

Portégé 620CT

Technical specifications



Processor

Model	Processor	Clock speeds
Portégé 620CT	Intel Pentium, 100 MHz (2.9-volt core using Voltage Reduction Technology)	100 MHz internally 66 MHz externally

System memory

Memory type	Amount (Access speed)	Data bus width
EDO RAM	8 MB (60 nanoseconds)	64-bit
Maximum memory expansion (all EDO)	40 MB (60 nanoseconds)	64-bit
BIOS Flash EPROM	128 KB (150 nanoseconds)	8-bit
Video RAM	1 MB (60 nanoseconds)	32-bit
Cache memory	16 KB on CPU chip (8 KB instructions + 8 KB write-back)	64-bit

Memory technology

Technology	3.3-volt
No. of expansion slots	1
Expansion module sizes	8 MB, 16 MB, 32 MB (all EDO RAM)

Memory map

Address	Size in KB	Usage
00000000 - 0009FFFF	640	System working memory
000A0000 - 000BFFFF	128	Video RAM area
000E0000 - 000EFFFF	64	Video BIOS (RAM shadow)
000F0000 - 000FFFFF	64	System BIOS (RAM shadow)
00100000 - rest of memory up to 40 MB		System extended memory
FFFE0000 - FFFEFFFF	64	SM-RAM in SM mode
0F0000 - 0FFFFF	64	System BIOS ROM

Floppy disk drive

Specification	High setting	Low setting
Media supported	3.5 inch 2HD	3.5 inch 2DD
Storage capacity	1.44 MB	720 KB
Rotation	300 rpm	300 rpm
Transfer rate	500 Kbit per second	250 Kbit per second
Bytes per sector	512	512
Sectors per track	18	9
Dimensions (W, L, H)	100 x 140 x 15 mm	
Weight	200 g	

Hard disk drive

Formatted capacity	1.35 billion bytes (1.257 GB)	
Data transfer rate to media	38.1 - 54.1 Mb/s/sec	
Average seek time	13 ms typical	
Track-to-track seek time	3 ms typical	
Drive rotation	4,200 rpm	
No. of disks	3	
No. of read/write heads	6	
Coding	8-9 RLL	
Bytes per sector	512	
Interleave	1:1	
Interface	ATA compatible task file (Enhanced IDE /ATA-2)	

Screen

Screen type	Active matrix colour TFT	
Number of dots	800 x 600	
Dot pitch	0.264 (H) x 0.264 (V) mm	
Display area	212.8 mm (H) x 160.0 mm (V)	
Diagonal	10.4 inch	
Contrast ratio	200:1 (typical)	
Colour palette	up to 262.144	
Response rise/fall	30 ms / 50 ms	
LCD brightness in AC op.	70 cd / m ²	
LCD brightness in battery op.	100 cd / m ²	

Graphics adaptor

Video display	Resolution	Max. refresh rate	Max. no. of colours
Internal display VGA	640 x 480	----	up to 16 colours
Internal display SVGA	640 x 480	----	up to 64 K colours
Internal display SVGA	800 x 600	----	up to 64 K colours
Dual display VGA*	640 x 480	60 Hz	up to 16 colours
Dual display SVGA*	640 x 480	60 Hz	up to 64 K colours
Dual display SVGA*	800 x 600	60 Hz	up to 64 K colours
External SVGA	640 x 480	75 Hz	up to 16.7 mill. colours
External SVGA	800 x 600	75 Hz	up to 64 K colours
External SVGA	1024 x 768	75 Hz	up to 256 colours

* Refresh rate of external monitor in dual display mode

Physical dimensions

Weight	Size (W, L, H)	Size (Inches)
2.2 kg	251 x 201 x 48 mm	(9.8" x 7.9" x 1.8")

Battery types

Main	Back-up	RTC
Lithium-Ion	NiH ₂	NiH ₂
3.6 V x 12.150 mAH	3.6 V x 120 mAH	3.6 V x 35 mAH

Resume battery back-up

Main	Back-up	RTC
4 -5 days (typical)	2 hours	1 month

Battery life

Maximum life	5.0 hrs. (PC Magazine's Rundown V2.0)
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AC adaptor

Input voltage	100 - 240 V AC, self-adjusting
Frequency	50 - 60 Hz
Output voltage	15 V
Output current	2.0 A
Power dissipation	30 W
Weight	340 g

Connectivity & expansion

PC ports	Port Replicator ports	Expansion
Serial	Serial	PC: 1 PC Card slot (PCMCIA) for 2 Type II cards or 1 Type III card
Parallel (ECP)	Parallel (ECP)	PC: Internal memory module slot
(S)VGA monitor via video plug	(S)VGA monitor	Port replicator
Port replicator connector	Notebook connector	
External FDD	External FDD	
Microphone	PS/2 mouse and PS/2 keyboard	
Headphone		

Sound system

16-bit, SoundBlaster Pro Compatible

Midi and Wave support

Built-in microphone and speaker (mono)

*Internal microphone is disabled, when an external microphone is connected to the system unit***Bundled software**

PCs with Microsoft Windows® 95

- Microsoft Windows® 95

- Toshiba utilities and drivers for Microsoft Windows® 95

- Hypertext on-line manual (Portégé 620CT User's Manual)

- Hypertext on-line help (User's Guide for Microsoft Windows® 95)

If you require PCs with MS-DOS & MS Windows for Workgroups

- MS-DOS and MS Windows for Workgroups

- Toshiba utilities and drivers for MS Windows for Workgroups

- PC Card and Socket services

- Hypertext on-line manual (Portégé 620CT User's Manual)

- Hypertext on-line manual (MS Windows for Workgroups)

- Hypertext on-line help (User's Guide for MS Windows for Workgroups)

Other Microsoft operating system on request

Environmental conditions

	Operating	Non-operating
Temperature	5° C to 35° C	-20° C to 65° C
Thermal Gradient	20° C/hour	20° C/hour
Relative Humidity	20% to 80% non-condensing	10% to 90% non-condensing
Altitude (relative to sea level)	-60 to 3,000 m * (-200 to 10,000 feet) *	-60 to 10,000 m (-200 to 30,000 feet)
Shock	10 G	60 G
Vibration	0.5 G	1 G

* Aeroplane cabin pressures simulate low altitudes, so flying higher causes no restrictions

Certification

This product is approved regarding electrical safety and/or electromagnetic compatibility (EMC) by the following associations:

TÜV

FIMKO

DIN GOST TÜV

SEV

UL

CSA

FCC

SASO

SAA

The manufacturer declares that this product and/or related equipment and options complies with the following directives or regulations requested for CE-marking:

93/68/EEC CE marking directive

89/336/EEC EMC directive

73/23/EEC Low voltage directive

EN 60950 Electrical safety

EN 55022 B EMC / Radio disturbances

EN 50082-1 EMC / Immunity

EN 60555,-2,-3 Disturbances in supply systems

Portégé 620CT

Features & Benefits



	Feature	Benefit
Microprocessor	Intel Pentium 100 MHz	Provides high power performance, 64-bit external bus to cope with the most advanced software applications and GUIs Faster processing of maths-intensive applications
	Integrated numeric co-processor 16 KB integrated cache 2.9-volt core technology	Speeds up transfer of data between CPU and memory Reduces the amount of power consumed and heat generated
Size & Weight	Compact notebook size	Most advanced technology implemented in an extreme light and compact notebook will allow customers to take their desktop replacement easily with them.
Keyboard	84-key keyboard 8 cursor keys 12 function keys and embedded keypad 8 hot keys	3 mm travel ensures faster, more comfortable data entry Allow fast, convenient cursor positioning Provide desktop keyboard functionality and greater productivity Allow users to change set-up features and use HotLock security direct from the keyboard
	Palm-rest for hands	Allows easy comfortable typing, even where there is no flat surface even in a small size notebook
	Key pitch	17 mm key pitch gives the feeling of a full-size keyboard
Display	Active matrix TFT colour screen	Excellent screen technology implemented in ultra portable computer enhances mobile multimedia within a compact size
	26.4 cm (10.4")	Comfortable working size Perfect for presentation graphics and all Windows-based applications Large screen size allows working with multiple windows
	Adjustable viewing angle up to 180°	Provides greater viewing comfort
Hard disk drive	1.35 billion byte hard disk drive	Provides highest industry standard storage capacity for multiple programs and data
	≤ 13 ms average access time and 1:1 interleave	Fast access to programs and data stored on hard disk
	Low-power consumption modes	Maximise battery operating life

	Feature	Benefit
Graphics sub-system	High end video controller	Excellent for smoother viewing of presentations or for work with design or DTP programs in the office
	Graphics adaptor	64K colours at up to 800 x 600 dot resolution internally and up to 16.7 million colours externally
	Local-bus video	Speeds up the transfer of data to screen creating faster images and clearer video
	Video graphics accelerator	Ensures that graphics are generated quickly on screens to take advantage of Graphical User Interfaces such as Windows
	Dual display mode	Allows user to show data and presentations to colleagues or customers while controlling the procedure from internal screen and keyboard.
Memory	Standard 8 MB EDO RAM	8 MB is the necessary amount of RAM to run powerful, memory intensive software and operating systems at a comfortable speed
	128 KB Flash EPROM	Flash EPROM allows users to quickly update BIOS if necessary without returning machine to supplier
	Shadow ROM	Enhances computer performance
	8 MB, 16 MB, or 32 MB memory modules (optional)	Faster manipulation of software and data stored in memory User can upgrade memory when the need arises
External FDD drive	3.5" diskette drive	Reads from and writes to 3.5" 720 KB and 1.44 MB diskettes Automatic media sensor function supported
Pointing device	Integrated MousePoint pointing device with buttons built into palm-rest	Easy to use Precise control of cursor No protruding extras when travelling No danger of damage due to dirt
Sound	SoundBlaster Pro compatible	SoundBlaster Pro compatible sound system enriches Windows based multimedia presentations External microphones or headphones can be used to enlarge usage of sound capability Volume control latch at notebook side allows exact adjustment of sound output
Interfaces	SVGA colour monitor port via adapter block	Provides high-resolution (up to 1,024 x 768 dots) display of colour and graphics on external monitor
	Parallel (ECP) port	Allows use of peripheral devices accepting parallel signals Permits easy and rapid data exchange with external devices (e.g. printer, file data)
	Serial port	A serial mouse can be attached to the serial port Allows transmission of files between many types of devices incl. PCs, printers, PDAs, modems, telephones
	External FDD port	Allows easy use of external FDD drive No additional weight if FDD is not used Small, elegant design
	Port replicator connector	Provides an instant connection to all ports hooked up to base and the additional PC Card slots

	Feature	Benefit
Expansion slots	2 Type II or 1 Type III PC Card slots (PCMCIA 2.0)	Provides mobile communication and expansion in a credit-card-sized format Can be used for a wide range of communication and expansion modules such as modems, network adaptors, flash memory cards and removable hard disks
Design	Ultra notebook design Rugged ABS casing	Provides the speed, power and expandability of a high performance desktop in a lightweight, go-anywhere form Tough enough to take the knocks of life on the road Colour is integrated into material so casing doesn't require painting and there is no danger of paint peeling or scratching
Power system	Lightweight removable, re-chargeable Li-Ion battery pack Toshiba MaxTime Power Management (MTPM) Advanced Power Management (APM) Intelligent power supply with battery "gas gauge," invoked through pop-up menu System reset button	Environmentally friendlier to dispose of than nickel cadmium Offers extremely long battery life Safe battery technology Allows user to specify when power-hungry components should be shut down to make most efficient use of available battery power Determines power needs by communicating with APM compatible software and passing on information to MTPM Provides easy access for monitoring battery life Allows rebooting without cycling power and without keyboard use (functions even when keyboard is closed)
Multiple security system	System password security HotLock security Kensington MicroSaver provision	Stops unauthorised access to data and software when power is switched on Instant security with a screen blank and keyboard/mouse lock-out using the F1 hot key Hardware-based theft prevention. The computer can be physically secured to an immovable object.
Special features	Flash EPROM Plug and Play BIOS AutoResume with AutoSave Pop-up menu Hot keys LED icon bar	Allows end user to easily update BIOS if needed Ready for Windows® 95 Allows you to turn the notebook off without exiting from software application; powers-up where you left off. AutoSave provides security against possible data loss due to loss of battery power. Lets you change the configuration options and monitor the battery power level Allow users to change various system configuration options any time, at the press of a key Users can see the status of the machine
Toshiba support	3-year International Warranty	Provides confidence that the notebook will give lasting, reliable performance

Options	Feature	Benefit
	8 MB, 16 MB and 32 MB EDO memory modules	Convenient, easy-to-install memory expansion for memory-intensive software applications EDO memory expansion kits are readily available
	Extra battery pack Quick battery charger	Increases battery life while on the road One battery can be charged using the quick battery charger while the other is in use to extend overall operating time
	High-speed PC Card modem (PCMCIA) Carrying case with shoulder strap Key caps for European languages Port Replicator	Provides easy access to information world-wide Provides convenient space for computer, manuals, diskettes, file folders and other personal belongings Users in virtually all countries work with most familiar set of keys Connects to the back of the Portégé 620CT, providing Plug-and-Play connectivity and PC Card expansion Allows customers to leave everything connected in the office, and reconnection in one easy clip-on movement Locks into place with special hooks: very stable Includes a complete row of port options: PS/2 mouse, PS/2 keyboard, RGB, serial, parallel, FDD port Let you connect all your computers to one network
	PC Card (PCMCIA) Ethernet adaptor	

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Options



	PA Number	Article
Memory	PA2031U	8 MB memory kit
	PA2032U	16 MB memory kit
	PA2034U	32 MB memory kit
Keyboard	PA2213GR	Keycaps for German keyboard
	PA2213FR	Keycaps for French keyboard
	PA2213SC	Keycaps for Scandinavian keyboard
	PA2213SL	Keycaps for Swiss keyboard
	PA2213IT	Keycaps for Italian keyboard
	PA2213SP	Keycaps for Spanish keyboard
	PA2213EN	Keycaps for English keyboard
Power	PA2489UR	Li-Ion battery pack
	PA2482UY	Battery charger
	PA2438UE	AC Adaptor
Expansion	PA2703R	Port Replicator
	PCE2-10BC	PC Card Ethernet adaptor
Mobility	2713372PHI	Carrying case
