Models

Chipset – Intel 810E

Pre-Configured Models	Model Key		
(Geos to localize with pre-configured models and part numbers)	**Example:**	**P600E/810E/10.0/64c**	
		P600 =	Pentium 600 MHz processor
		810E=	Chipset designation
		10.0 =	Hard Drive
		64 =	Memory
		I =	Intel 3D Direct AGP graphics
		N =	NVIDIA TNT Pro AGP graphics
		C =	CD-ROM
		9 =	Windows 98 SE
		4 =	Microsoft Windows NT 4.0
		6 =	Dual Installation Windows 2000/Windows NT 4.0

Microtower

P866/815E/20/128/N/C/6	xxxxxx-xxx
P866/815E/20/128/N/C/9	xxxxxx-xxx

Standard Features – Microtower Pre-Configured Components

Chipset – Intel 810E (Only available in pre-configured models)

Processor and Speed	Intel Pentium III Processors	Standard L2 Cache	256-KB Integrated ECC
One of the following	1 GHz	**Front Side Bus**	133 MHz
	866 MHz	**Maximum Memory**	512 MB
	733 MHz		
	667 MHz		
	Intel Celeron Processors	**Standard L2 Cache**	128-KB Integrated ECC
	733 MHz	**Front Side Bus**	66 MHz
	667 MHz	**Maximum Memory**	512 MB

Hard Drive	**5400 rpm**
	10-GB 5400 rpm SMART III Ultra ATA/100 Quiet Seek Hard Drive (worldwide)

Note: Deskpro EX Series will support a maximum interface speed of 66 Mb/s.

Note: On the Desktop EX Series, the SMART capable drive will run a POST (power on self-test) only. This self-diagnostic test will be run at every system boot up, and will provide customers with a warning of drive failure problems.

Standard Memory	64 MB (PC133MHz SDRAM Memory)

Removable Storage	1.44-MB Diskette Drive

Optical Storage	48X CD-ROM Drive

Keyboard/Mouse	Standard Windows Keyboard
	2-Button Mouse

Audio	Integrated Audio (speakers sold separately)

Network Controller	Standard 10/100 PCI NIC with WOL

Graphics	Integrated Intel 3D Direct AGP

QuickSpecs

Standard Features – Microtower System Features

Chipset – Intel 810E		
Expansion Capability	**Microtower**	
	Memory Expansion Slots (DIMMS)	2
	Memory Type	168-pin Synchronous DRAM DIMM
	Maximum Memory Device	256MB DIMM Module
	Maximum Memory	512MB
Expansion Slots	**Microtower**	
	PCI	3
Expansion Bays	**Microtower**	
	External	2 external 5.25″ drive bays
		1 external 3.5″ drive bay
		1 external floppy disk drive bay
Power Supply	**Microtower**	
	145 Watts	
Operating System	Windows 98 SE	
Interfaces	I/O Chip	WinBond W83627HF
	Serial Port / UART Type	1
	Game	1
	Parallel Port	1
	USB	2
	Infrared Port	0
	Network	Optional
	Keyboard	1
	Mouse	1
	Video	1
	Audio	2
	Microphone	1
Power Conservation 'Energy Saver'	Instantly Available PC Compliant	
	APM Support	
	Screen Blanking	
	Hard Disk 'Idle' Mode	
	Clock Slow Down	
	System Idle Mode	
	Cache Memory Power-Down	
	CD-ROM and Audio Board Support Power-Down	
Computer Setup Utility	Not available	
Boot Support	Local Diskette Boot	
	Remote Diskette Boot	
	Network Server Mode (Service Boot) – with appropriate NIC	
	Network Boot – with appropriate NIC	
Initial Configuration and Deployment	Remote System Installation	No (DMI 2.0 compliant)
	Replicated Setup	No (DMI 2.0 compliant)
	Compaq OS Restore CD	Yes

Standard Features – Microtower System Features

Chipset – Intel 810E *(continued)*

Asset Control	Not available
Standard Security Features	Removable Media Write / Boot Control Setup Password
Software Updating and Management	Wake-on-LAN supported with appropriate NIC ROM Based Setup
Fault Notification and Recovery	DMI BIOS SMART Hard Drives - Power on Self Test (POST) only Surge Tolerant Power Supply Thermal Sensor Ultra ATA Integrity Monitoring Automatic Fan Control
Other Features	Version of PCI Bus Supported – PCI Revision 2.2 Wake-on-LAN supported AOL Support – default setup has this feature disabled. Can be enabled by user. ACPI Compliant - S1 compliant Dual-State Power Button Fast Boot

Microtower Chassis

Dimensions (HxWxD)	14 x 7.1 x 15.4 in/35.6 x 18 x 39.1 cm	
Weight **Weight Supported**	18.3 lbs/8.3 kg 100 lbs/45.5 kg	
Power Supply	Operating Voltage Range Rated Voltage Range Rated Line Frequency Rated Input Current Maximum Rated Power	90 to 132 VAC/180 to 265 VAC 100 to 127 VAC/220 to 240 VAC 47 to 63 Hz 4A/2A 145W
Temperature	Operating Non-operating	50° to 95°F/10° to 35°C –4° to 140°F/–20° to 60°C
Humidity	Operating Non-operating	20% to 80% 10% to 90%
Maximum Altitude	Operating Non-operating Maximum Rate of Change	0 to 10,000 ft/0 to 3,048 m 0 to 30,000 ft/0 to 9,144 m 1500 feet per minute/457 meters per minute

Service and Support
(Deskpro EX Series Microtower only)

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 third-party Compaq-qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

After-Market Options

Memory (DIMMs)

133-MHz SDRAM DIMMs

256-MB Memory Kit (1 x 256-MB SDRAM DIMM, 133 MHz)	174225-B21
128-MB Memory Kit (1 x 128-MB SDRAM DIMM, 133 MHz)	174224-B21
64-MB Memory Kit (1 x 64-MB SDRAM DIMM, 133 MHz)	174223-B21

Monitors

TFTs

Compaq TFT8020 Monitor (18-inch, Opal)	326100-001
Compaq TFT8020 Monitor (18-inch, Carbon)	159244-001
Compaq TFT7000 Monitor (15-inch, Opal)	136143-001
Compaq TFT5010 Monitor (15-inch, Opal)	104741-001
Compaq TFT5010 Monitor (15-inch, Carbon)	154486-001
Compaq TFT5005 Monitor (15-inch, Opal)	201431-001
Compaq TFT5005 Monitor (15-inch, Carbon)	201430-001

CRTs

Professional Series

Compaq P1210 CRT Monitor (21-inch, Opal)	210290-001
Compaq P910 CRT Monitor (19-inch, Opal)	210254-001
Compaq P710 CRT Monitor (17-inch, Opal)	210189-001

Value Series

Compaq V1100 CRT Monitor (21-inch, Opal)	386472-001
Compaq V710 CRT Monitor (17-inch, Opal)	187895-001

Standard Series

Compaq S910 CRT Monitor (19-inch, Opal)	138485-001
Compaq S710 CRT Monitor (17-inch, Opal)	152991-001
Compaq M710 CRT Monitor (17-inch, Opal)	154499-005
Compaq S710 CRT Monitor (17-inch, Carbon)	154499-002
Compaq S510 CRT Monitor (15-inch, Carbon)	168636-002

2D Graphics

Controller Cards

NVIDIA Vanta LT 8-MB AGP	216078-B21
NVIDIA GeForce 2GTS 32-MB AGP *(Desktop and Minitower only)*	190349-B21
NVIDIA M64 Pro 32-MB AGP *(Desktop and Minitower only)*	216080-B21
NVIDIA M64 Pro 16-MB AGP *(Desktop and Minitower only)*	211081-B21
NVIDIA Vanta 16-MB LP AGP *(Desktop and Minitower only)*	239317-B21
Intel 4-MB Graphic Performance Accelerator (AIMM) Module *(Desktop and Minitower only)*	218961-B21
Matrox G450 32-MB AGP *(Minitower only)*	202389-B21
Matrox G450 16-MB PCI *(Minitower only)*	202390-B21

After-Market Options

Removable Storage		
	Floppy Drives	
	ZIP 100 High-Capacity Floppy Drive (opal)	294402-001
	ZIP 100 Media (3-Pack)	127591-001
	ZIP 250 High-Capacity Floppy Drive (opal)	294416-001
	ZIP 250 Media (3-Pack)	217896-B21
	Tape Drives	
	TR5 10/20 GB Tape Drive *(Desktop and Minitower only)*	294243-B21
	TR5 10/20 GB Media (3-Pack) *(Desktop and Minitower only)*	125782-B21

Optical Drives		
	DVD-ROM Drives	
	10X/40X DVD-ROM Drive (opal)	294414-001
	16X/40X DVD-ROM Drive (opal)	211055-B21
	16X/40X DVD-ROM Drive with RAM read (opal)	237495-B21
	CD-ROM Drives	
	48X Max CD-ROM Drive	187217-B21
	CD-RW Drives	
	12X/8X/32X CD-RW Drive (opal)	217638-B21
	16X/10X/40X CD-RW Drive (opal)	240598-B21
	DVD-RAM Drives and Media	
	4.7-GB DVD-RAM Drive (opal)	294415-B21
	4.7-GB DVD-RAM Drive Media Kit (3 pack)	294415-B22

Smart Hard Drives		
	SMART III Ultra ATA/100 Hard Drives with Drive Protection System *(DPS)*	
	60-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek and Idle Hard Drive with DPS (worldwide)	230253-B21
	40-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek and Idle Hard Drive with DPS (worldwide)	201066-B21
	30-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek and Idle Hard Drive with DPS (worldwide)	178252-B21
	20-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek and Idle Hard Drive with DPS (EMEA only)	176275-021
	20-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek Hard Drive with DPS (worldwide)	176272-B21
	10-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek and Idle Hard Drive with DPS (EMEA only)	176273-021
	10-GB 7200 rpm SMART III Ultra ATA/100 Quite Seek Hard Drive with DPS (worldwide)	176270-B21
	Note: Deskpro EX Series will support a maximum interface speed of 66 Mb/s.	
	Note: On the Desktop EX Series, the SMART capable drive will run a POST (power on self-test) only. This self –diagnostic test will be run at every system boot up, and will provide customers with a warning of drive failure problems.	
	SCSI Hard Drives	
	18-GB 10K rpm Ultra3 (Ultra 160) SCSI Hard Drive (815 chipset only)	159764-B21
	9.1-GB 10K rpm Ultra3 (Ultra 160) SCSI Hard Drive (815 chipset only)	159763-B21

Controllers/Cables/Adapters		
	Wide Ultra2 SCSI Controller	124720-B21

QuickSpecs

After-Market Options

Multimedia		
	Compaq Microphone	103589-B21
	Sound Blaster PCI Audio 128V *(no internal speaker included) (Microtower only)*	388550-001
	Altec Lansing ACS21 Speakers	194839-001
	PremierSound PS115 Speakers *(Desktop and Minitower only)*	133566-002
	PremierSound PS330 Speakers	160992-xx1
	Altec Lansing ACS33 Speakers *(Desktop and Minitower only)*	203621-xx1
	1394 PCI Digital Video Adobe	229966-B21

Communications		
	V.90 PCI Controller-based Modem	171914-001
	Compaq NC4621 Token Ring NIC PCI 4/16 WOL *(Desktop and Minitower only)*	379956-B21
	IBM 16/4 Token Ring Special *(Desktop and Minitower only)*	133749-B21
	Intel Pro/100+ Management Adapter	127453-B2x
	Standard 10/100 PCI NIC with WOL	203538-B21

Input/Output Devices		
	Compaq Easy Access Keyboard	122660-006
	Compaq Enhanced Keyboard *(Desktop and Minitower only)*	294343-B21
	Compaq Smart Card Keyboard	115506-006
	Compaq 2-Button Mouse *(Opal)*	143315-B21/293
	Compaq Scroll Mouse *(Opal)*	170299-B21
	Compaq Scroll Mouse Kit *Carbon)*	170299-B22
	Compaq Fingerprint Identification Reader	294307-001
	Compaq Smart Card Reader	113771-B21

Support Software CD		
	Annual Subscription	183426-001
	Single CD-ROM (current month)	272505-001

Memory

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815 chipset (64 MB) – *Desktop and Minitower only*

133-MHz SDRAM DIMM Memory

Standard Memory
64-MB DIMM Standard

Standard Memory Plus Optional Memory
Support for up to 192 MB of DIMM memory is available with the installation of optional SDRAM Memory Kits.

Standard Memory Replaced
with Optional Memory

Support for up to 512 MB of DIMM memory is available with the removal of the standard 64-MB DIMM and the installation of optional SDRAM Memory Kits.

Memory		Slot	
		1	2
Standard	64 MB	64 MB	Empty
Optional	192 MB	64 MB	128 MB
Maximum	512 MB	256 MB	256 MB

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.

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815 chipset (128 MB) – *Desktop and Minitower only*

133-MHz SDRAM DIMM Memory

Standard Memory
128-MB DIMM Standard

Standard Memory Plus Optional Memory
Support for up to 256 MB of DIMM memory is available with the installation of optional SDRAM Memory Kits.

Standard Memory Replaced with Optional Memory
Support for up to 512 MB of DIMM memory is available with the removal of the standard 128-MB DIMM and the installation of optional SDRAM Memory Kits.

Memory		Slot	
		1	2
Standard	128 MB	128 MB	Empty
Optional	256 MB	128 MB	128 MB
Maximum	512 MB	256 MB	256 MB

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.

Memory

815 chipset (256 MB) – *Desktop and Minitower only*

133-MHZ SDRAM DIMM MEMORY

STANDARD MEMORY

256-MB DIMM Standard

STANDARD MEMORY PLUS OPTIONAL MEMORY

Support for up to 512 MB of DIMM memory is available with the installation of optional SDRAM Memory Kits.

Memory		Slot	
		1	2
Standard	256 MB	256 MB	Empty
Optional	512 MB	256 MB	256 MB

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.

810E chipset (64 MB) – *Microtower only*

133-MHZ SDRAM DIMM MEMORY

STANDARD MEMORY

64-MB DIMM Standard

STANDARD MEMORY PLUS OPTIONAL MEMORY

Support for up to 192 MB of DIMM memory is available with the installation of optional SDRAM Memory Kits.

STANDARD MEMORY REPLACED WITH OPTIONAL MEMORY

Support for up to 512 MB of DIMM memory is available with the removal of the standard 64-MB DIMM and the installation of optional SDRAM Memory Kits.

Memory		Slot	
		1	2
Standard	64 MB	64 MB	Empty
Optional	192 MB	64 MB	128 MB
Maximum	512 MB	256 MB	256 MB

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
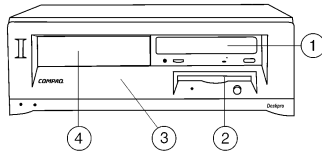
Desktop Configuration
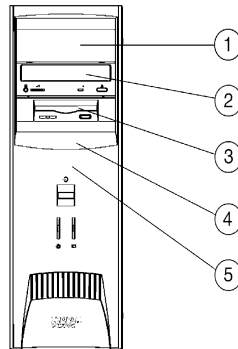
Minitower Configuration
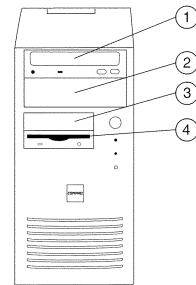
Microtower Configuration

DESKPRO EX SERIES DRIVE SUPPORT

	Quantity Supported	Position Supported	Controller
DESKTOP			
Floppy Drives	1	2	Super I/O
Tape Drives	2	1,4	IDE
CD-ROM Drives	2	1,4	IDE
DVD-ROM Drives	2	1,4	IDE
CD-RW Drives	2	1,4	IDE
SMART III Ultra ATA/100 Hard Drives (POST only)	Up to 1	3	Ultra ATA
SCSI Hard Drives	Up to 1	3	SCSI
MINITOWER			
Floppy Drives	1	3	Super I/O
Tape Drives	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/100 Hard Drives (POST only)	Up to 2	4,5	Ultra ATA
SCSI Hard Drives	Up to 2	4,5	SCSI
MICROTOWER			
Floppy Drives	1	4	Super I/O
Tape Drives	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/100 Hard Drives (POST only)	Up to 2	4	Ultra ATA
SCSI Hard Drives	Up to 2	4	SCSI

Technical Specifications

Compaq Easy Access Keyboard	**Dimensions** (HxWxD)		18.3 x 6.3 x 1.4 in/465 x 160 x 36 mm
	Weight		Approximately 2 lbs/0.9 kg
	Electrical	Operating Voltage	+5VDC ± 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
	Mechanical	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
		Cable Length	6 ft/1.8 m
		PC98-99	Mechanically compliant
		Acoustics	50 dBA maximum sound pressure level
	Environmental	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	Width	8 mm
	Maximum Rotation Speed	30 mm/s
	Switch Type	Light force micro-switch
	Switch Life	1 million operations
	Mechanical Life	Minimum 200,000 revolutions
	Environmental	
	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
	Electrical	
	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
	PC98	Functionally compliant
	Mechanical	
	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)
	Cable Length	2 m
	PC98-99	Mechanically compliant
	Regulatory Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BCIQ, C-Tick

Technical Specifications

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

SMART Ultra ATA/100 Hard Drives

7200 rpm				
60-GB capacity points include Quiet Idle technology, which reduces acoustic levels by approximately 5 decibels, and they ship worldwide.	**60 GB**	**Capacity**	60,000 MB	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Seek Time (typical reads, including settling)	Single Track	1.2 ms (2.7 ms quiet seek)
			Average	8 ms (14.3 ms quiet seek)
			Full-Stroke	18.0 ms (24.1 ms quiet seek)
		Rotational Speed	7200 rpm	
		Physical Configuration	Logical Blocks	117,231,408
		Operating Temperature	41° to 131°F/5° to 55°C	

7200 rpm				
40-GB capacity points include Quiet Idle technology, which reduces acoustic levels by approximately 5 decibels, and they ship worldwide.	**40 GB**	**Capacity**	40,000 MB	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Seek Time (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)
		Rotational Speed	7200 rpm	
		Physical Configuration	Logical Blocks	78,165,360
		Operating Temperature	41° to 131°F/5° to 55°C	

Technical Specifications

7200 rpm *(continued)*	30 GB			
30-GB capacity points include Quiet Idle technology, which reduces acoustic levels by approximately 5 decibels, and they ship worldwide.		**Capacity**	30,000 MB	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Seek Time (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)
		Rotational Speed	7200 rpm	
		Physical Configuration	Logical Blocks	58,633,334
		Operating Temperature	41° to 131°F/5° to 55°C	

7200 rpm	20 GB			
20-GB 7200rpm drives shipping in EMEA with Quiet Seek also have Quiet Idle technology, which reduces acoustic levels by approximately 5 decibels		**Capacity**	20,000 MB	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Seek Time (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)
		Rotational Speed	7200 rpm	
		Physical Configuration	Logical Blocks	39,102,336
		Operating Temperature	41° to 131°F/5° to 55°C	

SMART Ultra ATA/100 Hard Drives

5400 rpm	40 GB			
40-GB capacity points include Quiet Idle technology, which reduces acoustic levels by approximately 5 decibels, and they ship worldwide.		**Capacity**	40,000 MB	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Seek Time (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)
		Rotational Speed	5400 rpm	
		Physical Configuration	Logical Blocks	78,165,360
		Operating Temperature	41° to 131°F/5° to 55°C	

5400 rpm	20 GB			
30-GB capacity points include Quiet Idle technology, which reduces acoustic levels by approximately 5 decibels, and they ship worldwide.		**Capacity**	20,000 MB	
		Height	1 in/25.4 mm	
		Width	3.5 in/88.9 mm	
		Interface	Ultra ATA/100	
		Transfer Rate Synchronous (Maximum)	66 MB/s	
		Seek Time (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)
		Rotational Speed	5400 rpm	
		Physical Configuration	Logical Blocks	58,633,334
		Operating Temperature	41° to 131°F/5° to 55°C	

Note: Deskpro EX Series will support a maximum interface speed of 66 Mb/s.

Note: On the Deskpro EX Series, the SMART capable drive will run a POST (power on self-test) only. This limited, self-diagnostic test will be run at every system boot up, and will provide customers with a warning of drive failure problems.

Technical Specifications

48X CD-ROM Drive	Bus		
	Data Buffer	16.6 MB/s	
	Data Transfer Rate Rate1 KB = 1,024 bytes	Sustained	150 KB/s Minimum (audio)
		Variable	CD: 3,000 to 7200 KB/s
	Disk Rotation Technology	CAV-Constant Angular Velocity	
	Access Time (ms)	Random	< 100 ms
		Full-Stroke Seek	< 150 ms
	Access Seek Time		
	Cache Buffer Standard/Maximum	128 KB	
	Interface	ATAPI	
	Disk Formats Read	Photo-CD/Multi-session, CD-ROM, Multi Read, CD TEXT, Audio CD, CD-I, CD-RW and CD-R	
		CD-EXTRA and CD-ROM XA	
	Disk Formats Written	None	
	Disk	Capacity	CD: 650 MB
		Block Size	Mode 1 – 2,048 bytes Mode 2 – 2,340, 2,336 bytes CD-DA – 2,352 bytes CD-XA – 2,328 bytes
		Diameter	12 cm; 8 cm
		Thickness	1.2 mm
		Track Pitch	1.6 µm
	Audio Output Level	Line-out	0.7 V @ 47 Kohm
		Headphone	0.6 V @ 32 ohm
	Startup Time	< 7 seconds (typical); < 30 seconds with multi-session	
	Operating Conditions	Temperature	41° to 113°F/5° to 45°C
		Humidity	10% to 80% relative humidity
	Dimensions	(HxWxD, maximum)	1.7 x 5.9 x 8.2 in/42.9 x 150.1 x 208 mm
		Weight	2.6 lbs/1200 g
	Approvals/Environmentals		
	OS support	Windows NT 3.51/4.0 Windows 3.51/95/98/2000 OS/2	
	OS support	Windows NT 3.51/4.0 Windows 3.51/95/98/2000 OS/2	
	MPEG playback graphics solution support	None	
	Compaq Products Supported	Deskpro 2000, 4000, 6000, and Deskpro EP and EN Series	
	Other	Operates in horizontal or vertical position	

QuickSpecs

Technical Specifications

16X DVD-ROM Drive	Bus	Ultra DMA 33	
	Data Transfer Rate (1 KB = 1024 bytes)	Sustained	DVD = 8.1 MB/s to 21.6 MB/s
			CD-ROM = 2.55 KB/s to- 6.00 KB/s
	Disk Rotation Technology		DVD: CAV -Constant Angular Velocity
			CD: CAV - Constant Angular Velocity
	Access Time (ms)	Random	DVD = <100 ms; CDROM = < 80 ms
		Full Stroke Seek	DVD = <240 ms; CDROM = <160 ms
	Cache Buffer Standard / Max	512 KB	
	ATAPI Interface	ATAPI	
	Disk Formats Read	DVD-ROM	Yes
		DVD-Video	Yes
		DVD-R	Yes
		DVD-RW	Yes
		DVD-RAM	No
		Photo-CD/Multi-session	Yes
		CD-ROM	Yes
		CD TEXT	Yes
		Audio CD	Yes
		CD-I	Yes
		CD-RW	Yes
		CD-R	Yes
		CD-DA	Yes
		Video CD	Yes
		CD EXTRA	Yes
		CD-ROM XA	Yes
		MPEG	Yes
		MPC Level 2	Yes
	Disk Formats Written	None	

QuickSpecs

Technical Specifications

16X DVD-ROM Drive *(continued)* **Disk**		Capacity	CD = 650 MB
			DVD: 4.7 GB, 8.5 GB, 9.4 GB
		Block Size	Mode 0 2352 (bytes)
			Mode 1 2352, 2340, 2336, 2048 (bytes)
			Mode 2 2352, 2340, 2336, 2048 (bytes)
			DVD – 2048 (bytes)
		Diameter	12 cm, 8 cm
		Thickness	1.2 mm (CD-ROM) 1.2 mm (DVD)
		Track Pitch	1.6 µm (CD-ROM) 0.74 µm (DVD)
	Audio Output Level	Line Out	0.7± 0.1 Vrms
		Headphones	0.45 ± 0.2 Vrms
	Operating Conditions	Temperature	41° to 113°F/5° to 45°C
		Humidity	5% to 85% relative humidity
	Dimensions (HxWxD)	Inches	1.67 x 5.83 x 8.18
		Centimeters	4.23 x 14.8 x 20.75
	Weight	Pounds	2.22
		Kilograms	1
	Agency Approvals / Environmentals	UL, CSA, TUV, FDA, FCC, CE, EMI	
	OS Support	Windows 98/98SE, Windows ME, Windows 2000, and Windows NT 4.0 (for data applications only)	
	MPEG Video playback compatibility	Please refer to the platform for support	
	RPC2 (Regional Protection Control)	Yes	
	Minimum CPU Supported	Pentium II 400 MHz or Celeron 466 MHz	
	Mounting Orientation	Operates in horizontal or vertical position.	
	Kit Contents	DVD-ROM Drive, MPEG playback software, IDE Cable, audio cable, installation instructions, and warranty card.	

QuickSpecs

Compaq *Deskpro* EX Series

Technical Specifications

10X/40X DVD-ROM Drive	Disk	Applicable Disk	CD-ROM (Mode 1 and 2)
			CD-DA, CD-I, CD-R, CD-RW
			Photo CD (Single and Multi-session)
			CD-XA, Mixed-Mode
		Capacity	CD: 640 MB (Mode 1, 12 cm)
			DVD: 4.7-GB single layer, single side
		Diameter	4.7 in, 3.15 in/12 cm, 8 cm
		Center Hole	0.6 in/15 mm diameter
		Thickness	0.05 in/1.2 mm
		Track Pitch	CD: 1.6 μm
			DVD: 0.74 μm
	Block Size	Mode 1	2,048 bytes
		Mode 2	2,340, 2,336 bytes
		CD-DA	2,352 bytes
		CD-XA	2,328 bytes
	Audio Output Level	IDE/ATAPI	
		Line-out	0.7 Vrms
		Headphone	0 to 0.6 Vrms
	Access Times (typical)	Random	DVD: < 100 ms
			CD: < 80 ms
		Full-Stroke	< 240 ms
	Data Transfer Rate	DVD	10X DVD: 5,545 to 13,525 KB/s (variable)
		CD	40X CD-ROM: 2600 to 6,000 KB/s (variable)
	Cache Buffer	512 KB	
	Start-up Time (typical)	< 15 seconds (typical)	
	Stop Time	< 4 seconds	
	Operating Conditions	Temperature	41° to 113°F/5° to 45°C
		Humidity	10% to 85%

QuickSpecs

Technical Specifications

8X/4X/32X CD-RW Drive			
Bus	16.6 MB/s		
Data Buffer	2 MB		
Data Transfer Rate 1 KB = 1,024 bytes	Sustained Variable	CD-R Write: 1200 KB/s (8X) CD-RW Write: 600 KB/s (4X) CD-RW Read: 1200 KB/s (8X) CD-ROM and CD-R Read: Up to 4800 KB/s (32X)	
Disk Rotation Technology	Partial CLV/CAV		
Access Time (ms)	Random	120 ms (typical)	
	Full-Stroke Seek	200 ms (typical)	
Access Seek Time	Not Specified		
Cache Buffer Standard/Maximum	1 MB (minimum)	0.7 Vrms	
Interface	ATAPI IDE	0 to 0.6 Vrms	
Disk Formats Read	Photo-CD/Multi-session CD-ROM Multi Read CD TEXT Audio CD CD-I CD-RW CD-R CD-DA Video CD CD EXTRA CD-ROM XA		
MPC Level 2	MPC-3 Compliant		
Disk Formats Written	CD-R and CD-RW; Disk at Once, Track at Once, Fixed Packet, variable Packet		
Disk	Capacity	650 MB (Mode 2) 540 MB (Mode 1)	
	Block Size	2,048 bytes (mode 1)	
	Diameter	12 cm, 8 cm	
	Thickness	1.2 mm	
	Track Pitch	1.6 μm	
Audio Output Level	Line-out Headphone	0.7 Vrms (typical)	
Start-up Time	< 7 seconds (typical)		
Stop Time	< 4 seconds (typical)		
Operating Conditions	Temperature (operating)	41° to 113° F/5° to 45° C	
	Humidity (operating)	10% to 80% relative humidity	
Dimensions (HxWxD, maximum)	inches	Fits in a standard 5.25 bay	

Technical Specifications

8X/4X/32X CD-RW Drive *(continued)*	Weight	2.64 lbs/1,200 g (maximum)
	Approvals/Environmentals	FCC, UL, CSA, CE, FDA, EN6O 950
	OS support	Windows 95, Windows 98, Windows NT 4.0
	MPEG playback graphics solution support	None
	Minimum CPU Supported	Pentium MMX or Celeron 466 MHz
	Compaq Products Supported	Deskpro EP and EN Series (excluding Deskpro EN Series Small Form Factor), Deskpro 2000, Deskpro 4000, & Deskpro 6000 MMX
	Mounting Orientation	Operates in horizontal or vertical position

Integrated Intel 3D Direct AGP with optional Graphics Performance Accelerator	Form Factor	Integrated
	Bus Type	Direct AGP
	Standard Memory	Utilizes dynamic DVMT shared memory allocation
	Upgradable To	Upgrade 4-MB display cache
	DAC Speed	230 MHz
	Maximum Resolution	1600 x 1200 x 8 @ 75 Hz
	Data Path Width	64 bit
	Memory Width	32-bit DC
	Memory Clock speed	100-MHz SM 133-MHz DC
	Engine Clock speed	100 MHz
	DVD-MPEG Support	Color space conversion
	Video Interface	No
	TMDS Integrated	External option
	DVI Flat Panel Support	Yes
	Dual Monitor Support	Only with PCI card Not with AGP card
	Quick Draw Support	N/A
	DCI & DirectX Video Playback	Active movie, Media player
	MS DirectDraw Support	DirectX 5/6/7
	3D OGL Support (Game-Level)	Yes
	3D OGL professional-level support	No

Technical Specifications

Integrated Intel 3D Direct AGP with optional Graphics Performance Accelerator *(continued)*	3D OGL Support	Yes
	3D OGL professional-level support	No
	OS Support	Windows 95, Windows 98, Windows NT 4.0 and Windows 2000
	2D Acceleration Features	3 ROP bitBLT Transparent BLT Stretch BLT lines, polylines, polygons patterns, arbitrary clipping fast text rendering 8, 16, and 24 bits per pixel
	3D Acceleration Features	Triangle Setup Engine Anisotropic filtering Trilinear filtering Twin texel engines Full scene anti-aliasing Gouraud shading OpenGL support Direct 3D support
Integrated Intel 3D Direct AGP (on 810E Chipset)	Memory	4-MB Display Cache (or 8-MB equivalent performance), not upgradable
	Resolution (maximum)	1280 x 1024
	Colors Supported	16.7M
	Refresh Rate	85 Hz
	Acceleration	ROP biBLT, Line Draw, Text, Color Expansion, Basic Video Color, conversion and Scaling, Triangle Setup Engine
NVIDIA M64 Pro 32-MB AGP Graphics	Form Factor	ATX
	Bus Type	AGP4X
	Standard Memory	32-MB SDRAM 143 MHz 4M x 16
	Upgradable To	Not upgradable
	DAC Speed	300 MHz
	Maximum Resolution	1600 x 1200 x 8 @ 75 Hz
	Data Path Width	64 bit
	Memory Width	64 bit
	Memory Clock speed	143 MHz
	Engine Clock speed	133 MHz
	DVD-MPEG Support	MPEG1 and MPEG2
	Video Interface	VIP connector
	TMDS Integrated	No
	DVI Flat Panel Support	No

Technical Specifications

NVIDIA M64 Pro 32-MB AGP Graphics *(continued)*	Dual Monitor Support	Only with PCI card
	Quick Draw Support	Yes
	DCI & DirectX Video Playback	Yes
	MS DirectDraw Support	DirectX 5/6/7
	3D OGL Support (Game-Level)	Yes
	3D OGL professional-level support	No
	OS Support	Windows 95, Windows 98, Windows NT 4.0 and Windows 2000
	2D Acceleration Features	3 ROP bitBLT Transparent BLT Stretch BLT lines, polylines, polygons patterns, arbitrary clipping fast text rendering 8, 16, and 24 bits per pixel
	3D Acceleration Features	Triangle Setup Engine Anisotropic filtering Trilinear filtering Twin texel engines Full scene anti-aliasing Gouraud shading OpenGL support Direct 3D support
NVIDIA M64 Pro 16-MB AGP Graphics	Form Factor	ATX
	Bus Type	AGP4X
	Standard Memory	16-MB SDRAM
	Upgradable To	Not upgradable
	DAC Speed	300 MHz
	Maximum Resolution	1600 x 1200 x 8 @ 75 Hz
	Data Path Width	64 bit
	Memory Width	64 bit
	Memory Clock speed	143 MHz
	Engine Clock speed	133 MHz
	DVD-MPEG Support	MPEG1 and MPEG2
	Video Interface	VIP connector
	TMDS Integrated	No
	DVI Flat Panel Support	No
	Dual Monitor Support	Only with PCI card
	Quick Draw Support	Yes
	DCI & DirectX Video Playback	Yes
	MS DirectDraw Support	DirectX 5/6/7

Technical Specifications

NVIDIA M64 Pro 16-MB AGP Graphics *(continued)*	3D OGL Support (Game-Level)	Yes
	3D OGL professional-level support	No
	OS Support	Windows 95 Windows 98 Windows NT 4.0 Windows 2000
	2D Acceleration Features	3 ROP bitBLT Transparent BLT Stretch BLT lines, polylines, polygons patterns, arbitrary clipping fast text rendering 8, 16, and 24 bits per pixel
	3D Acceleration Features	Triangle Setup Engine Anisotropic filtering Trilinear filtering Twin texel engines Full-scene anti-aliasing Gouraud shading OpenGL support Direct 3D support
NVIDIA Vanta LT 8-MB AGP Graphics	Form Factor	Low-profile ATX
	Bus Type	AGP2X
	Standard Memory	8-MB SDRAM
	Upgradable To	Not upgradable
	DAC Speed	250 MHz
	Maximum Resolution	1600 x 1200 x 7 @ 75 Hz
	Data Path Width	128 bit
	Memory Width	64 bit
	Memory Clock speed	100 MHz
	Engine Clock speed	100 MHz
	DVD-MPEG Support	CSC. IDCT
	Video Interface	No
	TMDS Integrated	No
	DVI Flat Panel Support	No
	Dual Monitor Support	Only with PCI card
	Quick Draw Support	Yes
	DCI & DirectX Video Playback	Yes
	MS DirectDraw Support	DirectX 5/6/7

Technical Specifications

NVIDIA M64 Pro 32-MB AGP Graphics *(continued)*		
3D OGL Support (Game-Level)	Yes	
3D OGL professional-level support	No	
OS Support	Windows 95 Windows 98 Windows NT 4.0 Windows 2000	
2D Acceleration Features	3 ROP bitBLT Transparent BLT Stretch BLT lines, polylines, polygons patterns, arbitrary clipping fast text rendering 8, 16, and 24 bits per pixel	
3D Acceleration Features	Triangle Setup Engine Anisotropic filtering Trilinear filtering Twin texel engines Full scene anti-aliasing Gouraud shading OpenGL support Direct 3D support	

NVIDIA Vanta 16-MB AGP Graphics	
Form Factor	1/2 size (low profile) ATX
Bus Type	AGP 4X
Memory Support	16 MB SDRAM (64-bit frame buffer interface)
Memory Clock	125 MHz
RAMDAC	250 MHz
Internal Clock	100 MHz
Data Path	64-bit
Process	0.22µ
Pipelines	2 (bilinear)
Fill Rate	200 M pixels/s
Triangle Rate	8 M Triangles/s
Video Overlay Filter	2x2
MPEG Support (software)	CSC.IDCT
Color Space Conversion	Yes
Scaling	Yes
Feature Connector	VIP connector on AGP cards
Quick Draw Support	Yes
DCI & DirectX Video Playback	Yes
Microsoft DirectX Support	Yes
3D Support	Yes

Technical Specifications

NVIDIA Vanta 16-MB AGP Graphics *(continued)*		
	Engine Acceleration	Basic Video Color Conversion and Scaling
		100% hardware triangle setup engine
	Dual Monitor Support	Only with additional PCI controller
	OS Support	Windows 98/95, Windows 2000, Windows NT 4.0
	Other	Optimized for Direct3D acceleration with support for DirectX 5.0 and 6.0
		128-bit TwiN-Texel (TNT) architecture
		2 texture mapped, lit pixels per clock
		Single pass multi-texture rendering
		32-bit rendering with destination alpha
		24-bit Z-buffer, 8-bit stencil buffer
		Anisotropic filtering (better than Tri-Linear MIP-mapping)
		High-performance, 128-bit 2D/GUI/DirectDraw Acceleration. Transparent BLT, stretch BLT, points, lines, polylines, polygons, fills, patterns, arbitrary clipping and fast text rendering. Pipe-line optimized for multiple color depths including 8, 16, and 24 bits per pixel
		Video acceleration for DirectShow, MPEG-1, MPEG-2 and Indeo
		Fast 32-bit VGA/SVGA
		Triple 8-bit, 250-Hz Palette DAC
		Bi-directional Media Port and CCIR-656 Video Capture Port (for AGP AIB only)

Resolutions Supported	Colors	Real-time 3D Gouraud Shading	Refresh Rates
1920 x 1200	256, 65K, 16.7M	256, 65K	60 to 75 Hz (vertical sync) depending on color depth
1920 x 1080	256, 65K, 16.7M	256	60 to 85 Hz (vertical sync) depending on color depth
1600 x 1200	256, 65K, 16.7M	256	60 to 85 Hz (vertical sync) depending on OS and color depth
1280 x 1024	256, 65K, 16.7M	256, 65K	60 to 100 Hz (vertical sync), 64 to 107 kHz (horizontal sync)
1152 x 864	256, 65K, 16.7M	256, 65K	60 to 85 Hz (vertical sync) depending on color depth
1024 x 768	256, 65K, 16.7M	256, 65K, 16.7M	60 to 85 Hz (vertical sync)
800 x 600	256, 65K, 16.7M	256, 65K, 16.7M	60 to 85 Hz (vertical sync)
640 x 480	256, 65K, 16.7M	256, 65K, 16.7M	60 to 85 Hz (vertical sync)

Integrated Intel Audio (speakers sold separately)		
	Card Type	Integrated
	Plug and Play	Yes
	Stereo Codec	Yes
	OPL3 FM Synthesis	Yes
	Sound Blaster Compatibility	Yes
	Ports	Microphone-in (10-Kohm Minimum) Line-in (10-Kohm Minimum) Headphone/Line-out (16-ohm Minimum)
	Sampling	7 kHz to 48 kHz
	Compression	ADPCM, ESPCM
	OS support	Windows NT 4.0 Windows 95 Windows 98 Windows 2000
	Wavetable Syntheses (software)	Yes

Technical Specifications

Sound Blaster Audio PCI 128 Sound Card	Card Type	PCI
	Plug and Play	Yes
	Stereo Codec	Yes
	OPL3 FM Synthesis	128 WaveTable Synthesizer
	Compatibility	Sound Blaster Sound Blaster Pro Full DOS Game Compatibility
	Ports	Microphone-in (10 Kohm) Line-in (10 Kohm) Line-out/Headphone-out (33 ohm) (Note: Line-out cannot drive external passive speakers.) Joystick/MIDI CD In TAD TV Tuner
	Sampling	48 kHz
	Compression	ADPCM, CCITT A-law, CCITT u-law
	OS support	Windows NT 4.0 Windows 95 Windows 98 DOS
	Wavetable Syntheses (software)	Yes
	3D Positional Sound	Yes
Standard 10/100 PCI NIC with WOL	**Connectors**	RJ-45
	Expansion Bus Architecture	PCI 2.2
	Network Transfer Rate	10Base-T (Half-Duplex) 10 Mb/s 10Base-T (Full-Duplex) 20 Mb/s 100Base-TX (Half-Duplex) 100 Mb/s 100Base-TX (Full-Duplex) 200 Mb/s
	Standards Compliance	IEEE 802.3 (10 Mb/s Ethernet) IEEE 802.3u (100 Mb/s Ethernet)
	OS Driver Support	NetWare 3.x and 4.x server drivers, Windows for Workgroups V3.11, Windows 98, Windows 2000, Windows NT 3.5x and 4.0, LINUX, OS2 Warp 4.0 Free BSD
	Remote Wakeup	Yes (WAKE signal)
	Proactive Alert Technology	No
	Boot PROM support	Yes with optional ROM (PXE, RPL)
	F12 BIOS Support	Yes with optional ROM
	Environmental Requirements	
	Operating	
	Temperature	32° to 131° F/0° to 55° C
	Humidity (non-condensing)	10% to 90%

Technical Specifications

Standard 10/100 PCI NIC with WOL *(continued)*	Altitude	
	Non-operating	
	Temperature	
	Humidity (non-condensing)	
	Altitude	

Intel PRO/100+ Management Adapter	**Connectors**	RJ-45
	Expansion Bus Architecture	PCI 2.2
	Network Transfer Rate	10Base-T (Half-Duplex) 10 Mb/s
		10Base-T (Full-Duplex) 20 Mb/s
		100Base-TX (Half-Duplex) 100 Mb/s
		100Base-TX (Full-Duplex) 200 Mb/s
	Standards Compliance	IEEE VLAN Support (802.1A)
		IEEE 802.2
		IEEE 802.3 & IEEE 802.3u
		(100-Mb/s Ethernet)
		IEEE Intel Priority Packet (801.1p)
	OS Driver Support	Microsoft Windows NT 3.51 and 4.0
		Microsoft Windows 98 and
		2000 Beta Novell Netware 3.11,
		3.12 and 4.1x,
		5 Server Sunsoft Solaris™
		SCO UnixWare
		OpenDesktop
		OpenServer
	Remote Wakeup	Yes, (PME Number and WAKE signals) - no cable required on 815 chipset platforms
	Proactive Alert Technology	Yes, alert on LAN (transmit functionality only) requires management console software such as HP OpenView. It also requires alert utilities for the management console, proxy client software, client configuration software.
	Boot PROM support	Yes, Intel PRO/100 Boot Agent (PXE 2.0, RPL)
	F12 BIOS Support	Yes
	Environmental Requirements	
	Operating	
	Temperature	32° to 131° F/0° to 55° C
	Humidity (non-condensing)	85% at 131° F/55° C
	Altitude	10,000 ft/3,048 m
	Non-operating	
	Temperature	32° to 131° F/–40° to 70° C
	Humidity (non-condensing)	
	Altitude	5,000 ft/15,240 m

QuickSpecs

Technical Specifications

Lucent V.90 56K PCI Win Modem		
	Data Transmission	V.90/K56flex technology speeds: 56,000 Kb/s maximum downstream data; controllerless
	Data Speeds	(upload only): 33,600; 31,200; 28,800; 26,400; 21,600; 19,200; 16,800; 14,400; 12,000; 9600; 7200; 4800; 2400; 1200; and 300 b/s
	Data Standards	ITU V.90, ITU-T, V.34, V.32 (bis), V.22bis, V.22, V.21, V.23, and Bell 212A, and Bell 103.
	Fax speeds	14400; 12000; 9600; 7200; 4800; 2400; 1200; 300 b/s
	Fax mode capabilities	Group 3 FAX: V.17, V.29 , V.27ter, and V21 Channel 2., Class 1 interface, TIA/EIA-578
	Error Correction and Data Compression	ITU-T recommended V.42 error correction, V.42 error correction (LAPM and MNP), V.42bis and MNP Class 5 data compression, ITU-T V.42bis data compression
	Power Management	APM and ACPI states D0, D1, D2, and D3, Meets PCI 2.2 requirements and PC 99 requirements
	Upgradability	Software driver upgradable for future enhancements
	Video	ITU-T V.80 video ready interface
	Other	TIA/EIA 602 standard AT command set
		Built-in DTE interface with speeds up to 115.2 Kb/s, parallel 16550a UART-compatible interface
		Optional Ring wake signal
	Operating temperature	32° to 104° F/0° to 40° C
	Operating humidity	20% to 80%, non-condensing
	Operating System Driver Support	Microsoft Windows 98, 98SE, NT4.0, Windows 2000, Windows Millennium Edition
	Warranty	Product takes on the warranty of the Desktop in which they are installed.
	Compatibility	Deskpro EX Series

Technical Specifications

Conexant 90 56K PCI Modem	**Data Transmission**	V.90/K56flex technology speeds: 56,000 controllerless
	Data Speeds	(download only); 33,600; 31,200; 28,800; 26,400; 21,600; 19,200; 16,800; 14,400; 12,000; 9600; 7200; 4800; 2400; 1200; and 300 b/s
	Data Standards	ITU-T V.90, K56flex, V.34 (33.6 Kb/s), V.32 bis, V.32, V.22 bis, V.22, V.23, and V.21; Bell 212A and 103, V.42 LAPM and MNP 2-4 error correction, V.42 bis and MNP 5 data compression, V.250 (ex V.25 ter) and V.251 (ex V.25 ter Annex A) commands
	Fax speeds	V.22 bis, V.22, V.23, and V.21; Bell 212A and 103
	Fax mode capabilities	ITU-T V.17, V.29, V.27 ter, and V.21 channel 2
	Error Correction and Data Compression	V.42 bis and MNP 5 data compression
	Power Management	Conforms to PCI Bus Power Management Specification, Rev. 1.1, ACPI Power Management Registers, APM support, PME number support
	Upgradability	Firmware upgradable for future enhancements
	Video	V.80 synchronous access mode supports host-controlled
	Other	Music on hold from host or analog hardware input, TAM support with concurrent DTMF detect, ring detect and caller ID, V.80 synchronous access mode supports host-controlled communication protocols, H.324 interface support, V.8/V.8bis and V.251 (ex V.25 ter Annex A) commands, Full-duplex Speakerphone (FDSP) Mode (SP model), telephone handset interface, external microphone and speaker interface, microphone gain and muting, speaker volume control and muting, adaptive acoustic, line, and handset echo cancellation, loop gain control, transmit and receive path AGC, Data/Fax/Voice call discrimination, multiple country support, call progress, blacklisting, single profile stored in host
	Operating temperature	32° to 158° F/0° to 70° C
	Operating humidity	10% to 90%, non-condensing
	Power Dissipation	Active 1.2W Passive 130mW
	Operating System Driver Support	Microsoft Windows 98, 98SE, NT4.0, Windows 2000, Windows Millennium Edition
	Warranty	Product takes on the warranty of the Desktop in which they are installed.
	Compatibility	Deskpro EX Series

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