What's new in Surface Thunderbolt 4 Dock

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As the latest generation Surface dock, Surface Thunderbolt™ 4 Dock delivers ultra-high speed data transfer, built-in enterprise management and security[1] and the versatility to connect your most important peripherals.

- **High-speed USB4®/Thunderbolt 4 on USB-C® ports.** Plug in one cable to power your device, connect two 4K monitors at up to 60 Hz[2], and transfer data and files at up to 40 Gbps.
- **The charging power you need for your devices and accessories.** Connect and power your laptop with up to 96 watts of power passthrough and extra charging power for your phone and accessories.[3]
- **More inclusive design with recycled materials.** Quickly access ports with raised tactile indicators for greater accessibility. The lightest Surface dock and PSU enclosures (excluding the AC cable) are attributed to 20% ocean-bound plastic.[4] The packaging is ~99% recyclable in OECD countries and free of single-use plastics. The lightest Surface dock comes with 20% ocean-bound plastic and 99% recyclable packaging that's free of single-use plastics.[5]

Simple management and security from anywhere

Surface Thunderbolt 4 Dock helps improve IT efficiency and reduce overhead and support costs through optimization for Microsoft software.

- **Surface Enterprise Management Mode (SEMM) for Dock**. Designed to easily lock down the ports of your dock in mission-critical environments and restrict functionality to specific devices, enabling organizations to simplify and secure IT management. For more information, see Secure Surface Dock ports with Surface Enterprise Management Mode.
- **Firmware update through Windows Update**. Seamlessly keep your dock up to date with automatic updates or downloadable update driver and firmware packs.
- **MAC Address Passthrough.** [6]Maintain device network identity from one dock to another for ease of management in shared workspaces or dock environments.
- **Wake on LAN from Modern Standby.** IT admins can remotely wake up devices connected to Surface Thunderbolt 4 Dock and automatically perform management tasks.
- **Windows Management Instrumentation (WMI) support**. IT admins can remotely monitor and manage the latest firmware, policy settings, and related data across Surface Thunderbolt 4 Dock devices. For more information, see Manage Surface Dock with WMI.
- **Centralized support & warranty service**. IT admins can get direct support via the Surface Management Portal or Microsoft Hardware Support Portal   .

General system requirements

Surface Thunderbolt 4 Dock is optimized for devices with a USB4/ Thunderbolt 4 port, including the following Surface devices:

- Surface Laptop 5
- Surface Laptop Studio
- Surface Pro 8
- Surface Pro 9 (Intel/Wi-Fi)

> ⓘ **Note**
>
> Thunderbolt 4 connection supports two 4K external displays at up to 60 Hz (when supported by device and display).

Surface Thunderbolt 4 Dock is compatible with the following Surface devices with USB-C ports:

- Surface Pro 9 with 5G
- Surface Pro 7+
- Surface Pro 7
- Surface Pro X
- Surface Laptop 4
- Surface Laptop 3
- Surface Laptop Go 2
- Surface Laptop Go
- Surface Go 3
- Surface Go 2
- Surface Book 3
- Surface Studio 2+ (no charging)

> ⓘ **Note**
>
> USB-C connection supports one 4K external display at up to 60 Hz (when supported by device and display). Or you can daisy chain more monitors, as described in the section on this page: **Connect multiple monitors to devices without USB4/Thunderbolt 4**.
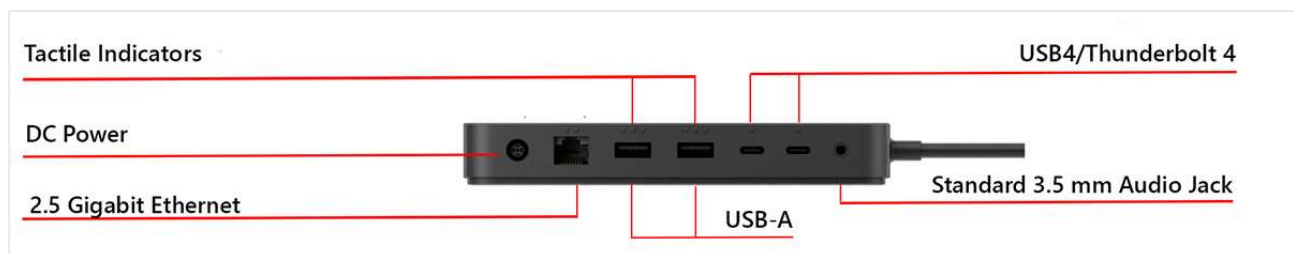
> 💡 **Tip**
>
> You can use Surface Thunderbolt 4 Dock with any host PC with USB4/ Thunderbolt 4. Full support for enterprise management and security features is exclusive to Surface devices. Automatic firmware updates via Windows Update only work on Windows-based PCs.

Components
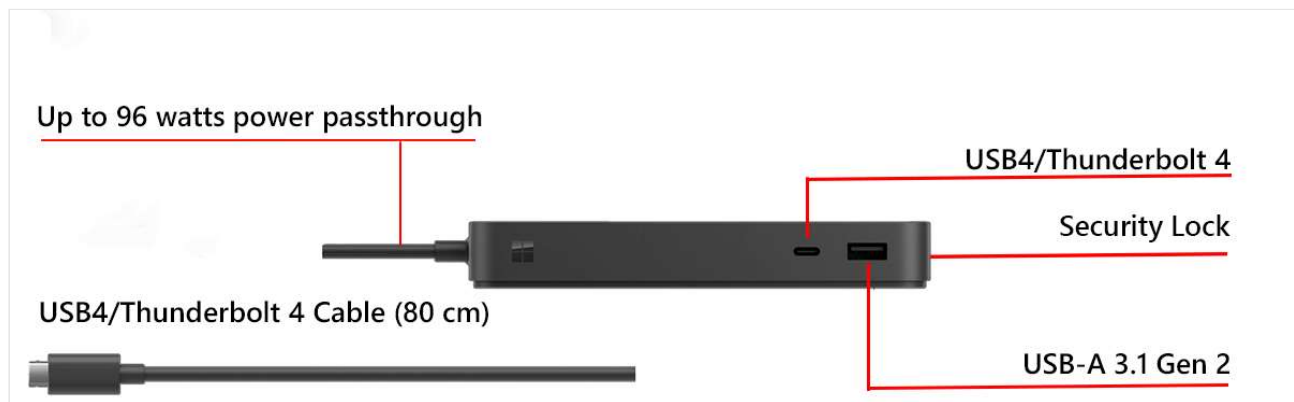
Front facing view

Rear facing view

USB

- One front-facing USB-A (USB 3.1 Gen 2, 7.5 W)
- One front-facing USB-C (USB4/Thunderbolt 4, video display enabled, 15 W)
- Two rear-facing USB-A (USB 3.1 Gen 2, 7.5 W)
- Two rear-facing USB-C (USB4/Thunderbolt 4, video display enabled, 15 W)

Ethernet

- 2.5-gigabit Ethernet port.

External Power supply

- 165-W power supply and up to 96-W passthrough to connected PC. Supports 100V-240V.

Cable Matters Desk Mount for Microsoft Surface Thunderbolt 4 Dock

Optimize port access, save desk space, and use enhanced security capabilities with the Cable Matters Mount, purpose built for Surface Thunderbolt 4 Dock, and Designed for Surface certified.

- Facilitates single-handed interaction with Microsoft Surface Thunderbolt 4 Dock
- Improves port access through stabilization
- Saves desk space through cable management
- Integrates easily with locking devices for extra security

Compare Surface Docks

Feature	Surface Thunderbolt 4 Dock	Surface Dock 2	Surface Dock
Surface Connect	No	Yes	Yes

Feature	Surface Thunderbolt 4 Dock	Surface Dock 2	Surface Dock
Optimal host devices	Surface Laptop 5, Surface Pro 9, Surface Pro 8, Surface Laptop Studio	Surface Pro 9 with 5G, Surface Laptop 4, Surface Laptop Go 2, Surface Go 3	Surface Go, Surface Laptop 2, Surface Laptop 3, Surface Pro 7+
USB-A	One front-facing USB-A (USB 3.1 Gen 2, 7.5 W) Two rear-facing USB-A (USB 3.1 Gen 2, 7.5 W)	Two rear-facing USB 3.2 Gen 2 (7.5-W power)	Two front-facing USB 3.1 Gen 1 Two rear-facing USB 3.1 Gen 1
Mini Display port	None	None	Two rear facing (DP1.2)
USB-C	One front-facing USB-C (USB 4 Thunderbolt 4, video display enabled, 15 W) Two rear-facing USB-C (USB4/Thunderbolt 4, video display enabled, 15 W)	Two front-facing USB 3.2 Gen 2 (15-W power) Two rear-facing USB 3.2 Gen 2 (DP1.4a) (7.5-W power)	None
3.5 mm Audio in/out	Yes	Yes	Yes
Ethernet	Yes 2.5 gigabit	Yes 1 gigabit	Yes, 1 gigabit
DC power in	Yes	Yes	Yes
Kensington lock	Yes	Yes	Yes
Cable length	80 cm	80 cm	65 cm
Host power	96 W	120 W	60 W
USB load power	67.5 W	60 W	30 W
USB bit rate	Up to 32 Gbps[6]	Up to 10 Gbps	Up to 5 Gbps
Monitor support	2 x 4K @ 60 Hz or 1 x 4K @ 60 Hz	2 x 4K @ 60 Hz or 1 x 4K @120 Hz	2 x 4K @ 30 Hz, or 1 x 4K @ 60 Hz
Wake-on-LAN from Modern Standby	Yes	Yes	Yes

Feature	Surface Thunderbolt 4 Dock	Surface Dock 2	Surface Dock
Wake-on-LAN from S4/S5 sleep modes	No	Yes	No
Network PXE boot	Yes	Yes	Yes
SEMM host access control	Yes	Yes	No
SEMM port access control[7]	Yes	Yes	No
Servicing support	Windows Update, Surface App, or MSI	Windows Update or MSI	MSI

Connect multiple monitors to devices without USB4/Thunderbolt 4

You can daisy chain up to eight monitors by connecting a series of display devices using a wired connection from monitor to monitor in a series, rather than connecting each monitor directly to Surface Thunderbolt 4 Dock.

To daisy chain monitors, you need two or more monitors that support at least **DisplayPort 1.2** and **Multi-Stream Transport (MST).** Displays that function as a middle link in the chain must include **DisplayPort** output ports and input ports. You also need a video or graphics card (GPU) on your PC that supports **DisplayPort 1.2** and **MST.**

> ① **Note**
>
> Resolution and refresh rate is reduced when daisy chaining two or more monitors.

To connect your PC to multiple monitors using DisplayPort MST:

1. Connect your PC to the **DisplayPort-In** connection on the first monitor.
2. Connect the **DisplayPort-Out** connection on the first monitor to the **DisplayPort-In** connection on the second monitor. To daisy chain more than two monitors, follow a similar sequence: The first monitor connects to the second, the second monitor connects to the third, and so on.

3. Use the On-Screen Display (OSD) menu, to enable **DisplayPort 1.2** on your monitor. To learn more, refer to the user manual of your monitor.

Appendix: Surface Dock Thunderbolt 4 tech specs

Feature	Description
Compatibility	Designed for devices with USB-C with USB 4®/Thunderbolt 4 port: Surface Laptop 5 Surface Laptop Studio Surface Pro 8 Surface Pro 9 (Intel/Wi-Fi) Thunderbolt 4 connection supports two 4K external displays at up to 60 Hz (when supported by device and display) Compatible with devices with USB-C ports: Surface Pro 9 with 5G Surface Pro 7+ Surface Pro 7 Surface Pro X Surface Laptop 4 Surface Laptop 3 Surface Laptop Go 2 Surface Laptop Go Surface Go 3 Surface Go 2 Surface Book 3 Surface Studio 2+ (no charging) USB-C connection supports one 4K external display at up to 60 Hz (when supported by device and display)[8]
Dimensions	5.91" x 2.95"x 0.84" (150 mm x 75 mm x 21.3 mm)
Weight	0.9 lb. (410 g)
Connections	165 W power supply (up to 96 W passthrough) USB4/Thunderbolt 4 Cable with LED charging indicator (80 cm) 1 front-facing USB-A (USB 3.1 Gen 2, 7.5 W) 1 front-facing USB-C (USB4/Thunderbolt 4, video display enabled, 15W) 2 rear-facing USB-A (USB 3.1 Gen 2, 7.5 W) 2 rear-facing USB-C (USB4/Thunderbolt 4, video display enabled, 15 W)

Feature	Description
	1 Ethernet (2.5Gbit/s) 3.5 mm audio jack Security lock support (Kensington compatible) Screw nut for desk mounts Compatible with Cable Matters Desk Mount for Microsoft Surface Thunderbolt 4 Dock[9]
What's in the box	Microsoft Surface Thunderbolt 4 Dock 165 W Power Supply
Manageability	For supported host devices: Surface Enterprise Management Mode for Dock[10] Media Access Control (MAC) address emulation Firmware update through Windows Update and Surface app Wake on LAN from Modern Standby
Accessibility	Tactile indicators for port identification
Materials	Microsoft Surface Thunderbolt 4 Dock and PSU enclosures (excluding AC cable) are attributed to 20% ocean-bound plastic[11]
Warranty[12]	1-year limited warranty

Learn more

- [Secure Surface Dock ports with Surface Enterprise Management Mode](#)
- [Manage Surface Docks with WMI](#)
- [Wake On LAN with Surface Thunderbolt 4 Dock](#)

References

1. Surface Enterprise Management Mode for Dock and MAC address passthrough are available on select host devices and supported operating systems.
2. When supported by device and display.
3. USB-C port doesn't charge your Surface device or any device that requires more than 15 W.
4. Ocean-bound plastic is plastic waste recovered from oceans and waterways, cleaned, and processed into recycled plastic resin pellets. These recycled pellets are blended in with virgin plastic during the manufacturing process.

5. In OECD countries, Microsoft operates recycling programs either independently or through third parties covering Microsoft Devices. In addition, check local recycling programs for availability.

6. Requires device with USB4/Thunderbolt 4 port.

7. Software license required for some features. Sold separately.

8. 4K @ 60 Hz via USB-C requires High Bit Rate 3 (HBR3) support on both display and host computer.

9. Learn more about Design for Surface and Cable Matters Desk Mount at Licensed Hardware - Designed for Surface Program.

10. Surface Enterprise Management Mode for Dock and MAC address passthrough are available on select host devices and supported operating systems.

11. Ocean-bound plastic is plastic waste recovered from oceans and waterways, cleaned, and processed into recycled plastic resin pellets. These recycled pellets are blended in with virgin plastic during the manufacturing process.

12. Microsoft's Limited Warranty is in addition to your consumer law rights.