Dell Latitude 12 Rugged Extreme – 7214
Getting Started Guide

Regulatory Model: P18T
Regulatory Type: P18T002



Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your computer.

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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Finding information and resources

See the safety and regulatory documents that shipped with your computer and the regulatory compliance website at **Dell.com/regulatory_compliance** for more information on:

- Safety best practices
- Regulatory certification
- Ergonomics

See **Dell.com** for additional information on:

- Warranty
- Terms and Conditions (U.S. only)
- End User License Agreement

Additional information on your product is available at **Dell.com/support/manuals**.

2

System overview

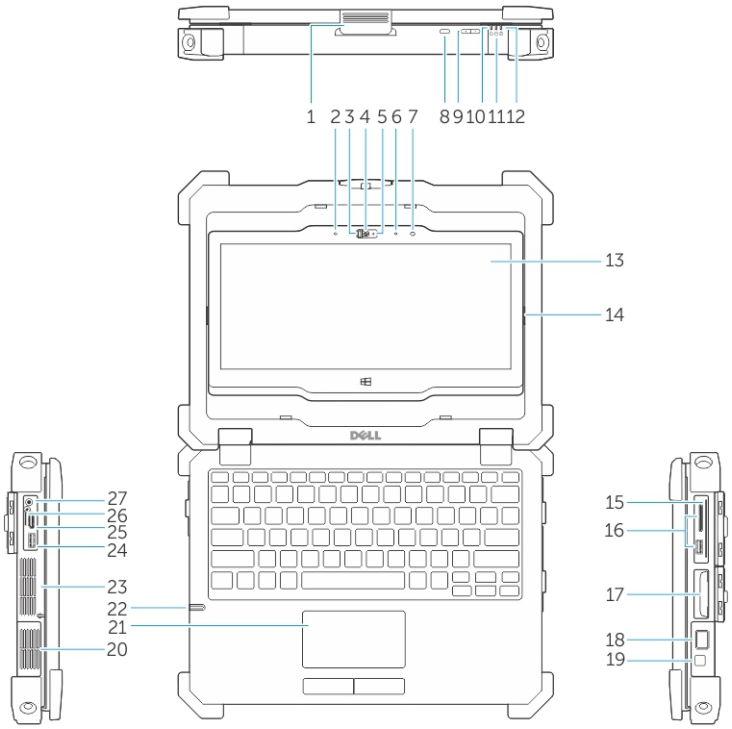
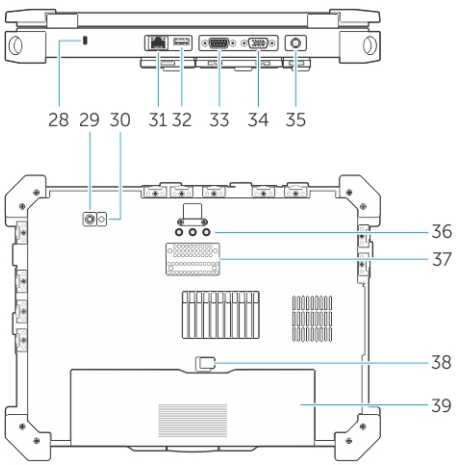


Figure 1. System overview



1. display latch
2. microphone
3. camera shutter (optional)
4. camera (optional)

5. camera status light (optional)
6. microphone
7. ambient light sensor
8. screen rotate button
9. volume button
10. power status lights
11. hard drive activity light
12. battery status light
13. rotatable outdoor readable display/ touchscreen
14. flip hinge
15. secure card reader
16. USB 3.0 port and memory card reader/PC card reader/Express card reader (optional)
17. hard disk
18. finger print reader
19. power button
20. sealed thermal chamber
21. touchpad
22. stylus
23. sealed thermal chamber
24. USB 3.0 connector with PowerShare
25. HDMI port
26. SIM card reader
27. audio connector
28. security cable slot
29. back camera
30. camera flash
31. network port
32. USB 2.0 port
33. serial port
34. VGA port
35. power connector
36. radio frequency pass-through connectors
37. docking device connector
38. battery latch
39. battery

CAUTION: EXPLOSION HAZARD—External connections (power adapter port, HDMI port, USB ports, RJ45 port, serial ports, audio port, Smart Card reader slot, SD card reader slot, Express Card reader slot, PC card reader slot, SIM card slot) should not to be used in a hazardous location.

WARNING: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your Dell computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire. The computer turns on the fan when the computer gets hot. Fan noise is normal and does not indicate a problem with the fan or the computer.

3

Quick setup

WARNING: Before you begin any of the procedures in this section, read the safety information that shipped with your computer. For additional best practices information, see Dell.com/regulatory_compliance.

WARNING: The AC adapter works with electrical outlets worldwide. However, power connectors and power strips vary among countries. Using an incompatible cable or improperly connecting the cable to the power strip or electrical outlet may cause fire or equipment damage.

CAUTION: When you disconnect the AC adapter cable from the computer, grasp the connector, not the cable itself, and pull firmly but gently to avoid damaging the cable. When you wrap the AC adapter cable, ensure that you follow the angle of the connector on the AC adapter to avoid damaging the cable.

NOTE: Some devices may not be included if you did not order them.

1. Connect the AC adapter to the AC adapter port on the computer and to the electrical outlet.

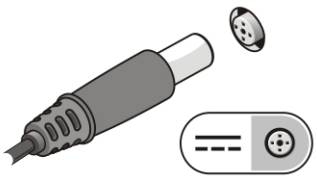


Figure 2. AC adapter

2. Connect the network cable (optional).

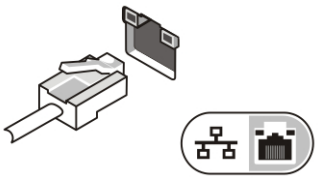


Figure 3. Network connector

3. Connect USB devices, such as a mouse or keyboard (optional).

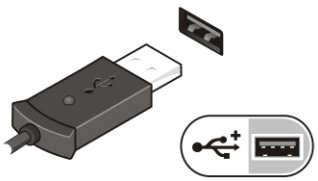


Figure 4. USB connector

4. To turn on the computer, open the computer display and press the power button.



Figure 5. Power button

NOTE: It is recommended that you turn on and shut down your computer at least once before you install any cards or connect the computer to a docking device or other external device, such as a printer.

4

Removing and installing components

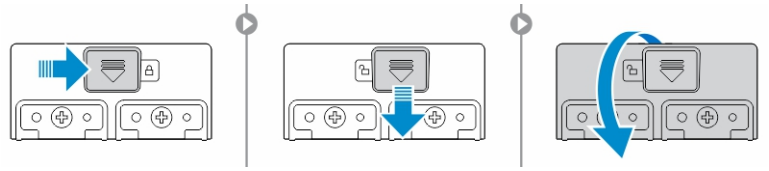
This section provides detailed information on how to remove or install the components from your computer.

Opening the press latch doors

The computer includes six press latch doors:

- Three on the back of the computer
- Two on the right side of the computer
- One on the left side of the computer

1. Slide the latch until the unlock icon is visible.
2. Press the latch and open the press latch door in the downward direction.



Closing the press latch doors

1. Close the latch door back by pressing it toward the computer.
2. To lock the latch doors, slide the latch until the lock icon is visible.

Removing the battery

WARNING: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell. The battery is designed to work with your Dell computer. Do not use a battery from other computers with your computer.

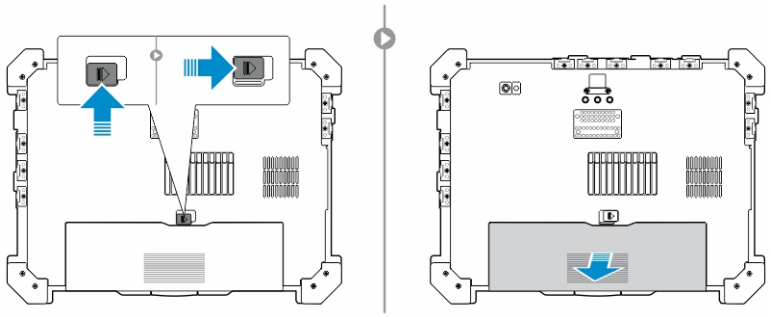
WARNING: Before removing or replacing the battery:

1. Turn off the computer.
2. Disconnect the AC adapter from the electrical outlet and the computer.
3. Disconnect the modem from the wall connector and computer.
4. Remove any other external cables from the computer.

WARNING: To prevent ignition in a hazardous atmosphere, batteries must only be removed, changed or charged in an area known to be non-hazardous.

NOTE: The battery cannot be installed or removed with the optional accessory handle installed. The handle must be removed first (if present).

1. Unlock the battery release latch by pushing it upwards.
2. Slide the latch to the right to release the battery.
3. Remove the battery from the computer.

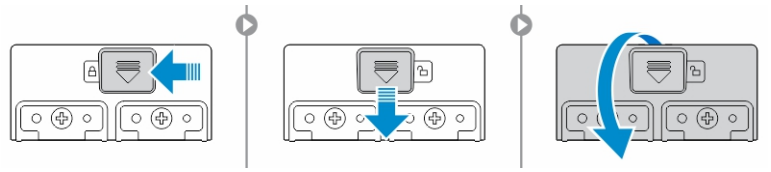


Installing the battery

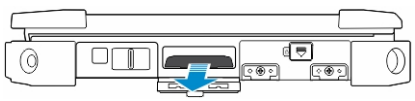
1. Slide the battery into its slot.
2. Push the battery latch down to lock it.

Removing the hard drive

1. To open the hard drive latch door, push the latch button to the left (if locked).
2. Open the hard drive latch door by pushing the latch down.



3. Pull the hard drive outwards using the pull tab and remove it from the computer.



Installing the hard drive

1. Insert the hard drive into the hard drive slot until it clicks into place.

   NOTE: Keep the hard drive pull tab clear of the doors before closing the hard drive latch door.
2. Close the hard drive latch door.
3. Slide the latch until the lock icon is visible.

5

Working on your computer

This section provides information about the backlit keyboard, stealth mode, function keys and converting your computer to notebook and tablet modes (if applicable).

Using the backlit keyboard

The Latitude rugged series comes equipped with a backlit keyboard that can be customized. The following colors are enabled:

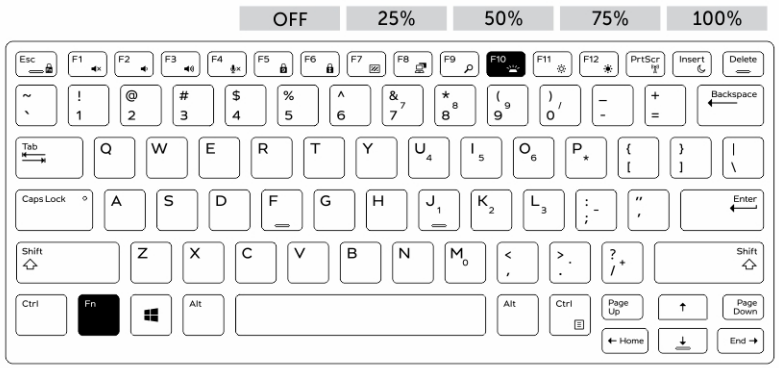
1. White
2. Red
3. Green
4. Blue

Alternatively, the system can be configured with two additional custom colors in the System Setup (BIOS).

Turning the keyboard backlight on/off or adjusting brightness

To turn the backlight on/off or adjust the backlight brightness settings:

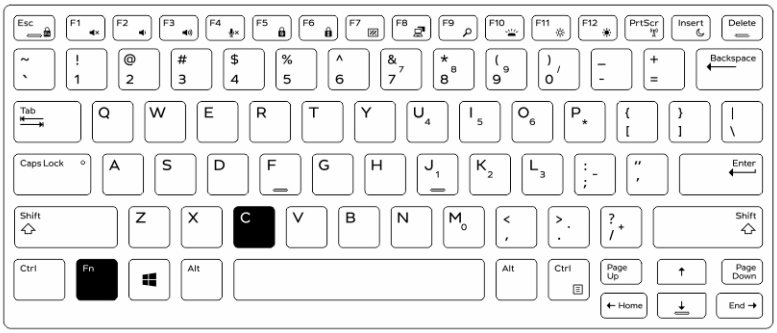
1. To initialize the keyboard backlight switch, press Fn+F10 (the Fn key is not needed if function key Fn lock is enabled).
2. The first use of the preceding key combination turns on the backlight to its lowest setting.
3. Repeated pressing of the key combinations cycles the brightness settings through 25 percent, 50 percent, 75 percent and 100 percent.
4. Cycle through the key combination to either adjust the brightness or turn off the keyboard backlight.



Changing the keyboard backlight color

To change the keyboard backlight color:

1. Press Fn+C keys to cycle through the available backlight colors.
2. White, Red, Green and Blue are active by default; up to two custom colors can be added to the cycle in the System Setup (BIOS).



Customizing the backlit keyboard in System Setup (BIOS)

1. Turn off the computer.
2. Turn on the computer and when the Dell logo appears, press the F2 key repeatedly to bring up the System Setup menu.
3. Under **System Configuration** menu, select **RGB Keyboard Backlight**.

   You can enable/disable the standard colors (White, Red, Green and Blue).
4. To set a custom RGB value, use the input boxes on the right side of the screen.
5. Click **Apply changes** and click **Exit** to close System Setup.

Function Fn key lock features

NOTE: The keyboard has Function key Fn lock capability. When activated, the secondary functions on the top row of keys become default and will not require use of the Fn key.

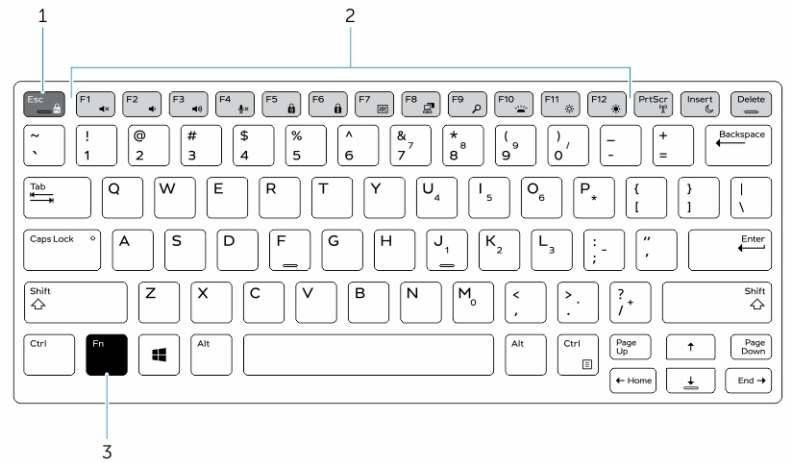


Figure 6. Fn key callouts

1. Fn lock key
2. Affected Fn keys

3. Fn key

NOTE: Fn lock affects only the above keys (F1 to F12). Secondary functions will not require the Fn key to be pressed while enabled.

Enabling the Function (Fn) lock

1. Press the Fn+Esc keys.

   NOTE: Other secondary function keys on the top row are not affected and requires the use of the Fn key.

2. Press the Fn+Esc keys again to deactivate the function lock feature.

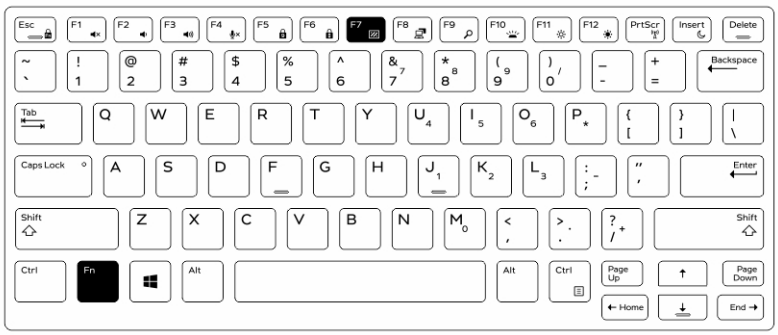
   The function keys return to the default actions.

Turning stealth mode on/off

1. Press the Fn+F7 key combination (Fn key not needed if Fn lock is enabled) to turn on stealth mode.

   NOTE: Stealth mode is a secondary function of the F7 key. The key can be used to perform other functions on the computer when not used with the Fn key to enable stealth mode.

2. All the lights and sounds are turned off.
3. Press the Fn+F7 key combination again to turn off the stealth mode.



Disabling stealth mode in the system setup (BIOS)

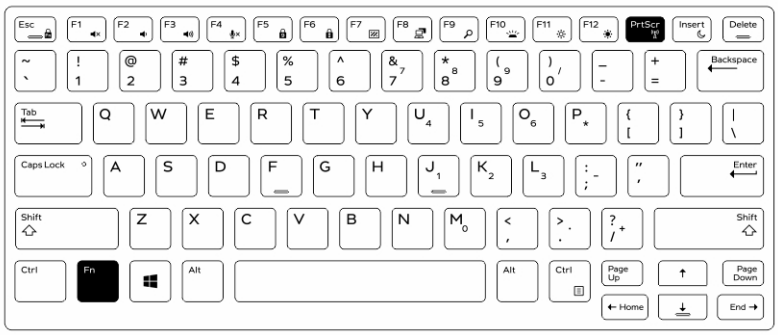
1. Power off the computer.
2. Power on the computer and at the Dell logo, tap the F2 key repeatedly to bring up the **System Setup** menu.
3. Expand and open the **System Configuration** menu.
4. Select **Stealth Mode Control**.

   NOTE: Stealth mode is enabled by default.

5. To disable stealth mode uncheck the **Enable Stealth Mode** option.
6. Click **Apply changes** and click **Exit**.

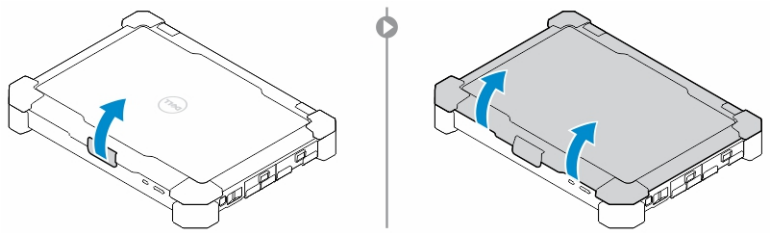
Enabling and disabling the wireless (WiFi) feature

1. To enable wireless Networking, press Fn + PrtScr.
2. Press Fn + PrtScr again to disable wireless Networking.

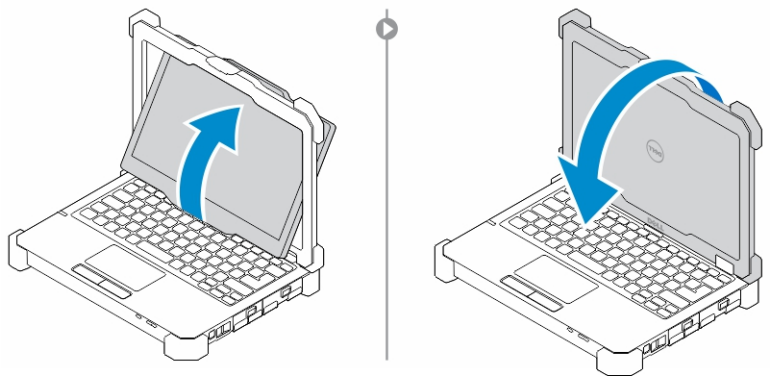


Converting between notebook and tablet modes

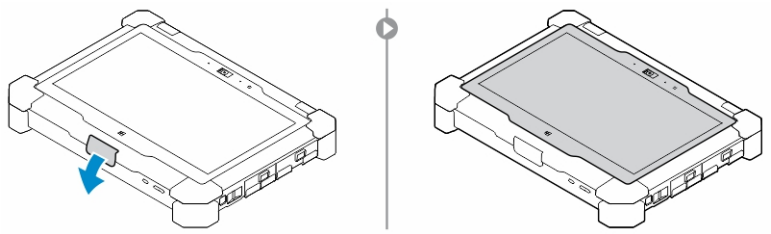
1. To undock the computer, press the display latch.
2. Open the display lid by lifting it upwards.



3. To change to tablet mode:
   a. Gently push the display panel in the direction indicated to pop the display from the display frame.
   b. Rotate the display by 180-degree until it clicks back into place.



4. Close the display lid.



5. The computer is now converted for use in the tablet mode. Repeat the steps, flipping the display in the opposite direction, to bring the computer back to notebook mode.

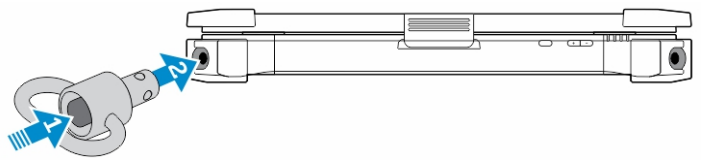
6

Quick Disconnect (QD) connector

Latitude fully rugged products come equipped with receptacles for QD (Quick Disconnect) connectors at the corners. These receptacles allow the connection of optional accessories such as shoulder straps.

Installing the QD connector

1. Align the QD connector to the receptacle on the corner of the computer.
2. Press and hold the button on top of the QD connector.
3. Insert the QD connector into the receptacle, while holding the button pressed.



4. Release the button after the connector is seated in the receptacle to secure it.

Removing the QD connector

1. Press and hold the button on top of the QD connector.
2. Pull the connector out of the receptacle while holding the button pressed.

7

Technical specifications

NOTE: Offerings may vary by region. For more information regarding the configuration of your computer in:

- Windows 10, click or tap **Start** → **Settings** → **System** → **About**.
- Windows 8.1 and Windows 8, from the charms sidebar, click or tap **Settings** → **Change PC settings**. In the **PC Settings** window, select **PC and devices** → **PC Info**.
- Windows 7, click **Start**, right-click **My Computer**, and then select **Properties**.

System information specifications

Feature	Specification
DRAM bus width	64 bit
Flash EPROM	SPI 128 Mbits
PCIe 3.0 bus	8.0 GHz

Processor specifications

Feature	Specification
Types	Intel Core i3/i5/i7 series
L3 cache	up to 4 MB
External bus frequency	2133 MHz

Memory specifications

Feature	Specification
Memory connector	Two SODIMM slots
Memory capacity	4 GB, 8 GB, and 16 GB
Memory type	DDR4 SDRAM
Speed	2133 MHz

Feature	Specification
Minimum memory	4 GB
Maximum memory	32 GB

Audio specifications

Feature	Specification
Type	four channel high definition audio
Controller	HDA Codec - ALC3235
Stereo conversion	24 bit (analog-to-digital and digital-to-analog)
Interface (internal)	HD audio
Interface (external)	microphone in/stereo headphones/external speakers connector
Speakers	one mono speaker
Internal speaker amplifier	2 W (RMS)
Volume controls	Volume up/Volume down buttons

CAUTION: Adjustment of volume control, as well as the equalizer in the operating system and/or equalizer software, to other settings than the center position may increase the earphones and/or headphones output and cause hearing damage or loss.

Video specifications

Feature	Specification
Type	integrated on system board
Controller (UMA) — Intel core i3/i5/i7	Intel HD Graphics 520

Communication specifications

Feature	Specification
Network adapter	10/100/1000 Mb/s Ethernet (RJ-45)
Wireless	• WLAN with Bluetooth 4.1 enabled • WWAN

Port and connector specifications

Feature	Specification
Audio	one microphone/stereo headphone/speakers connector
Video	• one 19-pin HDMI port • one 15-pin VGA port
Network adapter	one RJ45 connector
Serial port	one DB9 pin serial port
Docking port	one
USB ports	• one 4-pin USB 2.0-compliant port • one 9-pin USB 3.0-compliant port with PowerShare • one USB 3.0 port and memory card reader/PC card reader/Express card reader (optional)
SIM card slot	one micro-SIM slot with security feature

Display specifications

Feature	Specification
Type	WLED display
Size	11.6 inches
Height	190.00 mm (7.48 inches)
Width	323.5 mm (12.59 inches)
Diagonal	375.2 mm (14.77 inches)
Active area (X/Y)	309.4 mm x 173.95 mm
Maximum resolution	1366 x 768 pixels
Refresh rate	60 Hz
Operating angle	0° (closed) to 180°
Maximum viewing angles (horizontal)	+/- 70° minimum for HD
Maximum viewing angles (vertical)	+/- 70° minimum for HD
Pixel pitch	0.1875 mm

Keyboard specifications

Feature	Specification
Number of keys	• 83 keys: US English, Thai, French-Canadian, Korean, Russian, Hebrew, English-International • 84 keys: UK English, French Canadian Quebec, German, French, Spanish (Latin America), Nordic, Arabic, Canada Bilingual • 85 keys: Brazilian Portuguese • 87 keys: Japanese
Layout	QWERTY/AZERTY/Kanji

Touchpad specifications

Feature	Specification
Active Area:	
X-axis	99.50 mm
Y-axis	53.00 mm

Battery specifications

Feature	Specification
Type	4-cell smart lithium ion
Depth	72.6 mm (2.85 inches)
Height	16.6 mm (0.65 inches)
Width	215 mm (8.46 inches)
Weight	318 g (0.70 lb)
Voltage	14.8 V DC
Life span	300 discharge per charge cycles
Temperature range	
Operating	• Charging: 0°C to 60°C (32°F to 140°F) • Discharging: 0°C to 70°C (32°F to 158°F)

Feature	Specification
Nonoperating	−51°C to 71°C (−60°F to 160°F) NOTE: The battery pack is capable of safely withstanding the above storage temperatures with 100% charge. NOTE: The battery pack is also capable of withstanding storage temperatures from −20°C to +60°C with no degradation in its performance.
Coin cell battery	3 V CR2032 lithium coin cell

Adapter specifications

Feature	Specification
Type	65 W
Input voltage	100–240 V AC
Input current (maximum)	1.7 A
Input frequency	50–60 Hz
Output current	3.34 A
Rated output voltage	19.5 V DC
Temperature range (operating)	0°C to 40°C (32°F to 104°F)
Temperature range (nonoperating)	−40°C to 70°C (−40°F to 158°F)

Physical dimension specifications

Feature	Specification
Height	39 mm (1.54 inches)
Width	219 mm (8.62 inches)
Length	311 mm (12.24 inches)
Weight (minimum config)	6.0 lbs (2.72 kg)

Environmental specifications

Feature	Specifications
Temperature — operating	–29°C to 63°C (–20°F to 145°F)
Temperature — storage	–51°C to 71°C (–60°F to 160°F)
Relative humidity (maximum) — operating	10% to 90% (noncondensing)
Relative humidity (maximum) — storage	0% to 95% (noncondensing)
Altitude (maximum) — operating	–15.24 m to 4572 m (–50 ft to 15,000 ft)
Altitude (maximum) — nonoperating	–15.24 m to 9144 m (–50 ft to 30,000 ft)
Airborne contaminant level	G1 as defined by ISA-71.04–1985

8

Contacting Dell

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

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to **Dell.com/support.**
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.