PCIE-USB4-2C-M1

EN

PCIe 4.0 to 2×USB4 Type-C Card | **Support USB-C Monitor Video** | **40Gbps Bidirectional USB4**

OVERVIEW

The PCIE-USB4-2C-M1 USB4 PCIe Expansion Card adds two 40Gbps bidirectional USB4 Type-C ports for desktop PCs whose motherboards do not have native integrated USB4. No motherboard replacement is required. This PCIe 4.0 x4 card supports USB4 Multi-Protocol Tunneling, including USB data tunneling and PCIe packet tunneling.

It is compatible with high-speed external storage, Thunderbolt 4 peripherals, eGPU enclosures and USB-C monitors, ideal for fast RAW media file transfers and external GPU rendering. Video output works over DP Alt Mode: you must connect the supplied mDP cable from your discrete graphics card to this card to carry display signals. It supports data transfer, PCIe tunneling and single-display video output only. PD fast charging is not supported. The card draws power directly from the PCIe slot with no auxiliary power cable needed.



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PCIe 4.0 USB4 Expansion Card

FEATURES

- Adds dual USB4 Type-C ports with up to 40Gbps bidirectional bandwidth to your desktop PC
- Supports USB4 multi-protocol tunneling: USB data tunnel and PCIe packet tunnel
- Enables single-display video output via DP Alt Mode for USB-C monitors
- Backward compatible with Thunderbolt 4, USB 3.2, USB 2.0 and legacy USB peripherals
- Ideal for high-speed external storage, raw media transfer and eGPU expansion
- Powered fully by PCIe slot; no auxiliary power cable required
- Includes full-height metal bracket and low-profile bracket for flexible chassis installation
- No PD fast charging circuit onboard

MOTHERBOARD COMPATIBILITY NOTES

This card does **not** depend on motherboard native USB4, Thunderbolt controller or Thunderbolt front header pins. It fits most Intel and AMD desktop motherboards with an available PCIe x4/x8/x16 slot.

• Installed in PCIe 4.0 slot: full 40Gbps bidirectional USB4 bandwidth available.

• Installed in PCIe 3.0 slot: card can be detected and used normally, but bus bandwidth is limited.

• Attention: some PCIe x16 slots will automatically downgrade to x4 after a discrete GPU is installed. This will not stop card detection, but verify PCIe lane allocation rules in your motherboard BIOS.

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SPECIFICATIONS

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INTERFACE & BANDWIDTH

Host Interface	PCIe 4.0 x4
Output Ports	2 × USB4 Type-C ports
Per-Port Bandwidth	Up to 40Gbps bidirectional
Tunneling Support	USB Data Tunneling, PCIe Packet Tunneling
Video Technology	DP Alt Mode (Single display only, mDP cable connection required)
Compatibility	Thunderbolt 4, USB 3.2, USB 2.0, USB 1.1

POWER & MECHANICAL

Power Source	PCIe slot power, no extra auxiliary power needed
PD Fast Charging	Not supported
Brackets	Full-height metal bracket + Low-profile bracket included
Typical Application	External NVMe SSD enclosures, eGPU, USB-C monitors, high-speed peripherals

SUPPORTED OPERATING SYSTEMS

SUPPORTED OS LIST

Windows 10	Supported
Windows 11	Supported
Linux	Supported (Kernel driver required for some distributions)

Note: Linux support depends on kernel version and upstream USB4/PCIe tunneling driver availability. Please verify kernel compatibility before deployment. This card has no onboard PD fast charging circuit.