

QuickSpecs

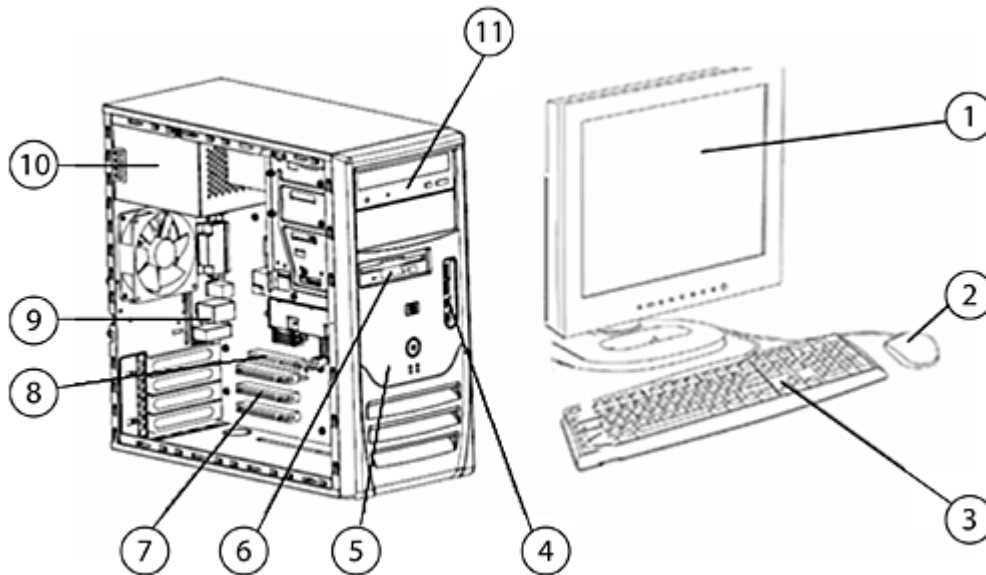
HP Compaq dx2255 Microtower Business PC

Overview

**HP recommends
Windows Vista™ Business**

Microtower

14.49 x 6.89 x 15.75 in (368 x 175 x 400 mm - H x W x D)



1. Monitor (sold separately)

2. 2-Button Scroll Mouse

3. HP Standard Keyboard

4. Front I/O – 2 USB 2.0 ports & Mic -in, Headset

5. 2 internal 3.5" bays (2nd HDD expandable via 2nd HDD bracket option)

6. One external 3.5" bay for optional diskette drive or other 3.5" device

7&8. 2 full-height PCI 2.3 slots, 1 PCI-E x16; 1 PCI-E x1 slot;

9. 4 USB 2.0 ports, 1 serial port, (optional) 2nd serial port, 1 parallel port, 2 PS/2, 1 RJ-45, 1 VGA, 1 audio in, 1 audio out, 1 MIC

10. 250-watt default power supply

11. 2 external 5.25" bays for optional optical drives

What's New

- VIA K8M890/VT8237A chipset platform
- Choice of operating systems:
 - FreeDos (Not available for China)
 - RedFlag Linux (China Only)
 - Microsoft Windows XP 32-bit Home – Cost Reduced (China Only)
 - Microsoft Windows XP 32-bit Professional – Cost Reduced (China Only)
 - Microsoft Windows XP 32-bit Home SP2
 - Microsoft Windows XP 32-bit Professional SP2
 - Microsoft Vista Business Basic 32
 - Microsoft Vista Home Basic 32
- Integrated 10/100 Network Connection
- DDR2 533/667 SDRAM memory
- Single/Dual Channel memory configurations
- System ROHS & CCEC

Overview

At A Glance

- AMD® Sempron/Athlon 64/ Athlon 64x2® AM2 socket processors
- Choice of operating systems:
 - Redflag Linux
 - Microsoft Windows XP 32-bit Home – Cost Reduced (China Only)
 - Microsoft Windows XP 32-bit Professional – Cost Reduced (China Only)
 - Microsoft Windows XP 32-bit Home SP2
 - Microsoft Windows XP 32-bit Professional SP2
 - Microsoft Vista Business Basic 32
 - Microsoft Vista Home Basic 32
- VIA K8M890/VT8237A
- VIA integrated K8M890 VGA output
- Discrete ATI or NVIDIA PCI-E as display option
- Integrated 10/100 Ethernet NIC
- Integrated SATA 150MB/s per channel controller for Serial ATA Hard Drives
- Integrated Ultra ATA/100 controller for choice of optical drives
- DDR2 533/667 PC-4200/5300 SDRAM
- Integrated High Definition Audio ADI 1986A Codec
- Energy Star /whether is CECP
- Protected by HP Services, follow 1-1-1 base warranty, optional for 3-1-1 or 3-3-3. Terms and conditions vary by country. Certain restrictions and exclusions apply.

Standard Features and Configurable Components

Processors (AM2)

AMD Sempron-64 Processors:

AMD Sempron-64 3800+ Processor (2.2-GHz, 256KB L2 cache, 1.6-GHz HT Bus Speed)

AMD Sempron-64 3600+ Processor (2.0-GHz, 256KB L2 cache, 1.6-GHz HT Bus Speed)

AMD Sempron-64 3400+ Processor (1.80-GHz, 256KB L2 cache, 1.6-GHz HT Bus Speed)

AMD Sempron-64 3200+ Processor (1.80-GHz, 256KB L2 cache, 1.6-GHz HT Bus Speed)

AMD Athlon-64 Processors:

Athlon-64 3800+ (2.4-GHz, 512KB L2 cache, 2.0-GHz HT Bus Speed)

Athlon-64 3500+ (2.2-GHz, 512KB L2 cache, 2.0-GHz HT Bus Speed)

AMD Athlon-64 X2 Processors:

Athlon-64 X2 5200+ (2.6-GHz, 2 x 1-MB L2 cache, 2.0-GHz HT Bus Speed)

Athlon-64 X2 5000+ (2.2-GHz, 2 x 512KB L2 cache, 2.0-GHz HT Bus Speed)

Athlon-64 X2 4600+ (2.4-GHz, 2 x 512KB L2 cache, 2.0-GHz HT Bus Speed)

Athlon-64 X2 4200+ (2.2-GHz, 2 x 512KB L2 cache, 2.0-GHz HT Bus Speed)

Athlon-64 X2 3800+ (2.0-GHz, 2 x 512KB L2 cache, 2.0-GHz HT Bus Speed)

Operating Systems and Application Software

FreeDos (Not available for China)

Redflag Linux 5.0 (China Only)

SCO Unix (China Only)

Network Clone (China Only)

Microsoft Windows XP Home SP2

Microsoft Windows XP Professional SP2

Microsoft Windows XP Home SP2 – Cost Reduced (China Only)

Microsoft Windows XP Professional SP2 – Cost Reduced (China Only)

Microsoft Windows Vista Home Basic (32 bit)

Microsoft Windows Vista Basic Business (32 bit)

Microsoft Office 2003 Basic (India Only)

Microsoft Office 2003 Small Business (India Only)

Microsoft Office 2003 Professional (India Only)

Microsoft Works 8.5 (PI for India only)

Adobe Acrobat Reader 7.0

Symantec Anti-Virus 2006

Google Toolbar

Intervideo WinDVD 5.0 (PI and Drop in Box)

Lightscribe Driver (DIB)

Roxio DigitalMedia Plus (by Sonic) (Drop in Box)

HP backup and Recovery Manager

Hard Drives

80-GB Serial ATA 3.0-Gb/s Hard drive (7200 rpm)

160-GB Serial ATA 3.0-Gb/s Hard drive (7200rpm)

250-GB Serial ATA 3.0-Gb/s Hard drive (7200rpm)

Standard Features and Configurable Components

System Memory – Dual/Single Channel Configurations	256MB DDR2 SDRAM 533/667 Non-ECC(1x256MB) 512MB DDR2 SDRAM 533/667 Non-ECC(2x256MB or 1x512MB) 1-GB DDR2 SDRAM 533/667 Non-ECC (2 x 512-MB or 1 x 1-GB)
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Removable Storage	1.44MB diskette drive 16-in-1 card reader
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Optical Storage	52X CD-ROM drive 48X/32X/48X CD-RW drive 16X/48X DVD-ROM drive 48X/32X Combo CD-RW/DVD-ROM Drive 16X DVD+/-RW Lightscribe Drive (Double Layer/Dual Format)
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Keyboard	HP PS/2 Standard Keyboard HP USB Standard Keyboard
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Mouse	HP PS/2 2-Button scroll mouse HP PS/2 2-Button optical scroll mouse HP USB 2-Button scroll mouse HP USB 2-Button optical scroll mouse
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Audio	Integrated ADI 1986A High Definition Audio Codec
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Communication	Integrated Realtek 10/100 Ethernet Network connection Broadcom Netxtreme Gigabit Ethernet PCI Express x1 FH Adapter (MT) Intel Pro Gb NIC PCIe x1 FH adapter (MT) Agere 56K PCI Soft Modem
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Graphics	VIA K8M890 Integrated VGA output <ul style="list-style-type: none">● Optimized Unified Memory Architecture (UMA)● Support for 256MB Frame Buffer● 250 MHz Graphic Engine Clock ATI Radeon X1300 (256MB SH) Graphics Card ATI Radeon X1300 Pro (256MB DH) Card S3 Chrome VT6330A Nvidia TC 6200 128 MB
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System Details

Base Unit

- uATX microtower chassis, including power supply and front bezel; featuring five (5) drive bays (2nd HDD via additional bracket), 1 PCI- Ex6 slot, 1 PCI -Ex1 slot plus 2 PCI expansion slots.
- Microsoft, RedFlag Linux or FreeDos operating system CD (Varies depending upon countries)
- Active type heatsink
- 90 x 90 x 25mm chassis fan
- Motherboard with K8M890/VT8237A chipset, integrated 10/100 network interface, integrated graphics and high definition audio, 2 PCI slots, 1 PCI Express x16, 1 PCI Express x1 slot, 2 DDR2 DIMM memory slots
- (1) IDE data cable – (3) headed; supports two Optical drives
- (1 or 2) SATA data cables – Base on required HDD qty
- Product documentation CD
- HP system restore CD (optional)
- Power cord
- Warranty card and Quick setup guide

Slots	PCI 2.3	Two (2) full-height slots on PCA
	Memory Expansion	Two (2) DIMM slots (1.0GB maximum memory support)
	PCI-E x16	One (1) PCI-Express x16 slot on PCA
	PCI-E x1	One (1) PCI-Express x1 slot on PCA

Bays	Internal	Two (2) 3.50" half-height (default -1, 2nd HDD expansion available as option)
	External	Two (2) 5.25" half-height One (1) 3.50" half-height

USB Support	UHCI high-speed USB 2.0 controller Two (2) front ports; Four (4) rear ports
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Interfaces (Legacy)	One (1) parallel port Two (2) serial ports, 2nd optional One (1) PS/2 keyboard port One (1) PS/2 mouse port One (1) analog VGA video port One (1) line in; one (1) line out; one (1) mic in One (1) RJ45 network port
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Weight and Dimensions	Chassis Dimensions	14.49 x 6.89 x 15.75 in (368 x 175 x 400mm) (H x W x D)
	Packaged Dimensions	21.85 x 19.72 x 15.83 in (555 x 501 x 402 mm) (L x W x H)
	System Weight	18.48 lb (8.4 kg)
	Shipping Weight	26.62 lb (12.1 kg)

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HP Compaq dx2255 Microtower Business PC

System Details

Supported Technology & Features	Memory Type	PC-4200/5300 DDR2 SDRAM non-ECC Dual/Single channel configurations 2.0-GB maximum system memory
	Hard Drive Interfaces Supported	Serial ATA 150-Mb/s and 3.0-Gb/s hard drives are supported Maximum transferring rate is up to 150-MBb/s.

AMD Sempron Processor	Coprocessor	Integrated
	CPU Socket Type/Number	AM2
	CPU Package	AM2
	IO Bus Speed	1600-MHz
	Cache Memory	256-KB L2 Cache (3200/3400/3600/3800)

AMD Athlon 64 Processor	Coprocessor	Integrated
	CPU Socket Type/Number	AM2
	CPU Package	AM2
	HT Bus Speed	2000-MHz
	Cache Memory	512-KB L2 Cache (3500/3800)

AMD Athlon 64 Processor	Coprocessor	Integrated
	CPU Socket Type/Number	AM2
	CPU Package	AM2
	HT Bus Speed	2000-MHz
	Cache Memory	1-MB L2 Cache (3800/4200/4600/5000) 2-MB L2 Advance Cache (5200)

Chassis	Front Panel	Power button Power On LED HDD Activity LED
	Cooling Solutions Supported	Power Supply Fan (variable speed) Active Heatsink (variable speed) System fan (variable speed)
	Slots Supported	Two (2) full-height PCI slots One (1) PCI-E x16 slot One (1) PCI-E x1 Slot
	Front I/O	Two (2) USB 2.0 ports/ 1 Mic-in & 1 Headset or Headphone
	Rear I/O	Standard uATX I/O connectors, including four (4) USB 2.0 ports
	Drive Bays Others	Two (2) 5-1/4" external One (1) 3-1/2" external Two (2) 3-1/2" internal (2nd expansion via option)
	Power Supply	250 watt ATX Power Supply -- PFC or non-PFC

System Details

Unit Environment and Operating Conditions

General Unit Operating Guidelines

- Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range.
- Leave a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow.
- Never restrict airflow into the computer by blocking any vents or air intakes.
- Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air.
- Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign matter can block the vents and limit the airflow.
- If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.

Temperature Range	Operating	41° to 105° F (5° to 40° C)
	Non-operating	-22° to 140° F (-30° to 60° C)
Relative Humidity	Operating	10% to 90% (non condensing at ambient)
	Non-operating	5% to 95% (non condensing at ambient)
Maximum Altitude (unpressurized)	Operating	8,000 ft (2500 m)
	Non-operating	30,000 ft (9000 m)

NOTE: Operating temperature is de-rated 1.0 deg C per 300 m (1000 ft) to 3000 m (10,000 ft) above sea level, no direct sustained sunlight. Maximum rate of change is 10 deg C/Hr. The upper limit may be limited by the type and number of options installed.

Motherboard

Socket AM2 industry standard uATX form factor

Processor	Socket: AM2 Support AMD Sempron, Athlon64 or Athlon 64x2 processors
PWM	ON 3 phase power solution
Chipset	VIA K8M890 VIA VT8237A
Super I/O	SMSC SH5137
HT Bus Speed	2000-MHz or 1600-MHz
Memory	2 x DIMM sockets Support single and dual channel PC-4200, PC-5300 DDR2 SDRAM
Clock Generator	ICS 953201
Integrated Graphics	VIA K8M890 integrated graphic
Audio	ADI 1986A High Definition audio
LAN	RealTek 8100s Ethernet NIC
IDE	2xIDE port support up to 2 Optical devices 2 SATA 150mb/s connectors
Expansion Slots	2 x PCI 2.3 slots 1 – PCI-E x16 slot 1 – PCI-E x1 slot
BIOS	8Mbit flash EEPROM Award BIOS, PnP, ACPI, SMBIOS 2.4, Boot Block, DMI2.0
Manageability	WFM 2.0, DMI 2.0

System Details

Industrial Standard	PCI 2.3 compliant USB 2.0
Rear Side I/O Ports	1 x PS/2 keyboard port 1 x PS/2 mouse port 4 x USB 2.0 ports 1 x RJ-45 10/100 port 2 x serial ports (2nd Optional) 1 x parallel port 1 x DB 15 pin analog VGA port 3 x audio ports
On Board I/O Interfaces	1 x ATX power connector 1x+12V power connector 1 x Floppy connector 1 x Front panel connector, Switch, LED (Power/HDD) 2 x Fan headers for CPU, chassis, with voltage/fan speed control 1 x ATAPI headers-CD IN 1 x header to support 2 USB 2.0 ports at front side 2 x IDE connector (Optical drive) 2 x SATA connectors 1 x audio header (mic in/audio out - front I/O)
Board Size	uATX form factor, PCB size: 9.6" x 9.6" 4-layer PCB with blue color
Additional Features	Keyboard/mouse/USB/Lan wake up (WOL) Support S1, S3, S4 and S5 ACPI status Hardware monitor capability CPU/System fan speed control

Power Supply	<ul style="list-style-type: none">● ATX Power Supply – Passive PFC at 230V only/non-PFC with a 115v/230V line switch● Passive Power Factor Correction (PFC) – with voltage set to 230V● 50-60 Hz rated line frequency● 250 watt as default power output
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Power Conservation 'Energy Saver'	<ul style="list-style-type: none">● Energy Star compliant● APM 1.2 support● Screen blanking● Hard drive 'Idle' mode● System Idle mode● CCEC – China Only (<3 w in S5 – power off)● <10 watt power consumption in Sleep mode – suspend to RAM (S3) (instantly available PC)● Processor/Cache memory power-down (S3)● Default waiting time no less than 30 minutes prior to entering sleep model – low power model
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System Environmental Specs	<ul style="list-style-type: none">● Values are subject to change without notification and are for reference only.● Performance of system, options, and ancillary equipment will vary depending on the system configuration.● Levels presented do not account for non-HP/Compaq installed hardware.
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Ambient Air	Operating	10° to 40°C at sea level with an altitude de-
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System Details

Temperature		rating of 1.0°C per every 1000 ft (300 m) above sea level to a maximum of 8,000 ft (2500m), no direct sustained sunlight. Maximum rate of change is 25°C/Hr. The upper limit may be limited by the type and number of options installed.
	Storage	-30° to 60°C Maximum rate of change: 210°C/Hr.
Humidity	Operating	10% to 90% relative humidity (Rh), 30°C maximum wet bulb temperature, non-condensing
	Storage	10% to 95% relative humidity (Rh), 38.7°C maximum wet bulb temperature, non-condensing
Altitude	Operating	0 to 8,000 feet (0 to 2438.4 meters)- This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 1,000 ft/min(304.8m/min).
	Non-Operating	0 to 30,000 feet(0 to 9,144 meters) - Maximum allowable altitude change rate is 1200 ft/min(365.76m/min).
Shock		Listed are the levels of shock the product can withstand with NO damage being incurred. The values represent peak input acceleration during an 2~3 ms half-sine shock pulse
	Non-Operating	Acceleration:105G; Duration Time:2.5~3ms;6 faces 35G's (Trapezoidal Shock)
Vibration		Listed are the levels of vibration the product can withstand with NO damage being incurred. The values represent a flat random vibration input acceleration profile across the given frequency range.
	Operating	Random vibration at 5Hz@0.00025G ² /Hz, 10Hz@0.01 G ² /Hz, 100Hz@0.01G ² /Hz, 300Hz@0.00001G ² /Hz 5Hz to 300Hz, (0.25 G"s nominal).
	Non-Operating	Random vibration at 0.008G ² /Hz, 10Hz to 500Hz, (2 Grms nominal).
Acoustic Noise		Listed are the declared A-WEIGHTED SOUND POWER LEVELS (LWAd) and declared average desktop seated operator position A-WEIGHTED SOUND PRESSURE LEVELS (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).
	IDLE (Fixed disk drive spinning)	LWAd = 3.74 Bels <4.3 Bels (spec) Average LpAm = 29.5 dBA < 32 dBA(spec)
	FIXED DISK (Random write)	LWAd = 3.80 Bels<4.8 Bels(spec) Average LpAm = 30.1 dBA<37 dBA(spec)
	CD-ROM (Sequential Reads)	LWAd =5.10 Bels<5.5 Bels(spec) Average LpAm = 45.1 dBA<55 dBA(spec)

System Details

Service and Support

On-site Warranty¹: These 1-1-1, 3-1-1, or 3-3-3, limited warranty delivers on-site, next business-day² service for parts and labor and includes free telephone support³ Global coverage 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.

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

² On-site service may be provided pursuant to a service contract between HP and an authorized HP 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.

³ Technical telephone support applies only to HP-configured Compaq and third-party HP-qualified hardware and software. Toll-free calling support may not be available in some countries.

After-Market Options

Communications	Modems	
	Agere PCI Hi-Speed 56K International SoftModem	EK694AA
	Network Interface Cards	
	Broadcom NetXtreme Gigabit Ethernet PCIe NIC Card	EA833AA
	Intel Pro 1000 GT PCI Gigabit NIC(FH) card	AG393AA
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Hard Disk Drives	Serial ATA Hard Drive	
	80-GB 7200 rpm SATA 3.0Gb/s Hard Drive	PY276AA
	160-GB 7200 rpm SATA 3.0Gb/s Hard Drive	PY277AA
	250-GB 7200 rpm SATA 3.0Gb/s Hard Drive	PY278AA
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Removable Storage Devices	Diskette Drive	
	1.44 MB Internal Floppy for 3.5 all	EY084AA
	512-MB HP Drive Key II (USB 2.0)	ED516AA
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Input Devices	Keyboards	
	HP PS/2 Standard Keyboard	DT527A#xxx
	HP USB Standard Keyboard	DT528A#xxx
	HP USB Smartcard Keyboard (Carbonite/Silver)	ED707AA#xxx
	Mice	
	HP PS/2 2-Button Scroll Mouse(Carbonite)	DD440B
	HP USB 2-Button Scroll Mouse(Carbonite)	DD441B
HP USB 2-Button Optical Scroll Mouse(Carbonite/Silver)	DC172B	
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Memory	PC4200 (533MHz) DDR2 SDRAM non-ECC	
	256-MB DDR2 SDRAM PC4200 (533-MHz) non-ECC	PV558AA
	512-MB DDR2 SDRAM PC4200 (533-MHz) non-ECC	PV560AA
	1-GB DDR2 SDRAM PC4200 (533-MHz) non-ECC	PV557AA
	PC5300 (667MHz) DDR2 SDRAM non-ECC	
	256-MB PC-5300 DDR2-667 non-ECC	PX974AA
	512-MB PC-5300 DDR2-667 non-ECC	PX975AA
	1-GB PC-5300 DDR2-667 non-ECC	PX976AA
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Audio	HP Satellite Speakers	ZD929AA#xxx
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After-Market Options

Optical Drives	52X Max CD-ROM Drive	DC143B
	48X/32X/48X CD-RW Drive	DL975B
	48X/32X Combo Drive CD-RW & DVD-ROM	DL976B
	16X/48X DVD-ROM Drive	PR596A
	16X DVD+/-RW Drive Light scribe Drive (Dual Format, Double Layer Format)	PR595A
	HP 16-in-1 Media Card Reader with PCI card	EM718AA

Monitors

LCD

HP L1506 15 TFT Flat Panel Monitor – Analog only	PX848AA
HP L1706 17 TFT Flat Panel Monitor – Analog only	PX849AA
HP L1706v 17 TFT Flat Panel Monitor – Analog only	PX849A2
HP L1906 19 TFT Flat Panel Monitor – Analog only	PX850AA
HP L1740 17 TFT Flat Panel Monitor – Analog/Digital	PL766AA
HP L1755 17 TFT Flat Panel Monitor – Analog/Digital	PL777AA
HP L1940T 19 TFT Flat Panel Monitor – Analog/Digital	EM869AA
HP L1955 19 TFT Flat Panel Monitor – Analog/Digital	PD974AA
HP L2065 20 TFT Flat Panel Monitor – Analog/Digital	EF227A4
HP LP2465 24" Widescreen TFT Flat Panel Monitor – Analog/Digital	EF224AA

CRT

HP s5502 15 CRT Monitor	PQ560AA
HP s7540 17(16.0 vis) CRT Monitor	PF997AA
HP v7650 17(16.0 vis) Flat-face CRT Monitor	PF996AA

Memory

VIA K8M890/VT8237A chipset

DDR2 SYNCH DRAM NON-ECC MEMORY

The VIA K8M890 chipset supports non-ECC DDR2 memory on both DDR2 533 and 667 frequencies. Memory upgrades are accomplished by adding single or dual DIMMs of the same or variable sizes. This chart does not represent all possible memory configurations.

MAXIMUM MEMORY

Supports up to 2-GB of DDR2 SYNCH DRAM.

POSSIBLE MEMORY CONFIGURATIONS

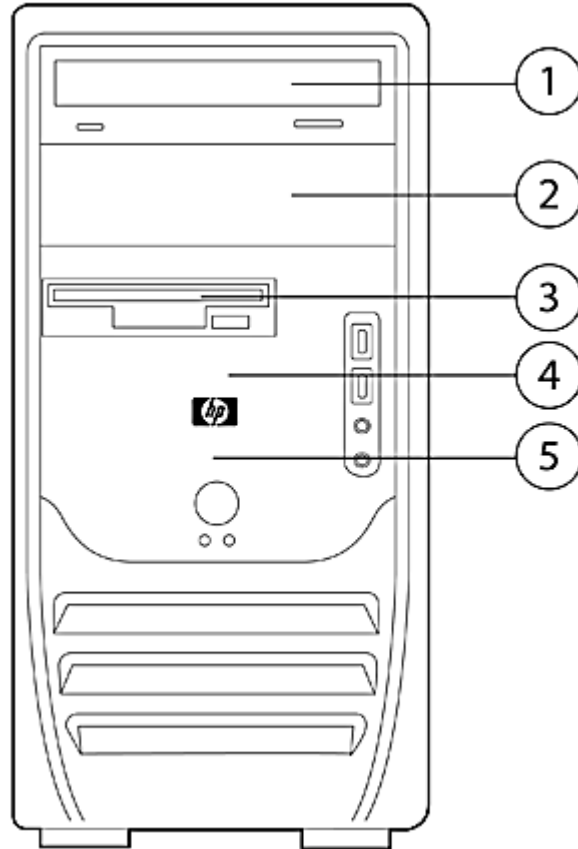
NOT ALL MEMORY CONFIGURATIONS POSSIBLE ARE REPRESENTED BELOW

DIMM Size	Slot 1	Slot 2
256-MB	256-MB	
512-MB	512-MB	
512-MB	256-MB*	256-MB*
768-MB	256-MB	512-MB
1-GB	1-GB	
1-GB	512-MB*	512-MB*
1.5-GB	1-GB	512-MB
2-GB	1-GB	1-GB

* HP recommends two slots configurations for maximum performance

Storage

HP Compaq Business Desktop dx2255



Drive Support	Maximum Quantity Supported	Position Supported	Controller
Diskette Drives	1	3	964
CD-ROM Drives	2	1, 2	IDE ATAPI
DVD-ROM Drives	2	1, 2	IDE ATAPI
CD-RW/Combo Drives	2	1, 2	IDE ATAPI
DVD+/-RW Drives	2	1, 2	IDE ATAPI
3.5" Serial ATA Hard Drives	2	4, 5	SATA

Technical Specifications - Audio

Integrated ADI1986 High Definition Audio	Type	Integrated
	High Definition Audio	Yes
	Sampling	Supports 96 KHz
	Power Support	Digital: 3.3V Analog: 5V
	Other	Meets performance requirements for audio on PC99/2001 systems High quality differential CD input

NOTE: External Speakers need to be powered externally.

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Technical Specifications - Communications

Agere 56K PCI Modem	Data Transmission	56,000 Kbps maximum downstream data NOTE: 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.
	Data Speeds	(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
	Data Standards	ITU-T V.90, ITU-T, ITU-T V.34, V.44, V.42, V.42bis21, V.32bis, Bell 212A, and Bell 103
	Fax Speeds	14,400/12,000/9,600/7,200/4,800/2,400/300 b/s
	Fax Mode Capabilities	ITU-T T.31 class 1 FAX, V. 17, V.29, V.27ter, and V.21 Channel 2
	Error Correction and Data Compression	V.44, 42bis, V.42 and MNP2-5
	Power Management	ACPI; PPMI 1.1 and wake support with PME and Vaux; meets PCI 2.3 requirements and PC 2001 requirements
	Upgradeability	Driver upgradeable for future enhancements
	Video	ITU-T V.80 video ready interface
	Other	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
	Operating Temperature	32° to 158° F (0° to 70° C)
	Operating Humidity	20% to 90%, non-condensing
	Power	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
	Chipset	Agere Systems SV92PL – Integrated PCI interface with 5-V tolerant buffers and CardBus support
	Dimensions (L X H)	Complies with PCI low profile specifications-6.7 x 2.3 in (17.0 x 5.8 cm) and supports high- and low-profile brackets
	Connection	Single RJ-11 connector
	Other Features	Digital line protection, call progress monitoring via on-board piezo device, support for high profile and low profile brackets, PnP ID support
	Safety	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)
	EMC	FCC Part 15, IC ES003, EN 55022, 3rd edition, EN 55024, annex A, EN 61000-4-6, EN 61000-4-8
	Telecom	FCC Part 68, IC-CS-03 (Canada); Worldwide PTT approvals Not available in Korea or the Republic of South Africa.
	Health	Bare PCB material compliant to 94V-0 or better (marked as such)
	Other	PC 2001 compliant, PCI version 2.3, WHQL approved; ACPI compliant
	Kit Contents	DC132D : Agere Systems PCI International Softmodem with full-height bracket attached, additional low-profile bracket, RJ11 modem cable, driver and documentation CD.

Technical Specifications - Communications

NOTE: RJ11 modem adapter is not included.
DC131C #xxx RJ11 modem adapter kit for use with DC132D #ACJ:
India

Broadcom NetXtreme Gigabit Ethernet PCI Express x1 Adapter	Connector	RJ-45
	Controller	Broadcom 5751 PCI-Express LAN Controller
	Memory	Integrated 96Kb frame buffer memory
	Data rates supported	10/100/1000 Mbps
	Compliance	IEEE 802.1P, 802.1Q, 802.2, 802.3, 802.3AB and 802.3u compliant, 802.3x flow control
	Bus architecture	PCI-E
	Data path width	Single channel, PCI-E
	Data transfer mode	Bus-maSFFer DMA
	Hardware certifications	FCC, B, CE, TUV- cTUVus Mark Canada and United States, TUV- GS Mark for European Union
	Power requirement	3.1 watts @ +3.3V AUX supply with 5V tolerance
	Boot ROM support	Yes
	Network transfer rate	Full-duplex
		Half-duplex (not available for the 1000BASE-T transceiver)
		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 (full-duplex) 2000 Mbps		
Environmental	Operating temperature	32° to 131°F (0° to 55° C)
	Operating humidity	85% at 131°F (55° C)
Dimensions	4.4 x 2.2 x 0.08 in (11.2 x 5.5 x 2 cm)	
Management capabilities	ACPI, WOL and DMI 2.0, PXE 2.0, WfM 2.0, Broadcom mgmt utility	
Alerting	N/A	
Kit contents	Broadcom 5751, CD, Broadcom NetXtreme Gigabit Ethernet PCI-E Adapter, drivers, quick install guide, product warranty Statement	

Technical Specifications - Input/Output Devices

HP PS/2 or USB Standard Keyboard	Physical characteristics	Keys	104, 105, 106, 107, 109 layout (depending upon country)
		Dimensions (L x W x H)	18.0 x 6.4 x 0.98 in (45.8 x 16.3 x 2.5 cm)
		Weight	2 lb (0.9 kg) minimum
	Electrical	Operating voltage	+ 5VDC ± 5%
		Power consumption	50-mA maximum (with three LEDs ON)
		ESD	CE level 4, 15-kV air discharge
		EMI – RFI	Conforms to FCC rules for a Class B computing device
	Mechanical	Microsoft PC 99 – 2001	Functionally compliant
		Languages	38 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 switch membrane
		Key-leveling mechanisms	For all double-wide and greater-length keys
		Cable length	6 ft (1.8 m)
		Microsoft PC 99 – 2001	Mechanically compliant
	Environmental	Acoustics	43-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, six surfaces
		Non-operating shock	80 g, six surfaces
		Operating vibration	2-g peak acceleration
		Non-operating vibration	4-g peak acceleration
		Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
		Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence
	Approvals		UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC
	Ergonomic compliance		ANSI HFS 100, ISO 9241-4, and TUVGS

Technical Specifications - Input/Output Devices

HP 2-Button Scroll Mouse (PS/2 or USB)	Scroll Wheel	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
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		
Mechanical	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)	
	Cable Length	2 m	
	PC98-99	Mechanically compliant	
Regulatory Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BCIQ, C-Tick		

QuickSpecs

HP Compaq dx2255 Microtower Business PC

Technical Specifications - Hard Drives

Serial ATA Hard Drives 80 GB (7200 rpm)

Capacity	80,026,361,856 bytes
Height	1 in (2.6 cm)
Width	Media diameter: 3.5 in (8.9 cm) Physical size: 4 in (10.2 cm)
Interface	Serial ATA
Synchronous Transfer Rate (Maximum)	3.0 Gb/s
Buffer	8 MB
Seek Time (typical reads, includes controller overhead, including settling)	Single Track 1.0 ms Average 8.5 ms Full-Stroke 18 ms
Rotational Speed	7,200 rpm
Logical Blocks	156,301,488
Operating Temperature	32° to 140° F (0° to 60° C)

160 GB

Capacity	160,041,885,696 bytes
Height	1 in (2.6 cm)
Width	Media diameter: 3.5 in (8.9 cm) Physical size: 4 in (10.2 cm)
Interface	Serial ATA
Synchronous Transfer Rate (Maximum)	3.0 Gb/s
Buffer	8 MB
Seek Time (typical reads, includes controller overhead, including settling)	Single Track 1.0 ms Average 8.5 ms Full-Stroke 18 ms
Rotational Speed	7,200 rpm
Logical Blocks	312,581,808
Operating Temperature	32° to 140° F (0° to 60° C)

250 GB

Capacity	250,059,350,016 bytes
Height	1 in (2.6 cm)
Width	Media diameter: 3.5 in (8.9 cm) Physical size: 4 in (10.2 cm)
Interface	Serial ATA
Synchronous Transfer Rate (Maximum)	3.0 Gb/s
Buffer	8 MB
Seek Time (typical reads, includes controller overhead, including settling)	Single Track 0.8 ms Average <9.0 ms Full-Stroke =17 ms

QuickSpecs

HP Compaq dx2255 Microtower Business PC

Technical Specifications - Hard Drives

Rotational Speed	7,200 rpm
Logical Blocks	488,397,168
Operating Temperature	41° to 131° F (5° to 55° C)

QuickSpecs

HP Compaq dx2255 Microtower Business PC

Technical Specifications - Optical Storage

48X Max CD-ROM Drive Interface	ATAPI IDE	
Data Buffer	2MB	
Data Transfer Rate	Variable (Audio CD) - 1,800 to 3,600 KB/s (24X) Max	Variable (CD-ROM, CD-R)-2,400 to 7,800 KB/s (52X) Max
Access Time (ms)	Random: <125 ms	Full-stroke seek: <210 ms
Data Buffer	2MB	
Disk Formats Read	CD-ROM Mode 1, CD-ROM XA (Mode 2, Form 1 and 2), CD Digital Audio, CD-EXTRA, CD-I (Mode 2, Form 1 and 2) and CD-I Ready, CD- Text, CD-Bridge, Photo CD (Single and Multi Session), Video CD, CD- R and CD-RW Multi-Session	
Disk Formats Written	None	
Disk Capacity (CD)	180MB, 540MB, 650MB, and 700MB	
Block Size	Mode 1 - 2,048, 2,352 bytes Mode 2 - 1, 2,048, 2,328, 2,336, 2,340, 2,353 bytes Mode 2 - 2, 2,328, 2,336, 2,340, 2,352 bytes CD-DA - 2,352, 2,368 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 120° F (5° to 50° C)
	Relative Humidity	10% to 90%
Dimensions (H x W x D, maximum)	1.7 x 5.9 x 8.0 in (4.3 x 15.0 x 20.3 cm)	
Weight	2.6 lb (1200 g)	
Operating Systems Supported	Microsoft Windows XP	

48X/32X/48X CD-RW Drive	Orientation	Either horizontal or vertical
	Disc Loading Mechanism	Half-height, tray load
	Interface Type	ATAPI IDE
	Dimensions—external (W x H x D)	7.99 x 5.88 x 1.71 in (203 x 149.5 x 43.5 mm)
	Weight	2.6 lb (1.2 kg)
	Disc Diameter	12 cm, 8 cm
	Disc Thickness	1.2 mm
	Track Pitch	1.6 µm
	Disc Center Hole Diameter	15 mm
	Reference Scanning Velocity	1.2 m/s

Technical Specifications - Optical Storage

Recording/Playing Time	80 minutes with CD-R media	
Read Only Disc Parameters	Formats and Modes Supported	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
	Capacity	185 MB (Mode 2, 8cm); 540 MB (Mode 1, 12 cm); 650 MB (Mode 2, 12 cm); 700 MB (Mode 2, 12 cm)
	Block Size	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 and 2,368 bytes
	Disc Type	CD-R and CD-RW
Writeable Disc Parameters	Write Methods	Disc at Once, Track at Once, Session at Once, Variable Packet, Fixed Packet
	Format and Modes Supported	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
	Capacity	185 MB (Mode 2, 8cm); 540 MB (Mode 1, 12 cm); 650 MB (Mode 2, 12 cm); 700 MB (Mode 2, 12 cm)
	Block Size	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
Access Times (typical)	Random	< 120 ms
	Full Stroke	< 200 ms
Maximum Data Transfer Rates	CD-RW Write	4800 KB/s (32X) Max
	CD-ROM, CD-R read	7200 KB/s (48X) Max
	CD-RW read	7200 KB/s (32X) Max
	CD-R write	7200 KB/s (48X) Max
Data Transfer Modes	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.	
Cache Buffer	2 MB (minimum)	
Start-up Time (single)	< 7 seconds typical	
Start-up Time (multi-session)	< 30 seconds typical	
Stop Time	< 4 seconds	
Power	Source	Four-pin, DC power receptacle
	DC power requirement	5 VDC ± 5%—100 mV ripple p-p 12 VDC ± 5%—200 mV ripple p-p
	DC current	5 VCD < 1A (typical) < 1600 mA (maximum)

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Technical Specifications - Optical Storage

		12 VCD	< 600 mA (typical) < 1.4A (maximum)
		Total Drive Power (Standby mode)	< 2.5 watt
Audio Output Level	0.7 Vrms		
Configuration Jumper Block	Master, slave and cable select modes		
Data Interface Connector	50-pin IDE interface		
Environmental (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)	84° F (29° C)	
Certifications, Requirements	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, EN55022:1998, EN55024, EN60950:2000, 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 98, 2000 and XP		
Operating systems Supported	Microsoft Windows XP		

16X/48X DVD-ROM Drive	Height	5.25-in, half-height
	Interface Type	ATAPI
	Dimensions – External, Excluding Bezel (W x H)	5.88 x 1.71 in (149.5 x 43.5 mm)
	Disc Diameter	12 cm, 8 cm
	Disc Thickness	1.2 mm
	Track Pitch	1.6 µm (CD), 0.74 µm (DVD)
	Disc Center Hole Diameter	15 mm
	Disc Formats	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, DVD+R DL ; 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
	Disc Capacity	DVD-ROM 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), 8.5 GB (DVD+R DL)

QuickSpecs

HP Compaq dx2255 Microtower Business PC

Technical Specifications - Optical Storage

	CD-ROM	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)
Block Size (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	
Access Times (typical reads, including settling)	DVD-ROM Single Layer	120 ms (typical)
	CD-ROM Mode 1	90 ms (typical)
	Full Stroke DVD	240 ms (seek) (typical)
	Full Stroke CD	160 ms (seek) (typical)
Maximum Data Transfer Rates	CD-ROM Read	7200 KB/s (up to 48X)
	DVD-ROM Read	21,600 KB/s (16X) Max
Data Transfer Modes	PIO Mode 4 (16.6 MB/s); Multi-word DMA mode 2 (16.6 MB/s); UltraDMA Mode 3 (44.4 MB/s)	
Power	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 – <800 mA typical, < 1000 mA maximum 12 VDC – < 870 mA typical
	Audio Output Level	0.7 Vrms (typical)
Configuration Jumper Block	Master, slave, and cable select modes	
Data Interface Connector	40-pin, shrouded and keyed, flat ribbon	
Environmental (all conditions non-condensing)	Temperature (operating)	41° to 122° F (5° to 50° C)
	Relative Humidity (operating)	10% to 85%
	Maximum Wet Bulb Temperature (operating)	86° F (30° C)
Certifications, Approvals	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.	
Operating Systems Supported	Microsoft Windows XP	
Kit Contents	16X/40X DVD-ROM Drive, Roxio CinePlayer software, and installation guide.	

48X/32X/48X/16X Combo CD-RW/DVD- ROM

	5.25-inch, half-height, tray-load
Color	Carbonite
Orientation	Either horizontal or vertical
Interface Type	ATAPI
Dimensions (W x H x D)	5.77 x 1.71 x 7.36 in (146.5 x 43.5 x 187 mm) (external, excluding bezel)

Technical Specifications - Optical Storage

Disc Diameter	12 cm, 8 cm
Disc Thickness	0.05 in (1.2 mm)
Track Pitch	1.6 um (CD), 0.74 um (DVD)
Disc Center Hole Diameter	0.6 in (15 mm)
Reference Scanning Velocity	1.2 m/s (CD); 3.49 m/s (DVD SL); 3.84 m/s (DVD DL)
Read Only Disc Parameters	<p>Formats and Modes Supported 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</p> <p>Capacity 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)</p> <p>Block Size 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</p>
Writeable Disc Parameters	<p>Disc Type CD-R and CD-RW</p> <p>Write Methods Disc at Once, Track at Once, Session at Once, Variable Packet, Fixed Packet</p> <p>Format and Modes Supported 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</p> <p>Capacity 180 MB (mode 2, 8 cm); 540 MB (mode 1, 12 cm); 650 MB (mode 2, 12 cm); 700 MB (mode 2, 12 cm)</p> <p>Block Size 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 – 1,048 and 2,352 bytes; mode 2, form 2 – 2,324 and 2,352 bytes</p>
Access Times (typical reads, including settling)	<p>Random DVD < 140 ms (typical)</p> <p>Random CD < 125 ms, (typical)</p> <p>Full Stroke DVD < 250 ms (seek)</p> <p>Full Stroke CD < 210 ms (seek)</p>
Maximum Data Transfer Rates	<p>CD-R write 7200 KB/s (48X) Max</p> <p>CD-RW write 1500 KB/s (10X) Max</p> <p>CD-ROM, CD-R, CD-RW read 7200 KB/s (48X) Max</p> <p>DVD ROM read 21,632 KB/s (16X) Max</p>
Data Transfer Modes	ATA PIO mode 4 (16.7 MB/s); ATA Multi-word DMA mode 2 (16.7

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Technical Specifications - Optical Storage

		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
Power	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
	Audio Output Level	0.7 Vrms (typical)
	Configuration Jumper Block	Master, slave, and cable select modes
	Data Interface Connector	40-pin, shrouded and keyed, flat ribbon
Environmental (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)
Certifications, Requirements		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
Operating Systems Supported		Microsoft Windows XP Professional, Windows XP Home

16X DVD+/-RW LightScribe Drive

Height	5.25-inch, half-height, tray-load
Orientation	Either horizontal or vertical
Interface type	ATAPI/EIDE
Disc recording capacity	8.5 GB DL or 4.7 GB standard
Dimensions (W x H x D)	5.9 x 1.7 x 8.0 in (15.0 x 4.4 x 20.3 cm)
Weight (max)	2.6 lb (1.2 kg)
Write speed	DVD+R Up to 16X DVD+RW Up to 4X DVD+R DL Up to 2.4X DVD-R Up to 8X DVD-RW Up to 4X

Technical Specifications - Optical Storage

	CD-R	Up to 40X
	CD-RW	Up to 24X
Read speed	DVD+R/-R/+RW/ -RW/+R DL	Up to 8X
	DVD-ROM	Up to 16X
	CD-ROM, CD-R	Up to 40X
	CD-RW	Up to 32X
Access time (typical reads, including settling)	Random	DVD: < 130 ms (typical), CD: < 120 ms (typical)
	Full Stroke	DVD: < 240 ms (seek), CD: < 200 ms (seek)
	Startup Time	Single-session: < 15 seconds (typical), Multi- session: < 30 seconds (typical)
	Stop Time	< 4 seconds
	Cache Buffer	2 MB (minimum)
	Data Transfer Modes	ATA PIO mode 4 (16.7 MB/s); ATA Multi-word DMA mode 2 (16.7 MB/s); ATA UltraDMA Mode 3 (44.4 MB/s -default)
Power	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
Audio output	Line-Out	0.7 VRMS
	Signal-to-Noise Ratio	74 dB
	Channel Separation	65 dB
Environmental conditions (operating - non-condensing)	Temperature	41° to 122° F (5° to 50° C)
	Relative humidity	10% to 90%
	Maximum wet bulb temperature	86° F (30° C)
System configuration	Intel PentiumIII 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	
Regulatory approvals	MPC-3 compliant, multi-read requirements, ATA Spec X3T9.2, ATAPI Spec T13.1153D, ANSI C63.4-1992, UL 1950, ACA AS/NZS 3548, CB Bulletin No. 96A, CSA C22.2 No. 950-1995, CFR 47 C.I.S.P.R. Pub 22 Class B, DHHS/FDA, EMKO-TSE 07/94, TUV EN60950, EN60825-1, MIC, BSMI-CNS 13438, CE, Microsoft PC2001 certification, Microsoft Logo for Windows XP and 2000.	

Technical Specifications - Optical Storage

Option kit contents	16X DVD+/-RW LightScribe drive, LightScribe software, InterVideo WinDVD, InterVideo WinDVD Creator, Roxio Easy Media Creator 7, Dantz Retrospect Express Backup Software, installation guide, and DVD+R media.
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Technical Specifications - Removable Storage

HP 1.44-MB Diskette Drive	Size	3.5 in (8.89 cm)		
	LED Indicators (front panel)	Green		
	Read/Write Capacity per Diskette (high/low)	1.44 MB/720 KB		
	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)	94/173 ms	
		Settling Time	15 ms	
		Latency Average	100 ms	
Cylinders (high/low)	80/80			
Read/Write Heads	Two			
<hr/>				
HP 16-in-1 Media Card Reader	USB Interface	USB 2.0 High-speed device		
	Advance protocol support	Supports hardware ECC (Error Correction Code) function		
	Supported media type with card adapter	<ul style="list-style-type: none"> ● Supports hardware CRC (Cyclic Redundancy Check) function ● Supports MS 4-bit parallel transfer mode ● Supports MS-PRO 4-bit parallel transfer mode ● Supports SD 4-bit parallel transfer mode ● Supports high-speed 50-MHz SD 4-bit card (version 1.1) ● Support high-speed 52-MHz MMC 8-bit card 		
		<ul style="list-style-type: none"> ● MicroSD (T-Flash) ● Memory Stick Micro 		
	Mechanical			
Environmental	Operational Environmental Extremes	Test Parameters/Conditions – Power applied, unit operating on system $\pm 5\%$ nominal supply voltage. 10°C 10% R.H. = 24 hours 10°C 90% R.H. = 24 hours 20°C 90% R.H. = 24 hours 30°C 90% R.H. = 24 hours 40°C 90% R.H. = 24 hours 50°C 90% R.H. = 24 hours 50°C 10% R.H. = 24 hours		

Technical Specifications - Removable Storage

	Storage Environmental Extremes	Test Parameters/Conditions 60°C @ 80% R.H. for 96 hours -30°C @ 20% R.H. for 48 hours No power applied Delta °C < 1.0°C/min Delta % R.H. < 1.5% R.H./min
Approvals		USB-IF, WHQL, Compliant with USB Mass Storage Class Bulk only Transport Specification Rev. 1.0, Compliant Intel Front Panel I/O Connectivity Design Guide V. 1.2 FCC, CE, BSMI, C-Tick, VCCI, MIC, cUL, TUV-T

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