# **QuickSpecs**

#### Overview

#### What's New

- Mobile Intel® Pentium® III up to 1.2 GHz-M processor
- ATI Mobility Radeon with 16-MB DDR SDRAM
- USB 2.0
- Optional External MultiBay

#### At A Glance

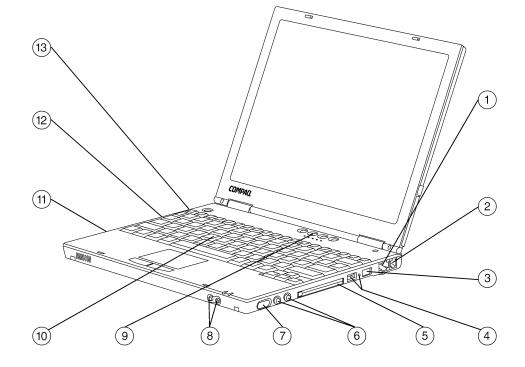
- Weighs only 3.5 lb/1.59 kg
- Less than 1 in/2.3 cm thin
- 12.1-inch XGA TFT display
- 256-MB SDRAM upgradeable to 1024 MB
- Up to 30-GB User removable SMART hard drives
- Integrated mini PCI 56K V.90/V.92 modem plus 10/100 NIC
- · Complete set of system ports
- Microsoft<sup>®</sup> Windows<sup>®</sup> XP Professional Edition or Microsoft Windows 2000 preinstalled
- Protected by a Three-year, Worldwide Limited Warranty

NOTE: Certain restrictions and exclusions apply. For details, consult the Product Information Centre at 1-888-882-6672.

## What's Special

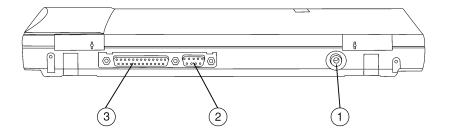
- Ultra-light weight 3.5 lb/1.59 kg
- · Innovative MultiPort
- Full sized keyboard
- Support for up to four batteries \*
- Self-powered External MultiBay, which provides a cost effective and travel friendly way to access MultiBay drives.
- Optional Mobile Expansion Unit providing Multimedia, NIC pass through, storage and enhanced security features
- Magnesium display enclosure
- Industry leading PC lifecycle solutions

**NOTE**: \* = Requires optional MEU.



- 1. RJ-45 (NIC)
- 2. RJ-11 (Modem)
- 3. Infrared Port
- 4. Powered USB port for External MultiBay
- 5. PC Card Slot (1)
- 6. Headphone/Microphone Jacks
- 7. Power

- 8. External Volume Controls
- 9. Easy Access Buttons
- 10 Full Size Keyboard
- 11. Cable Lock Slot
- 12. USB
- 13. VGA Out



- 1. TV Out
- 2. Serial



## COMPAQ



Processor and Panel	1.2 GHz-M Mobile Intel Pentium III processor with 512-KB L2 cache			
	1.0 GHz-M Mobile Intel Pentium III processor with 512-KB L2 cache			
	12.1-inch TFT XGA display with 1024x768 resolution up to 16.7M colours			
	NOTE: Mobile Intel Pen	tium III-M processors support enhanced Intel SpeedStep™ technology.		
Memory	Standard 256-MB (133-			
		3-MHz) SDRAM (with two slots)		
	NOTE: Due to the non-i using only Com	ndustry standard nature of some third-party memory modules, we strongly recommend paq branded memory modules to ensure compatibility.		
Communications	• •	7.90/V.92) modem plus 10/100 NIC Combo		
		o allow faster downloads from V.90/V.92 compliant sources. Maximum achievable mission rates currently do not reach 56 KB/s, and will vary with line conditions.		
		availability is subject to country regulatory approval.		
Keyboard	Full size desktop compatible keyboard, special feature hotkeys for instant access to power conservation, QuickLock/QuickBlank (ex: FN+F6), toggle between internal and external, or simultaneous displays, battery gauge, MultiPort on/off, speaker volume control, and brightness			
Easy Access Internet Buttons	The $Evo^{TM}$ Notebook N410c comes with four Easy Access Buttons designed to increase customer productivity by providing one-touch access to helpful Compaq information, favorite Internet destinations, files, or applications.			
Pointing Device	Touchpad			
PC Card Slots	One Type II PC Card Slot that supports both 32-bit CardBus) and 16-bit PCMCIA Cards			
Storage	Diskette Drives	Optional Diskette Drive*		
	Optical Drives	DVD/CD-RW Combo Drive*		
		CD-RW Drive*		
		DVD-ROM Drive*		
		CD-ROM Drive*		
	Hard Drive	40-GB SMART		
		ional Mobile Expansion Unit (MEU) or External MultiBay.		
Multimedia	Compaq Premier Sound for enhanced stereo audio (with optional MEU) Integrated 16-bit Sound Blaster Pro-compatible stereo audio Integrated speaker and microphone External volume controls Headphone-out Microphone in Software MPEG1 support DVD movie playback software DVD-ROM Drive with DVD movie playback* DVD/CD-RW Combo Drive* CD-ROM Drive* 4X AGP graphics 16-MB DDR SDRAM NOTE: * = Requires optional Mobile Expansion Unit (MEU) or External MultiBay.			



Interfaces	MultiPort	1		
	DC Card Clat			
	PC Card Slot	One Type II		
	Enhanced Parallel Port EPP/ECP	1		
	Serial Port	1		
	External Monitor	1 1		
	TV-out	1 1		
		1		
	Headphone/Line-out	1		
	Microphone in AC Power	1		
		1 1 (Madel dependent)		
	RJ-11 (modem)	1 (Model dependent)		
	RJ-45 (NIC)	1 (Model dependent)		
	Infrared Port	<ul><li>1 (4 Mb/s support)</li><li>(IrDA 4 MB compliant. IR performance will vary depending on performance of IR peripherals and application used.)</li></ul>		
	USB Port	2		
	LED Status Indicators	7		
Graphics	ATI Mobility Radeon M6 with	1 16-MB DDR SDRAM		
Display (External)	Up to 32-bit per pixel colour	denth		
Display (External)		300, 1024 x 768, 1280 x 768, 1280 x 1024, or 1600 x 1200 resolutions up to 100-Hz		
		n monitor capability, and resolution and colour depth settings		
Display (Internal)	12.1-inch TFT XGA display with 1024 x 768 resolution up to 16.7M colours			
Operating System	Microsoft Windows XP Professional Edition			
One of the following	Microsoft Windows 2000			
J	<b>NOTE</b> : Driver support for Mi	icrosoft Windows 98 SE and Microsoft Windows NT <sup>®</sup> 4.0.		
Software	Compaq Management Ager			
	Diagnostics for Microsoft Windows DVD Playback Software (with optional MEU)			
	Altiris eXpress™ Client	in optional iviEU)		
	Compaq Health and Suppor	t Guide		
	Compaq Info Centre Guide	Conde		
System Recovery	Each unit is shipped with a CD (kit) for quick recovery (erases hard disk and restores manufacturer installed image) and software recovery (installs only selected standard software).			
Intelligent Manageability		ability, a key component of PC Lifecycle Solutions, is the broad set of manageability		
	features found on Compaq <i>Deskpro</i> ™ EN desktops, <i>Armada</i> ™ notebooks, <i>Evo</i> Clients, Professional			
	Workstations, iPAQ <sup>™</sup> Deskside and ProLianf <sup>™</sup> server products. These best-in-class features on PC clients			
	comply with industry standards, such as DMI and Wired for Management, while pioneering new ground in client			
	manageability. Compaq introduced the industry's first line of manageable clients in 1995 and has been driving the industry ever since. With Compaq's lifecycle management philosophy, enterprises have all of the pieces for end-			
	to-end management and proven tools for hassle-free management of PCs. The combination of these tools will			
	significantly lower the Total Cost of Ownership of managing the computing environment. Intelligent Manageability			
	offers solutions in the areas	of Initial Configuration and Deployment, Asset Tracking and Security, Software		
	Updating and Management, and Fault Notification and Recovery. For more information, visit these Compaq			
		and a contract the first the contract and a contrac		
	http://www.compaq.com/soli	q.com/im; http://www.compaq.com/easydeploy;		

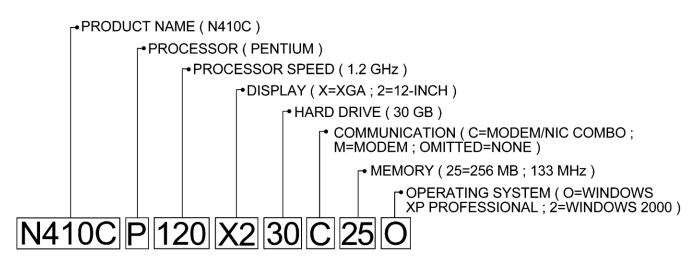


Security	Configuration Control Hardware Memory Change Alert Ownership Tag Setup Password Power-On Password DriveLock Enabled for PC SmartCard options Kensington Lock Slot	
Power Supply	External AC (65 Watt) adapter (only 0.62 lb/0.28 kg, 6-foot/1.8 metre) power cord included. Total length including External AC adapter is 12 feet/3.66 metre	
Battery	The <i>Evo</i> Notebook N410c 4-cell internal (main) Lithium-Ion battery provides over two hours of battery life; over four hours achieved using optional external battery. <b>NOTE</b> : Actual results may vary with product model, configuration, and individual usage. Compaq results of 2:20	
	(hr:min) were achieved running the eTesting Labs Inc.'s Business Winstone 2001 BatteryMark™ Test version 1.0.1 on an N410c with an Intel Pentium III 1.2 GHz CPU, 12.1-inch XGA panel, 256-MB RAM, 30-GB HDD, 4-cell Lithium-Ion battery, and combination NIC/modem. System parametres were set according to Ziff Davis recommendations: panel brightness 50%, hard drive, standby and video idle time set to never, laptop power management scheme.	
	<b>NOTE</b> : This test was performed without independent verification by eTesting Labs Inc. eTesting Labs Inc. makes no representations or warranties as to the result of the test. BatteryMark is a trademark of Ziff Davis Publishing Holdings Inc., and affiliate of eTesting Labs Inc., in the U.S. and other countries.	
Power Conservation	Supports enhanced Intel SpeedStep technology (allows a Battery Optimized Mode where CPU draws 50% of normal power yet affords 70 to 80% of maximum PIII processing speed) Hibernation Instant-on via Standby Pop-ups with three presets One custom level of power conservation	
	ACPI compliant	
MultiBay Devices (requires optional MEU)	MultiBay devices may be swapped with the system powered on (hot) under Microsoft Windows XP Professional of Windows 2000 (except MultiBay Zip drive or MultiBay secondary hard drive).  MultiBay devices can be swapped with system power off under any supported operating system.	
MultiPort	MultiPort is a flexible, innovative solution providing customers the ability to connect to their choice of wireless standards such as 802.11b or Bluetooth™. This can be achieved by simply changing out the high-performance wireless module, which is integrated into the top of the notebook. The award-winning MultiPort offers a cost effective means to migrate to future wireless standards as they become available.	
Docking/System Expansion	The optional Mobile Expansion Unit (MEU) with NIC pass through extends the capabilities of the <i>Evo</i> Notebook N410c by adding dual MultiBay support, network connectivity, full port replication, and stereo speakers. The MultiBays in the MEU accept all common <i>Evo</i> series MultiBay drives and devices. The External MultiBay is a cost effective, travel friendly USB based alternative to the MEU which provides access to one MultiBay device.  NOTE: The N410c is not compatible with Compaq docking solutions. Docking functionality is provided via the MEU.	
Service and Support	Compaq Services includes a Three-year, Worldwide Limited Warranty, pick-up or carry-in, toll-free 7 x 24 hardware technical phone support. Optional services include upgrade to Three-year Standard Warranty, Onsite Warranty, or Application and Operating System Support.  Compaq Services includes a One-year Limited Warranty, whole-unit replacement through second business day, and pick-up and delivery. (Optional services include a one-year warranty extension <i>CarePaq</i> <sup>TM</sup> (FM-AMMAI-36 or 400514-002).	
	Optional services include a three, four or five-year warranty extension CarePaq (179404-022, 200786-022, 200787-022).  NOTE: Certain restrictions and exclusions apply. For details, consult the Product Information Centre at 1-888-882-6672. <a href="http://www.compaq.com/support/warranty_upgrades/product_specific_warranty.html">http://www.compaq.com/support/warranty_upgrades/product_specific_warranty.html</a>	



**Naming Convention** 

The Etymology of a Model name:





## MODELS

N410CP120X230C250	Display	12.1-inch colour TFT XGA		
P/N 470037-550	Processor	1.2 GHz-M Mobile Intel Pentium III		
French P/N 470037-557	Cache Memory	512-KB, L2 Cache		
	Memory	Standard 256-MB SDRAM		
	·	Maximum 1024-MB SDRAM		
	Optical Drive	None		
	Hard Drive	30-GB SMART		
	Modem	Type III Mini PCI 56K (V.90/V.92) modem plus 10/100 NIC Combo		
	Graphics	ATI Mobility Radeon 16-MB SDRAM Compaq <i>Premier</i> • Sound		
	Audio			
	Operating System	Microsoft Windows XP Pro		
	Pointing Device	Touchpad		
	Warranty	3 Year Parts, 3 Years Labour, 0 Years On-Site (3-3-0)		
N410CP120X230C252	Display	12.1-inch colour TFT XGA		
P/N 470037-662	Processor	1.2 GHz–M Mobile Intel Pentium III		
French P/N 470037-663	Cache Memory	512-KB, L2 Cache		
	Memory	Standard 256-MB SDRAM		
		Maximum 1024-MB SDRAM		
	Optical Drive	None		
	Hard Drive	30-GB SMART		
	Modem	Type III Mini PCI 56K (V.90/V.92) modem plus 10/100 NIC Combo		
	Graphics	ATI Mobility Radeon 16-MB SDRAM		
	Audio	Compaq <i>Premier•Sound</i>		
	Operating System	Microsoft Windows 2000		
	Pointing Device	Touchpad		
	Warranty	3 Year Parts, 3 Years Labour, 0 Years On-Site (3-3-0)		
N410CP100X220C25O	Display	12.1-inch colour TFT XGA		
P/N 470039-997	Processor	1.0 GHz–M Mobile Intel Pentium III		
French P/N 470040-006	Cache Memory	512-KB, L2 Cache		
	Memory	Standard 256-MB SDRAM		
		Maximum 1024-MB SDRAM		
	Optical Drive	None		
	Hard Drive	20-GB SMART		
	Modem	Type III Mini PCI 56K (V.90/V.92) modem plus 10/100 NIC Combo		
	Graphics	ATI Mobility Radeon 16-MB SDRAM		
	Audio	Compaq Premier●Sound		
	Operating System	Microsoft Windows XP Pro		
	Pointing Device	Touchpad		
	Warranty	3 Year Parts, 3 Years Labour, 0 Years On-Site (3-3-0)		



#### MODELS (continued)

N410CP100X220C252

P/N 470040-148

French P/N 470040-149

Display 12.1-inch colour TFT XGA

Processor 1.0 GHz-M Mobile Intel Pentium III

Cache Memory 512-KB, L2 Cache

**Memory** Standard 256-MB SDRAM

Maximum 1024-MB SDRAM

Optical Drive None

Hard Drive 20-GB SMART

Modem Type III Mini PCI 56K (V.90/V.92) modem plus 10/100 NIC Combo

Graphics ATI Mobility Radeon 16-MB SDRAM

AudioCompaq Premier● SoundOperating SystemMicrosoft Windows 2000

Pointing Device Touchpad

Warranty 3 Year Parts, 3 Years Labour, 0 Years On-Site (3-3-0)

**NOTE**: Mobile Intel Pentium III-M processors support enhanced Intel SpeedStep™ technology.



Memory	512-MB (133 MHz) Memory Upgrade	238830-B25
	256-MB (133 MHz) Memory Upgrade	197898-B25
	128-MB (133 MHz) Memory Upgrade	197897-B25
	64-MB (133 MHz) Memory Upgrade	197986-B25
	NOTE: Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only Compaq branded memory modules to ensure compatibility.	
Monitors	TFT8030 Flat Panel Colour 18-inch (carbon/silver)	234362-001
	TFT7020 Flat Panel Colour 17-inch with integrated speakers (carbon/silver)	253217-001
	TFT5017 Flat Panel Colour 15-inch (carbon/silver)	263874-003
	TFT5017m Flat Panel Colour 15-inch multimedia flat panel (carbon/silver)	279414-001
	TFT5030 Flat Panel Colour 15-inch (carbon/silver)	228134-001
	S9500 19-inch CRT (carbon/silver)	261615-003
	V7550 17-inch CRT (carbon/silver)	261611-003
MultiBay Hard Drives	40-GB SMART Hard Drive	263472-B25
	30-GB SMART Hard Drive	212791-B25
MultiBay Storage Devices	8X DVD/CD-RW Combo Drive	260472-B25
, ,	8X DVD-ROM Drive	138230-B25
	16X CD-RW Drive	269088-B25
	24X CD-ROM Drive	298452-B25
	1.44-MB Diskette Drive	226935-B25
Other Storage Devices	IBM <sup>®</sup> 1-GB Microdrive™ (PC card Device)	217390-B25
	USB Disk-on-Key – 8 MB	249552-B25
	USB Diskette drive	230330-B25
	Parallel port cable for diskette drive	
	NOTE: The <i>Evo</i> Notebook N410c requires optional Mobile Expansion Unit or external MultiBay to utilize MultiBay Storage Devices.	
Mobile Expansion Unit (MEU)	External MultiBay (USB 2.0)	217388-001
•	Mobile Expansion Unit (N410c) without MultiBay devices	286255-B25
	NOTE: * = Data transfer rates will vary from 150 KB/s to 3600 KB/s.	
Wireless Connectivity	MultiPort 802.11b Wireless LAN W200 module	283836-001
	Bluetooth MultiPort module	228057-B21
	Compaq WL110 Wireless LAN PC Card	191808-B21
	Compaq WL510 Wireless Enterprise Access Point	216709-001
	Compaq WL410 Wireless SMB Access Point	191811-001
	Compaq WL310 Home Office Access Point	191813-001
	Compaq Range Extender Antenna	230268-B21
Power	4-cell primary Lithium-Ion battery (internal)	232593-B25
	4-cell secondary Lithium-Ion battery (internal)	236309-B25
	4-cell secondary Lithium-Ion battery (external)  4-cell secondary Lithium-Ion high capacity travel battery (external)	
	4-con secondary Emmuni-ion myn capacity travel battery (external)	236310-B25



Common Power Solutions	MultiBay Battery (8-cells)*	265650-B25		
	External Battery Charger **	135555-001		
	AC Adapter 65W	265602-001		
	Auto Power Adapter/Charger 65W	265649-B25		
	Aircraft Power Adapter	386504-B21		
	AC Line Cord (3.1 m/10-ft)	217932-002		
	NOTE: * = Use of this option with the <i>Evo</i> Notebook N400c/410c requires the option (MEU).	al Mobile Expansion Unit		
	NOTE: MultiBay Battery only functions in the optional MEU and will not function in the external MultiBay.  NOTE: ** = The Universal Battery Charger will charge the N400c/410c external secondary handle batteries. It will not charge the N400c/410c internal primary battery.			
Input Devices	External Enhanced III Keyboard (carbon)	118003-008		
	Compaq 2 Button Mouse (carbon)	103180-B21		
	USB 2 Button Scroll Mouse (carbon)	195255-B25		
	External 10-Key Numeric Keypad (carbon)	294317-B21		
	USB EZ Access Keyboard	222726-008		
	Wireless Keyboard and Mouse	251385-008		
	Wildess Regulation and Mouse	231303-000		
Security	Biometric PC Card	146805-B25		
	Security Cable Lock	294316-B2 <sup>-</sup>		
	Compaq Smart Card PC Card Reader	135646-B25		
Useful Accessories	Compaq iPAQ Microportable Projector MP1200	261966-001		
	Compaq iPAQ Microportable Projector MP3800	262839-001		
	Compaq iPAQ Microportable Projector MP4800	257524-001		
	Lamp Module L20 for MP1200	266631-B24		
	Lamp Module L30 for MP3800	266633-B24		
	Home Theatre Kit HT150 for MP3800	292187-B24		
	Carrying Case for MP1200	295731-B24		
	Lamp Replacement Kit for MP1600	118052-001		
	Lamp Module for MP1800, MP1400	189789-001		
	Lamp Module for MP2800, MP2810	215464-001		
	Home Theater Kit HT110 for MP1410	246161-001		
	Multimedia Adapter & Remote Control Kit MMA110 for MP1410	246162-001		
	Multimedia Adapter & Remote Control Kit for MP1400, MP1800	174963-001		
	Deluxe Carrying Case for MP Series projectors	253364-001		
	Lamp Module for MP1410, MP1810	253365-001		
	Lamp Module L90 for MP4800	257892-001		
	Home Theater Kit HT180 for MP1200, MP4800	281729-001		
	CeilingMount Kit CM10 for MP1200, MP4800	281730-001		
	hp digital projector sb21	L1510A		
	hp digital projector xb31	L1511A		
	Ceiling Mount Kit for xb31	L1513A		
	M1-A to component/USB video cable for sb21, xb31	L1523A		
	M1-D to DVI/USB cable for sb21, xb31	L1529A		
	Lamp Module for sb21	L1515A		
	Lamp Module for xb31	L1516A		



Carrying Cases	Compaq Ultralight Case (nylon)	167336-B21
	Compaq Ultralight Case (leather)	242359-B25
	Compaq Plus Case	242360-B25
	Compaq Professional Case (nylon)	242361-B25
	Compaq Professional Case (leather)	242362-B25
	Evo Notebook N410c, N400c, N610c, and Armada M300 and M700 specific	
	Compaq M Series Portfolio Case	167337-B21



## Memory

#### Compaq Evo Notebook N410c

#### STANDARD MEMORY

0-MB of memory on system board,

2 Slots total

1-256-MB DIMM installed in Slot 1

1-Additional open Memory Slot

Memory	Slot 1	Slot 2
	256 MB	Empty

#### STANDARD MEMORY WITH OPTIONAL MEMORY UPGRADES

Support for up to 512-MB of SDRAM is available with the installation of optional SDRAM Memory Upgrades.

Up to	Slot 1	Slot 2
256 MB	256 MB	Empty
384 MB	256 MB	128 MB
512 MB	256 MB	256 MB
768 MB	256 MB	512 MB
1024 MB	512 MB	512 MB

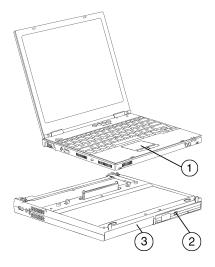
**NOTE**: This chart does not represent all possible memory configurations. Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only Compaq branded memory modules to ensure compatibility.

Following are memory options available from Compaq:

512-MB (133-MHz) Memory Upgrade	238830-B25
256-MB (133-MHz) Memory Upgrade	197898-B25
128-MB (133-MHz) Memory Upgrade	197897-B25

**NOTE**: Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only Compaq branded memory modules to ensure compatibility.

# QuickSpecs Storage



- 1. Hard Drive
- 2. MultiBay
- MultiBay

## DRIVE SUPPORT

## **System Drive Support**

Removable Media	Quantity Supported	Drive Bay Supported
1.44-MB Diskette Drive (optional)	Up to 1	External connects via parallel port
Hard Drives		
40-GB SMART Hard Drive	Up to 1	Hard Drive Bay

## MEU DRIVE SUPPORT

Removable Media	Quantity Supported	Drive Bay Supported
8X DVD/CD-RW Combo Drive	Up to 2	MultiBay
8X DVD-ROM Drive	Up to 2	MultiBay
16X CD-RW Drive	Up to 2	MultiBay
24X CD-ROM Drive	Up to 2	MultiBay
1.44-MB Diskette Drive	Up to 1	MultiBay
Secondary Hard Drives		
40-GB SMART Hard Drive	Up to 2	MultiBay
30-GB SMART Hard Drive	Up to 2	MultiBay



•	Dimensions (H x W x D)	12.1-inch TFT panel display	0.89 x 10.5 x 9.5 in/2.2 x 26.6 x 24.2 cm
	Weight	Minimum/Maximum	3.5 lb/1.58 kg
	Stand-Alone Power Requirements	Nominal Operating Voltage (Li-lon)	14.8 VDC
		Maximum Operating Power	40W
		Peak Operating Power	50W
	Temperature	Operating	50° to 95° F/10° to 35° C
		Non-operating	-4° to 140° F/-20° to 60° C
	Relative Humidity	Operating	10% to 90% relative humidity, non-condensing
		Non-operating	5% to 90% relative humidity, 101.6° F/38.7° C maximum wet bulb temperature
	Shock	Operating	10 G, 11 ms, half-sine
		Non-operating	60 G, 11 ms, half-sine
	Vibration	Operating	0.5 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate
		Non-operating	1.0 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate
	Maximum Altitude	Operating	0 to 10,000 ft/3,048 m (14.7 to 10.1 psia)
	(unpressurized)	Non-operating	0 to 30,000 ft/9,144 m (14.7 to 4.4 psia)
	/ Dimensions (H x W)	10.3 x 7.8 in/26.1 x 19.9 cm	
	Diagonal Size	12.1 in/30.7 cm	
	Mounting	Internal	
	Number of Colours	16M	
	Contrast Ratio	125:1	
	Refresh Rate	60 Hz	
	Brightness	130 nit typical AC only/70 on battery115 nit minimum	
	Pixel Resolution	Pitch	0.264 x 0.264 mm
		Format	1024 x 768
		Configuration	RGB Stripe
	Backlight	CCFT	
	Character Display	80 x 25	
	Total Power Consumption	4W	



Hard Drives			
40 GB	MultiBay Drive Adapter	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.15 lb/70 g
	Drive Weight	0.21 lb/95 g	
	Capacity	40 GB	
	Height	0.374 in/9.5 mm	
	Width	2.75 in/70 mm	
	Interface	ATA-5	
	Transfer Rate	Synchronous (maximum)	100 MB/s (Drive Capability)
		Security	ATA Security
	Seek Time	Single Track	3 ms
	(typical reads, including settling) Rotational Speed	Average	13 ms
	riotational opoda	4200 RPM	25 ms
	Logical Blocks	78,140,160	
	Operating Temperature	41° to 131° F/5° to 55° C	
	Features	Security	ATA Security
	-		
External AC Adapter	Weight	0.62 lb/0.28 kg	
	Power Supply (Input)	Operating Voltage	90 to 260 VAC RMS
		Operating Current	1.7 A RMS
		Operating Frequency Range	47 to 63 Hz AC
		Maximum Transient	4/50 kV
Internal Lithium-Ion Battery Pack	Weight	0.49 lb/0.22 kg	
	Cells	4-cell Lithium-Ion	
	Energy	Voltage	14.4 V
	·· 5J	Amp-hour capacity	1.96 Ah
		Watt-hour capacity	28Wh
	Temperature	Operating	41° to 95° F/5° to 35° C
	r	Non-operating	-4° to 140° F/-20° to 60° C
	Battery Re-Charge Time	System in OFF mode or Stand	
	,	System ON (depending of system power consumption)	2-5 hours



Secondary Lithium-Ion Battery Pack	Dimensions (H x W x D)	0.9 x 10.47 x 0.9 in/2.3 x 26.6 x 2.3 cm	
	Weight	0.48 lb/0.21 kg 4-cell Lithium-Ion	
	Cells		
	Energy	Voltage	14.4 V
		Amp-hour capacity	1.96 Ah
	Temperature	Watt-hour capacity	28Wh
		Operating	41° to 95° F/5° to 35° C
		Non-operating	-4° to 140° F/-20° to 60° C
Secondary High Capacity Lithium-Ion Battery Pack	Dimensions (H x W x D)	1.8 x 10.6 x 1.2 in/4.6 x 26.6 x 2.3 cm	
Lithium-ion Battery Pack	Weight	0.93 lb/0.42 kg	
	Cells	4-cell Lithium-Ion	
	Energy	Voltage	14.4 V
		Amp-hour capacity	2.6 Ah
		Watt-hour capacity	37.4 Wh
	Temperature	Operating	41° to 95° F/5° to 35° C
		Non-operating	-4° to 140° F/-20° to 60° C
MultiBay Lithium-lon	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm	
Battery Pack (8-cell)	Weight	1.03 lb / 0.47 Kg	
	Energy	Voltage	14.8 V
		Amp-hour capacity	3.2 Ah
		Watt-hour capacity	47.4 Wh
	Temperature	Operating	32° to 122° F/0° to 50° C
		Non-operating	32° to 140° F/0° to 60° C
	Battery Re-Charge Time	System in OFF mode or Standby 2 hours	
		System ON	2 to 5 hours
	Lifecycle	80% capacity after 300 full charge/discharge cycles, or 600 half discharge followed by a full charge cycles.	



8X DVD/CD-RW Combo Drive	MultiBay Drive	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.74 lb/0.34 kg
	Centre Hole Diametre	0.59 in/1.5 cm	
	Disk Diametre	12 cm/8 cm	
	Disk Thickness	0.047 in/1.2 mm	
	Track Pitch	0.74 μm	
	Access Times	Random	< 150 ms
	(typical reads, including settling)	Full-Stroke	< 225 ms
	Audio Output Level	Line-out	0.7 Vrms
	Cache Buffer	128 KB/s (minimum)	
	Data Transfer Rate	CD-R (8X)	1200 KB/s (150 KB/s at 1X CD rate)
	(typical, including settling)	CD-RW (8X)	1200 KB/s (150 KB/s at 1X CD rate)
		CD-ROM (24X)	3600 KB/s (150 KB/s at 1X CD rate)
		DVD (8X)	10,800 KB/s (1352 KB/s at 1X DVD rate)
		Normal PIO Mode 4 (single burst)	16.6 MB/s
	Start-up Time	< 15 seconds	
	Stop Time	< 6 seconds	
4X DVD/CD-RW Combo Drive	MultiBay Drive	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.74 lb/0.33 kg
	Centre Hole Diametre	3.9 cm	
	Disk Diametre	12 cm/8 cm	
	Disk Thickness	1.2 mm	
	Track Pitch	0.74 μm	
	Access Times (typical reads, including settling)	Random CD	< 150 ms
		Full-Stroke CD	< 225 ms
	Audio Output Level	Line-out	0.7 Vrms
	Cache Buffer	128 KB/s (minimum)	
	Data Transfer Rate	CD-R (24X)	3600 KB/s (150 KB/s at 1X CD rate)
	(typical, including settling)	CD-RW (10X)	1500 KB/s (150 KB/s at 1X CD rate)
		CD-ROM (24X)	3600 KB/s (150 KB/s at 1X CD rate)
		DVD (8X)	10,800 KB/s (1352 KB/s at 1X DVD rate)
		Normal PIO Mode 4 (single burst)	16.6 MB/s
	Start-up Time	< 15 seconds	
	Stop Time	< 6 seconds	



16X CD-RW Drive	MultiBay Drive	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.74 lb/0.33 kg
	Centre Hole Diametre	1.5 cm	
	Disk Diametre	12 cm/8 cm	
	Disk Thickness	1.2 mm	
	Track Pitch	0.74 µm	
	Access Times	Random	< 150 ms
	(typical reads, including settling)	Full-Stroke	< 225 ms
	Audio Output Level	Line-out	0.7 Vrms
	Cache Buffer	128 KB/s (minimum)	
	Data Transfer Rate	CD-R (16X)	2400 KB/s
	(typical, including settling)	CD-RW (8X)	1200 KB/s
		CD-ROM (24X)	3600 KB/s
		Normal PIO Mode 4 (single burst)	16.6 MB/s
	Start-up Time	< 15 seconds	
	Stop Time	< 6 seconds	
BX DVD-ROM Drive	MultiBay Drive	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.66 lb/0.3 kg
	Centre Hole Diametre	1.5 cm	
	Disc Diametre	12 cm/8 cm	
	Disc Thickness	1.2 mm	
	Track Pitch	0.74 µm	
	Access Times	Random (typical)	< 150 ms DVD Media
	(typical reads, including settling)	Full-Stroke (typical)	< 225 ms DVD Media
		Random (typical)	< 110 ms CD Media
		Full-Stroke (typical)	< 200 ms CD Media
	Cache Buffer	512 KB/s (minimum)	
	Data Transfer Rate	Max 24X CD	3600 KB/s (150 KB/s at 1X CD rate)
	(typical, including settling)	Max 8X DVD	10,800 KB/s (1352 KB/s at 1X DVD rate)
		Normal PIO Mode 4 (single burst)	16.6 MB/s
	Start-up Time	< 10 seconds	Single Session CD-ROM
	Stop Time	< 3 seconds	



24X CD-ROM Drive	MultiBay Drive	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.50 lb/0.22 kg
	Applicable Disk	CD-ROM (Mode 1, 2 and 3), CD-XA ready (Mode 2, Form 1 and 2) (Mode 2, Form 1 and 2), CD-R (read only), CD Plus, Photo CD (Sir Multi-session), CD-Extra, Video CD, CD-WO (fixed packets only), (	
	Centre Hole Diametre	15 mm	
	Disk Diametre	12 cm/8 cm	
	Disk Thickness	1.2 mm	
	Track Pitch	1.6 μm	
	Access Times	Random	< 150 ms
	(typical reads, including settling)	Full-Stroke	< 300 ms
	Audio Output Level	Line-out	0.7 Vrms
	Cache Buffer	128 KB	
	Data Transfer Rate	Sustained (16X)	2400 KB/s
	(typical, including settling)	Variable	1500 to 3600 KB/s (10X to 24X)
		Normal PIO Mode 4 (single burst)	16.66 MB/s
	Start-up Time	< 8 seconds	
	Stop Time	< 4 seconds	
MultiBay Diskette Drive	MultiBay Drive	Dimensions (H x W x D)	0.5 x 5.21 x 4.97 in/1.27 x 13.25 x 12.61 cm
		Weight	0.51 lb/230 g
	Diskette Size	3.5 in	
	Height	12.7 mm	
	Bytes per Sector	512	
	Sectors per track	High density	18 (1.44 MB)/15 (1.2 MB)
		Low density	9
	Tracks per side	High density	80 (1.44 MB)/80 (1.2 MB)
		Low density	80
	Read/Write heads	2	
	Access Times	Track-to track (high/low)	3 ms/6 ms
		Average (high/low)	94 ms/174 ms
		Settling time	15 ms
		Latency average	100 ms



802.11b MultiPort Module

Form Factor	Compaq "MultiPort"
Weight	0.22 lb/100 g (maximum)
Operating Temperature	Operating 14° to 149° F/–10° to 65° C
Storage Temperature	Non-operating -40° to 176° F/-40° to 80° C
Humidity	Operating 10 to 90%
	Non-operating 5 to 95%
Altitude	Operating 0 to 15,000 ft/4,572 m
	Non-operating 0 to 40,000 ft/12,192 m
Plug and Play	USB 1.1 compliant
	Microsoft Windows Plug and Play compliant
RF Network Standard	IEEE 802 Part 11b (802.11b)
Frequency Band	2,4000 to 2.4835 GHz
Number of Selectable	Worldwide Certification
Sub-channels	United States (FCC) 11
Data Rates	1, 2, 5.5, 11 Mbps
Antenna type	Internally integrated within module (with special polarization diversity)
WEP Security	64-bit encryption keys compliant to IEEE 802.11
	128-bit encryption key compliant to IEEE 802.11
	Ability to enter keys manually or via pass-phrase
Network Architecture Model	s Ad-hoc (Peer to Peer)
	Infrastructure (Access Points Required)
Modulation Technique	Direct Sequence Spread Spectrum
	DBPSK, DQPSK, CCK
Receiver Sensitivity - Bit	11 Mbps: -85 dBm
Error Rate (1E-5)	5.5 Mbps: -87 dBm
	2 Mbps: -91 dBm
	1 Mbps: -94 dBm
Maximum Receive Level	−4 dBm
Output Power (approximately	r) 18 dBM
Operating Voltage	5V power operation
Power Management	Keystroke Fn+F2 Power On/Off control
Power Consumption	Transfer mode: < 600 mA, maximum
	Receive mode: > 400 mA, maximum
	Standby mode: > 1 mA, maximum
Transmit Power	10 to 100mW
	It is preferable to have the user configurable output power to save battery life for laptop users or in high AP coverage areas
Power Saving Option	802.11 Compliant Power Saving
Tollor outling option	Power Saving Mode selectable through the configuration utility
	ACPI compliant power management
Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
OS Support	Microsoft Windows 98/98SE
оо опррем	Microsoft Windows 2000
	Microsoft Windows Millennium
Protocols Supported	TCP/IP
1 Totocois Supporteu	IPX/SPX
	UDP
LED Activity	Flashing LED – AP Search Mode
LLD ACTIVITY	Solid LED – On
-	LED Off – Power Off

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Throughput, Data Rate and Operating	Throughput	Data Rate	Operating Distance		
Distance	> 4.5 Mbps	11 Mbps	1000 feet – Open sight		
			<ul> <li>100 feet – Closed space (Steel Space)</li> </ul>		
	> 2 Mbps	5.5 Mbps	1100 feet – Open sight		
	·	·	<ul> <li>200 feet – Closed space (Steel Space)</li> </ul>		
	> 700 Kbps	1 Mbps	1200 feet – Open sight		
			<ul> <li>300 feet – Closed space (Steel Space)</li> </ul>		
			Control of the Control		
Bluetooth MultiPort Module	Form Factor	Compaq "MultiPort"			
	Bluetooth	1.1 Compliant			
	Dimensions	2.2 x 6.6 x 0.55 in/5.6 x 1	6.7 x 1.4 cm		
	Weight	0.22 lb/100 g (maximum)			
	Temperature	Operating	50° to 104°F/10° to 40°C		
		Non-operating	-4° to 140°F/-20° to 60°C		
	Humidity	Operating	10% to 90%		
		Non-operating	5% to 95%		
	Altitude	Operating	0 to 10,000 ft/3,048 m		
		Non-operating	0 to 30,000 ft/9,144 m		
	Plug and Play	USB 1.1 compliant			
		Microsoft Windows Plug and Play compliant			
	Frequency Band	2,4000 to 2.4835 GHz			
	Number of Available Channe	ls 79 (1 MHz) available cha	nnels		
	Data Rates and throughput	1 Mbps			
		Synchronous Connection	Oriented links up to 3, 64 kbps, voice channels		
		Asynchronous Connection Less links 723.2 kbps/57.6 kbps asymmetric or 4 kbps symmetric			
	Antenna type	Internally integrated within	n module (with special polarization diversity)		
	Range	328 ft/100 m			
	Profile Support	General Access Profile			
		Service Discovery Applica	ation Profile		
		Serial Port Profile			
		Generic Object Exchange	e Profile		
		File Transfer Profile			
		Synchronization Profile			
		Dial-Up Networking Profil	e		
		LAN Access Profile			
		Object Push Profile			



Sluetooth MultiPort Module (continued) Usage Models	Service Discovery (determine what Bluetooth devices are within range and support authorization)	
	Synchronization:	
	PDAs to PCs	
	Portable to Desktop	
	File Transfer:	
	File and directory browsing and navigation on another Bluetooth device.	
	File copying	
	Object manipulation – including add, delete, create new folders etc.	
	Wireless link to Corporate LAN using several Bluetooth devices sharing the same	
	Access Point:	
	Corporate email, network neighborhood, access to LAN applications, file transfer, ftp, Internet browsing, etc, using TCP/IP	
	Wireless link to WAN thru cell phone	
	GSM/SMS, PCS, PHS, DECT, RAM, ARDIS, CDPD, etc.	
	Agnostic to WAN technology	
	Send/receive SMS messages	
	Wireless link to Printer	
	Adhoc peer to peer networking (two computers) or Personal Area Networking (PAN) using NDIS (< 7 computers)	
	Adhoc Bluetooth Pico-networking (point to multi-point)	
	Object Push – Business card or appointment exchange	
Transmit Power	< 20 dBM (Bluetooth Class 1)	
Receive Sensitivity	Better than -70 dBM at 0.1 % raw bit error rate	
Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves	
Security	Full support of Bluetooth Security Provisions	
Network Architecture Models		
	Infrastructure (Access Points Required)	
Power Requirement	Peak < 1500 mW	
	Average < 500 mW	
	Standby < 250 mW	
Power Management	Microsoft Windows ACPI, and USB Bus Support	
	Keystrokes Fn+F2 Power On/Off control	
	Self configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff	
OS Support	Microsoft Windows 98/98SE	
	Microsoft Windows 2000	
	Microsoft Windows Millennium	
Protocols Supported	TCP/IP	
	IPX/SPX	
	UDP	
LED Activity	Solid Blue LED - On	
	LED Off – Power Off	
Certifications	All necessary regulatory approvals for countries we support including: FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC950	
	UL, CSA, and CE Mark	



Type III Mini PCI 56K (V.90/V.92) Modem plus 10/100 NIC Combo

Form Factor	Mini-PCI Type III per Specification
OS Support (with all released Service Packs)	Microsoft Windows 98 (Gold, SE), Windows Millennium Edition, Windows NT 4.0, Windows 2000, Windows XP (Home, Professional), DOS Application Support under Windows
Power Management Support	APM Revision 1.2, ACPI, Compaq Power Management Extensions for Microsoft Windows NT $$
Approvals/Certifications	UL, CSA, NEMKO, CCIB, Industry Canada, FCC Part 68, CTR21, FCC Part 15 Class B, Canadian ICES-003 Class B, C.I.S.P.R.22, Australian ACA, CE Mark, Other Countries
Data Mode Capabilities	V.92 (a-law,mu-law) V.90 (a-law, mu-law) V.8bis V.80 V.44 bis, MNP5 (compression) V42.bis, MNP5 (Compression) V.42 (LAPM, MNP2-4) (Error Correction) V.34 (file date: 10/96)
	Optional symbol rates: 2800, 3429
	Asymmetric Symbol rates
	Synchronous primary channel data signaling rates: 3600, 31200
	Automatic rate re-negotiation
	V.32bis
	V.32
	V.23
	V.22bis
	V.22
	V.21
	Bell 212A
	Bell 103J
Fax Mode Capabilities	TIA/EIA-578-B (Class 1)
	T.30, T.4 (Group 3)
	V.17
	V.29
	V.27ter
	V.21 Channel 2
Command Set	V.250 (Partial)
	TIA-602
	Identification: +GMI, +GMM, +GMR
	Port control: +IPR, +ICF, +IFC, +LIRR
	Modulation: +MS, +MR, +MA
	Error control: +ES, +ER, +EB, +ESR, +ETBM
	Data compression: +DS, +DR
	V.251



Type III Mini PCI 56K (V.90/V.92) Modem plus 10/100 NIC Combo

(continued)

Intel PRO/100 P Mobile Combo Adapter
IEEE 802.2 LLC
SNAP
10 Mbps Ethernet: IEEE 802.3 standard 10BASE-T
100 Mbps Ethernet: IEEE 802.3u standard 100BASE-TX
Full Duplex at 10 and 100 Mbps
Auto-Negotiation
Wake on LAN from all power managed states, including soft off (S5)
Boot on LAN from OFF
Lower Power State on Link Loss
IBM LAN Server Version 1.2, 1.3, 2.0, 4.0
Microsoft Windows 98 SE, NT 4.0, 2000, XP (Home and Professional)
Novell® Netware® 3.1x, 4.x, 5.x
TCP/IP
Novell IPX/SPX and Microsoft compatible
Novel IPX ODI
Microsoft NetBEUI
IBM DLC

## Compaq PCs use genuine $Microsoft^{\otimes}$ $Windows^{\otimes}$

http://www.microsoft.com/piracy/howtotell

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