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New HP hybrid laptop/tablet powers up with USB-C



By Michael Lasky on March 14, 2016 in Best Hardware

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HP's new Spectre hybrid might be a knockoff of Microsoft's Surface 3 and 4 ultralights, but it stands out on one front: it includes the latest USB standard, previously available only on Macs.

USB Type C (or USB-C) is distinctive not just for its top-end data-transport speeds of up to 10Gbps, but also for its high-power output.

USB-C: Power and speed in one easy connection

The versatility of USB-C (Wikipedia info), at least in its current implementation on notebooks, might also be its Achilles' heel. We've been accustomed to multiple USB ports on our computers to handle mice and keyboards, flash drives, external hard disks, a wide array of portable devices, and synching connections for smartphones and tablets. But as exemplified by the HP Spectre X2 (more info), USB-C ports can also play double-duty as power-input ports.

So not only will we want to use our USB-C ports for high-speed data transfers, we'll also use it to to plug in the notebook's AC adapter. Moreover, Type C's smaller port could result in compatibility issues with some existing USB cables and devices.

When Apple first included a single, dual-purpose USB-C in a MacBook, the small port was sold as a marvel of technology. But to consumers, it seemed likely a sneaky way of forcing users to purchase a new round of USB adapters, cables, dongles, and/or hubs. The HP Spectre resolves this, somewhat, by including two USB-C ports on either side of the quarter-inch thin chassis. HP also includes a Type C-to-standard—USB adapter in the box.

Two multi-function USB ports are better than one when you're on the road, but at home or in the office, this wafer-thin hybrid screams for a compatible docking station to handle my usual collection of peripherals. After some research, I settled on OWC's USB-C Dock — more on that below.

The Surface is good, but the Spectre is better

The HP Spectre X2's physical design is a close match to Microsoft's Surface 3 and 4 systems. But the Spectre adds some significant extras — and at a lower price point.

To start, HP's hybrid (Figure 1) comes with a keyboard; for the Surface, a keyboard is U.S. \$130 option — though for most users its essential. And unlike the Surface's soft textile-like keyboard, the Spectre's is a metal, backlit, chiclet-style keyboard with a more substantial feel. As is typical with better hybrids, the Spectre's keyboard can be used either connected to or detached from the 12-inch, touchscreen display. The back of the display section has a built-in retractable kickstand, making it easy to prop up on a desk or table. It's ideal when you need to work while seated in a cramped airplane seat: put the display portion on the tray table and the keyboard in your lap.



Figure 1. The HP Spectre X2 is a hybrid laptop/tablet that comes with a solid keyboard.

Other high-end features include Intel's RealSense 3D camera, which relies on multiple sensors to detect depth. It lets you use Windows 10's facial-recognition sign-in, and with additional software, you can scan objects in 3D. Base models start at \$800 and come with Win10 Home, Intel Core M3 processor, 8GB RAM, 128GB of solid-state storage, and a miniSD-card slot for more storage.

I tested the more powerful \$1,150 model with an Intel Core M7 CPU and 256GB of RAM onboard. This model's performance was fast and fluid, even with numerous apps open and while streaming an HD video. I experienced no stutters or slowdown.

I also kept the system running until the battery bit the dust. HP promises up to 10 hours of battery life; I got a still-impressive seven hours. (Intel claims that the Core M processors are designed to provide both quick speed and long battery life.)

Most hybrids come with SSD storage, which lets Win10 boot in seconds — the Spectre is no exception, and accounts for the hybrid's nearly instant file reads and writes.

As noted, the Spectre's pair of USB-C ports are place on either side of the display. They're about the size of the mini-USB ports found on cellphones, but you don't have to figure out which side is up because the cables connectors are reversible. The included USB-C-to-USB 2.0 adapter is handy for legacy devices such as mice and synching cables. (Note: The adapter I received was USB 2.0; the dock's site states that it will come with a USB 3.0 adapter.)

Either port can accommodate the hybrid's AC-adapter cable, leaving the second port for attaching peripherals such as the OWC docking station I used.

OWC's USB-C Dock makes Spectre smarter

Marketed for USB-C equipped–MacBook users, the OWC USB-C Dock worked splendidly on the HP Spectre — it enhanced my productivity big time. The \$159 dock will officially ship in mid-April, according to its info (page), in gray, gold, and silver. The box is loaded with four USB 3.1 ports and two Type C ports, one of which is designed as a computer link for both power and data (Figure 2). For connecting external displays, the dock also has an HDMI port that supports 4K video. The front panel includes an SD

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Card reader for convenient transfers of photos and videos plus a standard audio input/output port.



Figure 2. OWC's USB-C dock gives ultralight computers desktop-PC I/O capabilities

Because the Spectre offers only Wi-Fi-network connectivity, the dock's gigabit Ethernet port is a welcome option for moving big files and video over a local net.

The dock has an 80-watt power adapter, more than enough to power all attached devices.

The future of digital connectivity is USB-C

This year, expect to see many more thin-and-light products with USB-C. Lenovo, ASUS, and HP have announced new, Type C-equipped UltraBooks, lightweight laptops, and hybrids to be released later this year.

But the success of each generation of USB, from USB 1.1 in the late 1990s to SuperSpeed 3.1 in 2013, has relied on backward capability. Given the massive accumulation of existing USB devices, cables, flash drives, and so forth, the migration to USB-C could be a bit painful for users if hardware manufacturers don't also include standard USB 3 ports — or at least include several USB-C ports and an assortment of adapters.

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