

Alienware Area-51m R2

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.

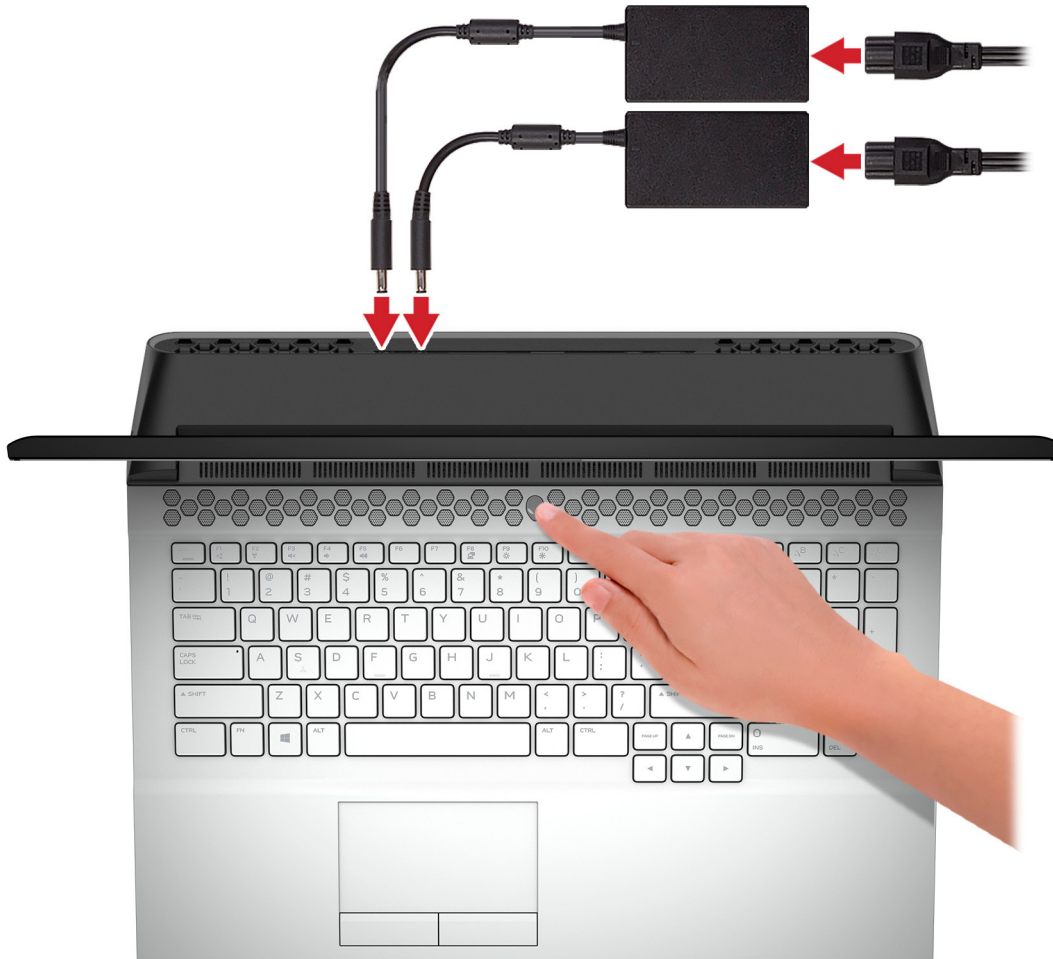
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Set up your Alienware Area-51m R2

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

Connect one or both power adapters that are supplied with your computer, then press the power button.



NOTE: Your computer ships with two power adapters, and it operates normally with one power adapter connected. For maximum gaming performance, it is recommended to connect two adapters. Only use adapters supplied with your device, or Dell-approved adapters to power your device.

Alienware Graphics Amplifier

Alienware Graphics Amplifier enables you to connect an external graphics card to your computer.

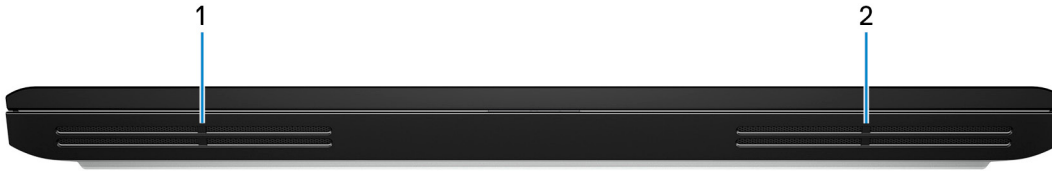
When using the Virtual Reality (VR) headset, connect the HDMI cable to the graphics card installed on your Alienware Graphics Amplifier. The USB cables from the VR headset can be connected either to your computer or your Alienware Graphics Amplifier.

NOTE: The USB dongle is not required, if you are connecting the USB 3.2 Gen 1 cables on your VR headset to the USB 3.2 Gen 1 Type-A port on your Alienware Graphics Amplifier.

For more information about Alienware Graphics Amplifier, see *Alienware Graphics Amplifier User's Guide* at www.dell.com/support.

Views of Alienware Area-51m R2

Front



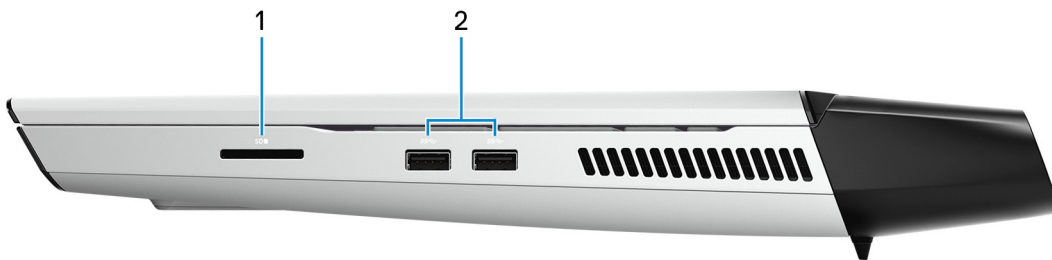
1. Left speaker

Provides audio output.

2. Right speaker

Provides audio output.

Right



1. SD-card slot

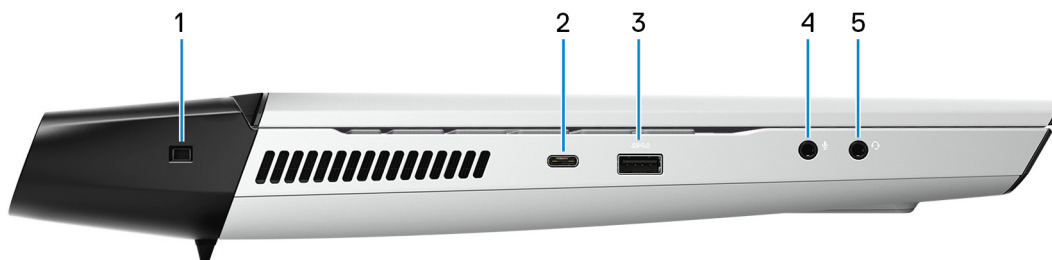
Reads from and writes to the SD card. The computer supports the following card types:

- Secure Digital (SD)
- Secure Digital High Capacity (SDHC)
- Secure Digital Extended Capacity (SDXC)

2. USB 3.2 Gen 1 ports (2)

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

Left



1. Security-cable slot (wedge-shaped)

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

2. Thunderbolt 3 (USB Type-C) port

Supports USB 3.2 Gen 2, DisplayPort 1.2, Thunderbolt 3 and also enables you to connect to an external display using a display adapter.

Provides data transfer rates up to 10 Gbps for USB 3.2 Gen 2 and up to 40 Gbps for Thunderbolt 3.

NOTE: A USB Type-C to DisplayPort adapter (sold separately) is required to connect a DisplayPort device.

3. USB 3.2 Gen 1 port with PowerShare

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 the charge on your computer's battery is less than 10 percent, you must connect the power adapter to charge your computer, and USB devices connected to the PowerShare port.

NOTE: If a USB device is connected to the PowerShare port before the computer is turned off or in hibernate state, you must disconnect and connect it again to enable charging.

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.

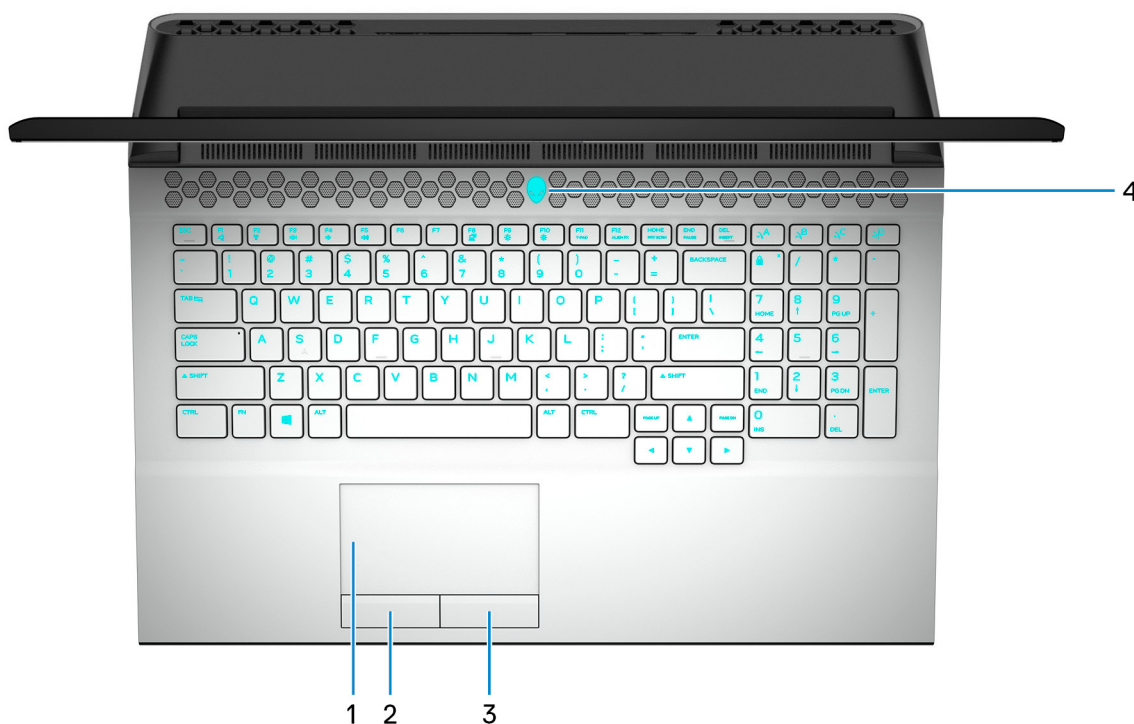
4. Microphone/headphone port (configurable)

Connect an external microphone for sound input or headphones for sound output.

5. Headset port

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

Base



1. Touchpad

Move your finger on the touchpad to move the mouse pointer. Tap to left-click and two finger tap to right-click.

2. Left-click area

Press to left-click.

3. Right-click area

Press to right-click.

4. Power button (Alienhead)

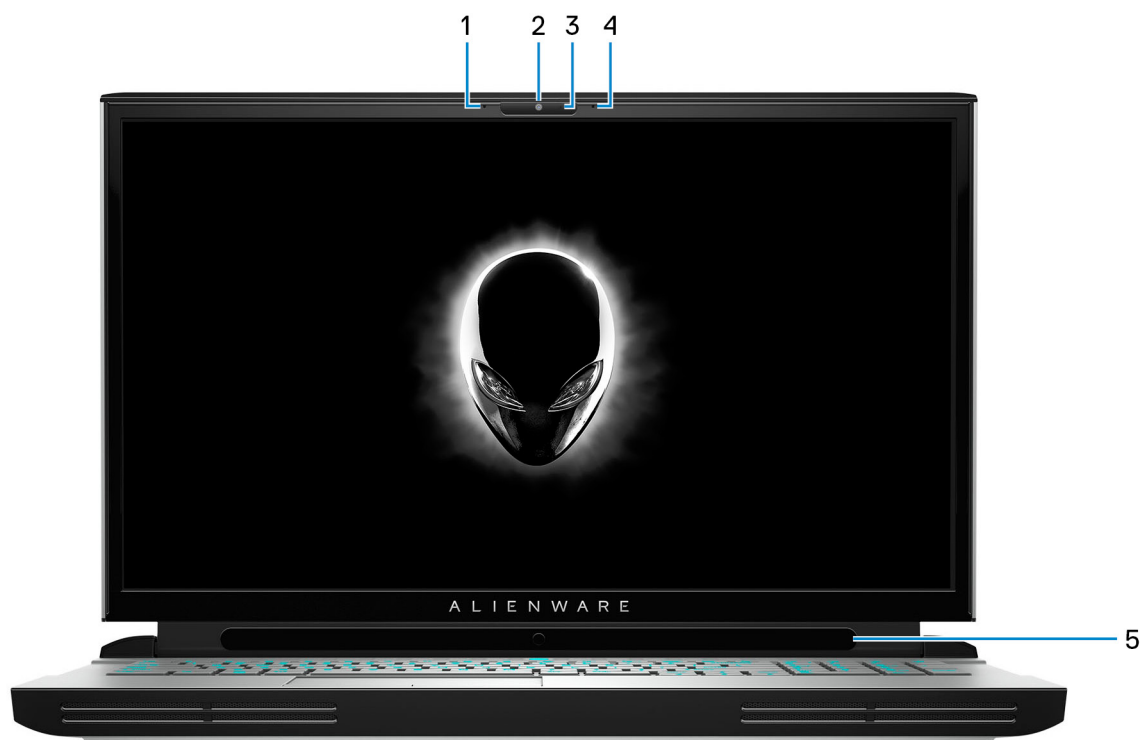
Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

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.

Display



1. Left microphone

Provides digital sound input for audio recording and voice calls.

2. Camera

Enables you to video chat, capture photos, and record videos.

3. Camera-status light

Turns on when the camera is in use.

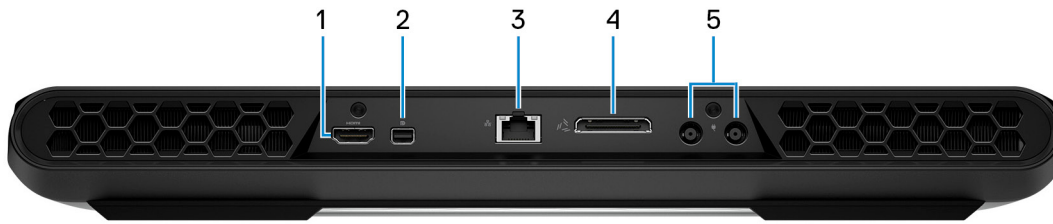
4. Right microphone

Provides digital sound input for audio recording and voice calls.

5. Tobii Eye Tracker

Application that enables you to interact with your computer using your eyes.

Back



1. HDMI port

Connect to a TV or another HDMI-in enabled device. Provides video and audio output.

2. Mini DisplayPort

Connect to a TV or another DisplayPort-in enabled device. Provides video and audio output.

3. Network port

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

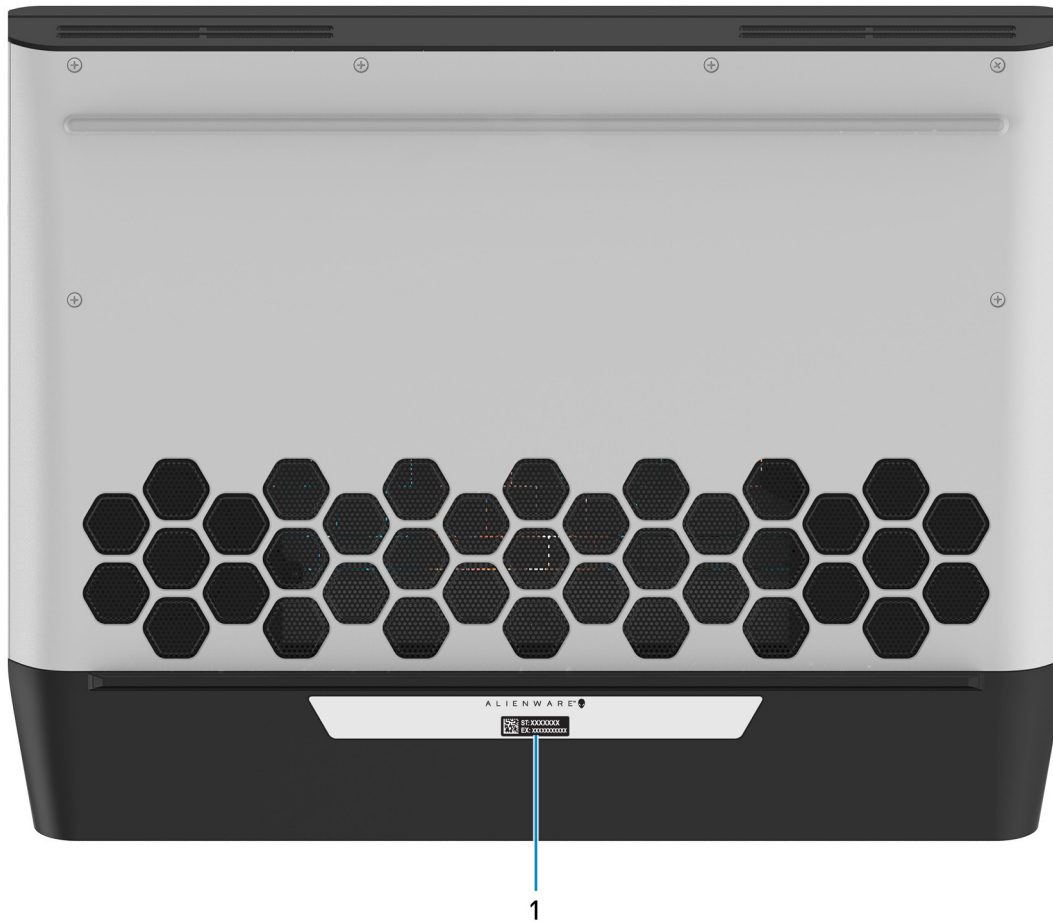
4. External graphics port

Connect an Alienware Graphics Amplifier to enhance the graphics performance.

5. Power-adaptor ports (2)

Connect a power adapter to provide power to your computer.

Bottom



1. 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.

Specifications of Alienware Area-51m R2

Dimensions and weight

The following table lists the height, width, depth, and weight of your Alienware Area-51m R2.

Table 1. Dimensions and weight

Description	Values
Height:	
Front height	27.65 mm (1.09 in.)
Peak height	44 mm (1.73 in.)
Rear height	31.80 mm (1.25 in.)
Width	402.60 mm (15.85 in.)
Depth	319.14 mm (12.56 in.)
Weight (maximum)	4.10 kg (9.04 lb): Computers shipped with NVIDIA GeForce GTX 1660 Ti 4.70 kg (10.36 lb): Computers shipped with other graphics cards NOTE: The weight of your computer depends on the configuration ordered and manufacturing variability.

Processor

The following table lists the details of the processors supported by your Alienware Area-51m R2.

Table 2. Processor

Description	Option one	Option two	Option three	Option four
Processor type	10 th Generation Intel Core i7-10700	10 th Generation Intel Core i7-10700k	10 th Generation Intel Core i9-10900	10 th Generation Intel Core i9-10900k
Processor wattage	65 W	125 W	65 W	125 W
Processor core count	8	8	10	10
Processor thread count	16	16	20	20
Processor speed	Up to 4.80 GHz	Up to 5.10 GHz	Up to 5.10 GHz	Up to 5.20 GHz
Processor cache	16 MB	16 MB	20 MB	20 MB
Integrated graphics	Intel UHD Graphics 630	Intel UHD Graphics 630	Intel UHD Graphics 630	Intel UHD Graphics 630

Chipset

The following table lists the details of the chipset supported by your Alienware Area-51m R2.

Table 3. Chipset

Description	Values
Chipset	Z490
Processor	10 th Generation Intel Core i7/i7k/i9/i9k
DRAM bus width	128-bit
Flash EPROM	24 MB
PCIe bus	Up to Gen3

Operating system

Your Alienware Area-51m R2 supports the following operating systems:

- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit

Memory

The following table lists the memory specifications of your Alienware Area-51m R2.

Table 4. Memory specifications

Description	Values
Memory slots	Two SoDIMM slots
Memory type	DDR4
Memory speed	2933 MHz
Maximum memory configuration	64 GB
Minimum memory configuration	8 GB
Memory size per slot	4 GB, 8 GB, 16 GB, 32 GB
Memory configurations supported	• 8 GB, 2 x 4 GB, DDR4, 2933 MHz, dual-channel • 16 GB, 2 x 8 GB, DDR4, 2933 MHz, dual-channel • 32 GB, 2 x 16 GB, DDR4, 2933 MHz, dual-channel • 64 GB, 2 x 32 GB, DDR4, 2933 MHz, dual-channel • 16 GB, 2 x 8 GB, DDR4, 3200 MHz, dual-channel, Intel XMP • 32 GB, 2 x 16 GB, DDR4, 3200 MHz, dual-channel, Intel XMP i NOTE: Only Dell supplied XMP memory modules are supported on this computer. Third-party XMP memory modules are not supported.

External ports

The following table lists the external ports of your Alienware Area-51m R2.

Table 5. External ports

Description	Values
Network port	One RJ45 port
USB ports	• Two USB 3.2 Gen 1 ports • One USB 3.2 Gen 1 port with PowerShare • One Thunderbolt 3 port
Audio port	• One global headset port • One microphone/headphone retaskable port
Video port	• One HDMI 2.0 port • One mini DisplayPort 1.4 • One external graphics port
Media-card reader	One SD-card slot
Docking port	Not supported
Power-adaptor port	Two 7.4 mm power-adaptor ports
Security	One noble lock slot

Internal slots

The following table lists the internal slots of your Alienware Area-51m R2.

Table 6. Internal slots

Description	Values
M.2	• One M.2 2230 slot for WiFi and Bluetooth combo card • Two M.2 2230/2280 slots for solid-state drive • Two optional M.2 2280 slots on Sled board  NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626 at www.dell.com/support.

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Alienware Area-51m R2.

Table 7. Ethernet specifications

Description	Values
Model number	Killer E3000 Gigabit ethernet controller
Transfer rate	10/100/1000/2500 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module supported on your Alienware Area-51m R2.

Table 8. Wireless module specifications

Description	Values
Model number	Killer AX1650i
Transfer rate	Up to 2212 Mbps
Frequency bands supported	2.4 GHz/5 GHz
Wireless standards	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6 (WiFi 802.11ax)
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth	Bluetooth 5.1

Audio

The following table lists the audio specifications of your Alienware Area-51m R2.

Table 9. Audio specifications

Description	Values
Audio controller	Realtek ALC3282-CG
Stereo conversion	Supported
Internal audio interface	High-definition audio interface
External audio interface	• One global headset jack supports headset/headphone • One headphone retasking jack supports headphone/line-out/line-in/microphone
Number of speakers	Four
Internal-speaker amplifier	Supported
External volume controls	Media-control shortcut keys
Speaker output:	
Average speaker output	4 W
Peak speaker output	6 W
Subwoofer output	Not supported
Microphone	Digital array microphones in camera assembly

Storage

This section lists the storage options on your Alienware Area-51m R2.

Your Alienware Area-51m R2 supports one of the following storage configurations:

- One M.2 solid-state drive
- Two M.2 solid-state drives
- One 2.5-inch hard drive and one M.2 solid-state drive
- Three M.2 solid-state drives
- One 2.5-inch hard drive and two M.2 solid-state drives
- Four M.2 solid-state drives

The M.2 drive is the primary drive of your Alienware Area-51m R2.

Table 10. Storage specifications

Storage type	Interface type	Capacity
2.5-inch hard drive	SATA AHCI, up to 6 Gbps	Up to 1 TB
M.2 2230 solid-state drive	PCIe NVMe Gen3 x4, up to 32 Gbps	Up to 256 GB
M.2 2280 solid-state drive	PCIe NVMe Gen3 x4, up to 32 Gbps	Up to 2 TB

Media-card reader

The following table lists the media cards supported by your Alienware Area-51m R2.

Table 11. Media-card reader specifications

Description	Values
Media-card type	One SD card
Media-cards supported	• Secure Digital (SD) • Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC)
i NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.	

Keyboard

The following table lists the keyboard specifications of your Alienware Area-51m R2.

Table 12. Keyboard specifications

Description	Values
Keyboard type	• RGB per key backlit keyboard (Rubber dome) • RGB per key backlit keyboard (Cherry Mechanical Switch)
Keyboard layout	QWERTY
Number of keys	• United States and Canada: 103 keys • United Kingdom: 104 keys • Japan: 107 keys

Table 12. Keyboard specifications (continued)

Description	Values
Keyboard size	X =19.05 mm key pitch Y =19.05 mm key pitch
Keyboard shortcuts	Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key. NOTE: You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in BIOS setup program. For more information, see Keyboard shortcuts.

Camera

The following table lists the camera specifications of your Alienware Area-51m R2.

Table 13. Camera specifications

Description	Values
Number of cameras	One
Camera type	RGB HD camera
Camera location	Front camera
Camera sensor type	CMOS sensor technology
Camera resolution:	
Still image	0.92 megapixels
Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle:	74.9 degrees

Touchpad

The following table lists the touchpad specifications of your Alienware Area-51m R2.

Table 14. Touchpad specifications

Description	Values
Touchpad resolution:	
Horizontal	1727
Vertical	1092
Touchpad dimensions:	
Horizontal	56 mm (2.20 in.)
Vertical	100 mm (3.94 in.)

Table 14. Touchpad specifications (continued)

Description	Values
Touchpad gestures	For more information about touchpad gestures available on Windows 10, see the Microsoft knowledge base article 4027871 at support.microsoft.com .

Power adapter

The following table lists the power adapter specifications of your Alienware Area-51m R2.

Table 15. Power adapter specifications

Description	Option one	Option two	Option three
Type	180 W	240 W	330 W
Connector dimensions:			
External diameter	7.40 mm	7.40 mm	7.40 mm
Internal diameter	5.10 mm	5.10 mm	5.10 mm
Input voltage	100 VAC–240 VAC	100 VAC–240 VAC	100 VAC–240 VAC
Input frequency	50 Hz–60 Hz	50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)	2.34 A	5 A	4.40 A
Output current (continuous)	9.23 A	12.31 A	16.92 A
Rated output voltage	19.50 VDC	19.50 VDC	19.50 VDC
Temperature range:			
Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°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)

Battery

The following table lists the battery specifications of your Alienware Area-51m R2.

Table 16. Battery specifications

Description	Values
Battery type	6-cell "smart" lithium-ion (90 WHr)
Battery voltage	11.40 VDC
Battery weight (maximum)	0.37 kg (0.82 lb)
Battery dimensions:	
Height	15.80 mm (0.62 in.)
Width	222 mm (8.74 in.)

Table 16. Battery specifications (continued)

Description		Values
	Depth	81 mm (3.19 in.)
Temperature range:		
	Operating	0°C to 45°C (32°F to 113°F)
	Storage	-20°C to 60°C (-4°F to 140°F)
Battery operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate) <i>i</i> NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on www.dell.com .		4 hours (when the computer is off) <i>i</i> NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager, see <i>Me and My Dell</i> on www.dell.com .
Coin-cell battery		CR2032

Display

The following table lists the display specifications of your Alienware Area-51m R2.

Table 17. Display specifications

Description		Option one	Option two	Option three
Display type		Full High Definition (FHD)	Full High Definition (FHD)	Ultra High Definition (UHD)
Display-panel technology		Wide-viewing angle (WVA)	Wide-viewing angle (WVA)	Wide-viewing angle (WVA)
Display-panel dimensions (active area):				
	Height	214.81 mm (8.46 in.)	214.81 mm (8.46 in.)	214.81 mm (8.46 in.)
	Width	381.89 mm (15.04 in.)	381.89 mm (15.04 in.)	381.89 mm (15.04 in.)
	Diagonal	438.16 mm (17.3 in.)	438.16 mm (17.3 in.)	438.16 mm (17.3 in.)
Display-panel native resolution		1920 x 1080	1920 x 1080	3840 x 2160
Luminance (typical)		300 nits	300 nits	500 nits
Megapixels		2.07	2.07	8.29
Color gamut		72% NTSC	100% sRGB	100% Adobe RGB
Pixels Per Inch (PPI)		127	127	255
Contrast ratio (typ)		600:1	700:1	1200:1
Response time (max)		7 ms (GtG)	3 ms (GtG)	25 ms (Black to White)
Refresh rate		144 Hz	300 Hz	60 Hz
Horizontal view angle		85 +/- degrees	85 +/- degrees	85 +/- degrees

Table 17. Display specifications (continued)

Description	Option one	Option two	Option three
Vertical view angle	85 +/- degrees	85 +/- degrees	85 +/- degrees
Pixel pitch	0.20 mm	0.20 mm	0.10 mm
Power consumption (maximum)	8.67 W	7 W	12 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare	Anti-glare
Touch options	No	No	No

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Alienware Area-51m R2.

Table 18. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel UHD Graphics 630	One Thunderbolt 3 port	Shared system memory	10 th Generation Intel Core i7/i7k/i9/i9k

GPU — Discrete

The following table lists the specifications of the discrete graphics processing unit (GPU) supported by your Alienware Area-51m R2.

Table 19. GPU — Discrete

Controller	External display support	Memory size	Memory type
NVIDIA GeForce GTX 1660 Ti	One HDMI 2.0 port, one mini DisplayPort 1.4	6 GB	GDDR6
NVIDIA GeForce RTX 2060	One HDMI 2.0 port, one mini DisplayPort 1.4	6 GB	GDDR6
NVIDIA GeForce RTX 2070 SUPER	One HDMI 2.0 port, one mini DisplayPort 1.4	8 GB	GDDR6
NVIDIA GeForce RTX 2080 SUPER	One HDMI 2.0 port, one mini DisplayPort 1.4	8 GB	GDDR6
AMD Radeon RX 5700M	One HDMI 2.0 port, one mini DisplayPort 1.4	8 GB	GDDR6

Operating and storage environment

This table lists the operating and storage specifications of your Alienware Area-51m R2.

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

Table 20. Computer environment

Description	Operating	Storage
Temperature range	0°C to 40°C (32°F to 104°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)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude (maximum)	0 m to 3048 m (0 ft to 10000 ft)	0 m to 10668 m (0 ft to 35000 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.

Keyboard shortcuts

NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys used for shortcuts remain the same across all language configurations.

Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press shift and the key, the symbol shown on the upper part of the key is typed out. For example, if you press **Shift + 2**, **@** is typed out.

The keys F1-F12 at the top row of the keyboard are function keys for multi-media control, as indicated by the icon at the bottom of the key. Press the function key to invoke the task represented by the icon. For example, pressing F1 mutes the audio (refer to the table below).

However, if the function keys F1-F12 are needed for specific software applications, multi-media functionality can be disabled by pressing **Fn + Esc**. Subsequently, multi-media control can be invoked by pressing **Fn** and the respective function key. For example, mute audio by pressing **Fn + F1**.

NOTE: You can also define the primary behavior of the function keys (F1-F12) by changing **Function Key Behavior** in BIOS setup program.

Table 21. List of keyboard shortcuts

Keys	Description
 + 	Disconnect Alienware Graphics Amplifier
 + 	Disable/enable wireless
 + 	Mute audio
 + 	Decrease volume
 + 	Increase volume
 + 	Switch to external display
 + 	Decrease brightness
 + 	Increase brightness
 + 	Disable/enable touchpad
 + 	Disable/enable AlienFX

Your computer comes with pre-programmable macro keys that enable you to execute multiple actions with a single key press.

Table 22. List of Macro keys

Keys	Description
	Macro keys NOTE: You can configure modes and assign multiple tasks for the macro keys on the keyboard.
	
	

Table 22. List of Macro keys (continued)

Keys	Description
	

Alienware Command Center

Alienware Command Center (AWCC) provides a single interface to customize and enhance the gaming experience. The AWCC dashboard displays most recently played or added games, and provides game-specific information, themes, profiles, and access to computer settings. You can quickly access settings such as game-specific profiles and themes, lighting, macros, and audio that are critical to the gaming experience.

AWCC also supports AlienFX 2.0. AlienFX enables you to create, assign, and share game-specific lighting maps to enhance the gaming experience. It also enables you to create your own individual lighting effects and apply them to the computer or attached peripherals. AWCC embeds Peripheral Controls to ensure a unified experience and the ability to link these settings to your computer or game.

AWCC supports the following features:

- FX: Create and manage the AlienFX zones.
- Fusion: Includes the ability to adjust game-specific Power Management, Sound Management, and Thermal Management features.
- Peripheral Management: Enables peripherals to appear in and be managed in Alienware Command Center. Supports key peripheral settings and associates with other functions such as profiles, macros, AlienFX, and game library.

AWCC also supports Sound Management, Thermal Controls, CPU, GPU, Memory (RAM) monitoring. For more information about AWCC, see the *Alienware Command Center Online Help* or the knowledge base article [SLN128904](#) at www.dell.com/support.

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 23. Alienware products and online self-help resources

Self-help resources	Resource location
Information about Alienware products and services	www.alienware.com
My Dell	
Tips	
Contact Support	In Windows search, type Contact 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
VR Support	www.dell.com/VRsupport
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.

① **NOTE:** Availability varies by country/region and product, and some services may not be available in your country/region.

① **NOTE:** If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.