

# Alienware Area-51 R4 Setup and Specifications

## 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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# Set up your computer

1. Connect the keyboard and mouse.



2. Connect the network cable — optional.



3. Connect the display.



**(i) NOTE: The DisplayPort on the back panel of your computer is covered. Connect the display to the discrete graphics card of your computer.**

**(i) NOTE: If you have two graphics cards, the card installed in PCI-Express (graphics) slot 4 is the primary graphics card.**

4. Connect the power cable.



5. Press the power button.



# Setting up the Virtual Reality (VR) headset — optional

1. Download and run the setup tools for your VR headset at [www.dell.com/VRsupport](http://www.dell.com/VRsupport).
2. Connect the VR headset to any USB 3.1 Gen 1 ports on the back of your computer and HDMI port on your computer, when prompted.

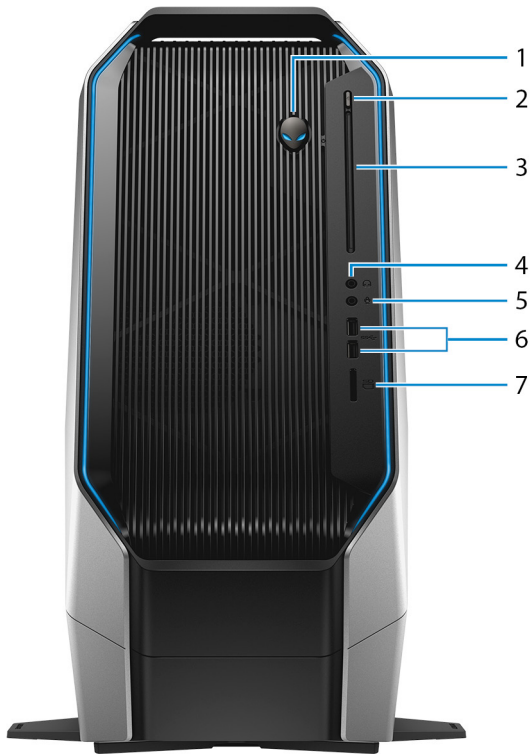


**i** **NOTE:** Connect the headset to the HDMI port on the discrete graphics card and connect the display to any available port on the card.

3. Follow the instructions on the screen to complete the setup.

# Views

## Front



### 1. Power button (Alienhead)

Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

Press to put the computer in sleep state if it is turned on.

Press and hold for 4 seconds to force shut-down the computer.

**(i) NOTE: You can customize the power-button behavior in Power Options.**

### 2. Optical-drive eject button

Press to open the optical drive tray.

### 3. Optical drive

Reads from and writes to CDs and DVDs.

### 4. Headphone port

Connect a headphone or speakers.

### 5. Microphone port

Connect an external microphone to provide sound input.

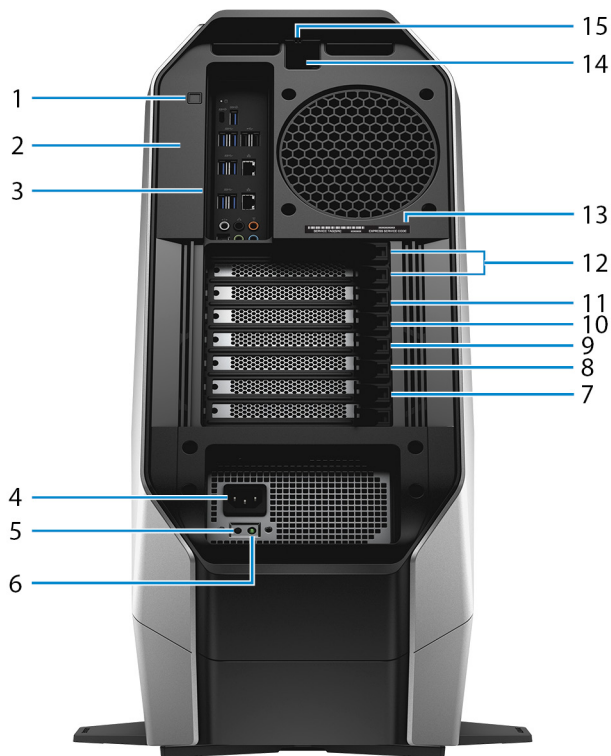
### 6. USB 3.1 Gen 1 ports (2)

Connect peripherals such as storage devices and printers. Provides data transfer speeds up to 5 Gbps.

### 7. Media-card reader

Reads from and writes to media cards.

# Back



## 1. Rear I/O accessibility lighting button

Press to illuminate the back panel ports.

## 2. Regulatory label

Contains regulatory information of your computer.

## 3. Back panel

Connect USB, audio, video, and other devices.

## 4. Power cable connector

Connect a power cable to provide power to your computer.

## 5. Power-supply diagnostics button

Press to check the power-supply state.

## 6. Power-supply diagnostics light

Indicates the power-supply state.

## 7. PCI-Express (graphics) slot 7

Connect a PCI-Express X16 card such as graphics, audio, or network card to enhance the capabilities of your computer.

**(i) NOTE: If you have three graphics cards, slot 4 will be the primary graphics card.**

## 8. PCI-Express slot 6

Connect a PCI-Express X4 card such as graphics, audio, or network card to enhance the capabilities of your computer.

## 9. PCI-Express slot 5

Connect a PCI-Express X8 card such as graphics, audio, or network card to enhance the capabilities of your computer.

**(i) NOTE: If you have two graphics cards, slot 4 will be the primary graphics card.**

## 10. PCI-Express (graphics) slot 4

Connect a PCI-Express X16/X8 card such as graphics, audio, or network card to enhance the capabilities of your computer.

## 11. PCI-Express slot 3

Connect a PCI-Express X8 card such as graphics, audio, or network card to enhance the capabilities of your computer.

## 12. PCI-Express (graphics) slot 1

Connect a PCI-Express X16/X8 card such as graphics, audio, or network card to enhance the capabilities of your computer.

**i** **NOTE:** For more details on installing the PCI-Express graphics card, see [PCI-Express graphics card installation matrix](#).

### 13. Service Tag label

The Service Tag is a unique alphanumeric identifier that enables Dell service technicians to identify the hardware components in your computer and access warranty information.

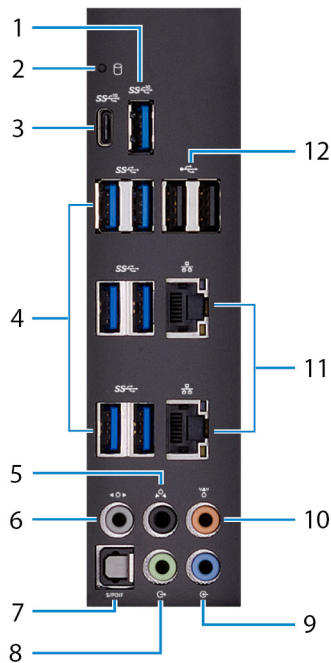
### 14. Security-cable slot (for Kensington locks)

Connect a security cable to prevent unauthorized movement of your computer.

### 15. Security-cable slot latch

Release to allow opening the side panel.

## Back panel



#### 1. USB 3.1 Gen 2 port

Connect peripherals such as storage devices and printers. Provides data transfer speeds up to 10 Gbps.

#### 2. Hard-drive activity light

Turns on when the computer reads from or writes to the hard drive.

#### 3. USB 3.1 Gen 2 (Type-C) port with PowerShare

Connect peripherals such as storage devices and printers.

Provides data transfer speeds up to 10 Gbps. Supports Power Delivery that enables two-way power supply between devices. Provides up to 15 W power output that enables faster charging of peripheral devices.

PowerShare enables you to charge your USB devices even when your computer is turned off.

**i** **NOTE:** The Type-C port only provides the USB data function, and no alternate video or Thunderbolt mode features are supported.

#### 4. USB 3.1 Gen 1 ports (6)

Connect peripherals such as storage devices and printers. Provides data transfer speeds up to 5 Gbps.

#### 5. Rear L/R surround port

Connect audio-output devices such as speakers and amplifiers. In a 5.1 speaker channel setup, connect the rear-left and rear-right speakers.

#### 6. Side L/R surround port

Connect the side-left and side-right speakers or surround sound speakers.

#### 7. Optical S/PDIF port

Connect an amplifier, speakers, or a TV for digital audio output through an optical cable.

**8. Line-out port**

Connect speakers.

**9. Line-in port**

Connect recording or playback devices such as a microphone or CD player.

**10. Center/subwoofer port**

Connect the subwoofer.

**11. Network ports (2)**

Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or internet access.

**12. USB 2.0 ports (2)**

Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 480 Mbps.

# Specifications

## Dimensions and weight

Table 1. Dimensions and weight

Height	569.25 mm (22.41 in)
Width	638.96 mm (25.15 in)
Depth	272.71 mm (10.73 in)
Weight (maximum)	28 kg (61.73 lbs)

**i** **NOTE: The weight of your computer varies depending on the configuration ordered and the manufacturing variability.**

## Computer model

Table 2. Computer model

Computer model	Alienware Area-51 R4
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## System information

Table 3. System information

Processor	Intel Core X-series
Chipset	Intel X299 PCH

## Memory

Table 4. Memory specifications

Slots	Four internally-accessible DDR4 DIMM sockets
Type	DDR4
Speed	2666 MHz and 2933 MHz (XMP memory)

**i** **NOTE: The 2666 MHz memory works at 2400 MHz for the i7-7800X processors.**

Configurations supported	
Per memory module slot	4 GB, 8 GB, and 16 GB
Total memory	8 GB, 16 GB, 32 GB, and 64 GB

## Ports and connectors

Table 5. External ports and connectors

### External

Network	Two RJ45 ports
USB	<ul style="list-style-type: none"><li>Two USB 3.1 Gen 1 ports</li><li>One USB 3.1 Gen 2 port</li><li>USB 3.1 Gen 2 (Type-C) port with PowerShare</li></ul>

## External

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Audio/Video	<ul style="list-style-type: none"><li>▪ Six USB 3.1 Gen 1 ports</li><li>▪ Two USB 2.0 ports</li><li>▪ Four audio output/headphone ports</li><li>▪ One audio input/microphone port</li><li>▪ One optical S/PDIF port</li></ul>
Media-card reader	One 9-in-1 card slot

**Table 6. Internal ports and connectors**

## Internal

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M2	<ul style="list-style-type: none"><li>▪ One M.2 card slot for WLAN and Bluetooth</li><li>▪ One M.2 card slot for 2280 solid-state drive</li></ul>
Storage	Four SATA ports

## Communications

**Table 7. Supported communications**

Ethernet	10/100/1000 Mbps Ethernet controller integrated on system board
Wireless	<ul style="list-style-type: none"><li>▪ Wi-Fi 802.11ac</li><li>▪ Bluetooth 4.1</li></ul>

## Wireless module

**Table 8. Wireless module specifications**

Transfer rate	Up to 867 Mbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz
Encryption	<ul style="list-style-type: none"><li>▪ 64-bit and 128-bit WEP</li><li>▪ TKIP</li><li>▪ AES-CCMP</li></ul>

## Audio

**Table 9. Audio specifications**

Controller	Realtek ALC3861
Type	<ul style="list-style-type: none"><li>▪ Integrated 7.1 channel</li><li>▪ High Definition Audio with S/PDIF support</li></ul>

## Video

**Table 10. Video specifications**

Type	Up to three PCI-Express, single/double-width, full length graphics card
Controller	<ul style="list-style-type: none"><li>▪ Single AMD</li><li>▪ Single NVIDIA</li><li>▪ Dual/Triple AMD (CrossFire)</li></ul>

- Dual NVIDIA (SLI)

**(i) NOTE: The graphics configuration of your desktop varies depending on the power supply and graphics card configuration ordered.**

**(i) NOTE: Install either NVIDIA or AMD graphics card, when using with dual and triple graphics configurations.**

## Storage

**Table 11. Storage specifications**

Externally accessible

- One 5.25-inch drive bay for DVD+/-RW, Blu-ray Disc combo (optional)
- Blu-ray Disc writer (optional)

Internally accessible

- Three 3.5-inch drive bays for SATA hard drives
- Two 2.5-inch drive bays for SATA solid-state drives
- Max up to total three hard drives support

## Power ratings

**Table 12. Power ratings**

Type	850W	1500 W	1500 W
Input voltage	100 VAC-240 VAC	100 VAC-240 VAC	200 VAC-240 VAC
Input frequency	50 Hz-60 Hz	50 Hz-60 Hz	50 Hz-60 Hz
Input current (maximum)	10 A	16 A	10 A
Output current	+3.3 V/20 A, +5 V/20 A, +12 VA/32 A, +12 VB/48 A, +12 VD/16 A, -12 V/0.5 A, +5 Vaux/4 A	+3.3 V/20 A, +5 V/25 A, +12 VA/32 A, +12 VB/48 A, +12 VC/48 A, +12 VD/16 A, -12 V/0.5 A, +5 Vaux/4 A	
Rated output voltage	+3.3 V, +5 V, +12 VA, +12 VB, +12 VD, -12 V, +5 Vaux	+3.3 V, +5 V, +12 VA, +12 VB, +12 VC, +12 VD, -12 V, +5 Vaux	
Temperature range			
Operating		5°C to 50°C (41°F to 122°F)	
Storage		-40°C to 70°C (-40°F to 158°F)	

## Computer environment

**Airborne contaminant level:** G2 or lower as defined by ISA-S71.04-1985

**Table 13. Computer environment**

	Operating	Storage
Temperature range	5°C to 35°C (41°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.26 GRMS	1.37 GRMS
Shock (maximum)	40 G for 2 ms with a change in velocity of 20 in/s (51 cm/s)	105 G for 2 ms with a change in velocity of 52.5 in/s (133 cm/s)

†

	<b>Operating</b>	<b>Storage</b>
Altitude (maximum)	-15.24 m to 3048 m (-50 ft to 10,000 ft)	-15.24 m to 10,668 m (-50 ft to 35,000 ft)

\* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse when the hard drive is in use.

# PCI-Express graphics card installation matrix

Table 14. PCI-Express graphics card installation matrix

PSU		Single Graphics	Dual Graphics	Triple Graphics
850 W	Slot installation	Slot 1	Slot 1 and Slot 4	Not supported
	Power connector label	PCIE 1	PCIE 1 and PCIE 3	
	Primary Output	Slot 1	Slot 4	
1500 W	Slot installation	Slot 1	Slot 1 and Slot 4	Slot 1 and Slot 4 and Slot 7
	Power connector label	PCIE 1	PCIE 1 and PCIE 3	PCIE 1 and PCIE 3 and PCIE 2
	Primary Output	Slot 1	Slot 4	Slot 4

## PCI-Express Add-in-Card slot lane assignments

Table 15. PCI-Express Add-in-Card slot lane assignments

i9-7900X	Single card Config 1	Single card Config 2	Single card Config 3
Slot 1 (x16)	X		
Slot 3 (x8)			
Slot 4 (x16)		X	
Slot 5 (x8)			
Slot 7 (x8)			X
Monitor connect	Slot 1	Slot 4	Slot 7

## PCIe Add-in-Card Slot Lane Assignments

Table 16. PCI-Express Add-in-Card slot lane assignments

i9-7900X	Dual card Config 1	Dual card Config 2	Dual card Config 3
Slot 1 (x16)	X	X	
Slot 3 (x8)			
Slot 4 (x16)	X		X
Slot 5 (x8)			
Slot 7 (x8)		X	X
Monitor connect	Slot 4	Slot 1	Slot 4

## PCIe Add-in-Card Slot Lane Assignments

Table 17. PCI-Express Add-in-Card slot lane assignments

i9-7900X	Triple card Config 1
Slot 1 (x16)	X
Slot 3 (x8)	
Slot 4 (x16)	X
Slot 5 (x8)	
Slot 7 (x8)	X

**i9-7900X****Triple card Config 1**

Monitor connect

Slot 4

## PCIe Add-in-Card Slot Lane Assignments

**Table 18. PCI-Express Add-in-Card slot lane assignments**

<b>i7-7820X and i7-7800X</b>	<b>Single card Config 1</b>	<b>Single card Config 2</b>	<b>Single card Config 3</b>
Slot 1 (x8)	X		
Slot 3 (x8)			
Slot 4 (x8)		X	
Slot 5 (x0)			
Slot 7 (x8)			X
Monitor connect	Slot 1	Slot 4	Slot 4

## PCIe Add-in-Card Slot Lane Assignments

**Table 19. PCI-Express Add-in-Card slot lane assignments**

<b>i7-7820X and i7-7800X</b>	<b>Dual card Config 1</b>	<b>Dual card Config 2</b>
Slot 1 (x8)	X	
Slot 3 (x8)		
Slot 4 (x8)	X	X
Slot 5 (x0)		
Slot 7 (x8)		X
Monitor connect	Slot 4	Slot 3

## PCIe Add-in-Card Slot Lane Assignments

**Table 20. PCI-Express Add-in-Card slot lane assignments**



<b>i7-7820X and i7-7800X</b>	<b>Triple card Config 1</b>
Slot 1 (x8)	X
Slot 3 (x8)	
Slot 4 (x8)	X
Slot 5 (x0)	
Slot 7 (x8)	X
Monitor connect	Slot 4

# Getting help and contacting Alienware

## Self-help resources


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


**Table 21. Alienware products and online self-help resources**

Information about Alienware products and services	<a href="http://www.alienware.com">www.alienware.com</a>
Dell Help & Support app	
Tips	
Contact Support	In Windows search, type <b>Contact Support</b> , and press <b>Enter</b> .
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a> <a href="http://www.dell.com/support/linux">www.dell.com/support/linux</a>
Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on	<a href="http://www.alienware.com/gamingservices">www.alienware.com/gamingservices</a>
VR Support	<a href="http://www.dell.com/VRsupport">www.dell.com/VRsupport</a>
Videos providing step-by-step instructions to service your computer	<a href="http://www.youtube.com/alienwareservices">www.youtube.com/alienwareservices</a>

## Contacting Alienware

To contact Alienware for sales, technical support, or customer service issues, see [www.alienware.com](http://www.alienware.com).

 **NOTE: Availability varies by country and product, and some services may not be available in your country.**

 **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.**