

Dell Thunderbolt Dock TB15 User Guide



Notes, cautions, and warnings

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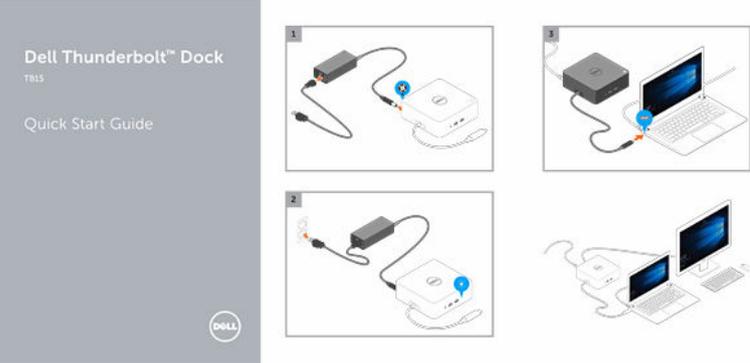
Introduction

The Dell Thunderbolt Dock TB15 is a device that links all your electronic devices to your laptop computer using Thunderbolt 3 (Type-C) cable interface. When you connect the laptop to the docking station, you can gain access to all your peripherals such as the mouse, keyboard, stereo speakers, external hard drive, and large-screen displays without having to plug each one into the laptop.

 **CAUTION:** You must update your computer's BIOS and the Dell Docking Station drivers to the latest versions available at www.dell.com/support before using the docking station. Older BIOS versions and drivers could result in the docking station not being recognized by your computer or not functioning optimally. Please see the [Important Information](#) chapter for detailed instructions on how to update your BIOS, Graphics, and Audio drivers before using the Dell Thunderbolt Dock TB15.

Package Contents

Your docking station ships with the components shown below. Ensure that you have received all the components and contact Dell (see your invoice for contact information) if something is missing.

	<p>Docking Station with Thunderbolt 3 (Type-C) cable</p> <p>180 W / 240 W Power Adapter</p> <p>Power Cord</p>
	<p>Quick Setup Guide (QSG)</p>

Safety,
Environmental,
and Regulatory
Information

Hardware Requirements

Before using the docking station, ensure that your laptop or PC has a Thunderbolt 3 (Type-C) port.



Audio headset port



USB 3.0 port with PowerShare



USB 3.0 port



Power Adapter LED Indicator



Sleep/Wake up button



Kensington Lock slot



HDMI port



DisplayPort (Mini and Full)



VGA port



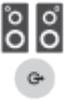
Network connector (RJ-45)



USB 2.0 port



USB 3.0 port



Line-out



Power connector

Input/Output (I/O) Connectors

The Dell Thunderbolt Dock TB15 has the below I/O connectors:

Video Ports	<ul style="list-style-type: none">• mini DisplayPort x 1• DisplayPort x 1• HDMI x 1• VGA x 1
Input/Output Ports	<ul style="list-style-type: none">• USB 2.0 x 2• USB 3.0 x 2• USB 3.0 PowerShare x 1• Thunderbolt 3 (Type-C) x 1• 7.4 mm DC-in x 1• Gigabit Ethernet (RJ-45) x 1• Headset connector x 1• Line-out connector x 1

Important Information

You must update your computer's BIOS and the Dell Docking Station drivers to the latest versions available at www.dell.com/support before using the docking station. Older BIOS versions and drivers could result in the docking station not being recognized by your computer or not functioning optimally.

 **NOTE:** Please see [Display Resolution Table](#) for more information on maximum resolution capacity.

Updating the Dell Thunderbolt Dock TB15 driver set

To fully support the new generation Dell Thunderbolt Dock TB15, it is highly recommended to install the following BIOS/Drivers on a 64-bit Windows operating system.

1. Go to www.dell.com/support and click **Detect Product** to auto-detect your product, or enter your computer's Service Tag in the **Enter a Service Tag or Express Service Code** field, or click **View Products** to browse to your computer model.
2. Flash the latest BIOS available for your system. This is available for download at dell.com/support under the "BIOS" section. Re-start the computer before the next step.
3. For Windows 8.1 and Windows 10 operating systems only, install the **Patch for USB audio/mouse issue on Dell Thunderbolt Dock TB15 and Dell Dock WD15** available for your system. This is available for download at dell.com/support under the "Docks/Stands" section. Re-start the computer before the next step.
4. Install the **Intel Thunderbolt Controller Driver** available for your system. This is available for download at dell.com/support under the "Docks/Stands" section. Re-start the computer before the next step.
5. Install the **Intel Thunderbolt 3 Firmware Update** available for your system. This is available for download at dell.com/support under the "Docks/Stands" section. Re-start the computer before the next step.
6. For Dell Thunderbolt Dock TB15 only, install the **ASMedia USB 3.0 Extended Host Controller Driver for Dell Thunderbolt Dock** available for your computer. This is available for download at dell.com/support under the "Docks/Stands" section. Then, re-start the system.
7. Install the **Realtek USB GBE Ethernet Controller Driver for Dell Thunderbolt Dock and Dell Dock** available for your system. This is available for download at dell.com/support under the "Docks/Stand" section.
8. Install the **Realtek USB Audio Driver for Dell Wireless Dock, Dell Thunderbolt Dock, and Dell Dock** available for your computer. This is available for download at dell.com/support under the "Docks/Stands" section.

 **NOTE:** The docking station is not required to be connected to the computer during the driver installation. However, it is recommended to re-start the computer, after connecting the docking station to the computer, to ensure that all drivers are installed successfully.

Updating the Graphics drivers for your computer

The Microsoft Windows operating systems include the VGA graphics drivers only. Therefore, for optimum graphics performance, it is recommended that Dell graphics drivers applicable for your computer be installed from dell.com/support under the “**Video**” section



NOTE:

1. For nVidia Discrete Graphics solutions on the Latitude E-Family and Mobile Precision 3rd Generation and above computers:
 - a. First, install the Intel Media Adapter Graphics Driver applicable to your computer.
 - b. Second, install the nVidia Discrete Graphics Driver applicable to your computer.
2. For AMD Discrete Graphics solutions on the Latitude E-Family and Mobile Precision 5th Generation and above computers:
 - a. First, install the Intel Media Adapter Graphics driver applicable to your computer.
 - b. Second, install the AMD Discrete Graphics driver applicable to your computer.



NOTE: Both 2nd and 3rd Generation Intel Core CPUs are available on the 4th Generation Latitude E-Family and Mobile Precision computers. Please re-install the graphics drivers when you exchange a 2nd Generation CPU for a 3rd Generation CPU, and vice versa.



NOTE: Both 3rd and 4th Generation Intel Core CPUs are available on the 5th Generation Latitude E-Family and Mobile Precision computers, except for the Dell Latitude 3440/3540 computers. Please re-install the graphics drivers when you exchange a 3rd Generation CPU for a 4th Generation CPU, and vice versa.

Quick Setup of Hardware

1. Connect the AC adapter to the 7.4 mm DC-in power input on the Dell Thunderbolt Dock TB15.

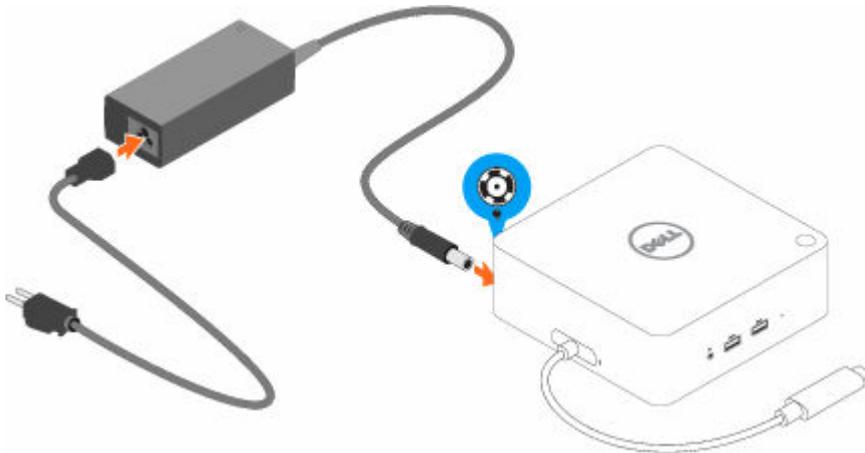
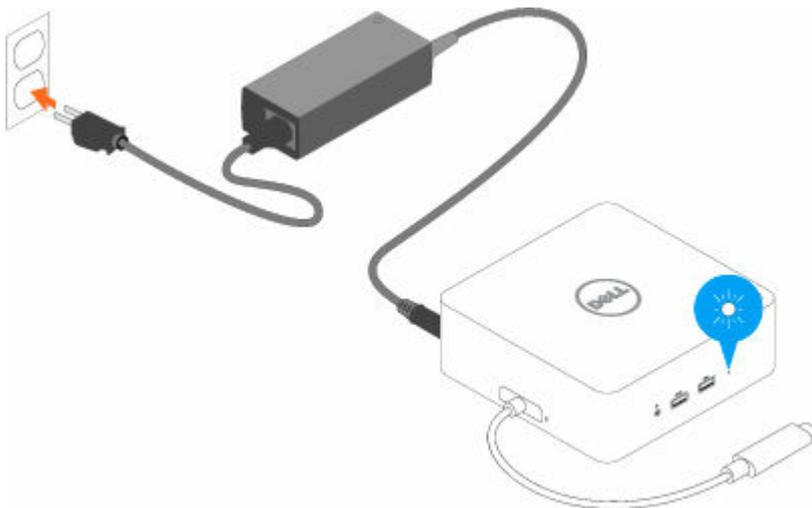


Figure 3. Connecting the AC Adapter

2. Connect the AC adapter to a power outlet.



3. Connect the Thunderbolt 3 (Type-C) connector to the computer.



Figure 4. Connecting the Thunderbolt 3 (Type-C) connector

 **NOTE:** Connecting the Thunderbolt 3 (Type-C) cable will auto wake-up the laptop and connect any peripherals already attached. This behavior can be disabled in your BIOS Setup option "Wake on Trinity Dock".

4. Connect multiple displays to the docking station, as needed.



 **NOTE:** Computers requiring more than 130 W power input must also be connected to their own power adapter for charging and operating at full performance.

LED Status Indicators

Power Adapter LED

Table 1. Power Adapter LED indicator

State	LED Behavior
Connected	Solid White

Docking Status Indicator

Table 2. Docking Station LED Indicators

State	LED Behavior
Connected	Solid White

Table 3. RJ-45 LED Indicators

Link Speed Indicators	Ethernet Activity Indicator
10 Mb = Green	Yellow Flashing
100 Mb = Orange	
1 Gb = Green + Orange	

Configuring the Intel HD Graphics Utility

If connecting two displays, follow these steps:

1. Click the icon list on the task bar.



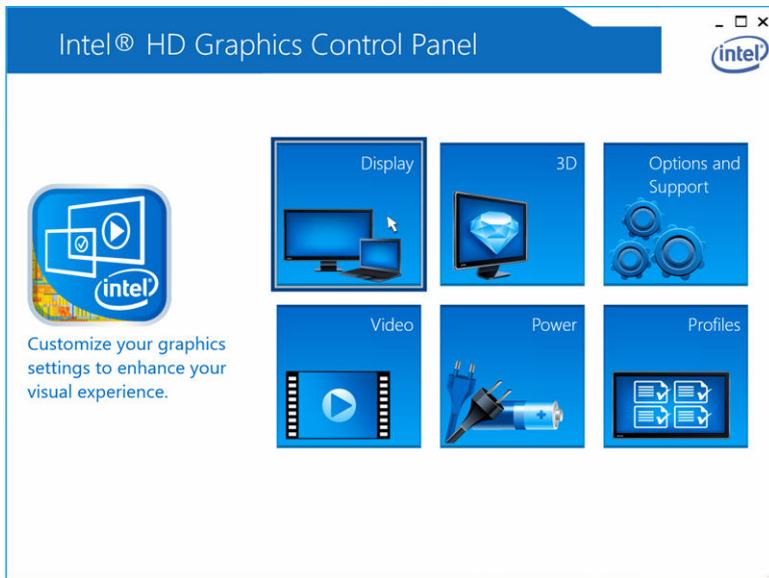
2. Click the Intel HD Graphics utility on your taskbar as shown here.



3. Click **Graphics Properties**.



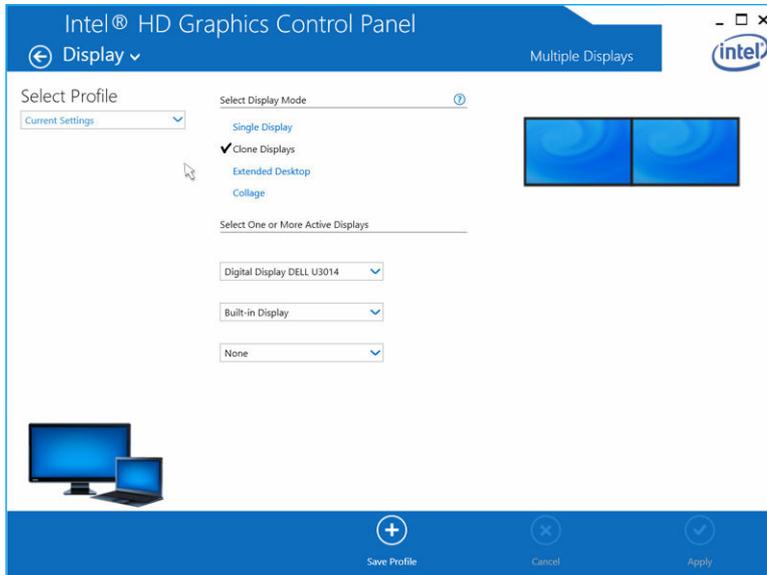
4. Click **Display**.



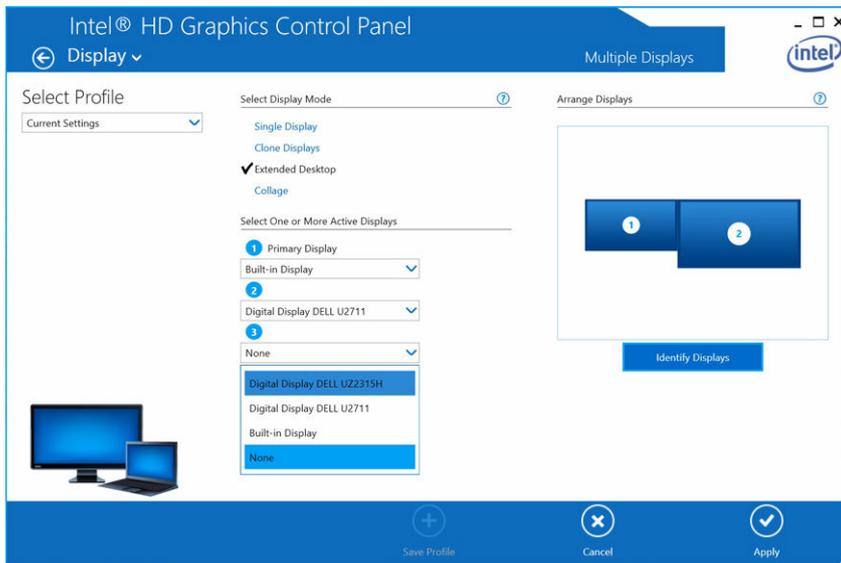
5. Click **Display** and select **Multiple Displays**.



6. Select your preferred Display Mode.



7. Select and arrange your displays to your preferred style and then click **Apply** for the changes to take effect.



Removing the Thunderbolt 3 (Type-C) Cable

The Dell Thunderbolt Dock TB15 is shipped with the Thunderbolt 3 (Type-C) cable attached. To remove/change the cable, follow these steps:

1. Turn over the docking station.



2. Peel back the rubber safety shield as shown.



3. Remove the two M2.5 x 5 screws.



4. Lift and remove the metal cable bracket.



5. Pull out the USB Type-C cable from its connector inside the docking station.



Troubleshooting the Dell Thunderbolt Dock TB15

Symptoms and Solutions

Symptoms	Suggested solutions
1. No video on the monitors attached to the HDMI, miniDP port, or the VGA port on the docking station.	<ul style="list-style-type: none"> • Make sure the laptop is connected to the docking station. Disconnect and re-connect the docking station to the computer. • Disconnect both ends of the video cable and check for damaged/bent pins. Secure re-connect the cable to the monitor and docking station. • This may be due to the monitor(s) supporting higher resolutions than docking station is able to support. In the Intel Graphics Control Panel, under General Settings, ensure that the resolution is set to 1920 x 1200 or 1920 x 1080 at 59 Hz or 60 Hz for both the monitors. • If only one monitor is shown, while the other is not, go to the Intel Graphics Control Panel, and under Multiple Displays, select the output for the second monitor. • Try with a different monitor and cable that is known to be good, if possible. • Please see the Display Resolution Table for information on maximum resolution capacity.
2. The video on the attached monitor is distorted or flickering.	<ul style="list-style-type: none"> • Disconnect both ends of the cable and check for damaged/bent pins. Secure re-connect the cable to the monitor and docking station. • When the monitor is distorted or flickering, please reset your monitor to restore it to its original settings. You can reset the monitor by pressing the Menu button on the monitor itself, and selecting Restore Factory Settings. Or disconnect the monitor from your docking station and power off and on in order to reset. • Try with a different monitor and cable that is known to be good, if possible.
3. The video on the attached monitor is not displaying as an extended monitor.	<ul style="list-style-type: none"> • Make sure the Intel HD Graphics software is installed in the Windows Device Manager. • Open the Intel HD Graphics Control Panel and go to Multiple Displays control to set the display to the extended mode.

Symptoms	Suggested solutions
4. The audio connector is not functioning or there is a lag in the audio.	<ul style="list-style-type: none"> • Ensure the correct playback device is selected in the laptop. • If your BIOS Setup has a Audio Enabled/ Disabled option, make sure it is set to Enabled. • The most likely cause of audio output problems on the docking station is a bad audio-out connector. First try powering off and then powering on the docking station. If that fails, try to re-plug in the audio cable to the docking station from the external speaker output.
5. The USB ports are not functioning on the docking station.	<ul style="list-style-type: none"> • Make sure the laptop is connected with the docking station. Try to disconnect and reconnect again with the docking station. • If your BIOS Setup has a USB Enabled/Disabled option, make sure it is set to Enabled • Check the USB ports. Try plugging the USB device into another port. • Please check if the plugged device is shown in the Windows Device Manager.
6. The HDCP content is not displayed on the attached monitor.	<ul style="list-style-type: none"> • The docking station does not support HDCP content
7. The LAN port is not functioning.	<ul style="list-style-type: none"> • Check the link lights on the dock to confirm connectivity. • Re-seat both ends of the Ethernet cable, if the lights are not lit. • Try plugging the Ethernet cable in to a different computer. • Make sure the Ethernet cable connections are secured at the firewall and the hub or workstation. • If your BIOS Setup has a LAN/GBE Enabled/ Disabled option, make sure it is set to Enabled • Make sure the Realtek Gigabit Ethernet controller is installed in the Windows Device Manager. • Please re-install the Realtek Ethernet Driver or update your BIOS from Dell.com/support.
8. Cable LED is not ON after is connected to your host.	<ul style="list-style-type: none"> • Make sure the TB15 is connected with AC. • Make sure the laptop is connected with the docking station. Try to disconnect and re-connect again with the docking station.
9. USB port has no function in a pre-OS environment.	<ul style="list-style-type: none"> • If your BIOS has an USB/Thunderbolt Configuration page, please make sure the following options are checked: <ul style="list-style-type: none"> • 1. Enable USB Boot Support • 2. Enable External USB Port • 3. Enable Thunderbolt Boot Support

Symptoms	Suggested solutions
10. PXE boot on dock does not function.	<ul style="list-style-type: none"> • If your BIOS has an integrated NIC page, please select Enabled w/PXE. • If your BIOS has an USB/Thunderbolt Configuration page, please make sure the following options are checked: <ul style="list-style-type: none"> • 1. Enable USB Boot Support • 2. Enable Thunderbolt Boot Support
11. USB Boot does not function.	<ul style="list-style-type: none"> • If your BIOS has an USB/Thunderbolt Configuration page, please make sure the following options are checked: <ul style="list-style-type: none"> • 1. Enable USB Boot Support • 2. Enable External USB Port • 3. Enable Thunderbolt Boot Support
12. AC Adapter is displayed as "Not Installed" in the Battery Information page of the Dell BIOS Setup when the Thunderbolt 3 (Type-C) cable is connected.	<ul style="list-style-type: none"> • 1. Make sure the Dell Thunderbolt Dock TB15 is connected properly to its own adapter (240 W). • 2. Make sure the Thunderbolt 3 (Type-C) cable LED on the cablehead overmould is 'On'. • 3. Disconnect and then re-connect the Thunderbolt 3 (Type-C) cable.

Technical specifications

Docking Specifications

Standard	<ul style="list-style-type: none"> Thunderbolt 3 (Type-C)
Video Ports	<ul style="list-style-type: none"> mini DisplayPort x 1 (supports DP 1.2) DisplayPort x 1 HDMI x 1 (supports HDMI 1.4a) VGA Port x 1
I/O Ports	<ul style="list-style-type: none"> Headset connector x 1 Line out x 1
Network Port	<ul style="list-style-type: none"> Gigabit Ethernet (RJ-45) x 1
USB Ports	<ul style="list-style-type: none"> 2 Front USB 3.0 Ports (one with PowerShare) 1 Rear USB 3.0 Port 2 Rear USB 2.0 Ports
DC-in Port	<ul style="list-style-type: none"> one 7.4 mm DC-in port
USB Type-C cable length	<ul style="list-style-type: none"> 0.5 m
Buttons	<ul style="list-style-type: none"> Sleep/Wakeup
LED	<ul style="list-style-type: none"> Front status indicator <ul style="list-style-type: none"> – Connected Mode - White

Environmental Characteristics	Temperature	Operating: 0 °C to 35 °C
		Non-operating: <ul style="list-style-type: none"> • Storage: -20 °C to 60 °C (-4 °F to 140 °F) • Shipping: -20 °C to 60 °C (-4 °F to 140 °F)
	Humidity	Operating: 10% to 80% (non-condensing)
		Non-operating: <ul style="list-style-type: none"> • Storage: 5% to 90% (non-condensing) • Shipping: 5% to 90% (non-condensing)
Average Power Consumption	4.384 W	
Network Standby Power Consumption	5.8 W	
Dimension	145 mm x 145 mm x 52 mm	
Weight	740 g (minimum)	
VESA Mounting options	Yes – via Dell Docking Station Mounting Kit	

Table 4. Dell Thunderbolt Dock TB15 Power Adapter

Adapter Specifications	E4 180 W	E4 240 W
Input voltage	100 VAC to 240 VAC	100 VAC to 240 VAC
Input current (max)	2.34 A	3.5 A
Input frequency	50 Hz to 60 Hz	50 Hz to 60 Hz
Output current	9.23 A (continuous)	12.31 A (continuous)
Rated output voltage	19.5 VDC	19.5 VDC

Display Resolution Table

Table 5. Display Resolution Table

Thunderbolt or Universal cable with TBT (Default)	Single Display (maximum resolution)	Dual Display (maximum resolution)	Triple Display (maximum resolution)	Quad Display (maximum resolution)
Up to 40 G of DisplayPort bandwidth	DP + mDP: 5k x 3k @ 60 Hz DP/mDP/Type-C: 4k x 2k @ 60 Hz HDMI: 4k x 2k @ 24/30 Hz VGA: 1920 x 1200 @ 60 Hz	Dual 4k x 2k @ 60 Hz by DP + mDP or DP+Type-C	DP + mDP+HDMI: 3 x 4k x 2k @ 30 Hz	mDP + HDMI + DP + VGA: 3x 4k x 2k @ 30 Hz + 1x FHD (VGA)  NOTE: AMD and Nvidia only
DP Alternate System (no TBT)	Single Display (maximum resolution)	Dual Display (maximum resolution)	Triple Display (maximum resolution)	Quad Display (maximum resolution)
Up to 10.8 G of DisplayPort bandwidth	DP/mDP/HDMI: 4k x 2k @ 30 Hz	Dual 1920 x 1200 @ 60 Hz	Triple 1280 x 1024 @ 60 Hz	Not supported

 **NOTE:** If higher resolution monitors are used, the Intel Graphics driver will make a judgement based on monitor specifications and display configurations. Some resolutions may not be supported and so will be removed from the Intel Graphics Media Control Panel.

 **NOTE:** Resolution support is also dependent on the monitor's Extended Display Identification Data (EDID) resolution.

Getting help

Contacting Dell

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

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to **Dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.