Dell Universal Dock UD22

User Guide





Notes, cautions, and warnings

(i) 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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The Dell Universal Dock UD22 is a device that links all your peripheral devices to your computer using a USB Type-C cable interface. Connecting the computer to the docking station allows you to access all peripherals (mouse, keyboard, stereo speakers, external hard drive, and large-screen displays) without having to plug each one into the computer.

CAUTION: Update your computer's BIOS, graphic drivers and the Dell Universal Dock UD22 driver to the latest versions available at <u>www.dell.com/support</u> BEFORE using the docking station. Older BIOS versions and drivers could result in your computer not recognizing the docking station or not functioning optimally. Always check if any recommended firmware is available for your docking station at <u>www.dell.com/support</u>.

Package Contents

Your docking station ships with the components shown below:

Table 1. Package contents



Contents	Specifications
Safety, Environmental, and Regulatory Information	Safety, Environmental, and Regulatory Information
Mathematical M	
Automatical Marcal Marcal Marcal Statistical Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marcal Marc	

Table 1. Package contents (continued)

Hardware Requirements

Before using the Dell Universal Dock UD22, ensure that your system has a USB Type-C with DisplayPort Alt Mode that is designed to support the docking station.

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Identifying Parts and Features



Figure 1. Top view

1. USB Type-C cable (connects to your computer's USB Type-C port)



Figure 2. Front view

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3.

- 1. USB 3.2 Gen 2 (10Gbps) port
- 2. USB 3.2 Gen 2 (10Gbps) port with PowerShare
 - USB 3.2 Gen 2 Type-C (10Gbps) port with PowerShare



Figure 3. Right view

1. Kensington nano lock slot





Figure 4. Back view



5.

RJ45 Ethernet port (1000/100/10 Mbps)

4 Two USB 3.2 Gen2 (10Gbps) ports

6. USB 3.2 Gen 2 Type-C port with DisplayPort 1.4 Alt Mode



Figure 5. Bottom view

1. Service tag label

2. Two VESA mount slots

Important Information

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Dell Universal Dock UD22 driver Synaptics (DisplayLink) USB Graphic and USB Network Interface Controller Driver) is required to be installed before using the docking station for full functionality. Dell recommends updating the computer's BIOS and graphics driver to the latest version 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.

Updating Drivers on Your System

It is recommended to update the following drivers on your system before using Dell Universal Dock UD22:

- 1. System BIOS
- 2. Graphics driver
- 3. USB controller driver
- 4. Ethernet driver

CAUTION: Older BIOS versions and drivers could result in the docking station not being recognized by your system or not functioning optimally.

For Dell systems, you can visit <u>www.dell.com/support</u> and enter the Service Tag or Express Service Code to find all relevant drivers. For more information on how to find the Service Tag for your computer, see **Locate the Service Tag on your computer**. For non-Dell systems, please visit the respective manufacturer's support page to find the latest drivers.

Updating the Dell USB-C Universal Dock -UD22 Driver Set

To ensure that the Dock functions correctly, it is highly recommended to install the latest firmware available for the UD22. All available drivers can be found on <u>www.dell.com/support</u>.

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Quick Setup of Hardware

Steps

1. Update your system's BIOS, graphics and drivers from <u>www.dell.com/support/drivers</u>.



2. Connect the AC power adapter to a power outlet. Then, connect the AC adapter to the 7.4 mm DC-in power input on the Dell Universal Dock UD22.



Figure 6. Connecting the AC power adapter

Connect the USB Type-C cable to the computer/laptop.
 Update the Dell Universal Dock UD22 firmware and driver from <u>www.dell.com/support/drivers</u>.



(i) **NOTE:** Computers requiring more than 90 W power input must also be connected to their own power adapter for charging and operating at full performance.

Figure 7. Connecting the USB Type-C cable

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



Figure 8. Connecting the multiple displays

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Setup of External Monitors

Topics:

Updating the Graphics Drivers for Your Computer Configuring Your Monitors Display Bandwidth Display Resolution Table

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 <u>dell.com/support</u> under the "**Video**" section

() NOTE:

- 1. For Nvidia Discrete Graphics solutions on the supported Dell systems:
 - 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.
 - Please read your computer's user guide to check if you need to install Intel Media Adapter

Graphics Driver or Nvidia Discrete Graphics Driver, or both.

- 2. For AMD Discrete Graphics solutions on the supported Dell systems:
 - 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.

Configuring Your Monitors

If connecting two displays, follow these steps:

Steps

- 1. Click the Start button, and then select Settings.
- 2. Click System and select Display.

3. Under the Multiplay displays section, modify display configuration as needed.

Settings			- 0	×
ம் Home	Display			
Find a setting $ ho$ System	Rearrange your displays Select a display below to change the settings for it. Press and hold (or select) a display, then drag to rearrange it.	Get help Give feedback		
🖵 Display				
句》 Sound				
Notifications & actions				
J Focus assist				
O Power & sleep				
Battery	Identify Detect			
📼 Storage				
-문 Tablet	Brightness and color			
曰: Multitasking	Change brightness for the built-in display			
Projecting to this PC	Night light Off Off			
X Shared experiences	Night light settings			

Display Bandwidth

- DisplayPort High Bit Rate 2 (HBR2) is DP 1.2 (5.4 Gbps maximum link rate per lane). With DP overhead and UD22 MST display bandwidth, the effective data rate is 4.25Gbps per lane.
- DisplayPort High Bit Rate 3 (HBR3) is DP 1.4 (8.1 Gbps maximum link rate per lane). With DP overhead and UD22 MST display bandwidth, the effective data rate is 6.25Gbps per lane.
- DisplayPort High Bit Rate 3 (HBR3) with DSC (Display Stream Compression) compression 1:2.1 ratio or higher is DP 1.4 (8.1 Gbpsx2.1=17.02Gbps

maximum link rate per lane). With DP overhead and UD22 MST display bandwidth, the effective data rate is 13.125Gbps per lane. **Table 2. Display bandwidth**

Resolution		Minimum bandwidth required (Computer supported)	
	СVТ	CVT-RB	CVT-RB v2
FHD (1920 × 1080) @60 Hz ×1	4.15	3.33	3.2
FHD (1920 × 1080) @60 Hz ×2	8.3	6.66	6.4
QHD (2560 × 1440) @60 Hz ×1	7.49	5.8	5.63
QHD (2560 × 1440) @60 Hz ×2	14.98	11.6	11.26
4K (3840 × 2160) @30 Hz ×1	8.13	6.31	6.18
4K (3840 × 2160) @30 Hz ×2	16.26	12.62	12.36
4K (3840 × 2160) @60 Hz ×1	17.1	12.8	12.54
4K (3840 × 2160) @60 Hz ×2	34.2	25.6	25.08

Display Resolution Table

Table 3. Dell Universal Dock UD22 display resolution and refresh rate table (When UD22 dock driver is installed in computer)

Computer and Dell Universal Dock UD22 USB Type-C Specification and Bandwidth		Dell Universal Dock UD22 Max. Resolution and Refresh Rate			
USB over USB Type-C	DP	USB Graphic Mode		DP Alternative Mode	
	Alternative Mode over USB Type-C	DisplayPort-1 (Near HDMI)	DisplayPort-2 (Near Ethernet RJ-45)	НДМІ	USB Type-C MFDP
USB 3.2/3.1/3.0 Gen2 or Gen1	HBR2 x2 lanes=8.5Gbps (Computer DSC disable)	4K (3840 × 2160) @60 Hz	4K (3840 × 2160) @60 Hz	HDMI and USB Type-C MFI	DP share 8.5Gbps : x1 Hz x1 z x2
USB 3.2/3.1/3.0 Gen2 or Gen1	HBR3 x2 lanes=12.5Gbps (Computer DSC disable)	4K (3840 × 2160) @60 Hz	4K (3840 × 2160) @60 Hz	 HDMI and USB Type-C MFDP share 12.5Gbps 4K (3840 x 2160) @30Hz x1 QHD (2560 x 1440) @60Hz x2 (when computer supported CVT-RB or CVT-RB v2) QHD (2560 x 1440) @60Hz x1 (when computer supported CVT) FHD (1920 x1080) @60Hz x2 User manual setting 	
USB 3.2/3.1/3.0 Gen2 or Gen1	HBR3 x2 lanes=26.25Gbps (DSC enable, and DP compression ratio=1:2.1 or above)	4K (3840 × 2160) @60 Hz	4K (3840 × 2160) @60 Hz	 HDMI and USB Type-C MFDP share 26.25Gbps 4K (3840 x 2160) @60Hz x2 (when computer supported CVT-RB or CVT-RB v2) 4K (3840 x 2160) @60Hz x1 (when computer supported CVT) QHD (2560 x 1440) @60Hz x2 User manual setting 	

Table 4. Dell Universal Dock UD22 display resolution and refresh rate table (When UD22 dock driver is NOT installed in computer or under computer BIOS environment)

USB Type-C Specification and Bandwidth		Dell Universal Dock UD22 Max. Resolution and Refresh Rate			
		USB Graphic Mode	DP Alterna	tive Mode	
USB over USB Type-C	DP Alternative Mode over USB Type-C	DisplayPort-2 (Near Ethernet RJ-45)	DisplayPort-1 (Near HDMI) or USB Type-C MFDP (supports only one display at a time)	HDMI	
USB 3.2/3.1/3.0 Gen2 or Gen1	HBR2 x2 lanes=8.5Gbps (Computer DSC disable)	No Display	DP-1/USB Type-C MFDP and I • 4K (3840 x 2160) @30Hz x1 • QHD (2560 x 1440) @60Hz • FHD (1920 x1080) @60Hz x • User manual setting	HDMI share 8.5Gbps x1 2	
USB 3.2/3.1/3.0 Gen2 or Gen1	HBR3 x2 lanes=12.5Gbps (Computer DSC disable)	No Display	 DP-1/USB Type-C MDFP and HDMI share 12.5Gbps 4K (3840 x 2160) @30Hz x2 (When computer supported CVT-RB or CVT-RB v2) 4K (3840 x 2160) @30Hz x1 (when computer supported CVT) QHD (2560 x 1440) @60Hz x2 (when computer supported CVT-RB or CVT-RB v2) QHD (2560 x 1440) @60Hz x1 (when computer supported CVT) FHD (1250 x 1440) @60Hz x1 (when computer supported CVT) FHD (1250 x 1080) @60Hz x2 User manual setting 		
USB 3.2/3.1/3.0 Gen2 or Gen1	HBR3 x2 lanes=26.25Gbps (DSC enable, and DP compression ratio=1:2.1 or above)	No Display	DP-1/USB Type-C MFDP and I • 4K (3840 x 2160) @60Hz x2 supported CVT-RB or CVT-F • 4K (3840 x 2160) @60Hz x1 supported CVT) • QHD (2560 x 1440) @60Hz • FHD (1920 x1080) @60Hz x • User manual setting	HDMI share 26.25Gbps 2 (when computer RB v2) (when computer x2 2	

i NOTE: If higher resolution monitors are used, the graphics driver makes a judgment based on monitor specifications and display configurations. Some resolutions may not be supported and so will be removed from the Windows Display Control Panel.

i NOTE: Linux operating system is unable to physically turn-off built-in display, the external display numbers will be one less than the display numbers listed in above tables.

If the Display Port Data Rate is HBR2, then, the maximum resolution that Linux supports is 8192 x 8192 (counted with built-in display plus external display.

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

Technical Specifications

Topics:

LED Status Indicators Docking Specifications Smart and Adaptive Power Delivery

LED Status Indicators

Power Adapter LED

Table 5. Power adapter LED indicator

State	LED Behavior
Power Adapter is plugged into wall socket	Solid White

Dock Status Indicator

Table 6. Dell universal dock UD22 LED indicators

State	LED Behavior
Dock is receiving power from power adapter (without computer connection)	Solid Amber
Dock is receiving power from power adapter (with computer connection)	Solid White

Table 7. RJ45 LED Indicators

State	LED Behavior	
Ethernet Link Indicators	Solid Green	
Ethernet Activity Indicator	Flash Amber	

Docking Specifications

Table 8. Docking specifications

Features	Specifications
Standard	USB 3.2 Gen2 Type-C
Video Ports	 Two DisplayPort++ 1.2 ports HDMI 2.0 USB 3.2 Gen2 Type-C with DisplayPort 1.4 Alt Mode

Features	Specifications
Network Port	 RJ45 Ethernet port Support Wake On LAN from S3 (sleep mode) and S0iX (modern standby) sleep state with select Dell systems. See platform setup guide for more details. Support MAC Address Pass-Through with select Dell systems. See platform setup guide for more details. NOTE: Wake On LAN function is supported on computer with Windows operating system only
USB Ports	 Front: USB 3.2 Gen 2 port, support max. 0.9 A @ 5 V (4.5 W) USB 3.2 Gen 2 port with PowerShare and BC 1.2, support max. 2 A @ 5 V (10 W) USB 3.2 Gen 2 Type-C port with PowerShare and BC 1.2 Support max. 3 A @ 5 V (15 W), when rear USB Type-C not connected to device Support max. 1.5 A @ 5 V (7.5 W), when rear USB Type-C connected to device Rear: USB 3.2 Gen 2 port, support max. 0.9 A @ 5 V (4.5 W) USB 3.2 Gen 2 Type-C port with DisplayPort 1.4 Alt Mode, support max. 1.5 A @ 5 V (7.5 W)
DC-in Port	7.4 mm DC-in port
USB Type-C Cable Length	0.8 m
Power Delivery	96 W to system with 130 W AC-adapter via PowerDelivery 3.0
Supported Operating System	 Windows: Windows 10/11 Linux-Ubuntu: Recommend 20.04/21.10 and afterwards Mac OS: Recommend 12.2.1 and afterwards Chrome OS R100 and afterwards

Table 9. Environment specifications

Features	Specifications
Temperature Range	 Operating: 0°C-35°C (32°F-95°F) Non-operating: -20°C to 60°C (-4°F to 140°F)
Relative Humidity	Operating: 10% to 80% (non-condensing)Non-operating: 5% to 90% (non-condensing)
Dimension	166 mm x 76 mm x 32 mm (6.53 inch x 2.99 inch x 1.26 inch)
Weight	416 g (0.92 lb)
VESA Mounting options	Yes—Two Φ4 mm (M4 x 0.7 screws), 100 mm x 100 mm VESA mounting holes
Supported Operating System	 Windows: Windows 7/8/10/11 Linux-Ubuntu: Recommend 20.04/21.10 Mac OS: Recommend 12.2.1 Chrome OS R100 and afterwards

Table 10. Power adapter specifications

AC Adapter Specifications	130 W
Input voltage	100 to 240 VAC
Input current (max)	2.5 A / 1.8 A
Input frequency	50 to 60 Hz
Output current	6.67 A (continuous)
Rated output voltage	19.5 VDC
Weight (lb)	0.94
Weight (g)	425
Dimensions (in.)	1.0 x 3.0 x 6.1
Dimensions (mm)	25.4 x 76.2 x 154.7
Temperature range operating	0°C to 40°C 32°F to 104°F
Storage	-40°C to 70°C -40°F to 158°F

Smart and Adaptive Power Delivery

Dell Universal Dock UD22's maximum power delivery to your computer is 96 W (4.8 A @ 20 V). The dock detects the USB ports connected and the power consumption of the dock itself to dynamically delivery power to your computer for power balancing.

Table 11. Typical dock loading and smart/adaptive power delivery to computer

Display Loading	USB Port and Ethernet Loading	Adaptive Power Delivery to Computer
N/A	N/A	Maximum. 96 W
2* displays @4K/60Hz	 USBx1: 4.5W (for keyboard/mouse/USB thumb drives/USB SSD drive) USB Type-Cx1: 7.5W (for keyboards/mouse/USB thumb drives/USB SSD drive) USB with BC1.2 x1: 10W (for USB HDD for USB HDD drives/mobile phones) RJ45 Ethernet: 1Gbps full active (for HD streaming play/download) 	Maximum. 75 W
3* displays @ 4K/60Hz (DP x2 + HDMI x1)	 USBx3:13.5W (for keyboards/mice/USB thumb drives/USB SSD drives) USB Type-Cx2: 15W (for USB dock/USB HDD drives/ mobile phones) USB with BC1.2x1: 10W (for USB HDD for USB HDD drive/mobile phone) RJ45 Ethernet: 1Gbps full active (for HD streaming play/download) 	Maximum. 60 W
4* displays @4K/60Hz	 USBx3: 13.5W (for keyboards/mice/USB thumb drives/USB SSD drives) USB Type-Cx2: 15W (for USB dock/USB HDD drives/ mobile phones) USB with BC1.2 x1: 10W (for USB HDD for USB HDD drive/mobile phone) RJ45 Ethernet: 1Gbps full active (for HD streaming play/download) 	Maximum. 60 W

Dell Universal Dock UD22 Firmware Update

Standalone Dock Firmware Update Utility

i NOTE: Dell Universal Dock UD22 Firmware Update Utility only supports system with Microsoft Windows operating system. Information that is provided is for Microsoft Windows users running the executable tool.

Download the Dell Universal Dock UD22 firmware update utility from <u>www.dell.com/support</u>. Connect the dock to the system and start the tool in administrative mode.

1. When execute the Firmware Update Utility, all necessary drivers for firmware update will be installed automatically.



2. The following Graphical User Interface (GUI) snapshot shows a scenario when application is run without a dock connected to the system. Click **Exit Button** to close the application.

Dell F	Firmware Update Utility UD22 $- imes$					
New Package Vers	in: 1013					
New Package vers	ion. 1.0.1.2	Status	Chip Name	Current Version	New Version	Progress Details
Detect Status:	Undetected		PD	N/A	N/A	
eService Tag:			MCU	N/A	N/A	
Power Source:	i 100%		VMM	N/A	N/A	
			HUB	N/A	N/A	
						Exit

3. The following Graphical User Interface (GUI) snapshot shows a scenario when application is run with a dock connected to the system.a) All firmware version in your Dell Universal Dock UD22 is up-to-date. You can click **Exit button** to close the FW Update Utility directly.

😡 De	ll Firmware U	re Update Utility UD22 — X				
New Package Detect Status: eservice Tag:	Version: 1.0.1.2 Detected 1RRK4K3	Status	Chip Name PD MCU	2 Firmware Sta Dock firmware is Current Version 0C.02.15.19 C920	New Version 0.02.15.19 0.520	Progress Details Up to Date Up to Date
Power Source	: 20096		VMM HUB	6.04.005 0754/0823/0723	6.04.005 0754/0823/0723	Up to Date Up to Date Exit

b) When firmware update is available, click **Upgrade button** to update the dock firmware.

😡 Dell Firmware Update Utility UD22 — 🗙					
0	Do no begins	ot interrupt the Interruption o	e procedure or change f the upgrade procedu	the power source or re may make your sy	ice it /stem unstable.
1			Before You Cont	inue	
	ざ	Plug-in the adapte	power ar	Exit a app	il running lications
New Package Version: 1.0.1.2	Ctatus chi	n binma	Current Margine	Now Version	Breaves Details
Detect Status: Detected	PD	pivanie	0C.02.15.19	0C.02.15.19	Up to Date
eService Tag: 1RRK4K3	MC	J	C918	C920	Out of Date
Power Source: 💐 100%	VMI	1	6.04.005	6.04.005	Up to Date
	HUE	3	0754/0823/0723	0754/0823/0723	Up to Date
		П	nstallation time: no mo	ore than 3 min Up	grade Exit

4. Wait for the firmware update to complete. The progress bar shows the percent completed and Installation time shows the elapsed time.

Dell F	irmware U	pdate Ut	ility UD22	2		— ×
			Do not interrupt egins.Interruption	the procedure or change n of the upgrade proced	e the power source o ure may make your s	nce it ystem unstable.
1 2				Before You Cor	itinue	
		4	Plug-in ti ada	he power pter	Exit app	all running dications
New Package Vers	ion: 1.0.1.2	Status	Chip Name	Current Version	New Version	Progress Details
eService Tag:	1RRK4K3	*	PD	0C.02.15.19	0C.02.15.19	Up to Date
Power Source:	ਦ 100%	×	VMM	6.04.005	6.04.005	Up to Date
			HUB	0754/0823/0723	0754/0823/0723	Up to Date
		Updating Fi	rmware Data			15%
				Installation time: 15s		

5. When the firmware update is completed 100%, please hot-plug (un-plug and replug) AC power adapter from your Dell Universal Dock UD22 to complete FW upgrade process.



6. The following Graphical User Interface (GUI) is displayed after hot-plug (un-plug and replug) of AC power adapter from your Dell Universal Dock UD22 and firmware upgrade is successful. Click **Exit button** to close the application.

😡 Dell F	Firmware U	pdate Ut	ility UD22	2		— ×
1	Arrest			Upgrade Succ Dock firmware is	up to date	
New Package Vers Detect Status: eService Tag: Power Source:	sion: 1.0.1.2 Detected 1RRK4K3 💘 100%	Status V Upgrade S	Chip Name PD MCU VMM HUB uccess	Current Version 0C.02.15.19 C920 6.04.005 0754/0823/0723	New Version 0C.02.15.19 C920 6.04.005 0754/0823/0723	Progress Details Up to Date Up to Date Up to Date Up to Date
						Exit

7. The following Graphical User Interface (GUI) is displayed when the utility is unable to update the latest firmware on your Dell Universal Dock UD22. Click **Upgrade button** to try again.

		Do not interrupt the procedure or change the power source once it begins.Interruption of the upgrade procedure may make your system unstable.				
		Before You Continue				
		4	Plug-in th adap	he power pter	Exi a	t all running pplications
New Package Vers	ion: 1.0.2.3	Status	Chip Name	Current Version	New Version	Brogross Datails
Detect Status:	Detected	- Status	PD	0.1.9.0	0.1.12.0	Wait for Upgrade
eService Tag:	ABCDEFG	ŏ	MCU	C920	C922	Wait for Upgrade
Power Source:	e 100%	Ó	VMM	6.04.005	6.04.106	Wait for Upgrade
		×	HUB	8262/7271	8266/7271	Update Fail
		Update Fai	led			

For IT professionals and engineers, to get more information about the following technical topics, see the Dell Universal Dock UD22 Administrator's Guide:

• Step-by-step stand-alone DFU (Dock Firmware Update) and driver update utilities.

Frequently Asked Questions

1. The fan is not working after connecting with the system.

- The fan is triggered by temperature. The dock fan will not rotate until the dock is hot enough to trigger a thermal threshold.
- Vice versa, if your dock is not cool enough, the fan will not stop even when you disconnect the dock from the system.

2. The dock does not work after high-speed fan noise.

• When you hear a loud fan noise, it is warning you that the dock is in some kind of a hot condition. For example, the vent in the dock may be blocked or the dock is working in a high working-temperature environment (> 35C), etc., Please eliminate these abnormal conditions from the dock. If you do not eliminate the abnormal condition, in a worst-case situation, the dock will shut down through the over-temperature protection mechanism. Once this happens, please un-plug the USB Type-C cable from the system and remove the dock's power. Then wait 15 seconds and plug in the dock power to recover the dock back online.

3. I hear a fan noise when I plug in the dock's AC adapter.

• When plugging in the AC adapter and powering on the docking station, the fan turns on for sometime and subsequently powers down. This is by design and the docking station is working as expected.

4. I hear a loud fan noise. What's wrong?

• The fan is designed to run at five different speeds based on the dock's activity level or work load. The fan usually runs at the lowest speed setting until the dock reaches a thermal threshold due to the workload on it. The fan may then run at one of its two high-speed settings as described in the table below:

State	State name	Fan speed (rpm)
0	Fan off	0
1	Fan minimum	3000
2	Fan Iow	3500
3	Fan medium	4200
4	Fan medium-high	4700
5	Fan high	5100

5. What is the charging station feature?

• The Dell Universal Dock UD22 can charge your mobile or power bank even without being connected to the system. Just make sure your dock is connected to external power. The dock fan will rotate automatically if the dock gets too warm. This is normal working condition.

6. Why does the hardware installation window show up when I plug in a USB device to the docking stations ports?

When a new device is plugged in, the USB hub driver notifies the Plug and Play (PnP) manager that a new device was detected. The PnP manager queries the hub driver for all of the device's hardware IDs and then notifies the Windows OS that a new device needs to be installed. In this scenario, the user will see a hardware installation window. For more details, See Microsoft articles.
 https://msdn.microsoft.com/en-us/windows/hardware/drivers/install/step-1--the-new-device-is-identified https://msdn.microsoft.com/en-us/windows/hardware/drivers/install/identifiers-for-usb-devices

7. Why do the peripheral devices, which are connected to the dock station, become unresponsive after recovering from a power loss?

• Your Dell dock is designed to operate on AC power only and it does not support system power source back (powered by system USB Type-C port). A power loss event will make all devices on the dock fail to work. Even when you restore the AC power, the dock may still not function properly because the dock still needs to negotiate proper power contract with the system's USB Type-C port and establish a system EC-to-dock EC connection.

Troubleshooting the Dell Universal Dock UD22

Topics:

• Symptoms and Solutions

Symptoms and Solutions

Table 12. Symptoms and solutions

Symptoms	Suggested solutions
 No video on the monitors that are attached to the HDMI or DisplayPort (DP) port on the docking station. 	 Ensure that the latest BIOS and drivers for your system and the docking station are installed on your system. Ensure that your system is connected to the docking station securely. Try to disconnect and reconnect the docking station to the computer system. Disconnect both ends of the video cable and check for damaged/bent pins. Securely re-connect the cable to the monitor and docking station. Ensure the video cable HDMI, DisplayPort, or USB Type-C is connected properly to the monitor and the docking station. Ensure to select the correct video source on your monitor (see your monitor's documentation for more information about changing the video source). Check the resolution settings on your system. Your monitor may support higher resolutions than what the docking station can support. See the Display Resolution Table for more information about maximum resolution capacity. If your monitor is connected to the docking station, the video output using the Windows Control Panel or see the User Guide of your system. If only one monitor is shown, while the other is not, go to Windows Display Properties, and under Multiple Displays, select the output for the second monitor. Using Intel graphics and using the system LCD, only two additional displays can be supported. For NVIDIA or AMD discrete graphics, the dock supports three external displays plus the system LCD. Try with a different monitor and cable that is known to be good, if possible.
2. The video on the attached monitor is distorted or flickering.	 Reset the monitor to Factory Defaults. See the User Guide of your monitor for more information about how to reset the monitor to factory defaults. Ensure that the video cable HDMI, DisplayPort, or USB Type-C is connected securely to the monitor and the docking station. Disconnect and reconnect the monitor/s from the docking station. First power off the docking station by disconnecting the USB Type-C cable and then removing the power adapter from the dock.

Table 12. Symptoms and solutions (continued)

Sy	ymptoms	Suggested solutions
		 Then, power on the docking station by connecting power adapter to the dock before connecting the USB Type-C cable to your system. Undock and reboot the system if, the above steps do not work.
3.	The video on the attached monitor is not displaying as an Extended Monitor.	 Ensure that the Intel HD Graphics driver is installed in the Windows Device Manager. Ensure that the nVidia or AMD Graphics driver is installed in the Windows Device Manager. Open the Windows Display Properties and go to Multiple Displays control to set the display to the extended mode.
4.	The USB ports are not functioning on the docking station.	 Ensure that the latest BIOS and drivers for your system and the docking station are installed on your system. If your BIOS Setup has a USB Enabled/Disabled option, ensure it is set to Enabled. Verify if the device is detected in Windows Device Manager and that the correct device drivers are installed. Ensure that the docking station is connected securely to the computer system. Try to disconnect and reconnect the docking station to the system. Check the USB ports. Try plugging the USB device into another port. First power off the docking station by disconnecting the USB Type-C cable and then removing the power adapter from the dock. Then, power on the docking station by Connecting the power adapter to the dock before connecting the USB Type-C cable to your system.
5.	The High-Bandwidth Digital Content Protection (HDCP) content is not displayed on the attached monitor.	 Dell Dock supports HDCP up to HDCP 2.2. NOTE: 1. Dell Universal Dock UD22 only supports HDCP on Intel CPU computer with Microsoft Windows operating system. Dell Universal Dock UD22 supports HDCP 2.2/1.1 input but HDCP 1.1 output on Intel CPU computer with Microsoft Windows operating system.
6.	The LAN port is not functioning.	 Ensure that the latest BIOS and drivers for your system and the docking station are installed on your system. Ensure that the Synaptics (DisplayLink) Gigabit Ethernet Controller is installed in the Windows Device Manager. If your BIOS Setup has a LAN/GBE Enabled/Disabled option, ensure it is set to Enabled. Ensure that the Ethernet cable is connected securely on the docking station and the hub/router/firewall. Check the status LED of the Ethernet cable if the LED is not lit. First power off the docking station by disconnecting the USB Type-C cable and then removing the power adapter from the dock. Then, power on the docking station by connecting the power adapter to the dock before connecting the USB Type-C cable to your system.
7.	USB port has no function in a pre-OS environment.	 If your BIOS has an USB Configuration page, ensure that the following options are checked: 1.Enable USB Boot Support 2.Enable External USB Port

Table 12. Symptoms and solutions (continued)

Symptoms	Suggested solutions
8. Displays have no function in a pre-OS environment.	 Only DP1 (near HDMI port), HDMI, USB Type-C DisplayPort (MFDP) are supported in pre-OS environment, DP2 are not supported. Connect your monitor to DP1, HDMI, USB Type-C DisplayPort (MFDP).
9. USB Boot does not function.	 If your BIOS has an USB Configuration page, ensure that the following options are checked: 1. Enable USB Boot Support 2. Enable External USB Port
10. AC Adapter is displayed as "Not Installed" in the Battery Information page of the Dell BIOS Setup when the USB Type-C cable is connected.	 Ensure the Dell Universal Dock UD22 is connected properly to its own adapter (130 W). Ensure the LED of your Dell Universal Dock UD22 is Solid White. Disconnect and re-connect the USB Type-C cable to your system.
 Alert message "You have attached an undersized power adapted to your system" is displayed when the docking station is connected to your computer. 	 Ensure that the docking station is connected properly to its own power adapter. Computer requiring more than 130 W power input must also be connected to their own power adapter for charging and operating at full performance. First power off the docking station by disconnecting the USB Type-C cable and then removing power adapter from the dock. Then, power on the docking station by connecting the power adapter to the dock before connecting the USB Type-C cable to your computer.
12. No external display, USB ports, Ethernet port have no function.	 The docking station's USB Type-C cable has disconnected from the system's USB ports. Reconnect the docking station's USB Type-C cable. Undock and reboot the system if the above steps do not work.
13. When system or dock is moved the dock LED turns off.	• Avoid moving the system/dock when the docking cable is connected to the system.

12 Getting Help

Topics:

• Contacting Dell

Contacting Dell

Prerequisites

i 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.

About this task

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:

Steps

- 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.