ALIENWARE

Alienware m16 R1
Setup and Specifications

ALIENWARE

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.

Contents

Set up your Alienware m16 R1

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

Connect the power adapter and press the power button.

Views of Alienware m16 R1

Display
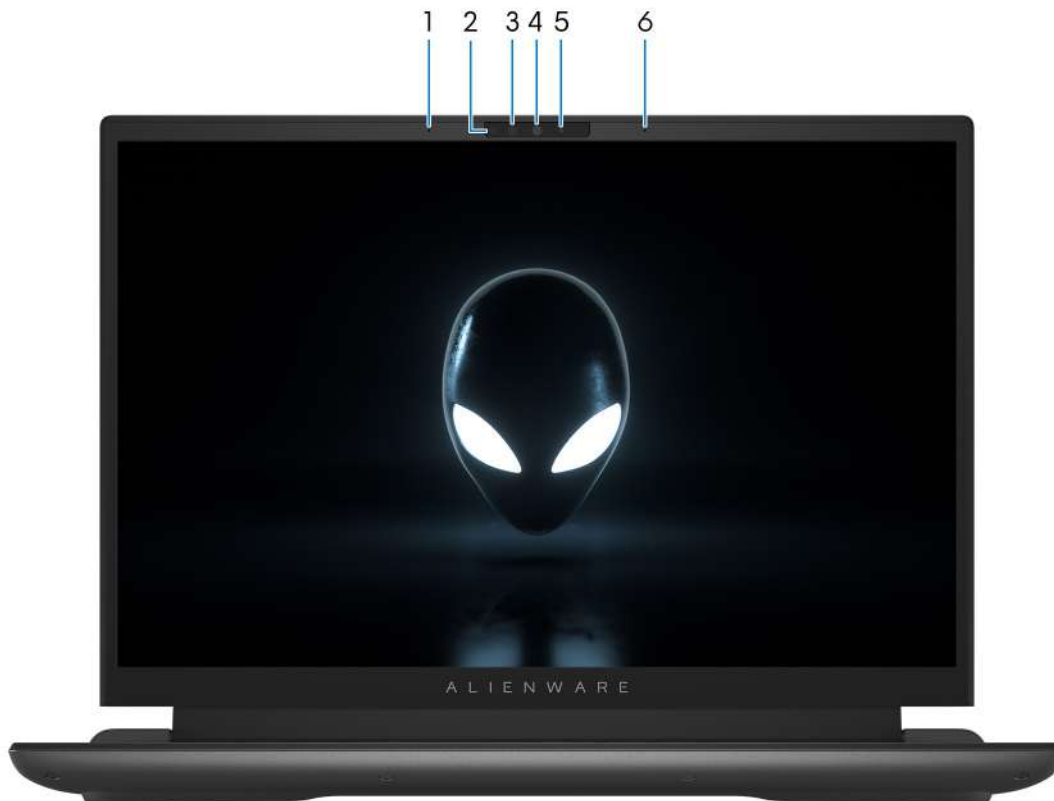
1. **Left microphone**

   Provides digital sound input for audio recording and voice calls.

2. **Infrared emitter**

   Emits infrared light, which enables the infrared camera to sense and track motion.

3. **Infrared camera**

   Enhances security when paired with Windows Hello face authentication.

4. **Camera**

   Make video calls, capture photos, or record videos.

5. **Camera-status light**

   Turns on when the camera is in use.

6. **Right microphone**

   Provides digital sound input for audio recording and voice calls.

Left

1. **Network port**

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

2. **USB 3.2 Gen 1 port with PowerShare**

   Connect devices such as external storage devices and printers.

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

   (i) **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.

   (i) **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. **Universal audio jack**

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

Top

1. **Touchpad**

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

2. **Left-click area**

   Press to left-click.

3. **Right-click area**

   Press to right-click.

4. **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 into sleep state if it is turned on.

   When the computer is turned on, press and hold the power button for four seconds to force shut-down the computer.

   ⓘ **NOTE:** You can customize power-button behavior in Windows. For more information, see *Me and My Dell* at <u>Manuals at Dell Support Site</u>.

1. **Touchpad**

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

2. **Left-click area**

   Press to left-click.

3. **Right-click area**

   Press to right-click.

4. **Power button**

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

   When the computer is turned on, press the power button to put the computer into sleep state; press and hold the power button for 10 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 <u>Dell Support Mannuals</u>.

Back
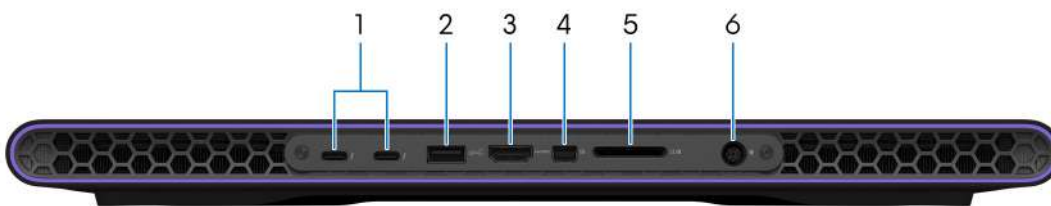
1. **Thunderbolt 4.0 ports (2)**

   Supports USB4, DisplayPort 1.4, Thunderbolt 4 and also enables you to connect to an external display using a display adapter. Provides data transfer rates of up to 40 Gbps for USB4 and Thunderbolt 4.

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

   ⓘ **NOTE:** USB4 is backward compatible with USB 3.2, USB 2.0, and Thunderbolt 3.

   ⓘ **NOTE:** Thunderbolt 4 supports two 4K displays or one 8K display.

   ⓘ **NOTE:** The Thunderbolt 4 ports do not support charging the battery of your computer using a Type-C power adapter.

2. **USB 3.2 Gen 1 port**

Connect peripherals such as keyboard, mice, and printers and external storage devices. Supports data transfer speeds up to 5 Gbps.

3. **HDMI 2.1 port**

   Connect to a TV, external display or another HDMI-in enabled device. Supports video and audio output.

4. **Mini-DisplayPort**

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

5. **SD-card slot**

   Reads from and writes to the SD card.

6. **Power-adapter port**

   Connect the power adapter to charge your computer battery.

Bottom
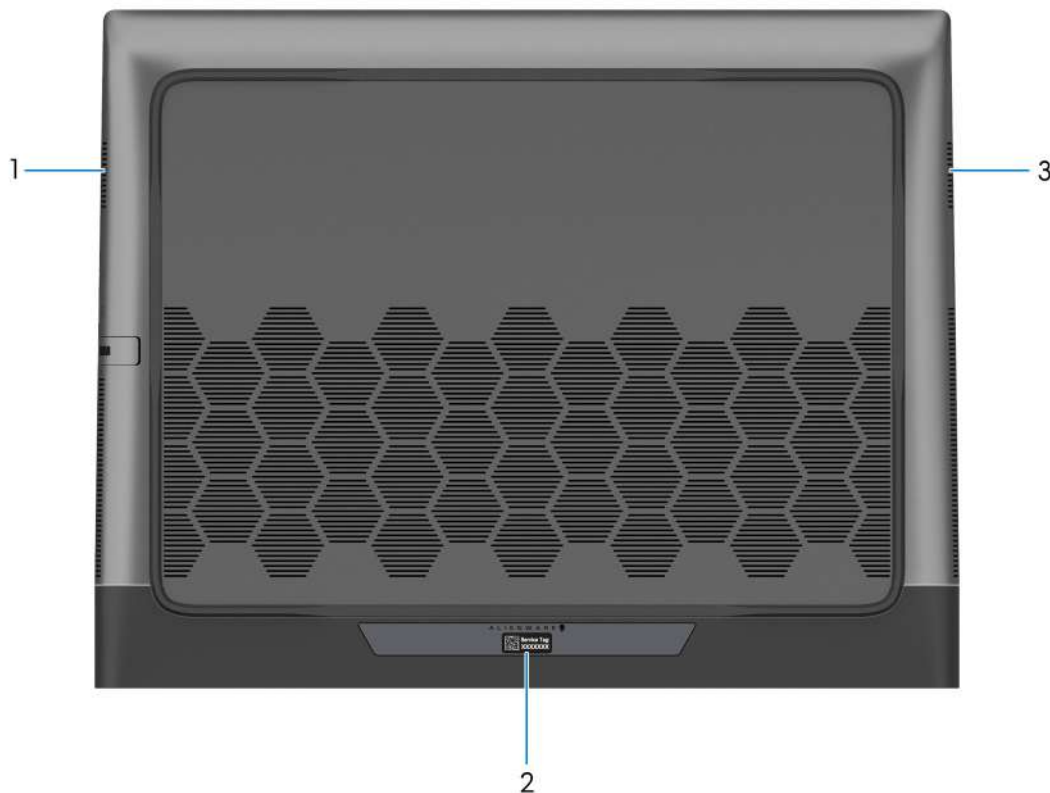
1. **Left speaker**

   Provides audio output.

2. **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.

3. **Right speaker**

   Provides audio output.

Specifications of Alienware m16 R1

Dimensions and weight

The following table lists the height, width, depth, and weight of your Alienware m16 R1.

Table 1. Dimensions and weight

Description	Values
Height:	
Front height	23.10 mm (0.91 in.)
Rear height	23 mm (0.90 in.)
Width	368.90 mm (14.52 in.)
Depth	289.90 mm (11.41 in.)
Weight ⓘ **NOTE:** The weight of your computer depends on the configuration that is ordered and manufacturing variability.	3.25 kg (7.17 lb) - maximum

Processor

The following table lists the details of the processors supported by your Alienware m16 R1.

Table 2. Processor

Description	Option one	Option two	Option three
Processor type	13th Generation Intel Core i9-13980HX	13th Generation Intel Core i9-13900HX	13th Generation Intel Core i7-13700HX
Processor wattage	55 W	55 W	55 W
Processor total core count	24	24	16
Performance-cores	8	8	8
Efficient-cores	16	16	8
Processor total thread counts ⓘ **NOTE:** Intel® Hyper-Threading Technology is only available on Performance-cores.	32	32	24
Processor speed	Up to 5.50 GHz	Up to 5.40 GHz	Up to 5 GHz
Performance-cores frequency			
Processor base frequency	2.20 GHz	2.20 GHz	2.10 GHz
Maximum turbo frequency	5.60 GHz	5.40 GHz	5 GHz
Efficient-cores frequency			

Table 2. Processor (continued)

Description		Option one	Option two	Option three
	Processor base frequency	1.60 GHz	1.60 GHz	1.50 GHz
	Maximum turbo frequency	4 GHz	3.90 GHz	3.70 GHz
Processor cache		36 MB	36 MB	30 MB
Integrated graphics		Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics

Chipset

The following table lists the details of the chipset that is supported in your Alienware m16 R1.

Table 3. Chipset

Description	Values
Chipset	HM770
Processor	13th Generation Intel Core i7/i9
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen 4.0

Operating system

Your Alienware m16 R1 supports the following operating systems:

- Windows 11 Home (64-bit)
- Windows 11 Professional (64-bit)

Memory

The following table lists the memory specifications that are supported by your Alienware m16 R1.

Table 4. Memory specifications

Description	Values
Memory slots	Two-SODIMM slots
Memory type	DDR5
Memory speed	4800 MT/s, 5200 MT/s, 5600 MT/s, 5800 MT/s (i) **NOTE:** The memory configuration varies depending on the country or region the computer is purchased in.
Maximum memory configuration	64 GB
Minimum memory configuration	16 GB
Memory size per slot	8 GB, 16 GB and 32 GB

Table 4. Memory specifications (continued)

Description	Values
Memory configurations supported	16 GB, 2 x 8 GB, DDR5, 4800 MT/s, dual-channel ⓘ **NOTE:** This is applicable for 13th Generation Intel Core i7-13700HX 16 GB, 2 x 8 GB, DDR5, 5600 MT/s, dual-channel ⓘ **NOTE:** This is applicable for 13th Generation Intel Core i9-13980HX and 13th Generation Intel Core i9-13900HX 32 GB, 2 x 16 GB, DDR5, 5600 MT/s, dual-channel ⓘ **NOTE:** This is applicable for 13th Generation Intel Core i9-13980HX and 13th Generation Intel Core i9-13900HX 64 GB, 2 x 32 GB, DDR5, 5200 MT/s, dual-channel ⓘ **NOTE:** This is applicable for 13th Generation Intel Core i9-13980HX and 13th Generation Intel Core i9-13900HX 32 GB, 2 x 16 GB, DDR5, 5800 MT/s, XMP, dual-channel ⓘ **NOTE:** When purchasing your computer, Dell offers an XMP memory configuration of 32 GB with 5800 MT/s speed. To utilize this speed, ensure that you enable XMP by going to the system settings or BIOS. ⓘ **NOTE:** Your computer will not support upgrading to an XMP memory later after point of sale. Additionally, if the memory is upgraded from 32 GB to 64 GB, your computer will not support the XMP feature.

External ports and slots

The following table lists the external ports of your Alienware m16 R1.

Table 5. External ports and slots

Description	Values
Network port	One RJ-45 port
USB ports	- One USB 3.2 Gen 1 port - One USB 3.2 Gen 1 port with PowerShare - Two Thunderbolt 4 ports
Audio port	One universal audio jack (RCA, 3.5 mm)
Video port(s)	- One HDMI 2.1 port - One mini-DisplayPort
Media-card reader	One SD-card slot
Power-adapter port	One 7.40 mm x 5.10 mm DC-in
Security-cable slot	Not supported

Internal slots

The following table lists the internal slots of your Alienware m16 R1.

Table 6. Internal slots

Description	Values
M.2	• Two M.2 2230 and two M.2 2280 solid-state drive slots, for computers shipped with NVIDIA GeForce RTX 4080/4090 graphics card • Two M.2 2280 solid-state drive slots, for computers shipped with NVIDIA GeForce RTX 4050/4060/4070 graphics card ⓘ **NOTE:** To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at [Dell Support Site]().

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Alienware m16 R1.

Table 7. Ethernet specifications

Description	Values
Model number	• Killer E3100 integrated Ethernet controller, for computers shipped with NVIDIA GeForce RTX 4050/4060/4070/4080/4090 graphics card • Realtek RTL8111 Gigabit integrated Ethernet controller, for computers shipped with NVIDIA GeForce RTX 4050 graphics card
Transfer rate	• 2500 Mbps for Killer E3100 Ethernet controller • 1000 Mbps for Realtek RTL8111 Gigabit Ethernet controller

Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules that are supported on your Alienware m16 R1.

Table 8. Wireless module specifications

Description	Option one	Option two
Model number	Intel Killer AX1675i	Intel Killer AX1690i
Transfer rate	Up to 2400 Mbps	Up to 2974 Mbps
Frequency bands supported	2.4 GHz/ 5 GHz/ 6 GHz	2.4 GHz/ 5 GHz/ 6 GHz
Wireless standards	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6E (WiFi 802.11ax)	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6E (WiFi 802.11ax)
Encryption	• 64-bit/128-bit WEP • AES-CCMP	• 64-bit/128-bit WEP • AES-CCMP

Table 8. Wireless module specifications (continued)

Description	Option one	Option two
	● TKIP	● TKIP
Bluetooth wireless card	Bluetooth 5.3	Bluetooth 5.3
	ⓘ **NOTE:** The version of the Bluetooth wireless card may vary depending on the operating system that is installed on your computer.	

Audio

The following table lists the audio specifications of your Alienware m16 R1.

Table 9. Audio specifications

Description		Values
Audio controller		Realtek ALC3254
Stereo conversion		Supported
Internal audio interface		High definition audio interface
External audio interface		● One universal audio jack (RCA, 3.5 mm) ● One HDMI 2.1 port
Number of speakers		2
Internal-speaker amplifier		Supported
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	4 W
Subwoofer output		Not supported
Microphone		Digital-array microphones in camera assembly

Storage

This section lists the storage options on your Alienware m16 R1.

Your Alienware m16 R1 supports the following storage configuration:
● Two M.2 2230 and two M.2 2280 solid-state drive slots, for computers shipped with NVIDIA GeForce RTX 4080/4090 graphics card
● Two M.2 2280 solid-state drive slots, for computers shipped with NVIDIA GeForce RTX 4050/4060/4070 graphics card

The primary drive of your Alienware m16 R1 varies with the storage configuration. The primary drive of your computer is the M.2 2280 drive where the operating system is installed.

Table 10. Storage specifications

Storage type	Interface type	Capacity
M.2 2230 solid-state drive	PCIe Gen4 x4 NVMe, up to 64 Gbps	Up to 512 GB
M.2 2280 solid-state drive	PCIe Gen4 x4 NVMe, up to 64 Gbps	Up to 4 TB

RAID (Redundant Array of Independent Disks)

For optimal performance when configuring drives as a RAID volume, Dell recommends drive models that are identical.

(i) **NOTE:** RAID is not supported on Intel Optane configurations.

RAID 0 (Striped, Performance) volumes benefit from higher performance when drives are matched because the data is split across multiple drives: any IO operations with block sizes larger than the stripe size will split the IO and become constrained by the slowest of the drives. For RAID 0 IO operations where block sizes are smaller than the stripe size, whichever drive the IO operation targets will determine the performance, which increases variability and results in inconsistent latencies. This variability is particularly pronounced for write operations and it can be problematic for applications that are latency sensitive. One such example of this is any application that performs thousands of random writes per second in very small block sizes.

RAID 1 (Mirrored, Data Protection) volumes benefit from higher performance when drives are matched because the data is mirrored across multiple drives: all IO operations must be performed identically to both drives, thus variations in drive performance when the models are different, results in the IO operations completing only as fast as the slowest drive. While this does not suffer the variable latency issue in small random IO operations as with RAID 0 across heterogeneous drives, the impact is nonetheless large because the higher performing drive becomes limited in all IO types. One of the worst examples of constrained performance here is when using unbuffered IO. To ensure writes are fully committed to non-volatile regions of the RAID volume, unbuffered IO bypasses cache (for example by using the Force Unit Access bit in the NVMe protocol) and the IO operation will not complete until all the drives in the RAID volume have completed the request to commit the data. This kind of IO operation completely negates any advantage of a higher performing drive in the volume.

Care must be taken to match not only the drive vendor, capacity, and class, but also the specific model. Drives from the same vendor, with the same capacity, and even within the same class, can have very different performance characteristics for certain types of IO operations. Thus, matching by model ensures that the RAID volumes is comprised of an homogeneous array of drives that will deliver all the benefits of a RAID volume without incurring the additional penalties when one or more drives in the volume are lower performing.

Alienware m16 R1 supports RAID 0/1/5 with more than one SSD configuration, for computers shipped with NVIDIA GeForce RTX 4080/4090 graphics card.

Alienware m16 R1 supports RAID 0/1 with more than one SSD configuration, for computers shipped with NVIDIA GeForce RTX 4050/4060/4070 graphics card.

Media-card reader

The following table lists the media cards that are supported in your Alienware m16 R1.

Table 11. Media-card reader specifications

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

Keyboard

The following table lists the keyboard specifications of your Alienware m16 R1.

Table 12. Keyboard specifications

Description	Values
Keyboard type	1-zone RGB keyboard - RGB per key - RGB per key, backlit Cherry mechanical keyboard
Keyboard layout	QWERTY
Number of keys	- United States and Canada: 85 keys - United Kingdom: 86 keys - Japan: 89 keys
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. (i) **NOTE:** You can define the primary behavior of the function keys (F1–F12) changing **Function Key Behavior** in BIOS setup program. (i) **NOTE:** If Copilot in Windows is not available on your computer, the Copilot key launches Windows Search. For more information about Copilot in Windows, search in the Knowledge Base Resource at the Dell Support site.

Camera

The following table lists the camera specifications of your Alienware m16 R1.

Table 13. Camera specifications

Description		Values
Number of cameras		One
Camera type		- One FHD RGB camera, for computers shipped with a 165 Hz QHD+ display - One FHD-RGB Infrared camera, for computers shipped with a 240 Hz QHD+ and 480 Hz FHD+ display
Camera location		Front camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	2.07 megapixel
	Video	1920 x 1080 (FHD) at 30 fps

Table 13. Camera specifications (continued)

Description		Values
Infrared camera resolution:		
	Still image	0.23 megapixel
	Video	640 x 360 at 30 fps
Diagonal viewing angle:		
	Camera	• FHD RGB: 82 degrees • FHD–RGB Infrared: 80 degrees
	Infrared camera	86.6 degrees

Touchpad

The following table lists the touchpad specifications of your Alienware m16 R1.

Table 14. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	>300 DPI
	Vertical	749
Touchpad dimensions:		
	Horizontal	112 mm (4.41 in.)
	Vertical	65 mm (2.56 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft Knowledge Base article at Microsoft Support Site.

Power adapter

The following table lists the power adapter specifications of your Alienware m16 R1.

Table 15. Power adapter specifications

Description		Option one	Option two
Type		330 W AC adapter	330 W SFF AC adapter
Connector dimensions:			
	External diameter	7.40 mm	7.40 mm
	Internal diameter	5.10 mm	5.10 mm
Power–adapter dimensions:			
	Height	43 mm (1.69 in.)	25.40 mm (1 in.)
	Width	100 mm (3.94 in.)	86 mm (3.39 in.)

Table 15. Power adapter specifications (continued)

Description		Option one	Option two
	Depth	200 mm (7.87 in.)	184 mm (7.24 in.)
Input voltage		100 VAC–240 VAC	100 VAC–240VAC
Input frequency		50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)		4.40 A	4.40 A
Output current (continuous)		16.92 A	16.92 A
Rated output voltage		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)
	Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
⚠ **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.**			

Battery

The following table lists the battery specifications of your Alienware m16 R1.

Table 16. Battery specifications

Description		Values
Battery type		6-cell lithium-ion (86 Wh)
Battery voltage		11.40 VDC
Battery weight (maximum)		0.34 kg (0.75 lb)
Battery dimensions:		
	Height	7.56 mm (0.30 in.)
	Width	295.20 mm (11.62 in)
	Depth	77.70 mm (3.06 in.)
Temperature range:		
	Operating	• Charging: 0°C to 50°C (32°F to 122°F) • Discharging: 0°C to 60°C (32°F to 140°F)
	Storage	-20°C to 65°C (-4°F to 149°F)
Battery operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate) ⓘ **NOTE:** Control the charging time, duration, start and end time, and so on, using the Dell Power Manager application. For more information about Dell Power		• Standard charging: 3 hours, when computer is turned off • ExpressCharge: 2 hours, when computer is turned off • ExpressChargeBoost: 20 minutes, from 0% up to 35% when computer is turned off

Table 16. Battery specifications (continued)

Description	Values
Manager, search in the Knowledge Base Resource at Dell Support Site.	
Coin-cell battery	None

> ⚠️ **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.**
>
> ⚠️ **CAUTION: Dell Technologies recommends that you charge the battery regularly for optimal power consumption.**

Display

The following table lists the display specifications of your Alienware m16 R1.

Table 17. Display specifications

Description		Option one	Option two	Option three
Display type		16-inch, Quad High Definition plus (QHD+)	16-inch, Quad High Definition plus (QHD+)	16-inch, Full High Definition plus (FHD+)
Display-panel technology		Wide Viewing Angle (WVA)	Wide Viewing Angle (WVA)	Wide Viewing Angle (WVA)
Display-panel dimensions (active area):				
	Height	215.42 mm	215.42 mm	215.42 mm
	Width	344.68 mm	344.68 mm	344.68 mm
	Diagonal	406.46 mm	406.46 mm	406.46 mm
Display-panel native resolution		2560 x 1600	2560 x 1600	1920 x 1200
Luminance (typical)		300 nits	300 nits	300 nits
Megapixels		4.1	4.1	2.3
Color gamut (typical)		sRGB 100%	DCI-P3 100%	DCI-P3 100%
Pixels Per Inch (PPI)		188.70	188.70	141.50
Contrast ratio (typical)		1000:1	1000:1	1000:1
Response time (typical)		• With Overdrive: 3 ms • Without Overdrive: 7 ms	• With Overdrive: 3 ms • Without Overdrive: 7 ms	• With Overdrive: 3 ms • Without Overdrive: 7 ms
Refresh rate		165 Hz	240 Hz	480 Hz
Horizontal view angle (typical)		+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Vertical view angle (typical)		+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Pixel pitch		0.13 mm	0.13 mm	0.18 mm
Power consumption (maximum)		6 W	7.2 W	6.75 W

Table 17. Display specifications (continued)

Description	Option one	Option two	Option three
Anti-glare vs glossy finish	Anti-glare	Anti-glare	Anti-glare
Touch options	Not supported	Not supported	Not supported
Adaptive sync support	G-SYNC, AdaptiveSync	G-SYNC, AdaptiveSync	G-SYNC, AdaptiveSync

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Alienware m16 R1.

Table 18. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	13th Generation Intel Core i7/i9

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Alienware m16 R1.

Table 19. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce RTX 4050	6 GB	GDDR6
NVIDIA GeForce RTX 4060	8 GB	GDDR6
NVIDIA GeForce RTX 4070	8 GB	GDDR6
NVIDIA GeForce RTX 4080	12 GB	GDDR6
NVIDIA GeForce RTX 4090	16 GB	GDDR6

External display support

The following table lists the external display support for your Alienware m16 R1.

Table 20. External display support

Graphics card	Supported external displays with laptop display enabled	Supported external displays with laptop display disabled
• Intel UHD Graphics • NVIDIA GeForce RTX 4050 • NVIDIA GeForce RTX 4060 • NVIDIA GeForce RTX 4070 • NVIDIA GeForce RTX 4080 • NVIDIA GeForce RTX 4090	• 2 • 2 • 2 • 2 • 2 • 2	• 2 • 2 • 2 • 2 • 2 • 2

Operating and storage environment

This table lists the operating and storage specifications of your Alienware m16 R1.

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

Table 21. Computer environment

Description	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	–40°C to 65°C (–40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	5% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	Not applicable
Shock (maximum)	140 G†	Not applicable
Altitude range	-15.2 m to 3048 m (-49.87 ft to 10000 ft)	-15.2 m to 10668 m (-49.87 ft to 35000 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 the user environment.

† Measured using a 2 ms half-sine pulse.

Keyboard shortcuts

ⓘ **NOTE:** Keyboard characters may differ depending on the keyboard language configuration. Keys that are 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 **2**, 2 is typed out; 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 disables/enables performance boost (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, disable/enable performance boost 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 22. List of keyboard shortcuts

Keys	Description
FN + F1	Disable/enable Performance Boost
FN + F7	Adjust keyboard backlight brightness
FN + F8	Switch to external display
FN + F9	Open Quick Settings
FN + F10	Decrease display brightness
FN + F11	Increase display brightness
FN + F12 T-PAD	Disable/enable touchpad
⊞	Lock/Unlock Windows key

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

Table 23. List of Macro keys

Keys	Description
F2	
F3	
F4	Macro keys ⓘ **NOTE:** You can configure modes and assign multiple tasks for the macro keys on the keyboard.
F5	
F6	

Your computer comes with dedicated keys that enable you to control audio features of the computer with a single key press.

Table 24. List of keys to control audio features

Keys	Description
	Mute microphone
	Mute speakers
	Increase volume
	Decrease volume

Low blue light

⚠️ **WARNING: Prolonged exposure to blue light from the display may lead to long-term effects such as eye strain, eye fatigue, or damage to the eyes.**

Blue light is a color in the light spectrum which has a short wavelength and high energy. Chronic exposure to blue light, particularly from digital sources, may disrupt sleep patterns and cause long-term effects such as eye strain, eye fatigue, or damage to the eyes.

The display on this computer is designed to minimize blue light and complies with TÜV Rheinland's requirement for low blue light displays.

Low blue light mode is enabled at the factory, so no further configuration is necessary.

To reduce the risk of eye strain, it is also recommended that you:

- Position the display at a comfortable viewing distance between 20 and 28 inches (50 and 70 cm) from your eyes.
- Blink frequently to moisten your eyes, wet your eyes with water, or apply suitable eye drops.
- Look away from your display, and gaze at a distant object at 20 ft (609.60 cm) away for at least 20 seconds during each break.
- Take an extended break for 20 minutes every two hours.

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.

This computer features the following AlienFX lighting zones:

- keyboard
- stadium
- AlienHead power button
- AlienHead LED on the back of the display

ⓘ **NOTE:** Information about the location of AlienFX lighting zones on your computer is available in AWCC.

AWCC supports the following features:

- FX: Create and manage the AlienFX zones.
- Fusion: Fusion includes the ability to adjust game-specific Power Management, Sound Management, and Thermal Management features.
- Peripheral Management: 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 search in the Knowledge Base Resource at Dell Support Site.

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 25. Alienware products and online self-help resources

Self-help resources	Resource location
Information about Alienware products and services	[Alienware Support Site](#)
My Dell app	
Tips	
Contact Support	In Windows search, type **Contact Support**, and press **Enter**.
Online help for operating system	[Windows Support Site](#)
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Alienware computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at [Dell Support Site](#). For more information about how to find the Service Tag for your computer, see [Instructions on how to find your Service Tag or Serial Number](#).
Videos providing step-by-step instructions to service your computer	[Alienware Support Channel](#)

Contacting Alienware

To contact Alienware for sales, technical support, or customer service issues, see [Alienware Support Site](#).

(i) **NOTE:** Availability of the services may vary depending on the country or region, and product.

(i) **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.