

Small Is Beautiful Subnotebooks Finally Make It Big

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For just about as long as personal computers have been around, someone has tried to make them portable. From sewing-machine size, through lunch-box and clamshell configurations, sizes have declined about every two or three years. The most interesting class of machines today is the subnotebook computer.

The new models are not bad machines for a whole range of work in the field - not just word processing and presentations, but even a certain amount of serious graphics work.

Super-small (9"x10"x1") and weighing around 3½ pounds, the current crop sports crisp XGA active matrix displays. Processor speeds range upward from 500MHz; on-board memory is 64mb, easily doubled. Hard-disk capacity starts at 6gb (and that really is enough; very few folks will really need a 12gb hard-disk). The premium for the smaller size is not vast, in comparison to larger-format notebook computers (in fact, in the same class, there is no premium at all).

And lemme tellya, your back will rejoice at the lighter weight!

Several companies play strongly in this market. Compaq features

its M300 Armada subnotebook. Sony has two Vaio lines that fit the category (one is a little more "subnotebook-ish" than the other, to be sure...). Toshiba has its well-established Portégé line, the 3440/3480/3490 CT series.

Each company has somewhat different features, but the basics are all pretty much the same. Price-points vary from a low of around US\$1700 to a top price of US\$2500., depending on configuration. We looked carefully at all three companies (but sadly, did not have time to check entries from other vendors); all had virtues and few had warts (though Sony's insistence on pushing its "memory stick" technology was annoying - see below).

The in-depth testing was done with a Toshiba Portégé 3440CT. This is "last year's model". It has a 500MHz P3 processor and a 6gb hard-disk; this year's models (3480CT, 3490CT) run faster (600MHz and 700MHz) and have a bigger hard-disk (12gb). Otherwise, these seem to be more or less identical machines, similarly configured and integrated. At US\$1700., 500MHz was plenty hot enough, and six gigabytes disk space was enough to store all my software (Office 2000, Corel Draw, TurboCAD and HotMetal) and still have oodles of space for data.

One reason for the choice: Since I'd decided to buy this machine (my 7½ pound notebook computer being unpleasant to carry after about 20 minutes; I am getting old...), I wanted good connectivity. Toshiba includes a port-replicator (needed, since the computer itself cannot accommodate the usual connectors for things like serial and parallel devices). Toshiba's port-replicator includes an Ethernet interface - one less thing to worry about.

I also liked Toshiba's decision to include *two* PCCard slots (the competitors have only one; Sony actually sacrifices space for a second one to accommodate its proprietary Memory Sticks - not a clever move, I think). I slipped a PCCard NIC into one slot (wireless - for network connections on the fly; see the sidebar).

Toshiba's other on-board connectors support an external display and USB devices, as well as sound system I/O and a modem connection. These are the right choices: Presentations are simple (just plug in the monitor). Want a better mouse, or even a graphics tablet? USB is easy. [Try using a Wacom small-format tablet - good for both graphics and really spectacular presentations.] Want to plug in a CD- or DVD-ROM drive or the like? Most such things come in PCCard-connector versions.

In short, the things you most need outside the office plug in where you need 'em. Go back home or wherever, and the port-replicator plugs into the side; you are "docked" to your printer, wired LAN and so on. I leave the (included) USB floppy drive plugged into the port-replicator at my desk, using the one on the computer proper for work-on-the-move tablet support.

The machine is fine - but does it really work as a graphics environment? I tested with a variety of software - Office2000 for standard tools, Primavera's SureTrak project planning software and TurboCAD.

No doubt about it, putting XGA, 1024x768 pixel resolution on a screen measuring 11½" diagonally is interesting. Folks used to larger screens will need to make an adjustment.

On the other hand, flat panel screens do seem generally sharper

(and the screens tend to end up better placed for the reading-glasses part of my bifocals...). The result is a pretty decent viewing area, that is acceptably sharp without too much sacrifice. For sketching in the field, the results are well within tolerable limits. Get back to a temporary office and plug in a larger-screen monitor supporting higher resolution; the Toshiba display adapter supports it.

[Actually, if one really has to have higher resolution, the Toshiba display will manage it, using a panning driver. I find this uncomfortable. Another idea: Have a pair of clip-ons made up with your reading prescription correction for your glasses.]

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