

# Buyer Beware: Inflated Claims, Unmet Promises

If you're in the market for a new monitor, sound board, or PC speaker system, beware. These peripherals often fail to deliver on the promises printed on the box. *PC World* took a critical look at popular monitors and PC audio components and found a consistent pattern of misleading specifications and inflated claims.

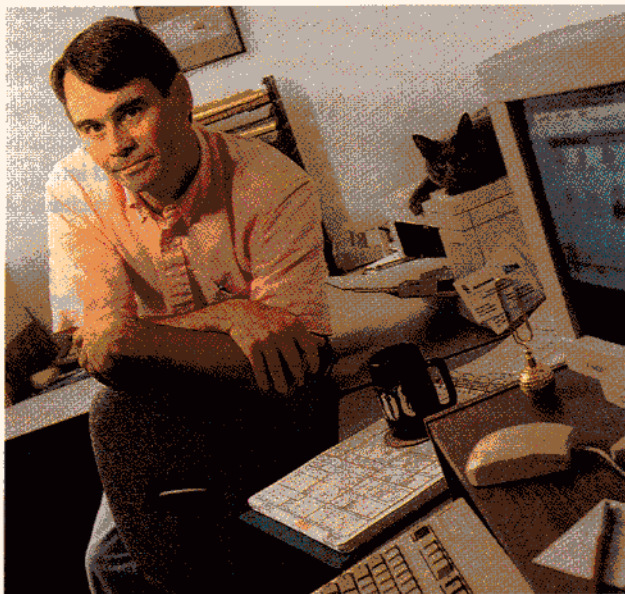
## It Gets Worse

These peripherals are selling at consumer electronics outlets alongside TV sets and stereo equipment—products that consistently meet or exceed rated performance, according to our independent tests. Whether it's sound board makers boldly promising CD-quality audio, or monitor vendors failing to stress the actual viewable area of their displays, customers are being led to believe that the components they purchase are bigger, better, and more

capable than they really are.

It's not just the small companies that are guilty. Trusted names like NEC and Creative Labs say they are forced to meet the claims of less-savory competitors just to play in the market. You won't fall prey to unreliable data in the aisles where TV sets and stereo systems are sold—major consumer-electronics companies cleaned up their act years ago. But industry oversight and the lack of standards in the computer arena invite abuse, and consumers are getting taken.

We tested 15 sound boards and compared audio fidelity against the data printed on the product packaging, manuals, and spec sheets. For comparison, we tested consumer audio components—CD players, amplifiers, and tape decks—measuring performance against published data. With monitors, we took a ruler to 39 popular 15- and 17-inch displays, and in

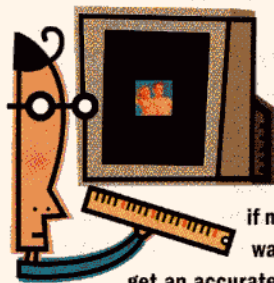


**DISAPPOINTED WITH THE VIEW:** Real estate appraiser Darwin Calender's new 15-inch display was smaller than his old 15-inch one.

the chart on page 74, we report on those with the largest and smallest viewable screen areas. It's risky to rely on vendor data when buying a monitor, PC speakers, or a sound board. Whether you plan to work on

wide-ranging spreadsheets that need every pixel or to build multimedia presentations, the lack of clear and accurate product information means you can spend money without knowing what you'll get.

## Don't Be Misled by Vendor Specs: Tips for Smarter Shopping



Here's how to work with and around misleading product data.

**1.** Measure your monitor with a ruler. The advertised diagonal screen size does not correspond to the viewable screen size. Even if measurements are published, it's always a good idea to double-check. To get an accurate measure of viewable screen area, turn on the PC and monitor and use a ruler to measure the distance from the lower-left corner of the screen to the upper-right corner. You might want to use the monitor's front-panel controls to adjust the image size, since some monitors are better than others at producing quality images at the far corners of the screen. Remember to measure only the area containing lit pixels.

**2.** Scrutinize audio output specifications. Make sure the vendor specifies that rated power output is obtained under continuous operation. This ensures that the vendor is not simply measuring a burst of power, which can be significantly higher than the power available during normal operation. And check that power is provided to both speakers during testing—expressed as *both channels driven*—since cutting output to one speaker can inflate wattage figures. Look for a distortion level of 1 percent or less; vendors can inflate wattage by running tests at high distortion levels.

**3.** Look for a realistic frequency range. Be skeptical of small desktop PC speakers that claim frequency ranges wider than 50 Hz to 20 kHz. While the human ear can detect sounds between 20 Hz and 20 kHz, small speakers have trouble reproducing sounds at the lower end of this range.

—Geoffrey Coffey