

# Latitude 7640

## 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 Latitude 7640

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

1. Connect the power adapter and press the power button.



**NOTE:** To conserve battery power, the battery might enter power saving mode. Connect the power adapter and press the power button to turn on the computer.

2. Finish operating system setup.

#### For Ubuntu:

Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, search in the Knowledge Base Resource at [www.dell.com/support](http://www.dell.com/support).

#### For Windows:

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.

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

**Table 1. Locate Dell apps**

Resources	Description
	<p><b>Dell Product Registration</b> Register your computer with Dell.</p>
	<p><b>Dell Help &amp; Support</b> Access help and support for your computer.</p>
	<p><b>SupportAssist</b> SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you need to make system updates. SupportAssist proactively checks the health of your system's hardware and software. When an issue is detected, the necessary system state information is sent to Dell to begin troubleshooting. SupportAssist is preinstalled on most of the Dell devices running Windows operating system. For more information, see SupportAssist for Home PCs User's Guide on <a href="http://www.dell.com/serviceabilitytools">www.dell.com/serviceabilitytools</a>.</p> <p><b>NOTE:</b> In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>
	<p><b>Dell Update</b> Updates your computer with critical fixes and latest device drivers as they become available. For more information on using Dell Update, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>
	<p><b>Dell Digital Delivery</b> Download software applications, which are purchased but not preinstalled on your computer. For more information on using Dell Digital Delivery, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>

## Views of Latitude 7640

### Right



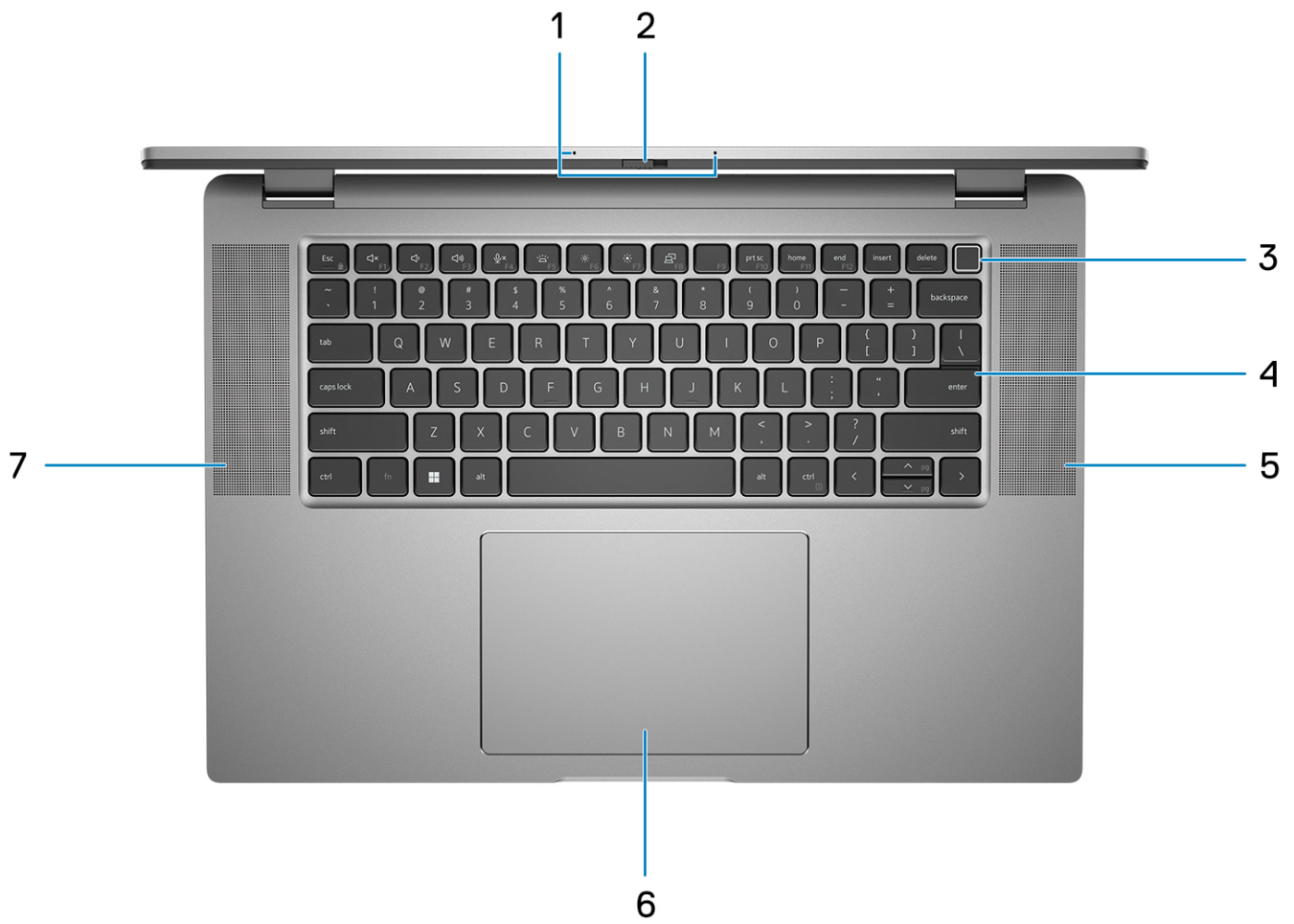
1. NanoSIM slot (optional)
2. Universal audio port
3. USB 3.2 Gen 1 port
4. USB 3.2 Gen 1 port with PowerShare
5. Wedge-shaped lock slot

### Left



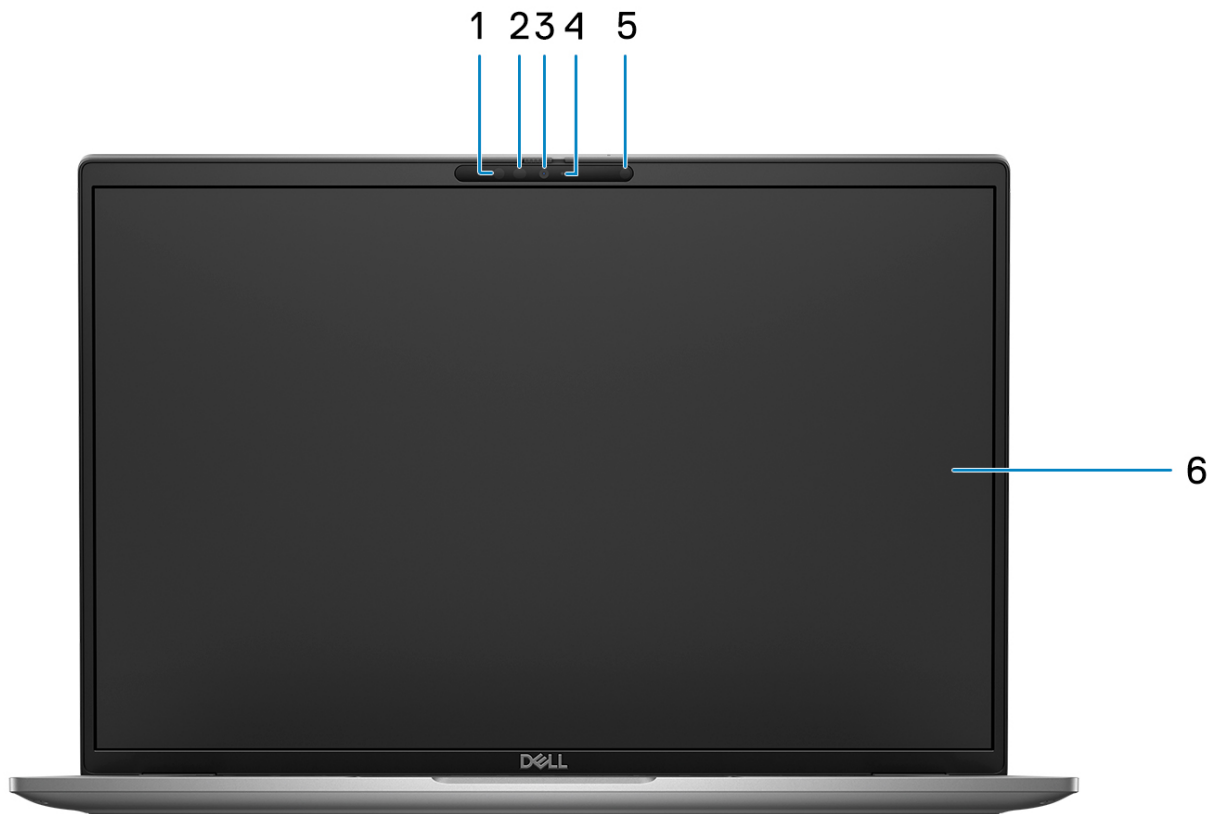
1. HDMI 2.0 port
2. Thunderbolt 4 ports with DisplayPort Alt Mode/USB4/Power Delivery
3. Thunderbolt 4 ports with DisplayPort Alt Mode/USB4/Power Delivery
4. Battery indicator LED
5. Smart-card reader slot (optional)

# Top



1. Dual array microphone
2. Camera shutter
3. Power button with fingerprint reader (optional)
4. Keyboard
5. Speaker
6. Clickpad
7. Speaker

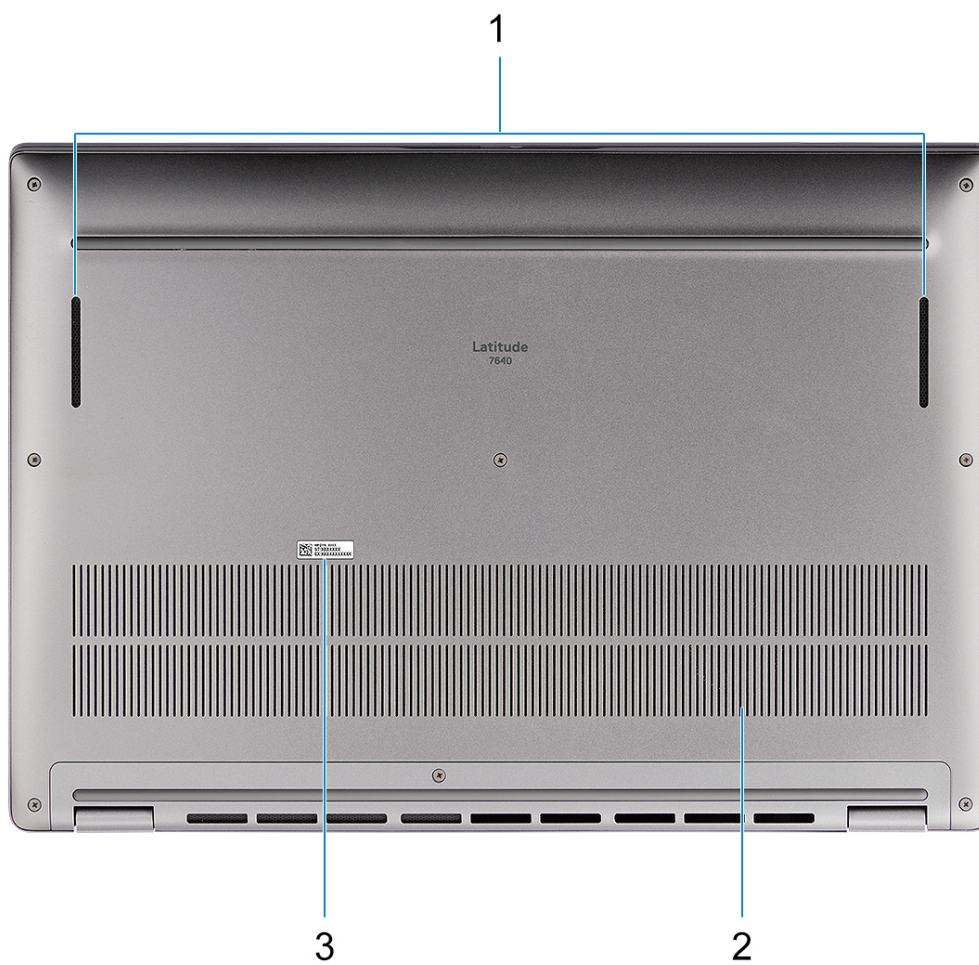
# Display



1. IR emitter (optional)
2. IR camera (optional)
3. RGB camera
4. Camera indicator LED
5. Ambient Light Sensor (ALS, optional)
6. LCD panel



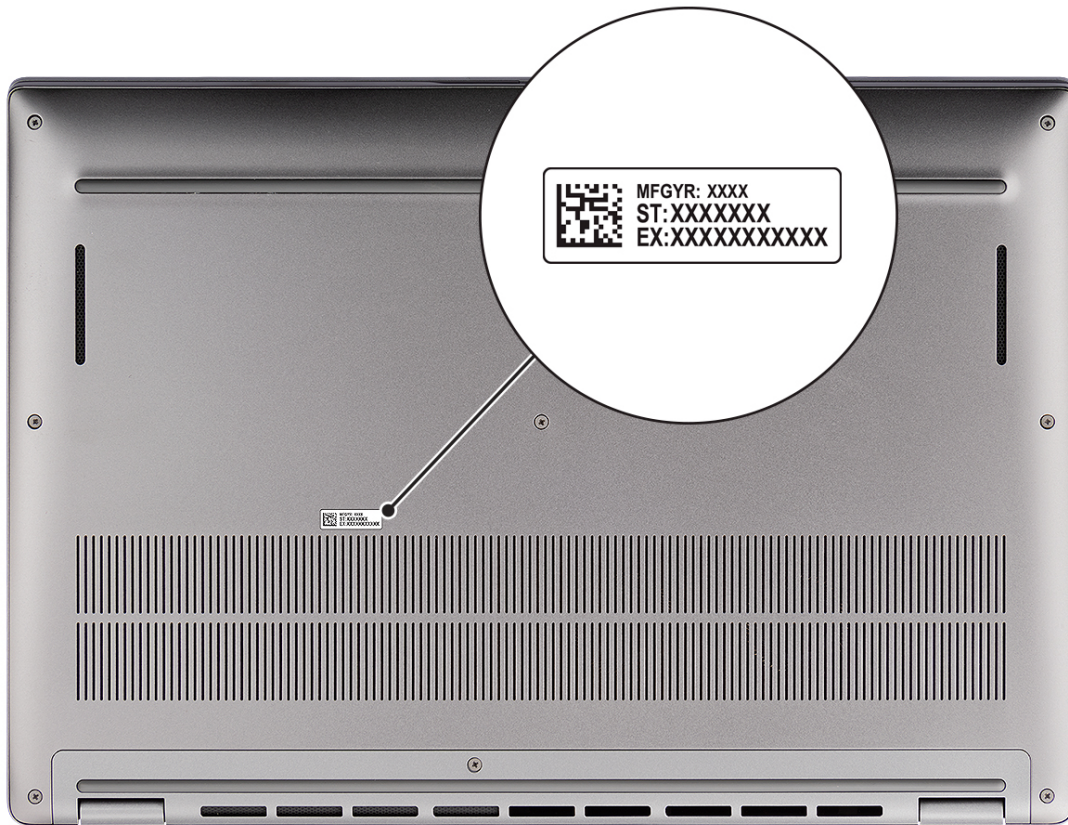
## Bottom



1. Speakers
2. Air vents
3. Service Tag

## Service Tag

The service tag is a unique alphanumeric identifier that allows Dell service technicians to identify the hardware components in your computer and access warranty information.



## Modes

**i** **NOTE:** The following modes are applicable only to Latitude 7640 2-in-1 computers.

Notebook

Tablet

Stand

Tent

# Battery charge and status light

The following table lists the battery charge and status light behavior of your Latitude 7640.

**Table 2. Battery charge and status light behavior**

Power Source	LED Behavior	System Power State	Battery Charge Level
AC Adapter	Off	S0 - S5	Fully Charged
AC Adapter	Solid White	S0 - S5	< Fully Charged
Battery	Off	S0 - S5	11-100%
Battery	Solid Amber (590+/-3 nm)	S0 - S5	< 10%


- S0 (ON) - System is turned on.
- S4 (Hibernate) - The system consumes the least power compared to all other sleep states. The system is almost at an OFF state, expect for a trickle power. The context data is written to hard drive.
- S5 (OFF) - The system is in a shutdown state.

# Specifications of Latitude 7640

## Dimensions and weight

The following table lists the height, width, depth, and weight of your Latitude 7640.

**Table 3. Dimensions and weight**

Description	Values
Height:	
Front height	18.4 mm (0.72 in.)
Rear height	19.5 mm (0.77 in.)
Width	358 mm (14.09 in.)
Depth	250.42 mm (9.85 in.)
Weight  <b>NOTE:</b> The weight of your computer depends on the configuration ordered and manufacturing variability.	4.05 lbs. (1.837 kg)

## Processor

The following table lists the details of the processors that are supported by your Latitude 7640.

**Table 4. Processor**

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven
Processor type	13 <sup>th</sup> Generation Intel Core i5-1335U	13 <sup>th</sup> Generation Intel Core i5-1345U	13 <sup>th</sup> Generation Intel Core i7-1355U	13 <sup>th</sup> Generation Intel Core i7-1365U	13 <sup>th</sup> Generation Intel Core i5-1340P	13 <sup>th</sup> Generation Intel Core i5-1350P	13 <sup>th</sup> Generation Intel Core i7-1370P
Processor wattage	15 W	15 W	15 W	15 W	28 W	28 W	28 W
Processor core count	10	10	10	10	12	12	14
Processor thread count	12	12	12	12	16	16	14
Processor speed	0.9 GHz to 4.6 GHz	1.2 GHz to 4.7 GHz	1.2 GHz to 5.0 GHz	1.3 GHz to 5.2 GHz	1.4 GHz to 4.6 GHz	1.4 GHz to 4.7 GHz	1.4 GHz to 5.2 GHz
Processor cache	12 MB	12 MB	12 MB	12 MB	12 MB	12 MB	24 MB
Integrated graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics

# Chipset

The following table lists the details of the chipset supported by your Latitude 7640.

**Table 5. Chipset**

Description	Values
Chipset	Integrated in the processor
Processor	13 <sup>th</sup> Generation Intel Core i5/i7
DRAM bus width	Dual-channel, 64-bit
Flash EPROM	32 MB + 16 MB
PCIe bus	Up to Gen4.0

# Operating system


Your Latitude 7640 supports the following operating systems:

- Windows 11 2022H2
- Windows 11 2021H2
- Windows 11 Pro Downgrade (Windows 10 image factory installed)
- Ubuntu 22.04, 64-bit

# Memory

The following table lists the memory specifications of your Latitude 7640.

**Table 6. Memory specifications**

Description	Values
Memory slots	On-board memory  <b>NOTE:</b> Not upgradable
Memory type	Dual-channel, LPDDR5
Memory speed	4800 MT/s
Maximum memory configuration	32 GB
Minimum memory configuration	8 GB
Memory configurations supported	<ul style="list-style-type: none"><li>• 8 GB, Dual-Channel LPDDR5, 4800 MT/s</li><li>• 16 GB, Dual-Channel LPDDR5, 4800 MT/s</li><li>• 32 GB, Dual-Channel LPDDR5, 4800 MT/s</li></ul>

## External ports

The following table lists the external ports on your Latitude 7640.


**Table 7. External ports**

Description	Values
USB ports	<ul style="list-style-type: none"><li>• Two Thunderbolt 4 ports with DisplayPort Alt Mode/USB C/USB4/Power Delivery</li><li>• One USB 3.2 Gen 1 port</li><li>• One USB 3.2 Gen 1 port with PowerShare</li></ul>
Audio port	One Universal Audio Jack
Video port/ports	One HDMI 2.0
Media-card reader	Not supported
Power-adaptor port	60 W/65 W/100 W adaptor USB-C
Security-cable slot	One wedge-shaped security lock slot
Smart Card Reader	Contacted and Contactless + NFC (optional)
SIM slot	NanoSIM slot (optional)

## Internal slots

The following table lists the internal slots of your Latitude 7640.

**Table 8. Internal slots**

Description	Values
M.2	<ul style="list-style-type: none"><li>• One M.2 2230 slot for solid-state drive</li><li>• One M.2 3042 slot for 4G WWAN card</li><li>• One M.2 3052 slot for 5G WWAN card</li></ul> <p> <b>NOTE:</b> To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>

## Wireless module

The following table lists the Wireless Local Area Network (WLAN) module supported on your Latitude 7640.

**Table 9. Wireless module specifications**

Description	Values
Model number	Intel AX211 (Integrated on system board)
Transfer rate	2400 Mbps
Frequency bands supported	2.40 GHz/5 GHz/6 GHz
Wireless standards	<ul style="list-style-type: none"><li>• WiFi 802.11a/b/g</li><li>• Wi-Fi 4 (WiFi 802.11n)</li></ul>

**Table 9. Wireless module specifications (continued)**

Description	Values
	<ul style="list-style-type: none"> <li>• Wi-Fi 5 (WiFi 802.11ac)</li> <li>• Wi-Fi 6E (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 wireless card

## Audio

The following table lists the audio specifications of your Latitude 7640.

**Table 10. Audio specifications**

Description	Values	
Audio controller	Realtek ALC3281	
Stereo conversion	Supported	
Internal audio interface	High definition audio interface	
External audio interface	Universal Audio Jack	
Number of speakers	Four	
Internal-speaker amplifier	Supported	
External volume controls	Supported	
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output	Not supported	
Microphone	Dual-array	

## Storage

This section lists the storage options on your Latitude 7640.

Your computer supports the following storage configurations:

- One M.2 2230 solid-state drive

The M.2 2230 solid-state drive is the primary drive of your computer.

**Table 11. Storage specifications**

Storage type	Interface type	Capacity
M.2 2230 solid-state drive	PCIe NVMe Gen4 x4	256 GB/512 GB/1 TB/2 TB

**Table 11. Storage specifications (continued)**

Storage type	Interface type	Capacity
M.2 2230 solid-state drive, Self-encrypting drive, Opal 2.0	PCIe NVMe Gen4 x4	Up to 256 GB

## Keyboard

The following table lists the keyboard specifications of your Latitude 7640.

**Table 12. Keyboard specifications**

Description	Values
Keyboard type	New Pro 2.5 battery-saving Mini LED backlit keyboard
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"> <li>• United States and Canada: 79 keys</li> <li>• United Kingdom: 80 keys</li> <li>• Japan: 83 keys</li> </ul>
Keyboard size	X=19.05 mm key pitch Y=18.05 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>

## Camera

The following table lists the camera specifications of your Latitude 7640.

**Table 13. Front camera specifications**

Description	Values
Number of cameras	One
Camera type	FHD RGB+IR MIPI camera/CVF Camera
Camera location	Front camera
Camera sensor type	CMOS sensor technology
Camera resolution:	
Still image	1920 x 1080 (FHD)
Video	1920 x 1080 (FHD) at 30 fps
Infrared camera resolution:	
Still image	640 x 360
Video	640 x 360 at 30 fps



**Table 13. Front camera specifications (continued)**

Description		Values
Diagonal viewing angle:		
	Camera	80 degrees
	Infrared camera	86.6 degrees

**Table 13. Front camera specifications**

Description		Values
Number of cameras		One
Camera type		3.8 mm, 1080 p at 30 fps, FHD RGB Webcam
Camera location		Front camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	1920 x 1080 (FHD)
	Video	1920 x 1080 (FHD) at 30 fps
Diagonal viewing angle:		
	Camera	82 degrees

## Clickpad

The following table lists the clickpad specifications of your Latitude 7640.

**Table 14. Clickpad specifications**

Description		Values
Clickpad resolution:		
	Horizontal	>300 dpi
	Vertical	
Clickpad dimensions:		
	Horizontal	133 mm (5.23 in.)
	Vertical	90 mm (3.54 in.)
Clickpad gestures		For more information about clickpad gestures available on Windows, see the Microsoft knowledge base article at <a href="https://support.microsoft.com">support.microsoft.com</a> .


## Power adapter

The following table lists the power adapter specifications of your Latitude 7640.

**Table 15. Power adapter specifications**

Description	Option one	Option two	Option three
Type	60 W AC adapter, USB-C	65 W AC adapter, USB-C	100 W AC adapter, USB-C
Power-adapter dimensions:			

**Table 15. Power adapter specifications (continued)**

Description		Option one	Option two	Option three
	Height	22.00 mm (0.866 in.)	28.00 mm (1.10 in.)	26.50 mm (4.80 in.)
	Width	66.00 mm (2.598 in.)	51.00 mm (2.01 in.)	60.00 mm (2.36 in.)
	Depth	55.00 mm (2.165 in.)	112.00 mm (4.41 in.)	122.00 mm (4.80 in.)
Weight		0.105 kg (0.231 lbs)	0.201 kg (0.443 lbs)	0.33 kg (0.731 lbs)
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)		1.70 A	1.70 A	1.70 A
Output current (continuous)		<ul style="list-style-type: none"> <li>● 20 V/3 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>	<ul style="list-style-type: none"> <li>● 20 V/3.25 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>	<ul style="list-style-type: none"> <li>● 20 V/5 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>
Rated output voltage		<ul style="list-style-type: none"> <li>● 20 VDC</li> <li>● 15VDC</li> <li>● 9 VDC</li> <li>● 5 VDC</li> </ul>	<ul style="list-style-type: none"> <li>● 20 VDC</li> <li>● 15VDC</li> <li>● 9 VDC</li> <li>● 5 VDC</li> </ul>	<ul style="list-style-type: none"> <li>● 20 VDC</li> <li>● 15VDC</li> <li>● 9 VDC</li> <li>● 5 VDC</li> </ul>
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	-20°C to 70°C (-4°F to 158°F)	-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 Latitude 7640.

**Table 16. Battery specifications**

Description		Option one	Option two	Option three	Option four
Battery type		2-cell, 38 Wh, lithium ion, ExpressCharge™	3-cell, 57 Wh, lithium ion, ExpressCharge™	2-cell, 38 Wh, lithium ion, Long Lifecycle, ExpressCharge™	3-cell, 57 Wh, lithium ion, Long Lifecycle, ExpressCharge™
Battery voltage		7.60 VDC	11.40 VDC	7.60 VDC	11.40 VDC
Battery weight (maximum)		0.156 Kg (0.34 lb)	0.227 kg (0.50 lb)	0.156 Kg (0.34 lb)	0.227 kg (0.50 lb)
Battery dimensions:					
	Height	6.30 mm (0.24 in.)	6.30 mm (0.24 in.)	6.30 mm (0.24 in.)	6.30 mm (0.24 in.)
	Width	210.97 mm (8.30 in.)	254.8 mm (10.03 in.)	210.97 mm (8.30 in.)	254.8 mm (10.03 in.)
	Depth	79.80 mm (3.10 in.)	79.8 mm (3.10 in.)	79.80 mm (3.10 in.)	79.8 mm (3.10 in.)
Temperature range:					

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

Description		Option one	Option two	Option three	Option four
	Operating	<ul style="list-style-type: none"> <li>Charge: 0°C to 45°C (32°F to 113°F)</li> <li>Discharge: 0°C to 70°C (32°F to 158°F)</li> </ul>	<ul style="list-style-type: none"> <li>Charge: 0°C to 45°C (32°F to 113°F)</li> <li>Discharge: 0°C to 70°C (32°F to 158°F)</li> </ul>	<ul style="list-style-type: none"> <li>Charge: 0°C to 45°C (32°F to 113°F)</li> <li>Discharge: 0°C to 70°C (32°F to 158°F)</li> </ul>	<ul style="list-style-type: none"> <li>Charge: 0°C to 45°C (32°F to 113°F)</li> <li>Discharge: 0°C to 70°C (32°F to 158°F)</li> </ul>
	Storage	-20°C to 65°C (-4°F to 149°F)	-20°C to 65°C (-4°F to 149°F)	-20°C to 65°C (4°F to 149°F)	-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.	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.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate)  <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information about Dell Power Manager, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a> .		<b>Express Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 45°C normal express charge</li> <li>46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <b>Standard Charge/ Predominately AC User Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <b>Express Charge Boost Charge Method (Fast Charge for Initial 35%):</b> <ul style="list-style-type: none"> <li>16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge</li> </ul>	<b>Express Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 45°C normal express charge</li> <li>46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <b>Standard Charge/ Predominately AC User Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <b>Express Charge Boost Charge Method (Fast Charge for Initial 35%):</b> <ul style="list-style-type: none"> <li>16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge</li> </ul>	<b>Express Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 45°C normal express charge</li> <li>46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <b>Standard Charge/ Predominately AC User Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul>	<b>Express Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 45°C normal express charge</li> <li>46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <b>Standard Charge/ Predominately AC User Charge Method:</b> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul>
Coin-cell battery		Supported	Supported	Supported	Supported
 <b>CAUTION:</b> 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>CAUTION:</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.					

# Display


The following table lists the display specifications of your Latitude 7640.

**Table 17. Display specifications**

Description		Option one	Option two
Display type		Full High Definition Plus (FHD+)	Full High Definition Plus (FHD+)
Touch options		No	Integrated touch
Display-panel technology		In-Plane Switching (IPS)	In-Plane Switching (IPS)
Display-panel dimensions (active area):			
	Height	344.68 mm (13.57 in.)	344.68 mm (13.57 in.)
	Width	215.42 mm (8.48 in.)	215.42 mm (8.48 in.)
	Diagonal	406.46 mm (16.00 in.)	406.46 mm (16.00 in.)
Display-panel native resolution		1920 x 1200	1920 x 1200
Luminance (typical)		250 nits	300 nits
Megapixels		2.30	2.30
Color gamut		45% NTSC	72% NTSC
Pixels Per Inch (PPI)		141.5 ppi	141.5 ppi
Contrast ratio (min.)		800:1	600:01
Response time (max.)		35 ms	35 ms
Refresh rate		60 Hz	60 Hz
Horizontal view angle		<ul style="list-style-type: none"> <li>• 85 degrees (typical)</li> <li>• 80 degrees (min)</li> </ul>	<ul style="list-style-type: none"> <li>• 85 degrees (typical)</li> <li>• 80 degrees (min)</li> </ul>
Vertical view angle		<ul style="list-style-type: none"> <li>• 85 degrees (typical)</li> <li>• 80 degrees (min)</li> </ul>	<ul style="list-style-type: none"> <li>• 85 degrees (typical)</li> <li>• 80 degrees (min)</li> </ul>
Pixel pitch		0.17952 mm x 0.17952 mm	0.17952 mm x 0.17952 mm
Power consumption (maximum)		4.15 W	4.2 W
Anti-glare vs glossy finish		Anti-glare	Anti-glare

## Fingerprint reader (Optional)

The following table lists the fingerprint-reader specifications of your Latitude 7640.

 **NOTE:** The fingerprint reader is located on the power button.

**Table 18. Fingerprint reader specifications**

Description	Option One	Option two
Fingerprint-reader sensor technology	Capacitive	Capacitive
Fingerprint-reader sensor resolution	500 dpi	508 dpi
Fingerprint-reader sensor pixel size	<ul style="list-style-type: none"> <li>• X: 108</li> <li>• Y: 88</li> </ul>	<ul style="list-style-type: none"> <li>• X: 96</li> <li>• Y: 96</li> </ul>

## Sensor

The following table lists the sensor of your Latitude 7640.

**Table 19. Sensor**

Sensor support
Accelerometer (ST Micro LIS2DW12TR): On the base (system board)
Accelerometer (ST Micro LIS2DW12TR): On the hinge-up 180 mid-board
Ambient Light Sensor (optional)
E-compass (ST Micro LIS2MDLTR), only for 2-in-1 system
Proximity for SAR compliance (for the WWAN module) Near Field Proximity Sensor
Hall Effect Sensor

## GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Latitude 7640.

**Table 20. GPU—Integrated**

Controller	Memory size	Processor
Intel Iris X <sup>e</sup> Graphics	Shared system memory	13 <sup>th</sup> Generation Intel Core i5/i7

## Multiple display support matrix

The following table lists the multiple display support matrix for your Latitude 7640.

**Table 21. Multiple display support matrix**

Graphics Card	Direct Graphics Controller Direct Output Mode	Supported external displays with computer internal display on	Supported external displays with computer internal display off
Intel Iris X <sup>e</sup> Graphics	Not applicable	3	4

# Hardware security

The following table lists the hardware security of your Latitude 7640.

**Table 22. Hardware security**

Hardware security
Trusted Platform Module (TPM) 2.0 discrete
FIPS 140-2 certification for TPM
Trusted Computing Group (TCG) Certification for TPM
Contacted smart card and Control vault 3
Contactless smart card, NFC, and Control vault 3
SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL
Fingerprint reader in power button tied to Control vault 3
One wedge-shaped lock slot
SED (Opal 2.0 only - PCIe Interface)
Windows Hello - Fingerprint Reader (optional)
Mechanical privacy shutter for camera (only for metal laptops)

## Smart-card reader

### Contactless smart-card reader


This section lists the contactless smart-card reader specifications of your Latitude 7640.

**Table 23. Contactless smart-card reader specifications**

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
Felica Card Support	Reader and software capable of supporting Felica contactless cards	Yes
ISO 14443 Type A Card Support	Reader and software capable of supporting ISO 14443 Type A contactless cards	Yes
ISO 14443 Type B Card Support	Reader and software capable of supporting ISO 14443 Type B contactless cards	Yes
ISO/IEC 21481	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO/IEC 18092	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO 15693 Card Support	Reader and software capable of supporting ISO15693 contactless cards	Yes
NFC Tag Support	Supports reading and processing of NFC compliant tag information	Yes

**Table 23. Contactless smart-card reader specifications (continued)**

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
NFC Reader Mode	Support for NFC Forum Defined Reader mode	Yes
NFC Writer Mode	Support for NFC Forum Defined Writer mode	Yes
NFC Peer-to-Peer Mode	Support for NFC Forum Defined Peer to Peer mode	Yes
EMVCo Compliant	Compliant with EMVCO smart card standards as posted to <a href="http://www.emvco.com">www.emvco.com</a>	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
NFC Proximity OS Interface	Enumerates NFP (Near Field Proximity) device for OS to utilize	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers	Yes
Windows Certified	Device certified by Microsoft WHCK	Yes
Dell ControlVault support	Device connects to Dell ControlVault for usage and processing	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	No

 **NOTE:** 125 Khz proximity cards are not supported.

**Table 24. Supported cards**

Manufacturer	Card
HID	jCOP readertest3 A card (14443a)
	1430 1L
	DESFire D8H
	iClass (Legacy)
	iClass SEOS
NXP/Mifare	Mifare DESFire 8K White PVC Cards
	Mifare Classic 1K White PVC Cards
	NXP Mifare Classic S50 ISO Card
G&D	idOnDemand - SCE3.2 144K
	SCE6.0 FIPS 80K Dual+ 1 K Mifare
	SCE6.0 nonFIPS 80K Dual+ 1 K Mifare
	SCE6.0 FIPS 144K Dual + 1K Mifare
	SCE6.0 nonFIPS 144K Dual + 1 K Mifare
	SCE7.0 FIPS 144K

**Table 24. Supported cards (continued)**

Manufacturer	Card
Oberthur	idOnDemand - OCS5.2 80K
	ID-One Cosmo 64 RSA D V5.4 T=0 card

## Contacted smart-card reader

The following table lists the contacted smart-card reader specifications of your Latitude 7640.

**Table 25. Contacted smart-card reader specifications**

Title	Description	Dell ControlVault 3 smart-card reader
ISO 7816 -3 Class A Card Support	Reader capable of reading 5V powered smart mcard	Yes
ISO 7816 -3 Class B Card Support	Reader capable of reading 3V powered smart card	Yes
ISO 7816 -3 Class C Card support	Reader capable of reading 1.8V powered smart card	Yes
ISO 7816-1 Compliant	Specification for the reader	Yes
ISO 7816 -2 Compliant	Specification for smart card device physical characteristics (size, location of connection points, etc.)	N/A
T=0 support	Cards support character level transmission	Yes
T=1 support	Cards support block level transmission	Yes
EMVCo Compliant	Compliant with EMVCo (for electronic payment standards) smart card standards as posted to <a href="http://www.emvco.com">www.emvco.com</a>	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers.	Yes
Windows Certified	Device certified by WHCK	Yes
FIPS 201 (PIV/HSPD-12) Compliant via GSA	Device compliant with FIPS 201/PIV/HSPD-12 requirements	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	No


## Operating and storage environment

This table lists the operating and storage specifications of your Latitude 7640.

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




**Table 26. 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)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	110 G†	160 G†
Altitude range	-15.2 m to 3048 m (4.64 ft to 5518.4 ft)	-15.2 m to 10668 m (4.64 ft to 19234.4 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.

## ComfortView Plus

 **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.

## Keyboard shortcuts of Latitude 7640

**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 **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 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 27. List of keyboard shortcuts**

Function key	Primary behavior
F1	Mute audio
F2	Decrease volume
F3	Increase volume
F4	Play previous track/chapter
F5	Play/Pause
F6	Play next track/chapter.
F8	Switch to external display
F9	Search
F10	Click keyboard backlight (optional). <b>NOTE:</b> Non-backlight keyboards have F10 function key without the backlight icon and do not support toggle keyboard backlight function. <b>NOTE:</b> Toggle to cycle the keyboard backlight status through off, low-backlight, and high-backlight
F11	Decrease brightness
F12	Increase brightness

The **Fn** key is also used with selected keys on the keyboard to invoke other secondary functions.

**Table 28. Secondary behavior**

Function key	Secondary behavior
Fn + F1	Operating system and application specific F1 behavior
Fn + F2	Operating system and application specific F2 behavior
Fn + F3	Operating system and application specific F3 behavior
Fn + F4	Operating system and application specific F4 behavior

**Table 28. Secondary behavior (continued)**



<b>Function key</b>	<b>Secondary behavior</b>
Fn + F5	Operating system and application specific F5 behavior
Fn + F6	Operating system and application specific F6 behavior
Fn + F8	Operating system and application specific F8 behavior
Fn + F9	Operating system and application specific F9 behavior
Fn + F10	Operating system and application specific F10 behavior
Fn + F11	Operating system and application specific F11 behavior
Fn + F12	Operating system and application specific F12 behavior
Fn + PrtScr	Turn off/on wireless
Fn + B	Pause/Break
Fn + Insert	Sleep
Fn + S	Toggle scroll lock
Fn + H	Toggle between power and battery-status light/hard-drive activity light
Fn + R	System request
Fn + Ctrl	Open application menu
Fn + Esc	Toggle Fn-key lock
Fn + PgUp	Page up
Fn + PgDn	Page down
Fn + Home	Home
Fn + End	End

# Getting help and contacting Dell

## Self-help resources


You can get information and help on Dell products and services using these self-help resources:


**Table 29. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a> <a href="http://www.dell.com/support/linux">www.dell.com/support/linux</a>
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	Your Dell 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 <a href="http://www.dell.com/support">www.dell.com/support</a> .  For more information on how to find the Service Tag for your computer, see <a href="#">Locate the Service Tag on your computer</a> .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> <li>1. Go to <a href="http://www.dell.com/support">www.dell.com/support</a>.</li> <li>2. On the menu bar at the top of the Support page, select <b>Support &gt; Knowledge Base</b>.</li> <li>3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.</li> </ol>

## Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [www.dell.com/contactdell](http://www.dell.com/contactdell).

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

 **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.