

# Thunderbolt™ 4 Advantages

A fast, simple, reliable solution for your customers



## For Consumers

Use your computer anywhere and then easily connect it with a single cable at your desk to enjoy a Thunderbolt dock, larger monitor and accessories, all while charging your computer.

## For Work & Home Office

Create a more productive and secure workspace with a single cable that connects to power, a mouse, keyboard, webcam and multiple monitors.

## For Gamers

Create an immersive gaming experience and reduce cable clutter with Thunderbolt docks and monitors. Add more storage with speeds up to 3,000 MB/s to quickly load games.

## For Creators

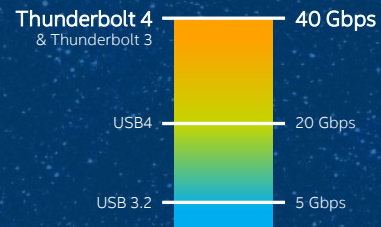
Create and enjoy a clutter-free desktop with Thunderbolt docks, color-accurate monitors, low latency audio interfaces and faster storage to spend more time creating and less time working.

⚡ Look for the Thunderbolt icon for all these benefits

One universal port makes it simple to connect to multiple protocols



Always maximum performance<sup>1</sup>  
Unleash the power of your processor

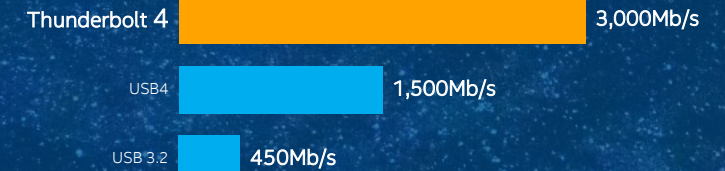


A smarter workspace with a single cable connected to your dock and accessories

Computers, cables and accessories certified to ensure a **reliable** end-to-end solution



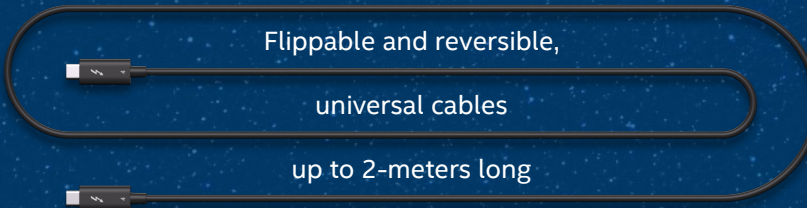
Computers with Thunderbolt 4 offer fastest data transfers<sup>1</sup>



Wake your docked laptop by touching your keyboard or mouse



Flippable and reversible,  
universal cables  
up to 2-meters long



Enhanced security with Intel VT-d based DMA protection



Thunderbolt 4 accessories with up to four Thunderbolt ports



<sup>1</sup> Performance based on minimum specification requirements.

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# Comparing Thunderbolt™ 4 to other solutions



Help customers understand Thunderbolt™ 4 is the simplest, fastest, most reliable solution for connecting to power and accessories

|                                        |                                                                                                                                                    | Thunderbolt™ 4  | Thunderbolt™ 3 | USB4           | USB3/DP        |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|----------------|
| <b>Unrivaled Simplicity</b>            | One brand, one logo, and one icon to simplify purchases                                                                                            | •               | •              |                |                |
|                                        | One universal computer port for problem-free connectivity to power and accessories                                                                 | •               |                |                |                |
|                                        | One universal and flippable cable up to 2m to make cable selection fast and easy                                                                   | •               |                |                |                |
|                                        | Thunderbolt 4 accessories with more Thunderbolt ports to simplify the modern workspace                                                             | •               |                |                |                |
|                                        | A computer with a Thunderbolt port connected to a Thunderbolt dock wakes up with a touch of keyboard or mouse even when the computer lid is closed | •               |                |                |                |
| <b>Reliable Connectivity</b>           | Mandatory certification for computers, accessories and cables offers reliable connectivity for products across different brands                    | •               | •              |                |                |
|                                        | Testing and quality audits of Thunderbolt cables                                                                                                   | •               | •              |                |                |
|                                        | Intel® VT-d based security for peace of mind                                                                                                       | •               |                |                |                |
| <b>Maximum Performance<sup>1</sup></b> | Always the maximum performance available to unleash the power of your processor                                                                    | 40Gb/s          | 40Gb/s         | 20Gb/s         | 10Gb/s         |
|                                        | Video support available from computer to connect monitors with incredible color and detail to work, game and create                                | Two 4K monitors | One 4K monitor | One HD monitor | One HD monitor |
|                                        | More bandwidth for high speed data transfers                                                                                                       | 32Gb/s          | 16Gb/s         | 10Gb/s         | 5Gb/s          |
|                                        | More computer port power available to run accessories                                                                                              | 15W             | 15W            | 7.5W           | 4.5W           |



<sup>1</sup> Performance based on minimum specification requirements.

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