



KNOWLEDGE BASE

USB-C Power Delivery: What It Actually Means for Your Meeting Room

A practical guide to one-cable charging, video, and data for modern BYOD meeting spaces.

Meeting rooms today have to work for everyone who walks in the door — different laptops, different operating systems, different habits. Nobody wants to hunt for the right adapter, and nobody wants to watch their battery drain during a one-hour presentation. That's the promise behind USB-C Power Delivery: one cable, one connection, and the room just works.

But “USB-C” and “USB-C Power Delivery” are not the same thing, and mixing them up is one of the most common mistakes when specifying meeting room equipment. Here's a straightforward breakdown of what USB-PD is, what to check for before you buy, and how Vivolink's USB-C range is built to handle it properly.

USB-C Is the Plug. USB-PD Is the Power Negotiation.

USB-C is simply the shape of the connector — reversible, compact, and now standard on almost every modern laptop. USB Power Delivery (USB-PD) is the protocol running underneath it, negotiating how much power can safely pass between a source (like a laptop charger, hub, or display) and a device (like a laptop).

In short: every USB-PD connection uses a USB-C plug, but not every USB-C plug supports USB-PD.

A port can look identical on the outside and behave completely differently on the inside. If a product's specification sheet doesn't explicitly mention Power Delivery or a wattage rating, don't assume it can charge a laptop — check before you specify it.

Match the Wattage, Every Time

If a laptop normally ships with a 65W charger, the equipment replacing that charger — a hub, a switcher, a docking cable — should deliver at least 65W. Under-powering a laptop won't necessarily stop it from charging altogether, but it will struggle to keep up during long meetings or heavier workloads, which is exactly when reliability matters most.

This is why Vivolink's USB-C hubs and cables are built around **100W Power Delivery** as standard — enough headroom for the vast majority of business laptops on the market today, including thin-and-light models that rely entirely on a single USB-C port.

The Cable Matters as Much as the Port

High-wattage charging puts real demand on a cable, and not every USB-C cable is rated to handle it safely or consistently. This is one area where cutting corners causes real problems on-site — signal drop-outs, inconsistent charging, or simply a cable that gets warm under load.

Vivolink's professional USB-C cables are built specifically for this kind of continuous, high-power AV use:

- Up to **100W Power Delivery** and **20 Gbps** data throughput (USB 3.2 Gen 2x2)

- An integrated e-Marker chip to guarantee correct, safe power negotiation
- Mini Coax cable structure (on high speed data lanes) ensure robust high speed data transfer
- Fire-resistant TPE jacket, gold-plated contacts, and a tested flex life beyond 7,500 cycles
- Full DisplayPort Alt Mode and HDCP 2.3 support for video alongside power and data

Every cable is tested three times during production, so what leaves the factory is guaranteed to work as specified.

Power and Video Are Two Different Jobs

Charging a laptop and displaying its screen are handled by two separate parts of the USB-C standard. Power Delivery manages the charging; DisplayPort Alt Mode manages the video signal. A port can support one without the other.

If a room needs to both charge a laptop *and* show its screen on the display, the equipment must explicitly support **both** USB-PD and DP Alt Mode — not just one or the other. This is exactly the combination built into Vivolink's conference hubs, so integrators don't have to piece it together from separate components.

Matching Vivolink Products to Real Meeting Room Scenarios

What the room needs to do	What to look for	Vivolink solution
Laptop presentation with charging, single cable	USB-PD + DP Alt Mode	Vivolink Pro USB-C cables (up to 100W, 20 Gbps)
Full conference room — camera, mic, network, display, charging	USB-PD + DP Alt Mode + USB data + Ethernet	VLUSBCHUB2V2 or VLUSBCHUB4 conference hubs
Switching between two sources (e.g. USB-C laptop and HDMI source)	USB-C + HDMI input switching, shared display and peripherals	VLHUB21 USB-C & HDMI KVM Presentation Switcher
Long cable runs to interactive displays or touchscreens	High-wattage PD over distance, bi-directional USB data	Vivolink USB-C optic cables (up to 15m, 100W over 10m)
A display or hub that only outputs low-wattage USB-C	Adding high-power charging without extra cabling	USB-C Power Injector (with VLUSBCPWR100 charger)

Why HDMI Alone Won't Charge a Laptop

HDMI is built to carry video and audio — nothing more. It carries only a small trickle of power, nowhere near enough to charge a laptop. That's why rooms supporting older laptops or media sources still need a separate power source alongside HDMI: a factory charger, a desk power outlet, or a Vivolink USB-C power solution feeding the same room.

The practical takeaway: treat video and power as two separate requirements when planning a room, even if USB-C ends up solving both at once for most modern laptops.

A Quick Checklist Before You Specify a Room

- ✓ **Does the laptop need to charge over the same cable?** → Confirm the PD wattage, not just the presence of a USB-C port
- ✓ **Does that same port need to send video?** → Confirm DP Alt Mode support
- ✓ **Are cameras, mics, or touch panels involved?** → Confirm USB data bandwidth, separate from power
- ✓ **Will older laptops or media sources be used too?** → Keep HDMI/DisplayPort inputs alongside USB-C
- ✓ **Is cable clutter a concern?** → Look at Vivolink's single-cable USB-C hub range for a clean, under-table installation

The Vivolink Way

Vivolink builds USB-C cables and hubs to remove the guesswork from meeting room power. Every cable is tested three times before it leaves the factory, every hub is built around real 100W charging and 4K video, and every product comes with Vivolink's Free Swap Warranty — if something goes wrong, a replacement is sent immediately, with no waiting on a repair.

Explore the full range of Vivolink USB-C cables, hubs, and switchers to find the right one-cable solution for your next meeting room project.

Sources: Vivolink Product Catalogue (USB-C cable and hub specifications, testing methodology, warranty terms). General USB-C/USB-PD industry standards information reflects publicly known USB-IF specifications.