

Precision 5690

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 and above on your Precision 5690.

Total number of displays supported:

- Four 4K external displays: 2 ports
- One 8K

Before you begin, ensure that you:

- [Check the graphics options on your computer](#)

Check the graphics options on your computer

The number of external displays that are supported depends on the type of graphics card available on your computer:

- The integrated graphics card can support a maximum of 4 displays.
- The hybrid graphics card can support a maximum of 4 displays.

NOTE:

- Dell Docking Station—WD19DCs display behavior follows the host the Thunderbolt 4 (USB Type-C) port.
- The DP 1.4 port and MFDC (MFDP) Type-C port on the WD19DCs docking station cannot support dual monitors simultaneously.

For more information about the graphics card available on your computer, run Dell SupportAssist on your computer, or scan your hardware at www.dell.com/support.

The following are the graphic options that may be installed in your computer:

- Intel Arc Graphics (Integrated graphics)
- NVIDIA RTX 1000 Ada Generation Laptop GPU
- NVIDIA RTX 2000 Ada Generation Laptop GPU
- NVIDIA RTX 3500 Ada Generation Laptop GPU
- NVIDIA RTX 4000 Ada Generation Laptop GPU
- NVIDIA RTX 5000 Ada Generation Laptop GPU

Turn off the internal display

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

You can turn off the LCD display of your computer by using the Intel HD Graphics Command Center.

To turn off the display:

1. In the Windows search bar, type **Intel Graphics Command Center** and press **<Enter>**.
2. Accept the **Intel Graphics Command Center** software licence agreement.
3. On the **Intel Graphics Command Center** window, click **Display**. The list of active displays is listed under the **Connected Displays** section.
4. Click the ellipsis (...) in the top-right corner of your primary display, then click **Extend > Display 2**.
5. Click the ellipsis (...) in the top-right corner of display 2, then click **Make Display Primary**.
6. Click the ellipsis (...) in the top-right corner of your computer's display, then click **Disable**.

Connect displays

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

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

NOTE: To experience the full resolution supported by your external displays, use appropriate cables. For examples, use DisplayPort or HDMI cables for 4K and above resolution.

Supported display

Table 1. Supported display via host display port under different modes

Graphics card mode	Connect to external displays			
	One external display	Two external displays	Three external displays	Four external displays
UMA	7680 x 4320 @ 60 Hz	<ul style="list-style-type: none"> • 7680 x 4320 @ 60 Hz • 7680 x 4320 @ 60 Hz 	<ul style="list-style-type: none"> • 7680 x 4320 @ 60 Hz • 4096 x 2304 @ 60 Hz • 4096 x 2304 @ 60 Hz 	<ul style="list-style-type: none"> • 4096 x 2304 @ 60 Hz • 4096 x 2304 @ 60 Hz • 4096 x 2304 @ 60 Hz • 4096 x 2304 @ 60 Hz
Hybrid mode	7680 x 4320 @ 60 Hz	<ul style="list-style-type: none"> • 7680 x 4320 @ 60 Hz • 7680 x 4320 @ 60 Hz 	<ul style="list-style-type: none"> • 7680 x 4320 @ 60 Hz* • 4096 x 2304 @ 60 Hz • 7680 x 4320 @ 60 Hz 	<ul style="list-style-type: none"> • 7680 x 4320 @ 60 Hz* • 4096 x 2304 @ 60 Hz • 4096 x 2304 @ 60 Hz • 7680 x 4320 @ 60 Hz

* Applicable to the USB Type-C port (right side).

NOTE: USB Type-C (right side) is not available in pre-OS environment.

Table 2. Supported display via docking station under Hybrid mode

Hybrid mode		
TBT Dock	Type-C TBT + DP + DP + HDMI/MFDP: 4k@60 Hz + 2k@60 Hz*3	<ul style="list-style-type: none"> • Up to 3 if internal display on • Up to 4 if internal display off • Connect either HDMI or MFDP only, do not connect both of them.
Single Cable Dock	<ul style="list-style-type: none"> • DP + DP + HDMI : FHD@60 Hz*3 • DP + DP + MFDP : FHD@60 Hz*3 	

Table 2. Supported display via docking station under Hybrid mode (continued)

Hybrid mode		
Dual Cable Dock	<ul style="list-style-type: none">• DP + DP + HDMI: 2k@60 Hz*3• DP + DP + MFDP: 2k@60 Hz*3	

Troubleshooting

Question

When I connect an 8K display using the USB Type-C to DisplayPort adapter, the display resolution can reach to 8K, but refresh rate cannot reach to 60Hz.

Workaround

Connect the 8K display with the dual USB Type-C to DisplayPort adapter.



Connect the 8K display with dual cable WD19DCs dock dual DisplayPort or Host dual USB Type-C to DisplayPort adapter.

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 3. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	www.dell.com/support/windows
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 www.dell.com/support . 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	<ol style="list-style-type: none"> 1. Go to www.dell.com/support. 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 www.dell.com/contactdell.

 **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 about your purchase invoice, packing slip, bill, or Dell product catalog.