

# Specifications of Alienware m15 R6

## Dimensions and weight

The following table lists the height, width, depth, and weight of your Alienware m15 R6.

**Table 1. Dimensions and weight**

Description	Values
Height:	
Front height	12.90 mm (0.51 in.)
Rear height	19.20 mm (0.76 in.)
Width	356.20 mm (14.02 in.)
Depth	272.50 mm (10.73 in.)
Weight ① <b>NOTE:</b> The weight of your computer depends on the configuration ordered and manufacturing variability.	2.69 kg (5.93 lb) ① <b>NOTE:</b> This is the maximum weight of the device.

## Processor

The following table lists the details of the processors supported by your Alienware m15 R6.

**Table 2. Processor**

Description	Option one	Option two	Option three
Processor type	11 <sup>th</sup> Generation Intel Core i5-11400H	11 <sup>th</sup> Generation Intel Core i7-11800H	11 <sup>th</sup> Generation Intel Core i9-11900H
Processor wattage	45 W	45 W	45 W
Processor core count	6	8	8
Processor thread count	12	16	16
Processor speed	Up to 4.50 GHz	Up to 4.60 GHz	Up to 4.90 GHz
Processor cache	12 MB	24 MB	24 MB
Integrated graphics	Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics

## Chipset

The following table lists the details of the chipset supported by your Alienware m15 R6.

**Table 3. Chipset**

Description	Values
Chipset	HM570

**Table 3. Chipset (continued)**

Description	Values
Processor	11 <sup>th</sup> Generation Intel Core i5/i7/i9
DRAM bus width	128-bit
Flash EPROM	16 MB
PCIe bus	Up to Gen3

## Operating system

Your Alienware m15 R6 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 m15 R6.

**Table 4. Memory specifications**

Description	Values
Memory slots	Two SoDIMM slots
Memory type	DDR4
Memory speed	<ul style="list-style-type: none"> <li>• 3200 MHz</li> <li>• 3466 MHz</li> </ul>
Maximum memory configuration	<ul style="list-style-type: none"> <li>• 32 GB - for computers with 3200 MHz</li> <li>• 64 GB - for computers with 3466 MHz XMP</li> </ul>
Minimum memory configuration	<ul style="list-style-type: none"> <li>• 8 GB - for computers with 3200 MHz</li> <li>• 32 GB - for computers with 3466 MHz XMP</li> </ul>
Memory size per slot	4 GB, 8 GB, 16 GB, and 32 GB
Memory configurations supported	<ul style="list-style-type: none"> <li>• 8 GB, 1 x 8 GB, DDR4, 3200 MHz</li> <li>• 8 GB, 2 x 4 GB, DDR4, 3200 MHz, dual-channel</li> <li>• 16 GB, 2 x 8 GB, DDR4, 3200 MHz, dual-channel</li> <li>• 32 GB, 2 x 16 GB, DDR4, 3200 MHz, dual-channel</li> <li>• 32 GB, 2 x 16 GB, DDR4, 3466 MHz XMP, dual-channel</li> <li>• 64 GB, 2 x 32 GB, DDR4, 3466 MHz XMP, dual-channel</li> </ul>

# External ports

The following table lists the external ports of your Alienware m15 R6.

**Table 5. External ports**

Description	Values
Network port	One RJ-45 port
USB ports	<ul style="list-style-type: none"><li>Two USB 3.2 Gen 1 ports</li><li>One USB 3.2 Gen 1 port with PowerShare</li><li>One Thunderbolt 4 port with Power Delivery or one USB 3.2 Gen 2 Type-C port with DisplayPort</li></ul> <p><b>NOTE:</b> You can connect a Dell Docking Station to this port. For more information, see the knowledge base article <a href="https://www.dell.com/support/SLN286158">SLN286158</a> at <a href="https://www.dell.com/support">www.dell.com/support</a>.</p>
Audio port	One headset (headphone and microphone combo) port
Video port	One HDMI 2.1 port
Media-card reader	Not supported
Power-adaptor port	7.4 mm barrel
Security-cable slot	Not supported

# Internal slots

The following table lists the internal slots of your Alienware m15 R6.

**Table 6. Internal slots**

Description	Values
M.2	<ul style="list-style-type: none"><li>Two M.2 2230/2280 slot for solid-state drives</li></ul> <p><b>NOTE:</b> To learn more about the features of different types of M.2 cards, see the knowledge base article <a href="https://www.dell.com/support/000144170">000144170</a> at <a href="https://www.dell.com/support">www.dell.com/support</a>.</p>

# Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Alienware m15 R6.

**Table 7. Ethernet specifications**

Description	Values
Model number	Ethernet controller integrated to the system board
Transfer rate	10/100/1000 Mbps

# Wireless module

The following table lists the Wireless Local Area Network (WLAN) module supported on your Alienware m15 R6.

**Table 8. Wireless module specifications**

Description	Values
Model number	Killer 1650
Transfer rate	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"><li>• WiFi 802.11a/b/g</li><li>• Wi-Fi 4 (WiFi 802.11n)</li><li>• Wi-Fi 5 (WiFi 802.11ac)</li><li>• Wi-Fi 6 (WiFi 802.11ax)</li></ul>
Encryption	<ul style="list-style-type: none"><li>• 64-bit/128-bit WEP</li><li>• AES-CCMP</li><li>• TKIP</li></ul>
Bluetooth	Bluetooth 5.0

# Audio

The following table lists the audio specifications of your Alienware m15 R6.

**Table 9. Audio specifications**

Description	Values	
Audio controller	Realtek ALC3254 with A-Volute Nahimic audio processing software – Integrated in Alienware Sound Center (AWSC)	
Stereo conversion	Supported	
Internal audio interface	High-definition audio interface	
External audio interface	One headset (headphone and microphone combo) port	
Number of speakers	2	
Internal-speaker amplifier	Supported	
External volume controls	Keyboard shortcut controls	
Speaker output:		
	Average speaker output	2 W per channel
	Peak speaker output	2.5 W per channel
Subwoofer output	Not supported	
Microphone	Dual-array microphones	

# Storage

This section lists the storage options on your Alienware m15 R6.

Your Alienware m15 R6 supports one of the following storage configurations:

- One M.2 solid-state drive
- Two M.2 solid-state drives

The primary drive of your Alienware m15 R6 varies with the storage configuration. For computers:

- with a M.2 drive, the M.2 drive is the primary drive
- with two M.2 drives, one of the M.2 drives is the primary drive

**Table 10. Storage specifications**

Storage type	Interface type	Capacity
One M.2 2230 solid-state drive	PCIe Gen3 x4 NVMe, up to 32 Gbps	Up to 512 GB
One M.2 2280 solid-state drive	PCIe Gen3 x4 NVMe, up to 32 Gbps	Up to 1 TB
One M.2 2280 solid-state drive	PCIe Gen4 x4 NVMe, up to 32 Gbps	Up to 2 TB

# Keyboard

The following table lists the keyboard specifications of your Alienware m15 R6.

**Table 11. Keyboard specifications**

Description	Values
Keyboard type	<ul style="list-style-type: none"><li>• 4-zone RGB backlit rubber dome keyboard</li><li>• RGB per key backlit Cherry mechanical keyboard</li></ul>
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"><li>• United States and Canada: 85 keys</li><li>• United Kingdom: 86 keys</li><li>• Japan: 89 keys</li></ul>
Keyboard size	X=19.05 mm key pitch Y=19.05 mm key pitch
Keyboard shortcuts	<p>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.</p> <p><b>NOTE:</b> You can define the primary behavior of the function keys (F1–F12) changing <b>Function Key Behavior</b> in BIOS setup program.</p> <p>For more information, see keyboard shortcuts. <a href="#">Keyboard shortcuts</a></p>

# Camera

The following table lists the camera specifications of your Alienware m15 R6.

**Table 12. Camera specifications**

Description		Values
Number of cameras		One
Camera type		<ul style="list-style-type: none"><li>• HD RGB camera</li><li>• RGB-IR camera (optional)</li></ul>
Camera location		Front
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	0.92 megapixel
	Video	1280 x 720 (HD) at 30 fps
Infrared camera resolution:		
	Still image	0.23 megapixel
	Video	640 x 360 (HD) at 30 fps
Diagonal viewing angle:		
	Camera	74.9 degrees
	Infrared camera	75.8 degrees

# Touchpad

The following table lists the touchpad specifications of your Alienware m15 R6.


**Table 13. Touchpad specifications**

Description		Values
Touchpad resolution:		
	Horizontal	1217
	Vertical	168
Touchpad dimensions:		
	Horizontal	105 mm (4.13 in.)
	Vertical	60 mm (2.36 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows 10, see the Microsoft knowledge base article <a href="https://support.microsoft.com/4027871">4027871</a> at <a href="https://support.microsoft.com">support.microsoft.com</a> .

# Power adapter

The following table lists the power adapter specifications of your Alienware m15 R6.

**Table 14. Power adapter specifications**

Description		Option one	Option two
Type		180 W	240 W
Connector dimensions:			
	External diameter	7.40 mm	7.40 mm
	Internal diameter	5.10 mm	5.10 mm
Input voltage		100 VAC–240 VAC	100 VAC–240 VAC
Input frequency		50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)		2.34 A	3.50 A
Output current (continuous)		9.23 A	12.31 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)
 <b>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.</b>			

# Battery

The following table lists the battery specifications of your Alienware m15 R6.

**Table 15. Battery specifications**

Description		Option one	Option two
Battery type		3-cell, 56 Wh "smart" lithium-ion	6-cell, 86 Wh "smart" lithium-ion
Battery voltage		13.20 VDC	13.35 VDC
Battery weight (maximum)		0.26 kg (0.57 lb)	0.34 kg (0.75 lb)
Battery dimensions:			
	Height	77.70 mm (3.06 in.)	77.70 mm (3.06 in.)
	Width	295.20 mm (11.62 in.)	295.20 mm (11.62 in.)
	Depth	7.56 mm (0.30 in.)	7.56 mm (0.30 in.)
Temperature range:			
	Operating	0°C to 70°C (32°F to 158°F)	0°C to 70°C (32°F to 158°F)

**Table 15. Battery specifications (continued)**

Description		Option one	Option two
	Storage	-25°C to 65°C (-4°F to 149°F)	-25°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.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate) <i>i</i> <b>NOTE:</b> 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 <a href="http://www.dell.com">www.dell.com</a> .		3 hours (when the computer is off)	3 hours (when the computer is off)
Coin-cell battery		Not supported	Not supported
<p><b>⚠ 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.</b></p> <p><i>i</i> <b>NOTE:</b> Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.</p>			

## Display

The following table lists the display specifications of your Alienware m15 R6.

**Table 16. Display specifications**

Description		Option one	Option two	Option three
Display type		Full High Definition	Full High Definition	Quad High Definition
Display-panel technology		Wide-Viewing Angle (WVA)	Wide-Viewing Angle (WVA)	Wide-Viewing Angle (WVA)
Display-panel dimensions (active area):				
	Height	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)	193.62 mm (7.62 in.)
	Width	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)	344.22 mm (13.55 in.)
	Diagonal	394.87 mm (15.55 in.)	394.87 mm (15.55 in.)	394.94 mm (15.55 in.)
Display-panel native resolution		1920 x 1080	1920 x 1080	2560 x 1440
Luminance (typical)		300 nits	300 nits	400 nits
Megapixels		2.07	2.07	3.69
Color gamut		100% sRGB	100% sRGB	DCI-P3 99%
Pixels Per Inch (PPI)		141.00	141.00	188.30
Contrast ratio (typ)		1000:1	1000:1	400:1



**Table 16. Display specifications (continued)**

Description	Option one	Option two	Option three
Response time (max)	19 ms	10 ms	19 ms
Refresh rate	165 Hz	360 Hz	240 Hz
Horizontal view angle	+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Vertical view angle	+/- 85 degrees	+/- 85 degrees	+/- 85 degrees
Pixel pitch	0.179 mm	0.179 mm	0.179 mm
Power consumption (maximum)	6 W	7.60 W	10.15 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 m15 R6.

**Table 17. GPU—Integrated**

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	11 <sup>th</sup> Generation Intel Core i5/i7/i9

## GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Alienware m15 R6.

**Table 18. GPU—Discrete**

Controller	Memory size	Memory type
NVIDIA GeForce RTX 3050 Ti	4 GB	GDDR6
NVIDIA GeForce RTX 3060	6 GB	GDDR6
NVIDIA GeForce RTX 3070	8 GB	GDDR6
NVIDIA GeForce RTX 3080	8 GB	GDDR6

## Operating and storage environment

This table lists the operating and storage specifications of your Alienware m15 R6.

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

**Table 19. 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)

**Table 19. Computer environment (continued)**

Description	Operating	Storage
Relative humidity (maximum)	50% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude range	0 m to 3048 m (0 ft to 10000 ft)	0 m to 10668 m (0 ft to 35000 ft)
<b>△ 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.</b>		

\* 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.

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