Press Release

Toshiba's new T1950 Series: High speed and impressive graphics for everyday use

**Neuss,
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Toshiba's new T1950 notebook PCs offer users an unprecedented combination of fast processing, superior graphics and sophisticated power management – making them ideal tools for the professional who wants real speed when using Windows and other GUI platforms.

Revolutionary new processors

The three models in the T1950 line are an extension of Toshiba's affordable 'Standard Notebook' range, and are the first Toshiba notebooks to be powered by Intel's revolutionary new SL Enhanced i486 DX2 40 MHz processors. Developed by Intel for mobile PC manufacturers, the processors have an external clock speed of 20 MHz, but run at 40 MHz internally, delivering important new speed benefits. They also run at 3.3-volts and include the best of Intel's SL power-saving features while leaving the details of power management implementation to proprietary systems, such as Toshiba's MaxTime™.

"We congratulate Toshiba for being a market leader in delivering high performance, value-priced notebooks using the SL Enhanced i486DX2 microprocessor," says Mike Aymar, Vice President and General Manager of the Mobile Computer Group at Intel Corp. "This product demonstrates Toshiba's commitment to using the latest Intel CPU technology in high-quality mobile computers."

Superior graphics

Toshiba has made every effort to give the T1950 range the most impressive graphics capabilities on the market. Recognising the increasing demand for colour displays, the range offers two colour models in addition to a monochrome version.

The top-of-the-range T1950CT boasts a state-of-the-art, low-power, active-matrix TFT display capable of delivering 256 colours simultaneously. The

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T1950CS comes with a 16-colour, Advanced STN, passive-matrix colour display, and the T1950 monochrome model has a black-and-white Advanced STN LCD display delivering 16 grey scale VGA resolution. Both STN screens are new generation displays which are faster than previous models and offer higher contrast (and, in the case of the T1950CS, richer colours).

All three models benefit from an integrated graphics accelerator which provides greater speed when running Windows software. In addition, the graphics capabilities of the T1950CT have been further enhanced through the implementation of Vesa local bus technology (VL-bus), significantly speeding up the transfer of video signals from the CPU to the graphics controller.

On an external VGA monitor the graphics abilities of the T1950CT reach the top of what is currently available. Its advanced video drivers enable it to drive an external monitor at up to 256 colours at an SVGA resolution of 1024 x 768. Using the internal screen's resolution of 640 x 480 pixels, the T1950CT is further capable of driving internal and external displays simultaneously.

The T1950 and T1950CS come with either a 120 MB or 200 MB hard drive, while the T1950CT has 200 MB or 320 MB options. Memory on all machines is 4 MB as standard, expandable to 20 MB.

Sophisticated power management

As users would expect from Toshiba, sophisticated power management features ensure an impressive battery life. Toshiba's own MaxTime Power Management system, together with Microsoft/Intel's Advanced Power Management (APM) standard, the extensive use of 3.3-volt components and removable, quickly rechargeable nickel hydride batteries deliver battery life of up to four-and-a-half hours on the T1950, up to three-and-a-half hours on the T1950CS and up to an impressive four hours on the T1950CT.

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The CPU used in the T1950 Series is a low-power-consumption 3.3-volt chip which combines the power-saving of a traditional SL processor with new and refined features. Auto-halt is a new feature, unique to the SL Enhanced DX2 processors, which matches the internal and external clock speeds when the CPU is waiting, (a 10% CPU power saving). The improved Stop Clock routines make it possible, for example, to "wake" a powered-down CPU up for an incoming E-mail, with the machine then powering down again afterwards. Traditional SL System Management Mode (SMM) routines keep all processors and system component power-saving tricks independent of the chosen operating system.

Connectivity capability

For users who need both remote and local connectivity, the T1900 Series offers a Type III PCMCIA 2.0 slot.   This can accommodate LAN or terminal emulation cards for the office network, modems and fax cards for long distance data transfer and SRAM, flash and hard disk options.

PCMCIA expansion is backed by software written to the Socket & Card Services standard. The drivers ensure compatibility with virtually all major PCMCIA card vendors in Europe and support 'hot insertion', which means that if the user removes one card and inserts another with the PC running, the system will automatically recognise the new card.

Additional features

With ease of use a priority, all models are supplied with Microsoft's second-generation, three-button BallPoint® mouse with QuickPort™ (no cable) connection, together with MS-DOS 6, Windows 3.1 and special Toshiba utility software.

Other exclusive Toshiba features on the T1950 range include both AutoResume with AutoSave, which are invaluable for safeguarding data when power runs out. Styling is more harmonious than other box-shaped notebooks on the market, with rounded corners and pop-out feet to provide a more comfortable typing angle. Sliding doors protect the interface ports.

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"These new notebooks provide an unprecedented combination of power, speed and graphics capabilities - at a very competitive price," says Fumio Yamashita, Toshiba's European Vice President of the IPS Business Group. "We expect strong demand from large companies who wish to equip their sales and service staff with one of the best Windows mobile PCs on the market."

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New T1950 Series

T1950 Standard Specifications

Processor
- Intel SL Enhanced 486DX2, 3.3-volt
- 40/20 MHz clock speed
- Numeric coprocessor and 8 KB cache on chip

Memory
- Standard 4 MB RAM
- Expandable to 20 MB

Hard Disk
- 120 or 200 MB
- Less than 17/12 ms avg. access time

Diskette Drive
- 3.5" 1.44 MB/720 KB diskette drive
- Media-type checking

Monochrome Display
- Advanced STN
- 9.5" diagonal

Graphics Adaptor
- VGA compatible
- Graphics accelerator
- 640 x 480 x 16 grey scales
- 320 x 200 x 64 grey scales
- 640 x 480 x 16 colours (ext.)

Expansion
- PCMCIA 2.0 Type III slot
- Credit card format memory expansion

Keyboard
- 84 sculptured keys
- Standard layout
- 12 function keys
- 8 cursor keys
- Inlaid numeric keypad

Interfaces
- Parallel/FDD
- Serial
- PS/2 mouse & keyboard
- Analogue VGA monitor
- QuickPort™ for Microsoft BallPoint®

Special Features
- AutoResume™ mode with AutoSave™
- MaxTime™ Power Management with APM
- Flash BIOS
- Power-on Password
- Kensignton cable lock provision

Bundled Software & Hardware
- MS-DOS 6.0
- Windows 3.1
- BallPoint® v 2.0 with QuickPort™ connection
- Socket and Card Services PCMCIA software support

Power Supply
- Autosensing for world-wide usage
- 100-240 V AC

Battery
- Rechargeable and removable NiH_2
- Up to 4.5 hrs battery life
- Recharges in 2.2 hrs

Size
- 299 x 215 x 51 mm

Weight
- 2.9 kg

Options
- Carrying case
- Extra battery packs
- Battery charger
- 4, 8 and 16 MB memory cards
- External 5.25" diskette drive
- Auto adaptor
- Toshiba ExpressWriter 201 portable printer
- PCMCIA high-speed data/fax modem (where approved)

T1950CS Variations

Colour Display
- Advanced STN LCD
- 9.5" diagonal

Size
- 299 x 215 x 53 mm

Weight
- 3.2 kg

Graphics Adaptor

- VGA compatible
- Graphics accelerator
- Colour palette: up to 226,981
- 640x480x16 colours
- 320x200x64 colours

Battery Life
- Up to 3.5 hours
- Recharges in 1.4 hrs

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New T1950 Series

T1950CT Variations

Colour Display
- Active matrix TFT LCD
- 8.4" diagonal

Size
- 299 x 215x 53 mm

Weight
- 3.3 kg

Hard Disk
- 200 or 320 MB
- 12 ms avg. access time

Graphics Adaptor
- VGA compatible
- Graphics accelerator
- Local Bus
- Internal palette of up to 262,144
- Colour palette of 262,144 colours
- 640 x 480 x 256 colours
- 800 x 600 x 256 colours (ext. only)
- 1024 x 768 x 256 colours (ext. only)
- Simultaneous display mode

Battery Life
- Up to 4 hrs
- Recharges in 1.4 hrs