Alienware Area-51 R5
Setup and Specifications

A L I E N W A R E™

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.**

Contents

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 one graphics card, PCI-Express (graphics) slot 1 will be the primary graphics card. If you have two or three graphics card, PCI-Express (graphics) slot 4 will be the primary graphics card. If you have four graphics card, PCI-Express (graphics) slot 3 will be the primary graphics card.
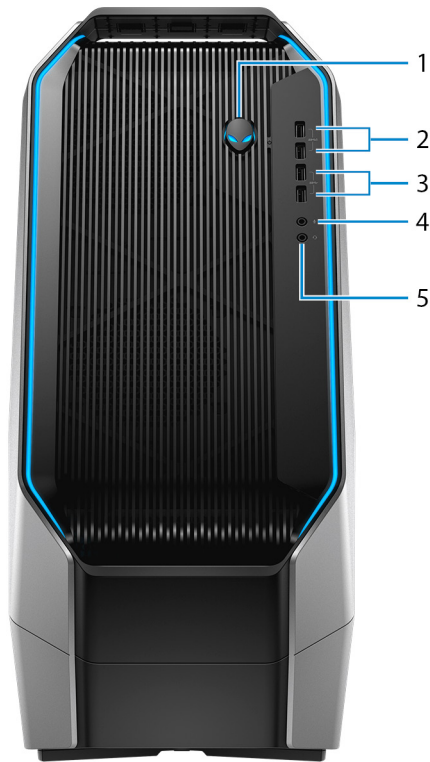
4. Connect the power cable.

5. Press the power button.

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.

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

2. **USB 3.1 Gen 1 port with PowerShare (2)**

    Connect peripherals such as external storage devices and printers.

    Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge your USB devices even when your computer is turned off.

    > ⓘ **NOTE: If your computer is turned off or in hibernate state, you must connect the power adapter to charge your devices using the PowerShare port. You must enable this feature in the BIOS setup program.**

    > ⓘ **NOTE: Certain USB devices may not charge when the computer is turned off or in sleep state. In such cases, turn on the computer to charge the device.**

3. **USB 3.1 Gen 1 ports (2)**

    Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps.
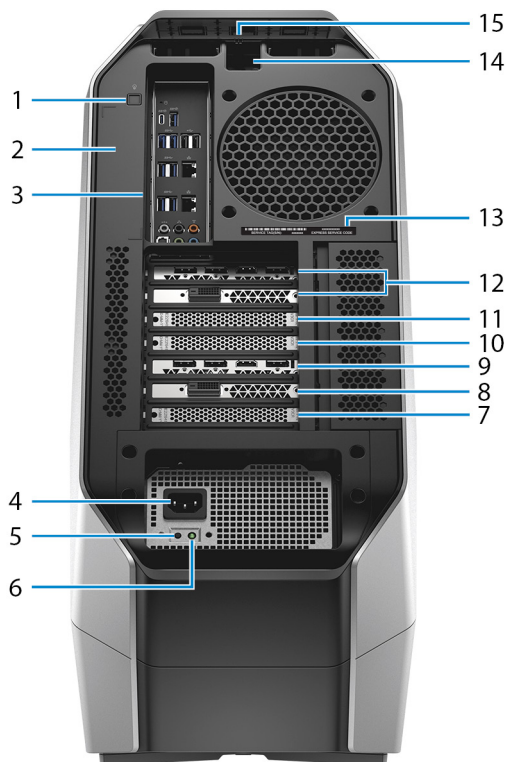
4. **Microphone port**

    Connect an external microphone to provide sound input.

5. **Headphone port**

    Connect a headphone or speakers.

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.
8. **PCI-Express slot 6**

   Connect a PCI-Express X4 card such as audio, or network card to enhance the capabilities of your computer.
9. **PCI-Express (graphics) slot 5**

   Connect a PCI-Express X16 card such as graphics, audio, or network card to enhance the capabilities of your computer.
10. **PCI-Express (graphics) slot 4**

    Connect a PCI-Express X16 card such as graphics, audio, or network card to enhance the capabilities of your computer.
11. **PCI-Express (graphics) slot 3**

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

   > ⓘ **NOTE: Dell offers three graphics configuration but your computer supports four graphics configuration. You can purchase the fourth graphics card separately and upgrade later. For more information, see Video.**

> ⓘ **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.
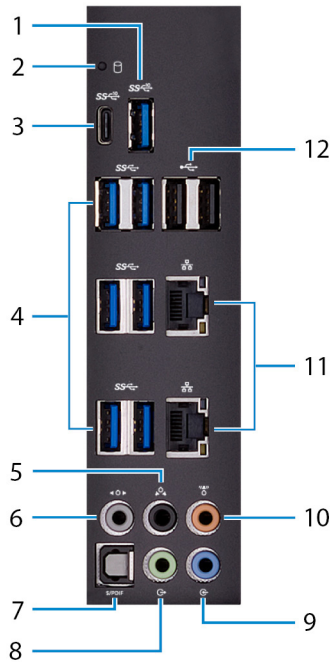
14. **Security-cable slot (for Kensington locks)**

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.

   > ⓘ **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

Computer model

Alienware Area-51 R5

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.**

System information

Table 2. System information

Processor	Intel Core X-series i7/i9
Chipset	Intel X299 PCH

Memory

Table 3. Memory specifications

Slots	Four internally-accessible DDR4 DIMM sockets
Type	DDR4
Speed	2666 MHz up to 3200 MHz (XMP memory)
Configurations supported	
Per memory module slot	16 GB
Total memory	16 GB, 32 GB, and 64 GB

Ports and connectors

Table 4. External ports and connectors

External	
Network	Two RJ-45 ports
USB	• Two USB 3.1 Gen 1 ports • One USB 3.1 Gen 2 port • Two USB 3.1 Gen 1 ports with PowerShare • One USB 3.1 Gen 2 (Type-C) port with PowerShare • Six USB 3.1 Gen 1 ports • Two USB 2.0 ports
Audio/Video	• Four audio output/headphone ports

External	
	• One audio input/microphone port
	• One optical S/PDIF port

Table 5. Internal ports and connectors

Internal	
M2	• One M.2 card slot for WLAN and Bluetooth
	• One M.2 card slot for 2280 solid-state drive
Storage	Four SATA ports

Communications

Table 6. Supported communications

Ethernet	10/100/1000 Mbps Ethernet controller integrated on system board
Wireless	• Wi-Fi 802.11ac
	• Bluetooth 4.1

Wireless module

Table 7. Wireless module specifications

Transfer rate	Up to 867 Mbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz
Encryption	• 64-bit and 128-bit WEP
	• TKIP
	• AES-CCMP

Audio

Table 8. Audio specifications

Controller	Realtek ALC3861
Type	• Integrated 7.1 channel
	• High Definition Audio with S/PDIF support

Video

Table 9. Video specifications

Type	Up to four PCI-Express, single/double-width, full length graphics card
Controller	• Single AMD
	• Single NVIDIA
	• Dual/Triple/Quad AMD (CrossFire)
	ⓘ **NOTE: If your configuring your computer for four card configuration, use AMD RX570X or AMD RX580X.**
	• Dual NVIDIA (SLI)

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

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

NOTE: For more details on installing the PCI-Express graphics card, see **PCI-Express graphics card installation matrix**.

Storage

Table 10. Storage specifications

| Internally accessible | • Three 3.5-inch drive bays for SATA hard drives
• Two 2.5-inch drive bays for SATA solid-state drives or U.2 solid-state drives
• Max up to total five hard drives supported |

Power ratings

Table 11. 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 12. 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)
Altitude (maximum)	−15.24 m to 3048 m	−15.24 m to 10,668 m

	Operating	Storage
	(−50 ft to 10,000 ft)	(−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

850 W power-supply unit

Table 13. PCI-Express graphics card installation matrix

	Single graphics	Dual graphics	Triple graphics	Quad graphics
Slot installation	Slot 1	Slot 1 and Slot 4		
Power connector label	PCIE1	PCIE1 and PCIE3	Not supported	Not supported
Primary output	Slot 1	Slot 4		

1500 W power-supply unit

ⓘ **NOTE: Dell offers three graphics configuration but your computer supports four graphics configuration. You can purchase the fourth graphics card separately and upgrade later. For more information, see Video.**

Table 14. PCI-Express graphics card installation matrix

	Single graphics	Dual graphics	Triple graphics	Quad graphics
Slot installation	Slot 1	Slot 1 and Slot 4	Slot 1, Slot 4 and Slot 7	Slot 1, Slot 3, Slot 5 and Slot 7
Power connector label	VGA1	VGA1 and VGA2	VGA1 and VGA2 and VGA3	VGA1 and VGA2 and VGA3 and VGA4
Primary output	Slot 1	Slot 4	Slot 4	Slot 3

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 15. Alienware products and online self-help resources

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

Contacting Alienware

To contact Alienware for sales, technical support, or customer service issues, see www.alienware.com.

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

(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.**