

USB Type-C. One Cable to Rule Them All.

Written by Bob Snyder
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USB Type-C



The **IEC (International Electrotechnical Commission)** and **USB Implementers Forum (USB-IF)** announces IEC has formally adopted the latest USB-IF specifications for high-speed data delivery and enhanced usages for device charging.

These specifications-- the **USB Type-C Cable and Connector**, **USB Power Delivery** and **USB 3.1** (SuperSpeed USB 10 Gbps) define **a single-cable solution for audio/video, data and power delivery.**

The IEC specification numbers are noted below:

- IEC 62680-1-3 (USB Type-C)
- IEC 62680-1-2 (USB PD)
- IEC 62680-3-1 (USB 3.1)

The USB Type-C™ specification defines the physical USB Type-C cable and connector form factor.

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USB Type-C, sometimes referred to as USB-C, is a new shape of cable plug and port. Any USB Type-C connector is reversible: you can plug it in either way – upside down or right side up. Also, if you have a computer and a device and both have USB-C ports, you can plug either end of the cable into the PC, and the other in the peripheral.

USB Type-C is about the same size as micro USB connections, so it'll fit in even the smallest of devices. Type-C USB is also great for charging. With bi-directional power, Type-C USB means your device can charge a peripheral--but if it runs low, the peripheral could charge the host device.

USB Power Delivery provides flexible, bi-directional power capabilities by enabling faster charging and increased power levels up to 100W. The spec defines standardized features that support the global adoption of interoperable power supplies, helping to reduce electronic waste and increase re-usability of adapters and chargers for consumer electronics.

When USB Type-C is combined with USB Power Delivery (USB PD) it can support a much higher power output – up to 100W at 20V and 5A. This is not only enough to charge smartphones and tablets but you can now charge a notebook with USB PD and Type-C. (This adds confusion because some USB 3.1 ports have the 100W Power Delivery feature, while others do not. And some USB 3.0 cables have it, and some do not. And some new laptops like the Apple MacBook and Google Chrome Pixel have such ports for charging.) This also means that devices like hard drives and USB hubs won't need a separate power cable.

USB 3.1 enables speeds up to 10 Gbps, supporting audio/video for USB hosts, hubs and devices.

Combined with USB Type-C, USB 3.1 and USB Power Delivery define a single-cable solution for audio/video, data and power delivery, building on the existing global ecosystem of USB/IEC 62680 series of International Standards compliant devices.

“USB is arguably the most prolific technology worldwide considering the widespread adoption of devices and global consumer recognition,” says Jeff Ravencraft, USB-IF President and COO.

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USB Type-C, combined with USB Power Delivery for faster charging and USB performance, is the last cable anyone will ever need. USB-IF is pleased the partnership with IEC has resulted in the approval of these key specifications.”

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