

Hardware Review: HP EliteBook 8760w Mobile Workstation

Evaluation 8760w Mobile Workstation Configuration

Model Number	LW879AA
Processor	Intel® Core™ i7-2820QM (2.30GHz, 6MB L3 cache)
Graphics	AMD FirePro™ M5950 with 1 GB dedicated GDDR5 video memory
Display	17.3" diagonal LED-backlit FHD anti-glare (1920 x 1080) DreamColor
Hard Drive	500 GB 7200 rpm SATA II
Optical Drive	DVD+/-RW SuperMulti DL
Memory	16 GB 1333 MHz DDR3 SDRAM
WLAN	Intel Centrino Advanced 802.11a/b/g/n (3x3)
Webcam Module	HD webcam
Fingerprint Reader	Yes
Battery	8-cell (83 WHr) Li-Ion battery
Keyboard	Dual-point (Pointstick & Touchpad) Backlit
Adapter	200W Smart AC adapter HP Fast Charge
Price	\$4,017



From inside to out the hp 8760w mobile workstation was built for the individual or organization that absolutely needs the Intel Core i7 possessor's crunching-power and speed, a display with billion-pixel brilliance and color accuracy packaged in a super rugged, and for the most part¹ ergonomic, portable workstation.

The Externals

The first thing a person does when sitting down in front of a new computer is experience the keyboard. So I started my evaluation by writing this hardware review on an HP 8760W mobile computer. Writing on a typical portable computer's keyboard has always been, for me, an agonizing and non-intuitive process. But the 8760w's responsive and ergonomic keyboard was a very pleasant surprise and just the tip of the iceberg when it comes to this portable workstation's features.

Keyboard

I raced through this review because the keyboard is not only back-lit on a whisper's touch but the keys are comfortably positioned and exhibit smooth and fast action. To add durability the keys are protected from wear and tear with clear coat (DuraCoat®). I didn't realize how valuable back-lit keys could be until I wrote this review under poor lighting conditions, on my sofa with the computer in front of me on a coffee table.

Three Screen Navigation Choices

You can control the cursor using an external mouse, the unit's well positioned 'Pointstick,' or its super-sized heat-treated glass 'TouchPad.' The TouchPad uses a touch sensitive capacitive surface that not only lets you move the cursor but also allows you to zoom, pan and manipulate objects with familiar two fingered touch gestures like those used on portable screen-controlled devices.



The Outer Shell

The 8760w was designed and tested to be as rugged as possible and boasts a magnesium bottom plate, and a display that is encased in aluminum and bonded magnesium to add strength and durability.

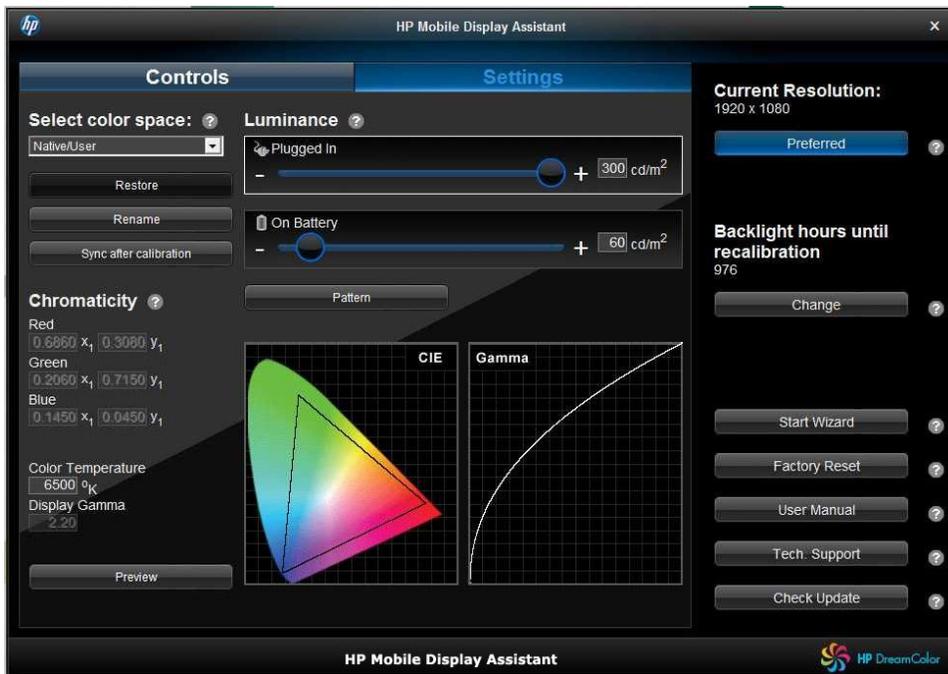
¹ Rapidly tapping two times on the TouchPad's upper left corner toggles it on and off. A yellow LED shines when the TouchPad is disabled and isn't shown when it's on. (I accidentally turned off the TouchPad and spent valuable time browsing forums to learn how to enable and disable it. How to use this feature is not obvious or well documented.)

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With no tools required, I released a latch on the bottom of the case giving me quick access to the 8760w's interior. The attention to detail and ergonomic design from the exterior was carried through to its interior layout. Every serviceable component-set, from its built-in Bluetooth and WLAN modules to the Smart Card Reader is individually modularized so you can remove or add components quickly with just a Philips head screw driver. You'll also be able to add an additional drive and up to 32 GB of DDR3 SDRAM without breaking a sweat. (I found that the 16GB of RAM that came with this machine is more than enough to handle most applications, but it's good to know that you can increase RAM as needed.)

The Display

My evaluation unit came equipped with a 17.3" hp DreamColor display. The DreamColor display was created a few years ago when DreamWorks Studios had serious color calibration issues with their cathode-ray displays. To solve the color drift problems and save tons of money HP teamed with DreamWorks Studios and in less than one year developed and shipped the first DreamColor display.



The DreamColor display was not only less expensive than the cathode ray monitors it replaced, but it doesn't need to be color calibrated for at least 1,000 hours. This backlit LCD display has a resolution of 1920 x 1200 pixels, features over one billion colors and a wide 172° viewing angle.

One feature-set that I took special note of are its selectable color calibration modes. By using the pre-installed HP Mobile Display Assistant you can select sRGB, Rec. 709, Rec. 601, Adobe® RGB, or DCI-P3 emulation. You can also customize your own color settings. DreamWorks took advantage of this to emulate their unique color, look and feel across their entire studio.

Having a DreamColor display may be needed in your field, and this brilliant and accurate display will make a positive impact on your productivity and your audience, but it does reduce battery operation time, and does add to the price of the unit. My evaluation unit as configured with the DreamColor display is priced at \$4,017. You can purchase the same configuration sans DreamColor for \$3,367. (Adding a DreamColor display adds \$650 to the final price.)

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Graphics

The 8760w is available with a number of optional NVIDIA Quadro GPUs including the 3000M, 4000M, and the new 5010M. The unit I evaluated came equipped with an AMD FirePro™ M5950 with 1 GB dedicated GDDR5 video memory. This GPU is set up to support the DreamColor display while having the added capability to work perfectly with a docked monitor or to pan across multiple displays.

Shake, Bake and Stress

I learned that the 8760w had to pass a rigorous testing regimen before shipping. To do this HP ran more than 100,000 hours of testing, including cpu multi-core and TurboBoost® stress testing using high-end CAD and other professional software. They then went on to do a bevy of physical shake and bake tests to Mil Std. 810G that included dropping the unit from 24 inches on 6 different surfaces, and testing how it worked after being subjected to excessive dust, temperature extremes, moisture and other extreme environmental conditions.

Because the 8760w can be used in virtually any environment and can survive unscathed after being subjected to unexpected shocks and shakes, it's perfect for accident prone people like me, and of course for any person or organization that needs a rugged high-performance computer.

Productivity Software Certified

The 8760w is also certified for use with a multitude of software products used by professionals working in mechanical, architectural, digital content creation, geographic information systems, and oil and gas exploration. (Software listed in the [Quick Specs](#) guide.)

Summary

The evaluation unit came with a Windows 7 Professional 64-bit operating system and, as I had expected, booted much faster than my 2GHz desktop computer equipped with the same OS, and CAD program responsiveness and speed were comparable to the performance I experienced while reviewing other HP multi-core workstations.

The 8760w delivers workstation performance in a well thought out and executed portable configuration. And, it comes standard with about every bell-and-whistle conceivable, from its built-in webcam and smart card reader, to fingerprint and iris biometric security, plus a slew of pre-installed HP software assistants including HP Performance Advisor and Power Assistant.

When you need to know what's under the hood, Performance Advisor provides detailed system information such as memory and CPU usage, component changes and driver version details. Power Assistant shows you how much power the 8760w is using as well as estimates of its operating costs and carbon footprint and allows you make adjustments to optimize energy use.

Two weeks ago I looked upon the evaluation 8760w as an unfamiliar stranger. Over this time I've developed a working relationship with this thoroughbred that reminds me of the first time I hopped on a true racing bicycle. That bike wanted to go fast and I just couldn't hold it back, just like the 8760w. And, I've grown more comfortable every day I've worked with it.

Although the 8760w can sit on your lap it is definitely not a 'laptop' computer. This portable workstation delivers a great experience whether you're typing a document, rendering a complex 3D model or creating an animated masterpiece. If you need a powerful PC for high-end graphics and 3D tasks on the go, coupled with reliability, ruggedness and speedy performance the 8760w is definitely worth seriously considering.

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Pluses: Intel® Core™ i7 computing power; optional DreamColor display; super rugged, internal accessibility; easily upgradeable; system and display management software.

Minuses:

- The hidden TouchPad on and off switch that I described in my note above.
- Battery life is less than 2 hours when using the DreamColor display. [Optional power packs](#) are available from HP to extend the unit's work time.

Price (as supplied): \$4,017 (Starting at \$1,899; \$3,367 as configured with standard display.)

Overall Grade: B+

More Info:

- [HP EliteBook 8760w Mobile Workstation - Overview and Features](#)
- [Quick Specs](#)
- [Maintenance and Service Guide](#)

By: David Heller

David Heller, founder of MCADCAfe.com, has written more than twelve technical and fiction books published by Addison-Wesely, Simon-Schuster, Prentice-Hall, McGraw Hill, and more, was a technical writer and professional columnist, and has devoted the past fourteen years to the Internet business primarily focused on MCAD/CAM, Digital Content Creation, Electronic Design Automation, Architectural Engineering & Construction, and Geographical Information Systems.