


Alienware Aurora R13

Setup and Specifications

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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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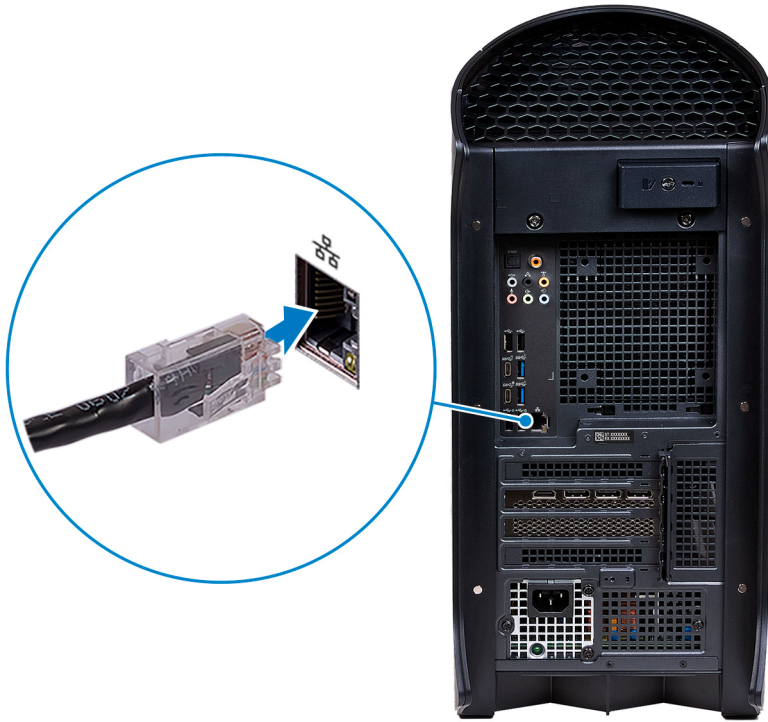
Set up your computer

NOTE: The images in this document may differ from your computer depending on the configuration you ordered.

1. Connect the keyboard and mouse to suitable ports. For instructions on how to connect a wireless keyboard and mouse, see the documentation that ships with the wireless keyboard and mouse.



2. Connect to your network using an Ethernet cable. Alternatively, connect to a wireless network while setting up your operating system.



3. Connect the display. For more information about setting up the display, see the documentation that is shipped with your display.



NOTE: Connect the display to the discrete graphics card of your computer.

4. Connect the power cable to the computer and then connect it to the wall outlet.

CAUTION: If you are using a 1000 W Power-Supply Unit (PSU), connect the power cable to a Power Distribution Unit (PDU) 16 A, and then connect the PDU to the wall outlet.




5. Press the power button at the front of computer to turn on the computer. If required, press the power button on the display to turn it on.



i **NOTE:** For instructions on how to connect speakers, a printer and other accessories, see *Me and My Dell* at www.dell.com/manuals.






6. Finish Windows setup.
Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:
 - Connect to a network for Windows updates.

 **NOTE:** If connecting to a secured wireless network, enter the password for the wireless network access when prompted.

- If connected to the Internet, sign in with or create a Microsoft account. If not connected to the Internet, create an offline account.
- On the **Support and Protection** screen, enter your contact details.

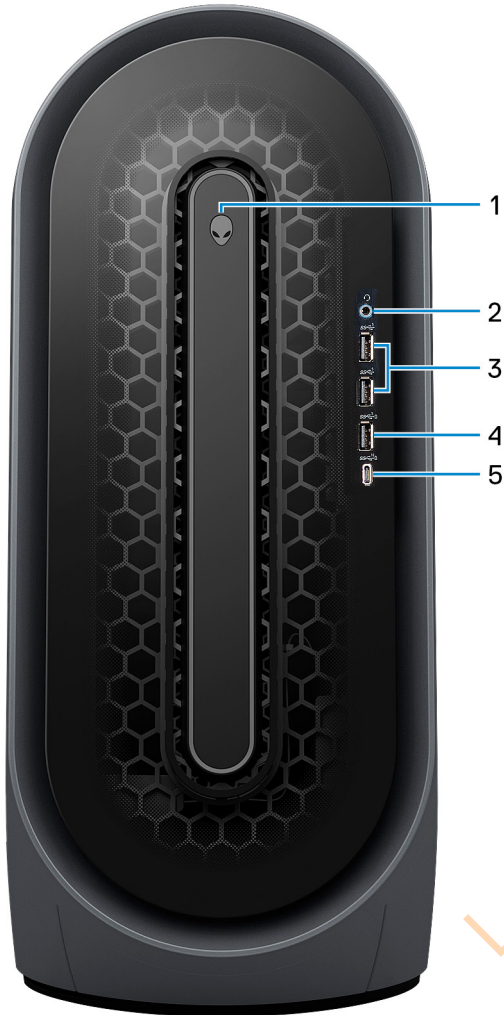
7. Locate and use Dell apps from the Windows Start menu—Recommended.

Table 1. Locate Dell apps

Resources	Description
	My Dell Centralized location for key Dell applications, help articles, and other important information about your computer. It also notifies you about the warranty status, recommended accessories, and software updates if available.
	SupportAssist SupportAssist proactively and predictively identifies hardware and software issues on your computer and automates the engagement process with Dell Technical support. It addresses performance and stabilization issues, prevents security threats, monitors, and detects hardware failures. For more information, see <i>SupportAssist for Home PCs User's Guide</i> at www.dell.com/serviceabilitytools . Click SupportAssist and then, click SupportAssist for Home PCs .  NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.
	Dell Update Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article 000149088 at www.dell.com/support .
	Dell Digital Delivery Download software applications, which are purchased but not preinstalled on your computer. For more information about using Dell Digital Delivery, see the knowledge base article 000129837 at www.dell.com/support .

Views of Alienware Aurora R13

Front



1. Power button (Alien head)

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.

When the computer is turned on, press the power button to put the computer into sleep state; press and hold the power button for 4 seconds to force shut-down the computer.

NOTE: You can customize the power-button behavior in Windows. For more information, see *Me and My Dell* at www.dell.com/support/manuals.

2. Headset port

Connect headphones or a headset (headphone and microphone combo).

3. USB 3.2 Gen 1 ports (2)

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

4. USB 3.2 Gen 1 port with PowerShare

Connect devices such as external storage devices and printers.

Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge connected USB devices.

(i) NOTE: Deep Sleep is enabled by default. Disable Deep Sleep at the BIOS setup to enable PowerShare feature on your computer.

(i) NOTE: PowerShare enables you to charge your USB devices even when your computer is turned off.

5. USB 3.2 Gen 2 Type-C port with PowerShare

Connect devices such as external 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. PowerShare enables you to charge connected USB devices.

(i) NOTE: Deep Sleep is enabled by default. Disable Deep Sleep at the BIOS setup to enable PowerShare feature on your computer.

(i) NOTE: PowerShare enables you to charge your USB devices even when your computer is turned off.

Back



1. Back panel

Connect USB, audio, video, and other devices.

2. PCI-Express X4 slot

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

3. PCI-Express X16

Connect a PCI-Express graphics card for optimal graphics performance.

4. PCI-Express X4 slot

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

5. Power-adapter port

Connect a power adapter to provide power to your computer.

6. Power-supply diagnostics light

Indicates the power-supply state.

7. 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.

8. Padlock rings

Attach a standard padlock to prevent unauthorized access to the interior of your computer.

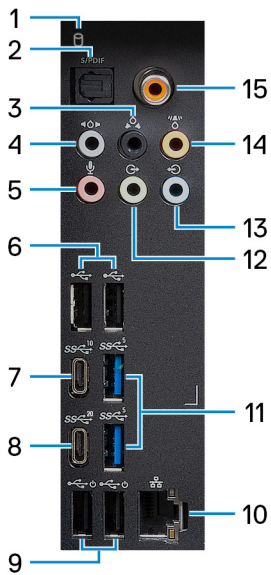
9. Side panel release latch

Pull the latch to quickly release the side panel from your computer.

10. Security-cable slot (wedge-shaped)

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

Back panel



1. Hard-drive activity light

The activity light turns on when the computer reads from or writes to the hard drive.

2. Optical S/PDIF port

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

3. Rear L/R surround port

Connect audio-output devices such as speakers and amplifiers. In a 5.1 or 7.1 speaker channel setup, connect the rear-left and rear-right speakers.

4. Side L/R surround port

Connect audio-output devices such as speakers and amplifiers. In a 7.1 speaker channel setup, connect the side-left and side-right speakers.

5. Microphone port

Connect an external microphone to provide sound input.

6. USB 2.0 ports (2)

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

7. USB 3.2 Gen 2 Type-C port

Connect devices such as external storage devices and printers.

Provides data transfer speeds up to 10 Gbps.

8. USB 3.2 Gen 2x2 Type-C port

Connect devices such as external storage devices and printers. Provides data transfer speeds up to 20 Gbps.

9. USB 2.0 ports with Smart Power On (2)

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

i **NOTE:** Deep Sleep is enabled by default. Disable Deep Sleep at the BIOS setup to enable Smart Power On feature on your computer.

i **NOTE:** Smart Power On is the ability to wake a system from S3, S4, and S5 sleep states with a move of a mouse or press of a key on the keyboard.

i **NOTE:** This port does not support video/audio streaming or power delivery.

10. Network port (with lights)

Connect an Ethernet (RJ-45) cable from a router or a broadband modem for network or Internet access.

The two lights next to the connector indicate the connectivity status and network activity.

11. USB 3.2 Gen 1 ports (2)

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

12. Front L/R surround line-out port

Connect audio-output devices such as speakers and amplifiers. In a 2.1 speaker channel setup, connect the left and right speakers. In a 5.1 or a 7.1 speaker channel setup, connect the front-left and front-right speakers.

13. Line-in port

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

14. Center/subwoofer LFE surround port

Connect the center speaker or the subwoofer.

i **NOTE:** For more information about the speaker setup, refer the documentation that shipped with the speakers.

15. Coaxial S/PDIF port

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

Specifications of Alienware Aurora R13

Dimensions and weight

The following table lists the height, width, depth, and weight of your Alienware Aurora R13.

Table 2. Dimensions and weight

Description	Values
Height:	
Front height	510 mm (20.08 in.)
Rear height	510 mm (20.08 in.)
Width	225 mm (8.86 in.)
Depth	<ul style="list-style-type: none">529 mm (20.83 in.) (without cable cover)589 mm (23.19 in.) (with cable cover)
Weight (maximum)	16.05 kg (35.38 lb) <i>i</i> NOTE: The weight of your computer depends on the configuration ordered and manufacturing variability.

Processor

The following table lists the details of the processors that are supported by your Alienware Aurora R13.

Table 3. Processor

Processor type	Processor wattage	Processor core count	Processor thread count	Processor speed	Processor cache
12 th Generation Intel Core i5-12400	65 W	6	12	Up to 4.4 GHz	18 MB
12 th Generation Intel Core i5-12400F	65 W	6	12	Up to 4.4 GHz	18 MB
12 th Generation Intel Core i5-12600K	125 W	10	16	Up to 4.9 GHz	20 MB
12 th Generation Intel Core i5-12600KF	125 W	10	16	Up to 4.9 GHz	20 MB
12 th Generation Intel Core i7-12700	65 W	12	20	Up to 4.9 GHz	25 MB
12 th Generation Intel Core i7-12700F	65 W	12	20	Up to 4.9 GHz	25 MB

Table 3. Processor (continued)

Processor type	Processor wattage	Processor core count	Processor thread count	Processor speed	Processor cache
12 th Generation Intel Core i7-12700K	125 W	12	20	Up to 5 GHz	25 MB
12 th Generation Intel Core i7-12700KF	125 W	12	20	Up to 5 GHz	25 MB
12 th Generation Intel Core i9-12900	65 W	16	24	Up to 5.1 GHz	30 MB
12 th Generation Intel Core i9-12900F	65 W	16	24	Up to 5.1 GHz	30 MB
12 th Generation Intel Core i9-12900K	125 W	16	24	Up to 5.2 GHz	30 MB
12 th Generation Intel Core i9-12900KF	125 W	16	24	Up to 5.2 GHz	30 MB

Chipset

The following table lists the details of the chipset supported by your Alienware Aurora R13.

Table 4. Chipset

Description	Values
Chipset	Intel Z690
Processor	12 th Generation Intel Core i5/i7/i9
DRAM bus width	128-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen4

Operating system

Your Alienware Aurora R13 supports the following operating systems:

- Windows 11 Pro Standard, 64-bit
- Windows 11 Pro Plus, 64-bit
- Windows 11 Home Standard, 64-bit
- Windows 11 Home Plus, 64-bit
- Windows 11 Home Advanced, 64-bit

Memory

The following table lists the memory specifications of your Alienware Aurora R13.

Table 5. Memory specifications

Description	Values
Memory slots	Four
Memory type	DDR5
Memory speed	Up to 4400 MHz
Maximum memory configuration	128 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none"> • 8 GB, 1 x 8 GB, DDR5, 4400 MHz • 16 GB, 2 x 8 GB, DDR5, 4400 MHz, dual-channel • 32 GB, 2 x 16 GB, DDR5, 4400 MHz, dual-channel • 32 GB, 4 x 8 GB, DDR5, 4000 MHz, dual-channel • 64 GB, 2 x 32 GB, DDR5, 4400 MHz, dual-channel • 64 GB, 4 x 16 GB, DDR5, 4000 MHz, dual-channel • 128 GB, 4 x 32 GB, DDR5, 3600 MHz, dual-channel

Ports and connectors

The following table lists the external and internal ports available on your Alienware Aurora R13.

Table 6. Ports and connectors

Description	Values
External:	
Network	One RJ-45 port
USB	<ul style="list-style-type: none"> • Four USB 3.2 Gen 1 ports • Two USB 2.0 ports with Smart Power On • Two USB 2.0 ports • One USB 3.2 Gen 1 port with PowerShare • One USB 3.2 Gen 2 Type-C port with PowerShare • One USB 3.2 Gen 2 Type-C port • One USB 3.2 Gen 2x2 Type-C port
Audio	<ul style="list-style-type: none"> • One headset port • One optical S/PDIF port • One coaxial S/PDIF port • One audio input/microphone port • One line-in port • One front L/R surround line-out port • One center/subwoofer LFE surround port • One rear L/R surround port • One side L/R surround port

Table 6. Ports and connectors (continued)

Description	Values
Video	Supported through discrete GPU
Media-card reader	Not supported
Power port	110 V/220 V
Security	<ul style="list-style-type: none"> One security-cable slot (wedge-shaped) One padlock slot
Internal:	
PCIe expansion card slots	<ul style="list-style-type: none"> One PCIe x16 mechanical/x16 electrical Gen5 slot Two PCIe Gen3 x4 slots
mSATA	Not supported
SATA	Three
M.2	<ul style="list-style-type: none"> One M.2 2230 slot for WiFi and Bluetooth combo card Two M.2 2230/2280 card slots for solid-state drive <p>NOTE: To learn more about the features of different types of M.2 cards, see the Knowledge Base resource at https://www.dell.com/support.</p>

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Alienware Aurora R13.

Table 7. Ethernet specifications

Description	Values
Model number	Killer E3100G Ethernet controller integrated on the system board
Transfer rate	10/100/1000/2500 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Alienware Aurora R13.

Table 8. Wireless module specifications

Description	Option one	Option two	Option three
Model number	Realtek RTL8822CE	Intel AX210	Killer AX1675x
Transfer rate	Up to 867 Mbps	Up to 2400 Mbps	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) 	<ul style="list-style-type: none"> WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) 	<ul style="list-style-type: none"> WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac)

Table 8. Wireless module specifications (continued)

Description	Option one	Option two	Option three
		<ul style="list-style-type: none"> Wi-Fi 6 (WiFi 802.11ax) 	<ul style="list-style-type: none"> Wi-Fi 6 (WiFi 802.11ax)
Encryption	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP
Bluetooth wireless card	Bluetooth 5.0	Bluetooth 5.2	Bluetooth 5.2
	<i>i</i> NOTE: The version of the Bluetooth wireless card may vary depending on the operating system that is installed on your computer.		

Storage

This section lists the storage options on your Alienware Aurora R13.

Your Alienware Aurora R13 supports one of the following storage configurations:

- Up to two M.2 2230 or M.2 2280 PCIe NVMe solid-state drives
- Up to two M.2 2230 or M.2 2280 PCIe NVMe solid-state drives + one 3.5-inch hard drive or 2.5-inch hard drive
- Up to two M.2 2230 or M.2 2280 PCIe NVMe solid-state drives + one 3.5-inch hard drive + one 2.5-inch hard drive

i **NOTE:** Your Alienware Aurora R13 comes shipped with one 3.5-inch hard drive. When installing an additional 2.5-inch hard drive, contact Dell.com technical support to purchase an additional SATA cable to connect the 2.5-inch drive to the system board.

The primary drive of your Alienware Aurora R13 varies with the storage configuration. For computers:

- With a M.2 drive, the M.2 drive is the primary drive.
- With a M.2 drive and one 3.5-inch hard drive, the M.2 drive is the primary drive.

Table 9. Storage specifications

Storage type	Interface type	Capacity
One M.2 2230 solid-state drive	PCIe Gen3/Gen4 x4 NVMe, up to 64 Gbps	Up to 256 GB
One M.2 2280 solid-state drive	PCIe Gen3/Gen4 x4 NVMe, up to 64 Gbps	Up to 2 TB
One 3.5-inch hard drive	SATA AHCI 6 Gbps	Up to 2 TB

GPU — Discrete

The following table lists the specifications of the discrete graphics processing unit (GPU) supported by your Alienware Aurora R13.

Table 10. GPU — Discrete

Controller	External display support	Memory size	Memory type
AMD Radeon RX 5300	One HDMI 2.0 port, two DisplayPort 1.4 ports	3 GB	GDDR6
AMD Radeon RX 6600 XT	One HDMI 2.1 port, three DisplayPort 1.4 ports	8 GB	GDDR6
AMD Radeon RX 6700 XT	One HDMI 2.1 port, three DisplayPort 1.4 ports	12 GB	GDDR6

Table 10. GPU — Discrete (continued)

Controller	External display support	Memory size	Memory type
AMD Radeon RX 6800 XT	One HDMI 2.1 port, three DisplayPort 1.4 ports	16 GB	GDDR6
AMD Radeon RX 6900 XT	One HDMI 2.1 port, three DisplayPort 1.4 ports	16 GB	GDDR6
NVIDIA GeForce GTX 1650 SUPER	One HDMI 2.0 port, one DisplayPort 1.4 port, one DVI port	4 GB	GDDR6
NVIDIA GeForce GTX 1660 SUPER	One HDMI 2.0 port, one DisplayPort 1.4 port, one DVI port	6 GB	GDDR6
NVIDIA GeForce GTX 1660 Ti	One HDMI 2.0 port, one DisplayPort 1.4 port, one DVI port	6 GB	GDDR6
NVIDIA GeForce RTX 3060	One HDMI 2.1 port, three DisplayPort 1.4 ports	12 GB	GDDR6
NVIDIA GeForce RTX 3060 Ti	One HDMI 2.1 port, three DisplayPort 1.4 ports	8 GB	GDDR6
NVIDIA GeForce RTX 3070	One HDMI 2.1 port, three DisplayPort 1.4 ports	8 GB	GDDR6
NVIDIA GeForce RTX 3070 Ti	One HDMI 2.1 port, three DisplayPort 1.4 ports	8 GB	GDDR6X
NVIDIA GeForce RTX 3080	One HDMI 2.1 port, three DisplayPort 1.4 ports	10 GB	GDDR6X
NVIDIA GeForce RTX 3080 Ti	One HDMI 2.1 port, three DisplayPort 1.4 ports	12 GB	GDDR6X
NVIDIA GeForce RTX 3090	One HDMI 2.1 port, three DisplayPort 1.4 ports	24 GB	GDDR6X

Audio

The following table lists the audio specifications of your Alienware Aurora R13.

Table 11. Audio specifications

Description	Values
Audio type	Integrated 7.1 channel audio with S/PDIF port
Audio controller	<ul style="list-style-type: none"> Realtek ALC3861 Realtek ALC1220
Internal audio interface	High-definition audio
External audio interface	<ul style="list-style-type: none"> 7.1 channel output Optical S/PDIF

Table 11. Audio specifications (continued)

Description	Values
	<ul style="list-style-type: none"> • Coaxial S/PDIF • Microphone-in • Line-in • Headset

Power ratings

The following table lists the power rating specifications of Alienware Aurora R13.

Table 12. Power ratings

Description	Option one	Option two	Option three
Type	460 W Bronze	750 W Platinum	1000 W Platinum
Input voltage	90 VAC to 264 VAC	90 VAC to 264 VAC	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz	47 Hz to 63 Hz	47 Hz to 63 Hz
Input current (maximum)	7 A	10 A	<ul style="list-style-type: none"> • 13.6 A (90 VAC) • 12 A - 6 A (100 VAC - 240 VAC)
Output current (continuous)	12 VA - 18 A, 12 VB - 18 A, 12 VC - 18 A; Standby mode: 12 VA - 1.50 A, 12 VB - 3.30 A, 12 VC - 0 A	12 VA - 36 A, 12 VB - 27 A, 12 VC - 36 A; Standby mode: 12 VA - 1.50 A, 12 VB - 5 A, 12 VC - 0 A	12 VA - 36 A, 12 VB - 27 A, 12 VC - 36 A; Standby mode: 12 VA - 1.50 A, 12 VB - 5 A, 12 VC - 0 A
Rated output voltage	12 VA, 12 VB, 12 VC	12 VA, 12 VB, 12 VC	12 VA, 12 VB, 12 VC
Temperature range:			
Operating	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

Operating and storage environment

This table lists the operating and storage specifications of your Alienware Aurora R13.

Airborne contaminant level: G1 as defined by ISA-S71.04-1985

Table 13. Computer environment

Description	Operating	Storage
Temperature range	10°C to 35°C (50°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	20% to 80% (non-condensing)	5% 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 52.50 in./s (133 cm/s)†

Table 13. Computer environment (continued)

Description	Operating	Storage
Altitude range	-15.20 m to 3,048 m (-49.87 ft to 10,000 ft)	-15.20 m to 10,668 m (-49.87 ft to 35,000 ft)
△ CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.		

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

† Measured using a 2 ms half-sine pulse.

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