

Dell Pro Precision 5 16

PW516261

External Display Connection Guide

Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Before you begin

You can connect up to four 4K external displays, or one 8K display using the Thunderbolt 4 (USB Type-C) ports and HDMI port available on your Dell Pro Precision 5 16 PW516261.

Before you begin, ensure that you:

- Check the graphics options on your computer.
- Check the ports available on your external displays and decide on the mode of connection.

Check the graphics options on your computer

The number of external displays supported by your computer depends on the graphic card that is installed on your computer.

For more information about the graphic cards available on your computer, run Dell SupportAssist on your computer, or scan your hardware at [Dell Support Site](#).

The following graphic option may be installed in your computer:

- Intel Graphics (integrated graphics)
- NVIDIA RTX PRO 500/1000/2000 (discrete graphics)

Modes of connection

Depending on the ports available on your external display, you can connect the display to the Thunderbolt 4 (USB Type-C) ports or HDMI port on your computer using:

- HDMI cable
- Thunderbolt 4 cables, adapters, or docking stations
- USB Type-C cables, adapters, or docking stations

NOTE: Use appropriate cables to experience the maximum resolution supported by your external displays. For example, use DisplayPort or HDMI cables for 4K and above resolution.

NOTE: USB Type-C or Thunderbolt docking stations can be used to connect external displays to the computer using a single USB Type-C cable, while charging the computer. For more information about the types of docking stations available from Dell, see the knowledge base article [000124295](#) at [Dell Support Site](#).

NOTE: USB Type-C adapters can also be used to connect external displays to the computer, though these do not allow simultaneous power charging. For more information about the types of USB Type-C adapters available from Dell, see the knowledge base article [000125728](#) at [Dell Support Site](#).

Thunderbolt 4 USB Type-C ports available on your computer

Depicted below are the Thunderbolt 4 (USB Type-C) ports and HDMI port available on your computer:

NOTE: When connecting a display indirectly using an adapter or docking station, it is recommended that you connect the display to the docking station first. Then, connect the docking station to the Thunderbolt 4 (USB Type-C) port on your computer.

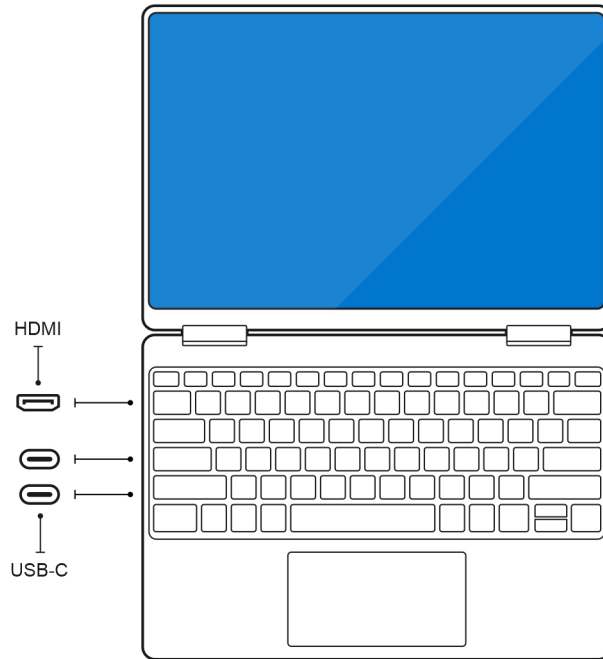


Figure 1. Thunderbolt 4 USB Type-C ports available on your computer

Turn off the internal display

There can be instances where you want to turn off the computer internal display to connect more external displays.

You can turn off the display of your computer by using the Display settings in Windows.

For more information about the steps to turn off the display, search [Microsoft Support Site](#).

Connecting external displays

You can connect up to four external displays to the Thunderbolt 4 (USB Type-C) ports and HDMI port on your computer.

The number of displays supported depends on the following:

- Whether you are using integrated graphics or discrete graphics.
- Whether the internal display is enabled or disabled.
- Your docking station may also limit the number of supported external displays. Check the documentation that came with your docking station.

The following table summarizes the number of supported external displays:

Table 1. Display support (up to 4K/60 Hz)

Graphics card	Supported external displays with computer internal display on	Supported external displays with computer internal display off	Video ports
Intel Graphics (integrated graphics)	3	4	• Two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort • One HDMI 2.1 port

Table 2. Display support (up to 8K/60 Hz)

Graphics card	Supported external displays with computer internal display on	Supported external displays with computer internal display off	Video ports
Intel Graphics (integrated graphics)	1	1	Two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort

Table 3. Display support (Discrete Graphics)

Graphics Card	Direct Graphics Controller Direct Output Mode	Supported external displays with computer internal display on	Supported external displays with computer internal display off	Video ports
NVIDIA Graphics	Not supported	3	4	Two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort

Connecting external displays to Dell Pro Precision 516 PW516261 (integrated graphics)

NOTE: When connecting a display indirectly using an adapter or docking station, it is recommended that you connect the display to the docking station first. Then, connect the docking station to the Thunderbolt 4 (USB Type-C) port on your computer.

With the computer display turned on

You can connect external displays directly to Thunderbolt 4 (USB Type-C) ports and HDMI port, or up to two external displays using a docking station.

- Connect an external display using a direct USB Type-C or Thunderbolt cable:

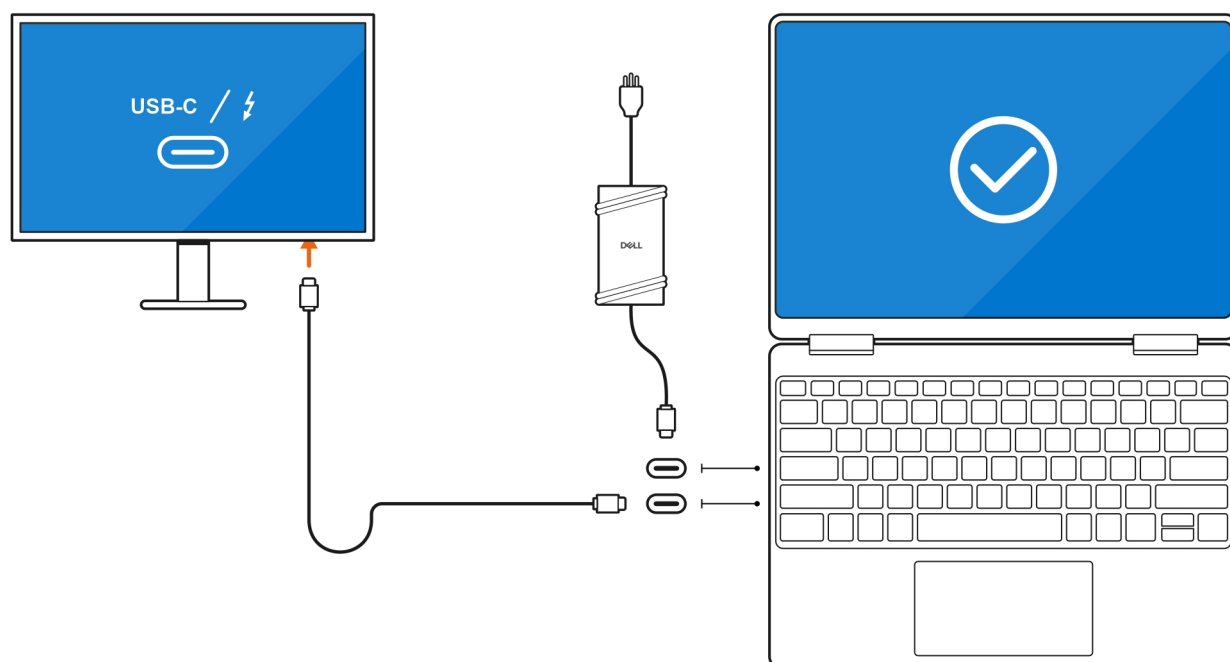


Figure 2. Connect an external display using a direct USB Type-C or Thunderbolt cable

- Connect an external display using a direct HDMI cable:

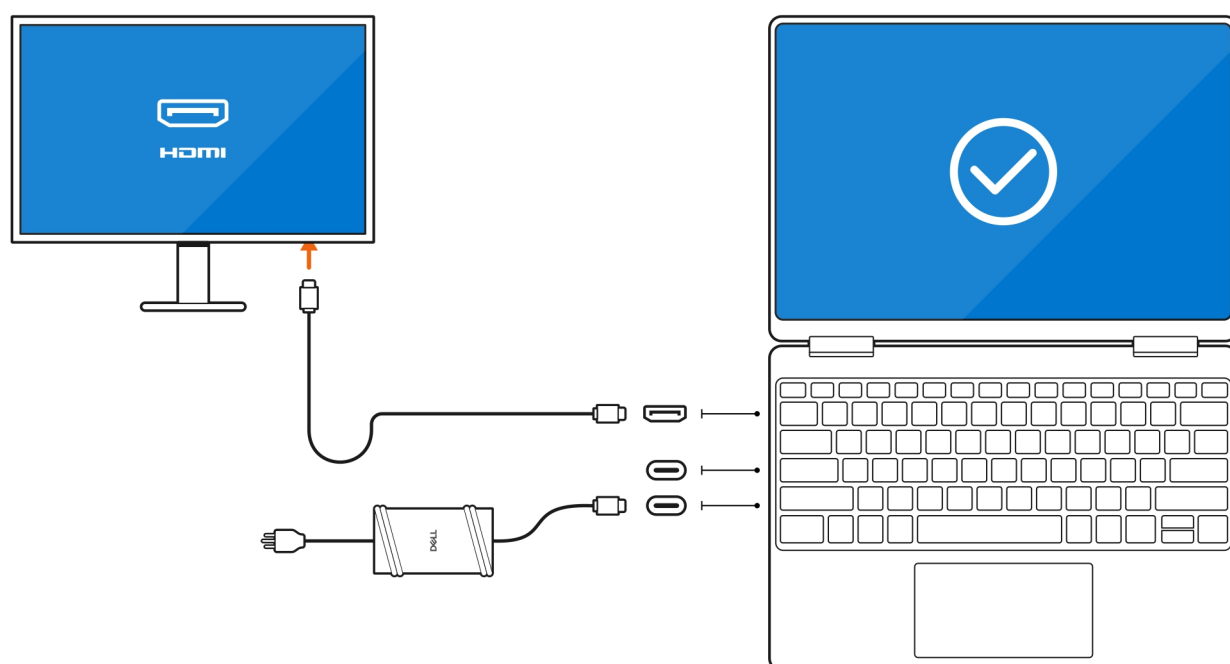


Figure 3. Connect an external display using a direct HDMI cable

- Connect an external display using a USB Type-C to Thunderbolt/HDMI/DisplayPort adapter:

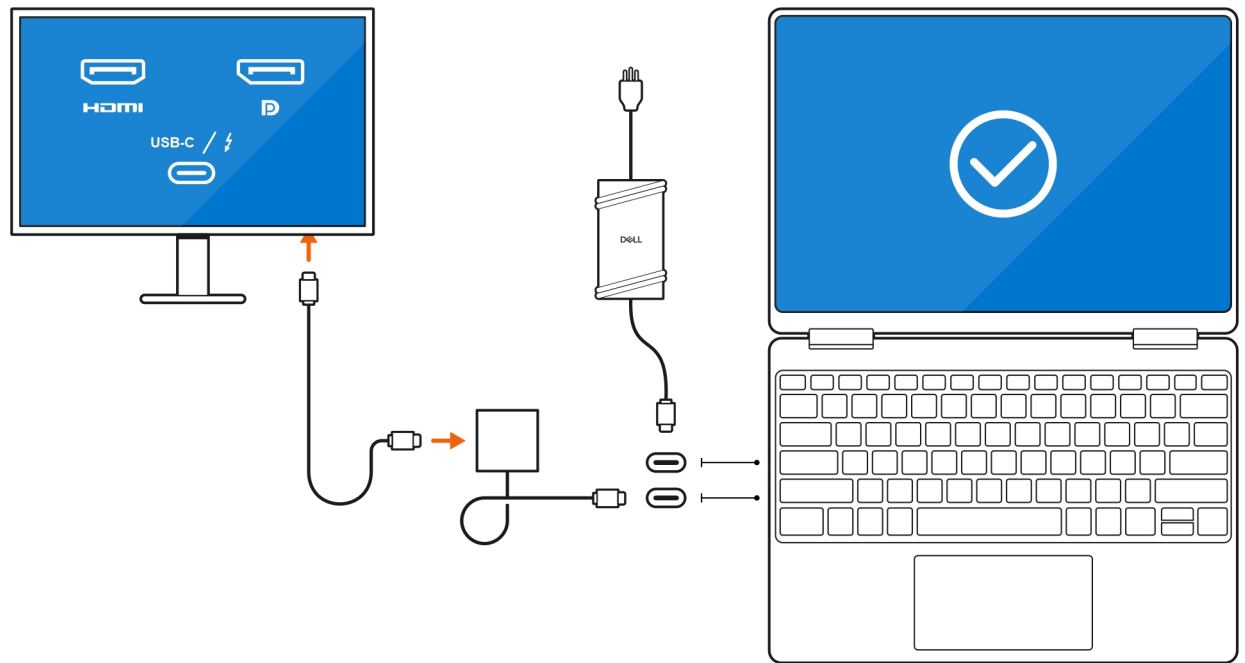


Figure 4. Connect an external display using a USB Type-C to Thunderbolt/HDMI/DisplayPort adapter

- Connect up to two external displays using a USB Type-C docking station:

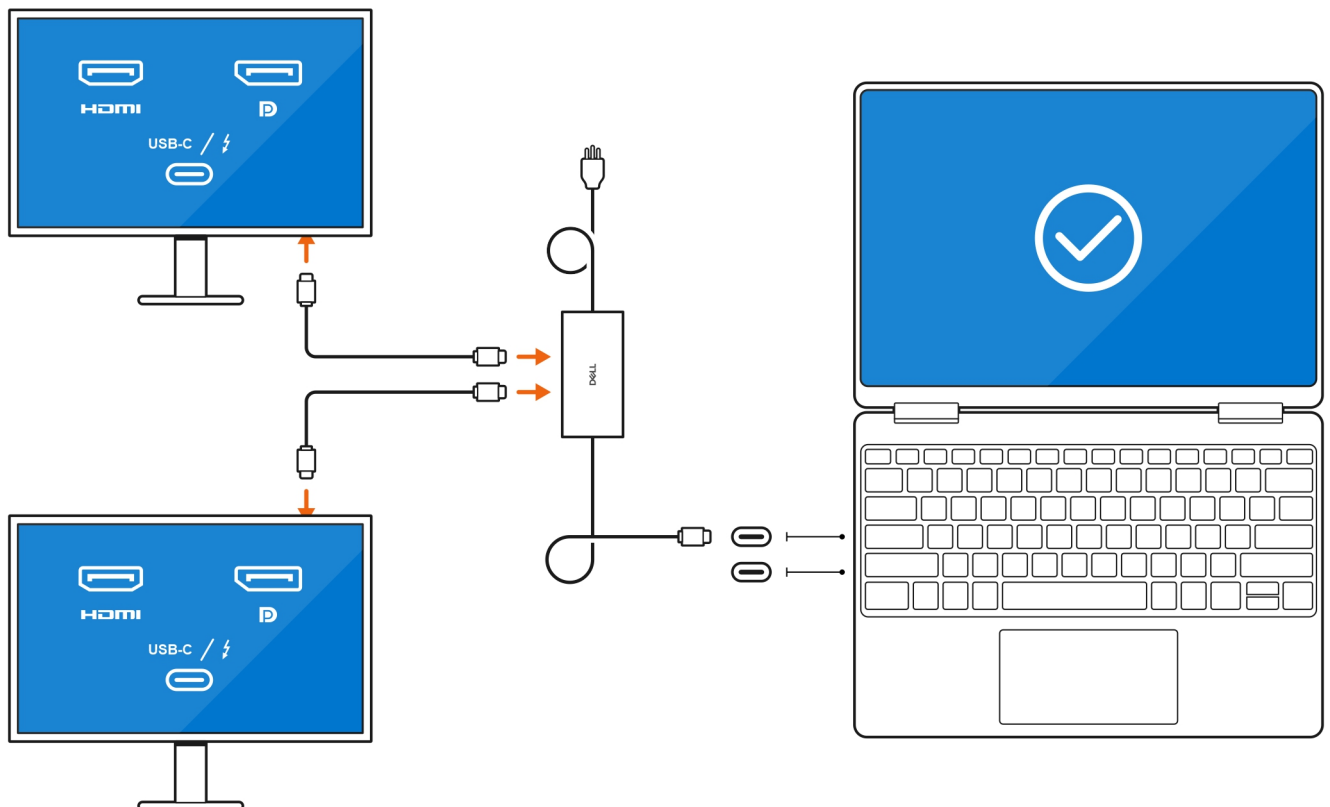


Figure 5. Connect up to two external displays using a USB Type-C docking station

- Connect up to three external displays using direct USB Type-C or Thunderbolt cables and a direct HDMI cable:

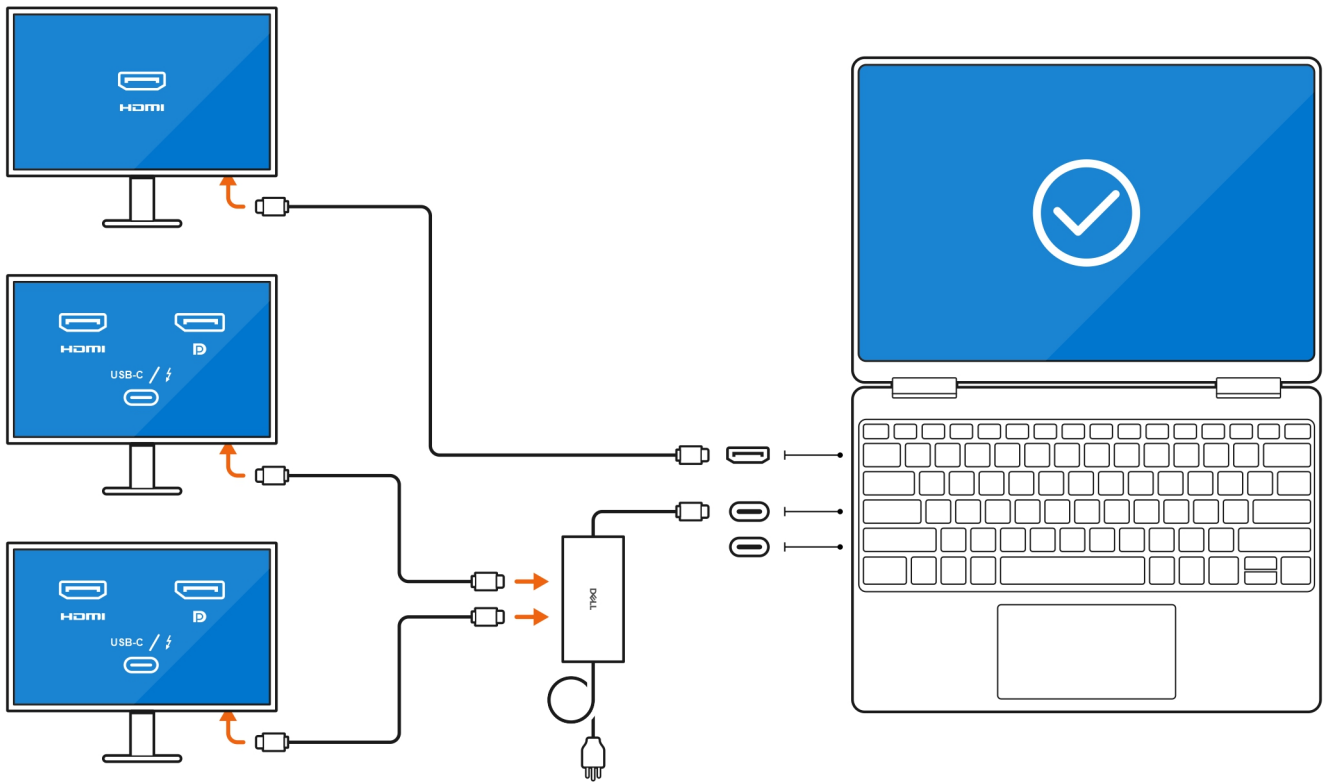


Figure 6. Connect up to three external displays using direct USB Type-C or Thunderbolt cables and a direct HDMI cable

- Connect up to three external displays using a USB Type-C docking station.

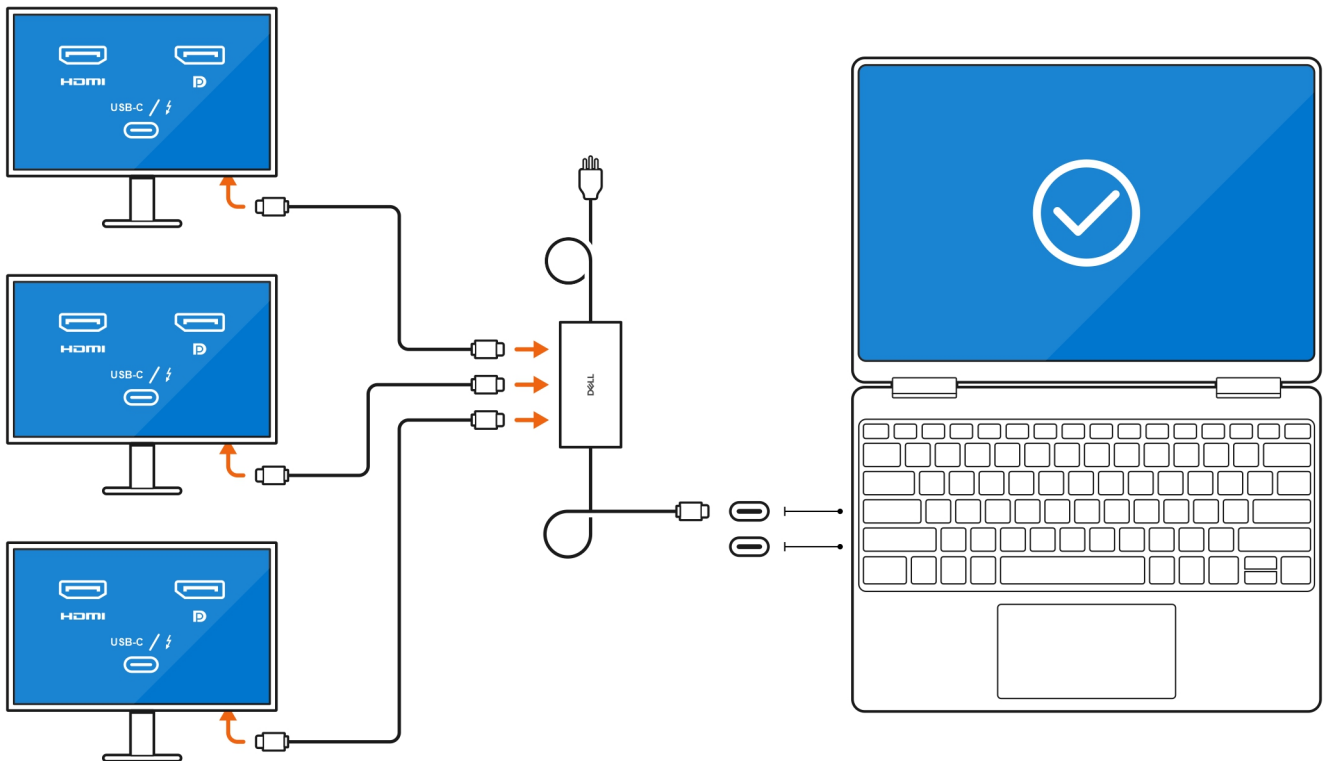


Figure 7. Connect up to three external displays using a USB Type-C docking station

With the computer display turned off

NOTE: Ensure that the internal display of the computer is turned off before connecting the external displays. For more information, see [Turn off the internal display](#).

NOTE: Connect and configure at least one external display before disabling the internal display of the computer.

You can connect external displays using the Thunderbolt 4 (USB Type-C) ports and HDMI port.

- Connect up to four external displays using a USB Type-C docking station and a direct HDMI cable:

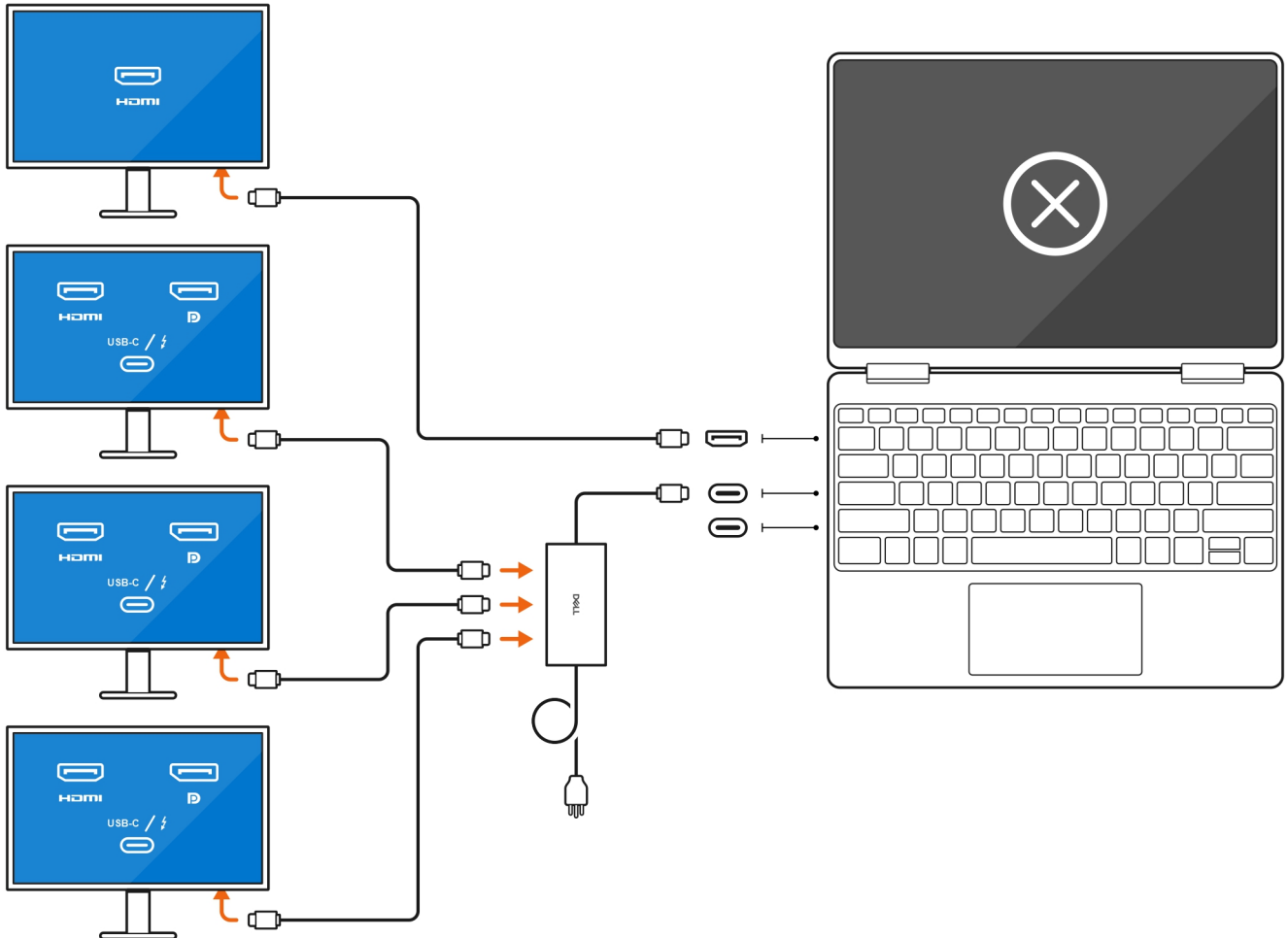


Figure 8. Connect up to four external displays using a USB Type-C docking station and a direct HDMI cable

- Connect two external displays using a docking station and two more external displays using a USB Type-C to HDMI/DisplayPort/Thunderbolt 4 adapter:

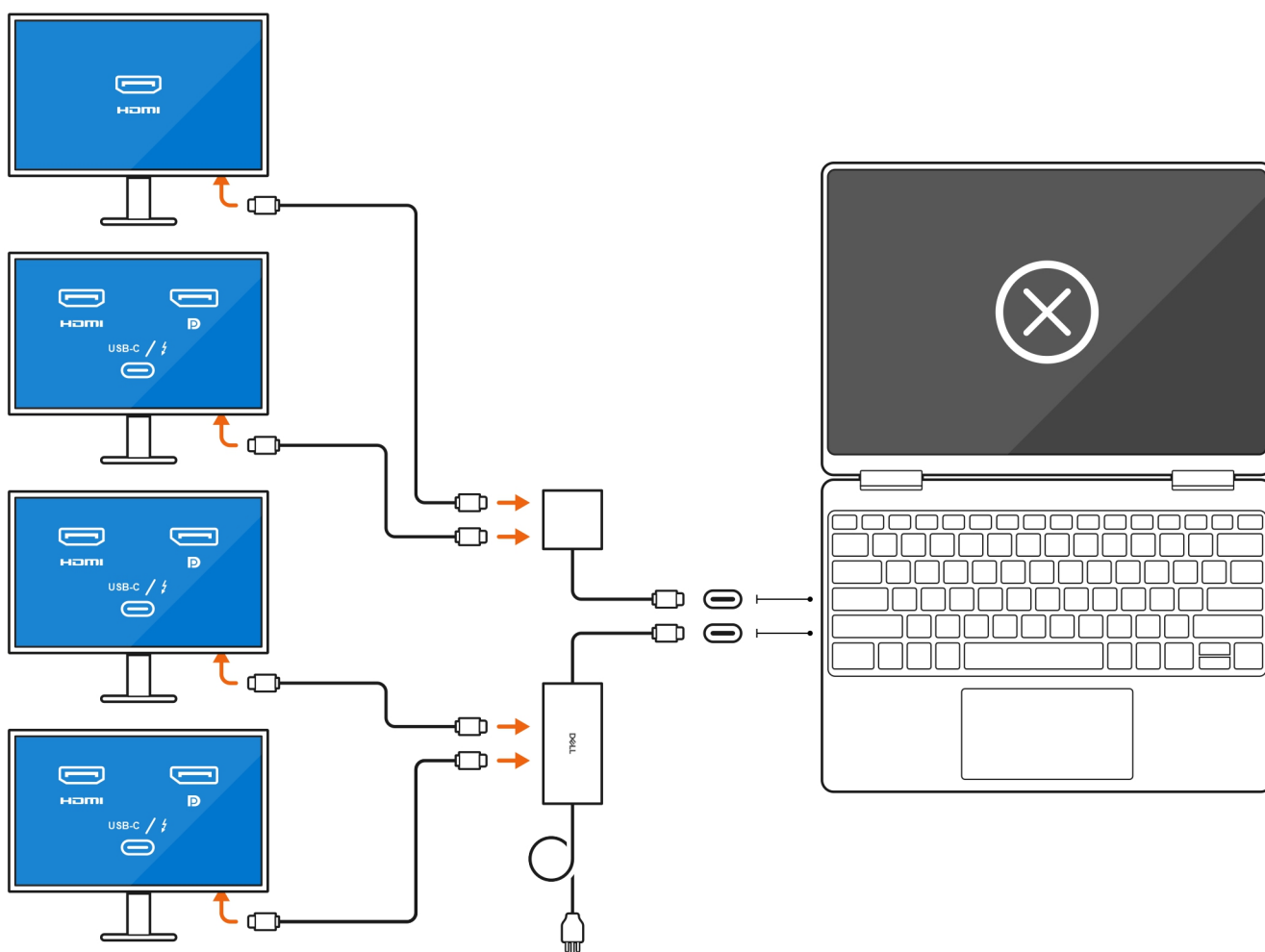


Figure 9. Connect two external displays using a docking station and two more external displays using a USB Type-C to HDMI/DisplayPort/Thunderbolt 4 adapter

Troubleshooting

The display output resolution cannot reach 4K@60 Hz while connecting the display monitor using a HDMI-to-DisplayPort or DisplayPort-to-HDMI dongle from the docking station to the computer

Concern

When I connect a display monitor to the computer using a HDMI-to-DisplayPort or DisplayPort-to-HDMI dongle from a Dell Thunderbolt 4 Dock WD22TB4, Dell Pro Thunderbolt 4 Smart Dock SD25TB4 or Dell Pro Thunderbolt 4 TAA Dock WD25TB4 docking station, the display output resolution does not reach 4K@60 Hz (reaches only 4K@30 Hz).

Cause

This is due to a hardware limitation while connecting dongles to the Dell Thunderbolt 4 Dock WD22TB4, Dell Pro Thunderbolt 4 Smart Dock SD25TB4 or Dell Pro Thunderbolt 4 TAA Dock WD25TB4 (limited graphic bandwidth) station.

Workaround

Connect the monitor directly to the HDMI or DisplayPort ports on the Thunderbolt docking station.

Getting help and contacting Dell

Self-help resources

You can get information and help on Dell products and services using these self-help resources:

Table 4. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	Dell Site
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	Windows Support Site Linux Support Site
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Dell computer is uniquely identified using a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at Dell Support Site . For more information about how to find the Service Tag for your computer, see Locate the Service Tag on your computer .
Dell knowledge base articles	1. Go to Dell Support Site. 2. On the menu bar at the top of the Support page, select Support > Support Library. 3. In the Search field on the Support Library page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [Dell Support Site](#).

 **NOTE:** Availability of the services may vary depending on the country or region, and product.

 **NOTE:** If you do not have an active Internet connection, you can find contact information in your purchase invoice, packing slip, bill, or Dell product catalog.