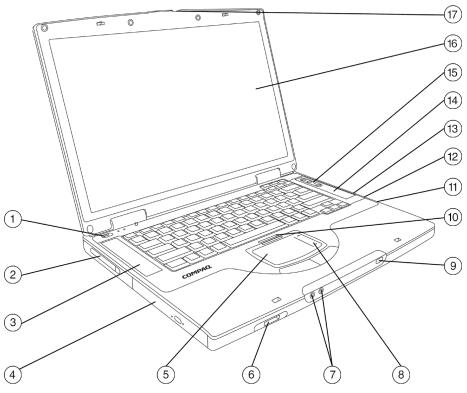
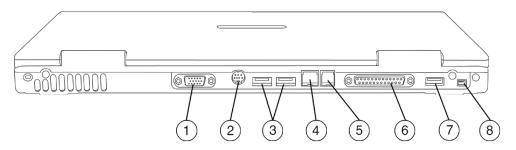
Overview

HP Compaq Business Notebook nx7010 thin and light, widescreen



- 1. Power Button
- 2. PC Card Slot
- 3. Left Speaker
- 4. Optical Disk Drive
- 5. Touch Pad with dedicated scroll
- 6. SD Card Slot
- 7. Headphone and microphone in/out ports
- 8. Dedicated scroll (from #5)
- 9. Wireless on/off switch

- 10. Touchpad on/off switch
- 11. Fast IR
- 12. Power connector
- 13. Kensington Lock
- 14. Right Speaker
- 15. Volume Controls
- 16. 15.4-inch Wide Display
- 17. Display Lid Latch



- 1. VGA Port
- 2. S-Video port
- 3. (2 of 3) USB ports
- 4. RJ-45 port

- 5. RJ-11 port
- 6. Parallel port
- 7. (1 of 3) USB port
- 8. 1394

What's New

- ? Thin and light, widescreen
- ? Centrino Technology
- ? Intel® Pentium® M processors up to 1.7 GHz
- ? 333MHz DDR SDRAM memory
- ? 400-MHz Front side bus
- ? Integrated Secure Digital (SD) flash media slot
- ? Touchpad with dedicated On/Off button and dedicated scroll

At A Glance

- ? Centrino Technology
- ? Intel Pentium M processors up to 1.7 GHz
- ? Intel 855PM Chipset
- ? Intel PRO/Wireless 2100 network connection
- ? Integrated 10/100 NIC
- ? Integrated Bluetooth
- ? 15.4-inch WSXGA+ display
- ? ATI Mobility Radeon 9200 Graphics with 64MB DDR SDRAM
- ? Choice of DVD+RW or DVD/CD-RW optical drive
- ? As light as 2.948 kg weight, 3.45 cm thin
- ? 512MB DDR SDRAM (333MHz). 2 SODIMM slots available, upgradeable to 2 GB
- ? Up to 80GB 5400 rpm hard drive
- ? Full-size keyboard
- ? Three (3) USB 2.0
- ? Microsoft Windows Professional NOTE: Microsoft Windows 2000 Driver support via web.
- ? Includes a One-year, Worldwide Warranty. Certain restrictions and exclusions apply. Consult the HP Customer Support Centre for details.

What's Special

- ? Thin and Wide design with 15.4-inch widescreen!
- ? Intel Centrino Technology
- ? Performance graphics ATI Mobility Radeon 9200 with dedicated 64MB DDR SDRAM

Overview Standard Features Options Memory Storage TechSpecs

Standard Features

Processors and Chipset One of the following:

1.7GHz on Intel Pentium M processor with 400MHz Front Side Bus and 1MB L2 cache 1.6GHz on Intel Pentium M processor with 400MHz Front Side Bus and 1MB L2 cache

Chipset: Intel 855PM

NOTE: Pentium M processors support enhanced Intel SpeedStep™ technology.

Panel

Internal Support 15.4-inch colour TFT WSXGA+ with 1680 x 1050 resolution (up to 16.7M

colours internal)

External Support Up to 32-bit per pixel colour depth

Supports external VGA display: 640x480, 800x600, 1024x768, 1152x864, 1280x800, 1280x1024, 1680x1050, 1600x1200, 1792x1344, 1800x1440, 1920x1200, 1920x1440, 2048x1536 resolutions up to 160-Hz refresh rate, dependent upon monitor capability, resolution and colour depth settings.

Memory

Standard/Maximum 512MB (333MHz) DDR SDRAM (512MB SODIMM in slot 1)

2048MB (333MHz) DDR SDRAM (1024 MB SODIMMs in slots 1 and 2)

NOTE: Due to the non-industry standard nature of some third-party memory modules, we recommend

HP branded memory to ensure compatibility.

NOTE: 2 memory slots user accessible-one on the base, one underneath the keyboard deck.

Communications

Integrated 10/100 NIC 56K (V.92) modem

NOTE: Designed only to allow faster downloads from V.92 compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions.

NOTE: Modem availability is subject to country regulatory approval

Wireless Devices

Integrated wireless LAN - Wi-Fi certified and with Cisco Compatible Extensions support Intel PRO/Wireless 2100 (802.11b) network connection - Intel Centrino mobile technology, up to

11mbps throughput performance.

Integrated Bluetooth - designed to the Bluetooth v1.1 specification

NOTE: Wireless On/Off button – required by the FAA is located on front of unit

Keyboard

The 101/102-key compatible keyboard features an industry standard, full-width layout with desktop keyboard features, such as the isolated inverted-T cursor control keys, 3x2 editing keys, both left and right control and alt keys, and 12 function keys. The US layout has 84 keys and the International layout 85 keys. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, volume, brightness, and other features, 19.05 mm x 19.05 mm key pitch (centre-to-centre spacing), 2.5 mm stroke, comfort-dished keycaps, and bright key legends for improved visibility

in low light conditions.

Pointing Device

Touch pad with on/off button and dedicated scroll up/down surface

PC Card Slots

One Type II PC Card Slot which support both 32-bit CardBus and 16-bit PC Cards

Flash Media Slots

One integrated Secure Digital (SD) slot

Storage

Primary Hard Dive 80-GB 5400 rpm Hard Drive or

60-GB 5400 rpm Hard Drive

Optical Drives DVD+RW or

DVD-CD-RW combo

Multimedia

JBL Pro Speakers and 16-bit stereo sound Dedicated hardware volume controls

Headphone-out port Microphone-in port Software MPEG1 support DVD movie playback software DVD+RW Drive (on select models)

DVD/CD-RW combo drive (on select models)

4X AGP graphics 64MB of VRAM

Interfaces

PC Card One Type II

Enhanced Parallel

EPP/ECP

1 (can be used to connect external parallel diskette drive)

VGA

Port Replicator 1 (Basic Port Replicator only)

Headphone/Line-out 1
Microphone-in 1
DC Power 1
RJ-11 (modem) 1
RJ-45 (NIC) 1

Infrared Port 1 (4 Mb/s support)

(IrDA 4 MB compliant. IR performance will vary depending on performance

of IR peripherals and application used.)

USB 2.0 3
1394 1
LED status indicators 8

Graphics

ATI Mobility Radeon 9200, 64-bit video graphics with 64MB dedicated memory

Operating System

Microsoft Windows XP Professional, (requires 256MB of memory minimum)

NOTE: Microsoft Windows 2000 Driver support via web

Software

Preinstalled software

WinDVD 5.0 DVD Player (on DVD, DVD/CDRW & DVD+RW models)
Roxio Easy CD Creator 6 (on DVD/CDRW, DVD+RW models)

Adobe Acrobat Reader 6 Symantec Norton Anti-Virus 2003 HP Mobile Printing Driver HP Help and Support (XP only) Synaptics Touchpad Driver

Microsoft Office 2003 Applications on select models

NOTE: Symantec Norton Antivirus 2003 (Complimentary 60 days Live Update)

Software provided on CD

Intervideo WinDVD Creator 2.0 (on DVD+R/RW) models

Additional software available from the Web

Microsoft Windows 2000 Driver support ATI POWERPLAY (BIOS update)

System Recovery

Each unit is shipped with a recovery CD kit containing Operating System Recovery and Driver/Application Recovery CDs. These CDs allow users to either recover or repair the notebook operating system and select drivers without losing personal data. The Operating System CD also provides the option of reinstalling the operating system software provided with the notebook. (NOTE: This option erases the hard disk and restores the base operating system. Drivers and applications are installed using the other CDs provided with the kit.)

Security

Power-on Password

Kensington MicroSave security slot; accepts 3rd party security lock devices.

Power Supply

65-Watt adapter

External AC adapter, 6-foot/1.8-meter power cord included. Total length including External AC adapter is 12 feet/3.66 meters

Battery

The HP Compaq Business Notebook nx7010 provides up to 5 hours of battery life using the standard 8-cell Lithium-lon battery.

Battery Re-Charge Time Sys

System in OFF mode or Standby

2 hours

System ON (depending on system power consumption) 2-5 hours

NOTE: Actual results may vary with product model, configuration, and individual usage. Hewlett-Packard testing of a HP Compaq Business Notebook nx7010 with an Intel Pentium M 1.5 GHz CPU, Windows XP Pro, 15.4-inch WSXGA+ LCD, 256-MB RAM, 60-GB HDD, Lithium-Ion battery, and NIC/modem, achieved an overall Business Winstone 2002 BatteryMark score of 5h 25m Business Winstone 2002 BatteryMark Version 1.0 units. Winstone is a registered trademark and BatteryMark™ is a trademark of Ziff Davis Publishing Holdings Inc. in the U.S. and other countries. Copyright 2002 Ziff Davis Media Inc. All Rights Reserved. System parameters followed test recommendations: panel brightness 50%, wireless turned off (802.11 and Bluetooth), power management scheme - Laptop/Portable, hard drive, standby and video timers set to never.

NOTE: 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 Hibernation

Instant-on via Standby Pop-ups with six presets

Supports enhanced Intel SpeedStep Technology (which allows Battery Optimized Mode, Maximum

Performance Mode, or Automatic mode)

ACPI compliant

Docking Port Replicator

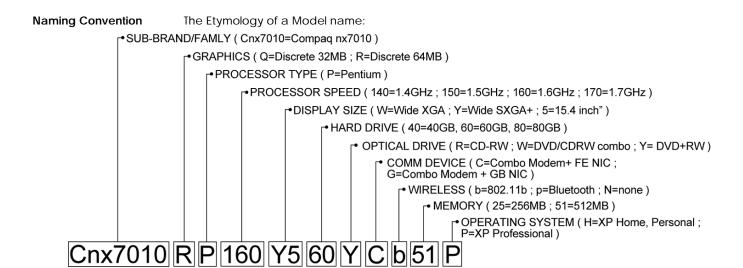
The sleek port replicator provides simple and convenient port management.

NOTE: Supports all connectivity ports pass through except DVI.

Service and Support HP Services includes a one-year, Worldwide Limited Warranty, including courier pick-up from

anywhere in Australia, with a 48-hour service workshop turnaround repair time.

NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.



Models

Cnx7010P160W560WCi51P	Processor	Intel Pentium-M processor 1.6GHz with 400MHz Front Side Bus		
DU687P#ABG	Display	15.4-inch colour TFT WSXGA+ with 1680 x 1050 resolution (up 16.7M colours internal)		
	Cache Memory	1MB L2 Cache		
	Memory	Standard 512MB 333MHz DDR SDRAM		
		Maximum 2GB (333MHz) DDR SDRAM (1GB SODIMMs in slots 1 and 2)		
	Hard Drive	60GB 5400 rpm		
	Graphics	ATI Mobility Radeon 9200, 64-bit video graphics		
	Video Memory	64MB VRAM		
	Optical Drive	24X DVD-ROM/CD-RW Combo Drive		
	Flash Media Slots	One integrated Secure Digital (SD) slot		
	Audio	JBL Pro Speakers and 16-bit stereo sound		
	Communications	Integrated 10/100 NIC 56K (V.92) modem MiniPCI Intel 802.11b Wireless LAN		
	Pointing Device	Touch pad with on/off button and dedicated scroll up/down surface		
	Operating System	Microsoft Windows XP Professional		
	Battery	8-cell Lithium Ion 4.4A Battery		
	Warranty	One year		
Cnx7010P170W580YCi51P	Processor	Intel Pentium-M processor 1.7GHz with 400MHz Front Side Bus		
DU688P#ABG	Display	15.4-inch colour TFT WSXGA+ with 1680 x 1050 resolution (up 16.7M colours internal)		
	Cache Memory	1MB L2 Cache		
	Memory	Standard 512MB 333MHz DDR SDRAM		
		Maximu 2GB (333MHz) DDR SDRAM (1GB SODIMMs in slots 1 m and 2)		
	Hard Drive	80GB 5400 rpm		
	Graphics	ATI Mobility Radeon 9200, 64-bit video graphics		
	Video Memory	64MB VRAM		
	Optical Drive	DVD+RW Drive		
	Flash Media Slots	One integrated Secure Digital (SD) slot		
	Audio	JBL Pro Speakers and 16-bit stereo sound		
	Communications	Integrated 10/100 NIC 56K (V.92) modem MiniPCI Intel 802.11b Wireless LAN		
	Pointing Device	Touch pad with on/off button and dedicated scroll up/down surface		
	Operating System	Microsoft Windows XP Professional		
	Battery	8-cell Lithium Ion 4.4A Battery		
		One year		

Overview Standard Features Options Memory Storage TechSpecs

Options

USB 1.1 Diskette Drive	Storage	HP 5GB PC Card	DF928A
SD Card Memory (256MB)	J	USB 1.1 Diskette Drive	DC361A
SD Card Memory (512MB) FA184A#AC3		SD Card Memory (128MB)	FA135A#AC3
Memory 256MB (333MHz) DDR RAM Memory Upgrade 512MB (333MHz) DDR RAM Memory Upgrade DC390B 1024MB DDR RAM (333MHz) Memory Upgrade DC890B DC390B DC390B DC890B Expansion Basic Port Replicator (USB 2.0) DC367B#ABG Power Primary Battery Pack (8-cell) DG103A 65W 3-wire AC Adapter DC359A 90W Auto/Truck Adapter DC303B 90W Air Cables DC899A DC359A DC303B DC303B DC303B DC303B DC309A Carrying Cases HP Global Case HP Portfolio Case BC4-371 HP Silmilne Value Case BC4-371 HP Leather Case BC4-371 HP Leather Case BC350B Security Cable Lock DC350B Security Cable Lock DC36BA DC859A DC350B DC36BA DC36BA DC36BA DC852A#ABA USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A		SD Card Memory (256MB)	FA136A#AC3
Table Tabl		- · · · · · · · · · · · · · · · · · · ·	FA184A#AC3
DC890B	Memory	256MB (333MHz) DDR RAM Memory Upgrade	DC389B
Expansion Basic Port Replicator (USB 2.0) DC367B#ABG Power Primary Battery Pack (8-cell) DG103A 65W 3-wire AC Adapter DC359A 90W Auto/Truck Adapter DC303B 90W Air Cables DC899A Carrying Cases HP Global Case 336261-371 HP Portfolio Case 336263-371 HP Slimline Value Case 336264-371 HP Leather Case 336264-371 HP Leather Case DC30B Security PC Card Biometrics ID Device DC350B Security Cable Lock DC36BA Input/Output Devices External 10-Key Numeric Keypad (PS/2) DC854A USB/PS2 Keyboard USB/PS2 Mouse DC369A		512MB (333MHz) DDR RAM Memory Upgrade	DC390B
Power Primary Battery Pack (8-cell) DG103A 65W 3-wire AC Adapter DC359A 90W Auto/Truck Adapter DC303B 90W Air Cables DC899A Carrying Cases HP Global Case 336261-371 HP Portfolio Case 336263-371 HP Slimline Value Case 336264-371 HP Leather Case 336265-371 Security PC Card Biometrics ID Device DC859A PC Card Smart Card Reader DC350B Security Cable Lock DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) DC852A#ABA USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A		1024MB DDR RAM (333MHz) Memory Upgrade	DC890B
Adapter	Expansion	Basic Port Replicator (USB 2.0)	DC367B#ABG
Power Powe	Power	Primary Battery Pack (8-cell)	DG103A
POW Air Cables DC899A		65W 3-wire AC Adapter	DC359A
Carrying Cases HP Global Case 336261-371 HP Portfolio Case 336263-371 HP Slimline Value Case 336264-371 HP Leather Case 336265-371 Security PC Card Biometrics ID Device DC859A PC Card Smart Card Reader DC350B Security Cable Lock DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) DC852A#ABA USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A		90W Auto/Truck Adapter	DC303B
HP Portfolio Case 336263-371 HP Slimline Value Case 336264-371 HP Leather Case 336265-371 Security PC Card Biometrics ID Device DC859A PC Card Smart Card Reader DC350B Security Cable Lock DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A		90W Air Cables	DC899A
HP Slimline Value Case 336264-371 HP Leather Case 336265-371 Security PC Card Biometrics ID Device PC Card Smart Card Reader PC Card Smart Card Reader Security Cable Lock DC350B Security Cable Lock DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) USB/PS2 Keyboard USB/PS2 Mouse DC369A	Carrying Cases	HP Global Case	336261-371
HP Leather Case Security PC Card Biometrics ID Device PC Card Smart Card Reader PC Card Smart Card Reader Security Cable Lock DC350B Security Cable Lock DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) USB/PS2 Keyboard USB/PS2 Mouse DC369A		HP Portfolio Case	336263-371
Security PC Card Biometrics ID Device PC Card Smart Card Reader Security Cable Lock DC350B Security Cable Lock DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) USB/PS2 Keyboard USB/PS2 Mouse DC369A		HP Slimline Value Case	336264-371
PC Card Smart Card Reader Security Cable Lock DC350B DC368A Input/Output Devices External 10-Key Numeric Keypad (PS/2) USB/PS2 Keyboard USB/PS2 Mouse DC350B DC350B DC368A DC368A		HP Leather Case	336265-371
Input/Output Devices External 10-Key Numeric Keypad (PS/2) USB/PS2 Keyboard USB/PS2 Mouse DC368A DC854A DC854A DC852A#ABA DC369A	Security	PC Card Biometrics ID Device	DC859A
Input/Output Devices External 10-Key Numeric Keypad (PS/2) DC854A USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A	-	PC Card Smart Card Reader	DC350B
USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A		Security Cable Lock	DC368A
USB/PS2 Keyboard DC852A#ABA USB/PS2 Mouse DC369A	Input/Output Devices	External 10-Key Numeric Keypad (PS/2)	DC854A
	-		DC852A#ABA
HP USB Travel Mouse (optical scroll mouse) F4815A		USB/PS2 Mouse	DC369A
		HP USB Travel Mouse (optical scroll mouse)	F4815A

<u>Overview</u> <u>Standard Features</u> <u>Options</u> <u>Memory</u> <u>Storage</u> <u>TechSpecs</u>

Memory

HP Compaq Business Notebook nx7010 thin and wide

Standard Memory

0-MB of memory on system board, 2 Slots total

1-512-MB DIMM installed in Slot 1

1-Additional open Memory Slot (Only 1 slot user accessible)

(NOTE: 2 slots user accessible-one on the base and one underneath the keyboard deck)

Memory	Slot 1	Slot 2
512MB	512MB	Empty

Standard Memory Plus Optional Memory

Support for up to 2048-MB of DDR SDRAM memory is available with the installation of optional DDR SDRAM Memory Kits.

Memory	Slot 1	Slot 2
256 MB	256 MB	
384 MB	256 MB	128 MB
512 MB	512 MB	
768 MB	512 MB	256 MB
1024 MB	512 MB	512 MB
1024 MB	1024 MB	
2048 MB	1024 MB	1024 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 HP branded memory modules to ensure compatibility.

Following are memory options available from HP:

? 1024MB (333MHz DDR SDRAM Memory Upgrade DC890B

? 512MB (333MHz) DDR SDRAM Memory Upgrade DC390B

? 256MB (333MHz) DDR SDRAM Memory Upgrade DC389B

<u>Overview</u> <u>Standard Features</u> <u>Options</u> <u>Memory</u> <u>Storage</u> <u>TechSpecs</u>

Storage

Drive Support

System Drive Support	Quantity Supported	Drive Bay Supported
Removable Media		
DVD+RW	1	Dedicated
DVD/CD-RW Combo Drive	1	Dedicated
DVD-ROM Drive	1	Dedicated
CD-ROM Drive	1	Dedicated
Hard Drives		
80-GB Hard Drive	1	Dedicated hard drive bay
60-GB Hard Drive	1	Dedicated hard drive bay
40-GB Hard Drive	1	Dedicated hard drive bay
30-GB Hard Drive	1	Dedicated hard drive bay

Overview Standard Features Options Memory Storage TechSpecs

TechSpecs

System Unit Dimensions (HxWxD) 15.4-inch TFT panel display 3.45 x 35.56 x 25.4 cm (1.36 x 14.0 x 10.0 inch)

Weight 15.4-inch LCD, CD-RW, 6.5 lbs (2.948 kg)

DVD or CD. 1 SODIMM

NOTE: * = Weight varies by configuration.

Stand-Alone Power Nominal Operating 14.4 V (8-cell)

Requirements Voltage (Li-lon)

Average Operating Power 15.8 W
Peak Operating Power 38W
Power in suspend mode < 800 mW
Power in hibernation < 100 mW

mode

Power Supply Rated Input Voltage 100 to 240 VAC (auto-switching)

Rated Input Current 1.3A

Rated Frequency 50 to 60 Hz

Temperature Operating 50° to 95° F (10° to 35° C)

Non-operating 14° to 140° F (-10° 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 wetbulb temperature

Shock Operating 10 G, 11 ms, half-sine

Non-operating 60 G, 11 ms, half-sine

VibrationOperating0.5 G zero-to-peak, 10 to 500 Hz, 0.25 oct/min

sweep rate

Non-operating 1.0 G, zero-to-peak, 10 to 500 Hz, 0.5 oct/min

sweep rate

Maximum AltitudeOperating0 to 10,000 ft (0 to 3,048 m)(unpressurized)Non-operating0 to 30,000 ft (0 to 9,144 m)

15.4-Inch Colour TFT WSXGA Display with wide viewing angle

Dimensions (H x W) 33.1 x 20.7 cm (13.0 x 8.1 in)

Diagonal Size 39.1 cm (15.4 in)

Internal Panel Supports, Side Mounted Mounting

Number of Colours Up to 16.8M

Contrast Ratio 200:1 **Brightness** 180nt typ

Pixel Resolution Pitch 0.193 mm **Format** 1680 x 1050

Configuration RGB stripe

Backlight Edge Lit 80 x 25 Character Display

Viewing Angle +/-65° degrees Horizontal, +/- 50° Vertical (typical)

Hard Drives

80-GB (5400 rpm) **Drive Weight** 0.22 lb (99 g)

> Capacity 80 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 (typical reads, including

settling)

Maximum

3 ms 13 ms 24 ms

Rotational Speed 5400 rpm

156,301,488 **Logical Blocks**

Operating Temperature 41° to 131° F (5° to 55° C)

Features Security **ATA Security**

Single Track

Average

60-GB (5400 rpm) **Drive Weight** 0.22 lb (102 g)

> Capacity 60 GB

0.374 in (9.5 mm) Height Width 2.75 in (70 mm)

Interface ATA-5

Transfer Rate Synchronous (maximum) 100 MB/s (Drive Capability)

> Security **ATA Security**

Seek Time (typical reads, including

settling)

Single Track 3 ms Average 13 ms Maximum 24 ms

Rotational Speed 5400 rpm **Logical Blocks** 117,210,240

Operating Temperature 41° to 131° F (5° to 55° C)

Features Security ATA Security

External AC Adapter without Power Faction Weight 0.65 lb (0.29 kg) (adapter)

0.29 lb (0.13kg) (power cord)

Correction	Power Supply (Input)	Operating Voltage Operating Current Operating Frequency Range Maximum Transient	100 to 240 VAC RMS 1.7 A RMS 47 to 63 Hz AC 4/50 kV
Lithium-Ion Battery Pack (8-cell)	Dimensions (L x W x D) Weight	5.25 x 3.63 x 0.75 in (13.4 x 9.2 x 1.9 cm) 0.96 lb (0.43 kg)	
	Energy	Voltage Amp-hour capacity Watt-hour capacity	14.8 V Typical 4.4 Ah Typical 64 Wh
	Temperature	Operating Non-operating	32° to 140° F (0° to 60° C) -4° to 140° F (-20° to 60° C)

DVD+RW Drive	Access Times	Random	CD	<175 ms		
			DVD	<230 ms		
		Full Stroke	CD	<285 ms		
			DVD	<335 ms		
	Maximum data transfer rate	24X - CD-ROM	3600 KB/s			
		8X - DVD	10,800 KB/s			
		16X - CD-R	2400 KB/s			
		8X - CD-RW	1200 KB/s			
		2X - DVD+R	2700 KB/s			
		2X - DVD+RW	2700 KB/s			
	Transfer Mode	Multiword DMA Mode 2				
	Interface	EIDE				
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW				
	Supported Media (write)	CD-R, CD-RW, DVD+	R, DVD+RW			
	Maximum Media Capacity (read)	4.7 GB				
	Maximum Media Capacity (write)	4.7 GB				
	Transport	tray loading				
24X DVD/CD-RW Combo	Access Times	Random	CD	<110 ms		
24X DVD/CD-RW Combo Drive	Access Times		CD DVD	<110 ms <130 ms		
	Access Times					
	Access Times		DVD	<130 ms		
	Access Times Maximum data transfer		DVD CD	<130 ms <210 ms		
		Full Stroke	DVD CD DVD	<130 ms <210 ms		
	Maximum data transfer	Full Stroke 24X - CD-ROM	DVD CD DVD 3600 KB/s	<130 ms <210 ms		
	Maximum data transfer	Full Stroke 24X - CD-ROM 8X - DVD	DVD CD DVD 3600 KB/s 10,800 KB/s	<130 ms <210 ms		
	Maximum data transfer	Full Stroke 24X - CD-ROM 8X - DVD 24X - CD-R	DVD CD DVD 3600 KB/s 10,800 KB/s 3600 KB/s	<130 ms <210 ms		
	Maximum data transfer rate	Full Stroke 24X - CD-ROM 8X - DVD 24X - CD-R 10X - CD-RW Multiword DMA	DVD CD DVD 3600 KB/s 10,800 KB/s 3600 KB/s	<130 ms <210 ms		
	Maximum data transfer rate Transfer Mode	Full Stroke 24X - CD-ROM 8X - DVD 24X - CD-R 10X - CD-RW Multiword DMA Mode 2 EIDE CD-DA, CD+(E)G, C CD, CD-I, CD-I Bridg CD-EXTRA, Portfolio,	DVD CD DVD 3600 KB/s 10,800 KB/s 3600 KB/s 1500 KB/s	<130 ms <210 ms <225 ms ROM, CD-ROM XA, MIXED MODE D), Multisession CD (Photo-CD, CD-RW, DVD-ROM (DVD-5, DVD-		
	Maximum data transfer rate Transfer Mode Interface	Full Stroke 24X - CD-ROM 8X - DVD 24X - CD-R 10X - CD-RW Multiword DMA Mode 2 EIDE CD-DA, CD+(E)G, C CD, CD-I, CD-I Bridg CD-EXTRA, Portfolio,	DVD CD DVD 3600 KB/s 10,800 KB/s 3600 KB/s 1500 KB/s D-MIDI, CD-TEXT, CD-Fe (Photo-CD, Video CCD-R, CD-RW), CD-R,	<130 ms <210 ms <225 ms ROM, CD-ROM XA, MIXED MODE D), Multisession CD (Photo-CD, CD-RW, DVD-ROM (DVD-5, DVD-		
	Maximum data transfer rate Transfer Mode Interface Supported Media (read)	Full Stroke 24X - CD-ROM 8X - DVD 24X - CD-R 10X - CD-RW Multiword DMA Mode 2 EIDE CD-DA, CD+(E)G, C CD, CD-I, CD-I Bridg CD-EXTRA, Portfolio, 9, DVD-10, DVD-18),	DVD CD DVD 3600 KB/s 10,800 KB/s 3600 KB/s 1500 KB/s D-MIDI, CD-TEXT, CD-Fe (Photo-CD, Video CCD-R, CD-RW), CD-R,	<130 ms <210 ms <225 ms ROM, CD-ROM XA, MIXED MODE D), Multisession CD (Photo-CD, CD-RW, DVD-ROM (DVD-5, DVD-		
	Maximum data transfer rate Transfer Mode Interface Supported Media (read) Supported Media (write) Maximum Media	Full Stroke 24X - CD-ROM 8X - DVD 24X - CD-R 10X - CD-RW Multiword DMA Mode 2 EIDE CD-DA, CD+(E)G, C CD, CD-I, CD-I Bridg CD-EXTRA, Portfolio, 9, DVD-10, DVD-18), CD-R, CD-RW	DVD CD DVD 3600 KB/s 10,800 KB/s 3600 KB/s 1500 KB/s D-MIDI, CD-TEXT, CD-Fe (Photo-CD, Video CCD-R, CD-RW), CD-R,	<130 ms <210 ms <225 ms ROM, CD-ROM XA, MIXED MODE D), Multisession CD (Photo-CD, CD-RW, DVD-ROM (DVD-5, DVD-		

Audio Features SoundMAX

Wavetable Synthesis

of Voices Up to 1024 (CPU dependent)

of MIDI Channels 10

Max. Sound Set Size Unlimited (host RAM dependent)

Sound Set Formats DLS (Level 1), XGlite

Bundled GeneralMIDI Sound Set(s) 1.2 MB XGlite

Built-In Effects Reverb and Chorus

Sound Blaster PRO Emulation Yes

3D Positioning / Environments

Formats Supported I3DL2 / DS3D 7 / EAX 2 / A3D 1
Environmental Acoustics EnvironmentFX (EAX compatible)

Additional 3D APIs MacroFX / ZoomFX

Standard HRTFs 2 Channel

Hardware

Implementation AC97 CODEC

Audio Signal Link to CPU Audio CODEC (AC) link

Full Duplex Ye

Stereo Inputs Line In - 20K Impedancefrom (with Port Replicator)

Mono Inputs Microphone - 20K Impedance

Stereo Outputs Analog, S/PDIF from Port Replicator only

Audio Output Quality

Frequency Response 20 Hz - 20 kHz

Signal to Noise Ratio >94dB
Total Harmonic Distortion 0.01%

Play/Record Sampling Rate(s) 7 kHz - 48 kHz

AD/DA Resolution 16 bit

Speakers JBL Pro

Amplifier Power 2-Watts RMS

Speaker Impedance 4-Ohms

Integrated Agere AC'97 Modem

Form Factor

Power Management

Support

Approvals/ Certifications MDC Daughtercard

APM Revision 1.2, ACPI

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.90 (a-law, mu-law)

V.8bis V.80

V.92

V44, V.42bis, 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

Command Set

TIA-578-S (Class 1)

T.30, T.4 (Group 3)

V.17 V.29 V.27ter

V.21 Channel 2 V.250 (Partial)

TIA-602

Identification: +GMI, +GMM, +GMR Port control: +IPR, +ICF, +IFC, +ILRR

Modulation: +MS, +MR, +MA

Error control: +ES, +ER, +EB, +ESR, +ETBM

Data compression: +DS, +DR

V.251

Intel PRO/Wireless 2100

WLAN

Form Factor Mini PCI Type 3B (model WM3B7100 AND WM3B2100)

Dual Diversity Antenna On-board dual diversity switching

Frequency Band 2.4 to 2.497 GHz

Modulation CCK, DQPSK, DBPSK

Wireless Medium 2.4 GHz ISM: Direct Sequence Spread Spectrum (DSSS)

Channels Full 14 Channel Support. Multinational support with frequency bands and

channels compliant to local regulations.

Data Rates 802.11b: 1, 2, 5.5, 11Mbps

 Indoor Range
 100 ft (30 m) @ 11Mbps/300 ft (90 m) @ 1 Mbps

 Outdoor Range
 400 ft (120 m) @ 11Mbps/1500 ft (460 m) @ 1 Mbps

Transmit Output Power 16 dBm (typical)

Operating Systems Microsoft Windows XP Professional

Microsoft Windows XP Home

Microsoft Windows 2000

WECA WiFi certification for 802.11b

WHQL Yes

WLAN Standard IEEE 802.11b

Architecture Infrastructure or ad hoc (peer-to-peer)

Roaming 802.11b compliant for seamless roaming between access points

Security LEAP, TKIP, 802.1x, EAP-TLS, 128-bit and 64-bit WEP

Integrated 10/100 NIC

Ethernet Features 10 Mbit/s operation (10BASE-T; IEEE 802.3; IEEE 802.3 clauses 13-14)

100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)

Auto-Negotiation (Automatic Speed Selection)
Full and Half Duplex operation at 10 and 100 Mbit/s

IEEE 802.1p QoS (Quality of Service) Support

IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)

Power Management ACPI compliant

Performance Features TCP / IP / UDP Checksum Offload (configurable)

Microsoft Large Send Offload (configurable)

TCP Segmentation Offload

CPU Task Offload

Manageability PXE Remote Boot

NIC Device Driver Name Realtek RTL8139 C+ Fast Ethernet NIC

Drivers Available Windows XP Windows 2000

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