

Dell Latitude 14 Rugged – 5404Series

Getting Started Guide



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.

 **NOTE:** 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 www.dell.com/regulatory_compliance for more information on:

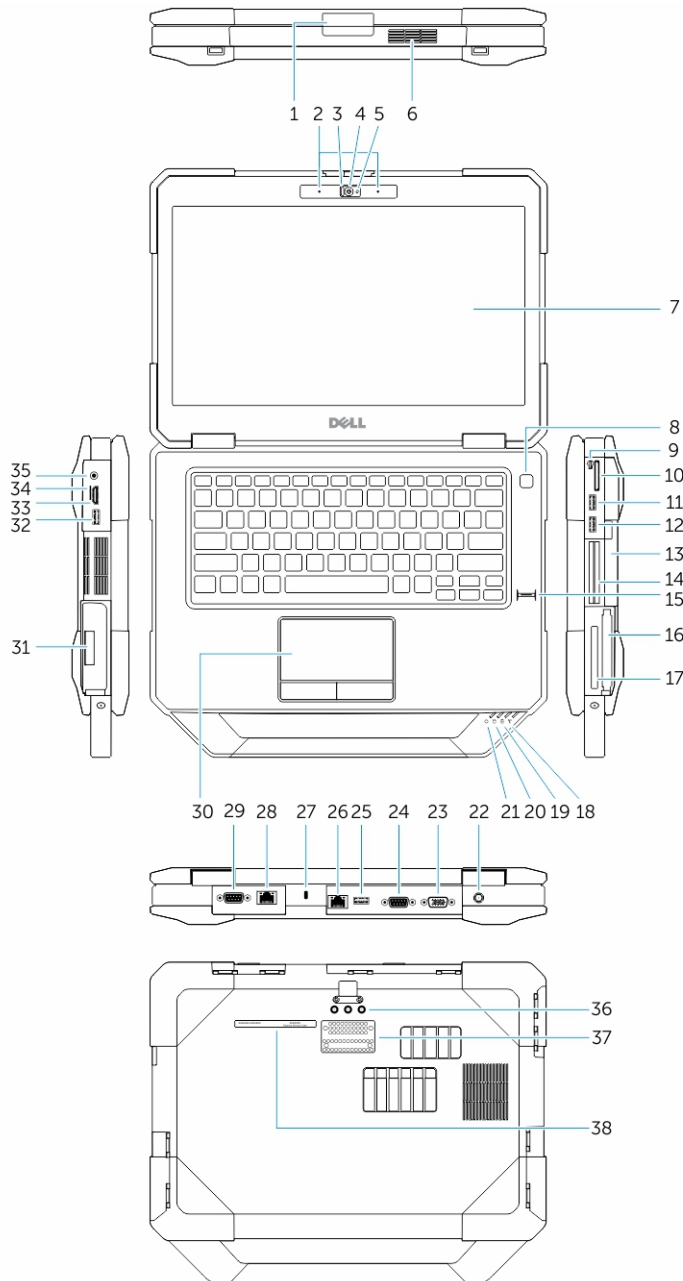
- Safety best practices
- Regulatory certification
- Ergonomics

See www.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 www.dell.com/support/manuals

Front and Back View



- | | |
|--|----------------------------------|
| 1. Display latch | 2. Microphone |
| 3. Privacy shutter (optional) | 4. Camera (optional) |
| 5. Camera-status light (optional) | 6. Speaker |
| 7. Outdoor readable display/touchscreen (optional) | 8. Power button |
| 9. Stylus | 10. SD Card reader |
| 11. USB 2.0 Connector | 12. USB 3.0 Connector (optional) |
| 13. Optical Disk Drive | 14. Smartcard reader (optional) |

- | | |
|--|---|
| 15. Fingerprint reader (optional) | 16. Hard drive |
| 17. PC/ExpressCard Reader | 18. Wireless status light |
| 19. Battery status light | 20. Hard-drive status light |
| 21. Power status light | 22. Power Connector |
| 23. VGA output | 24. Serial Connector |
| 25. USB 2.0 Connector | 26. Network Connector |
| 27. Security-cable slot | 28. Secondary Network Connector (optional) |
| 29. Secondary serial connector (optional) / Fischer power connector (optional) | 30. Touchpad |
| 31. Battery | 32. USB 3.0 connector |
| 33. HDMI Connector | 34. SIM Card slot |
| 35. Audio output | 36. External antenna pass-through interface |
| 37. Docking interface | 38. Service tag label |

 **NOTE:** 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.

Quick Setup

- NOTE:** 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 www.dell.com/regulatory_compliance
- NOTE:** 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 connector on the computer and to the electrical outlet.

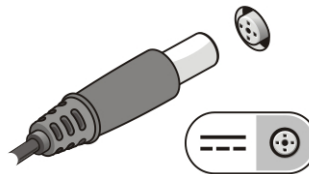


Figure 1. AC Adapter

2. Connect the network cable (optional).

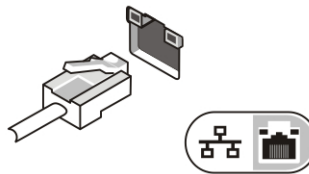


Figure 2. Network Connector

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

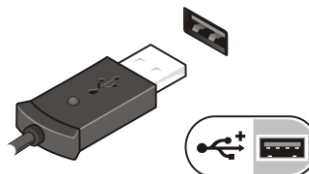


Figure 3. USB Connector

4. Open the computer display and press the power button to turn on the computer.



Figure 4. Power Button

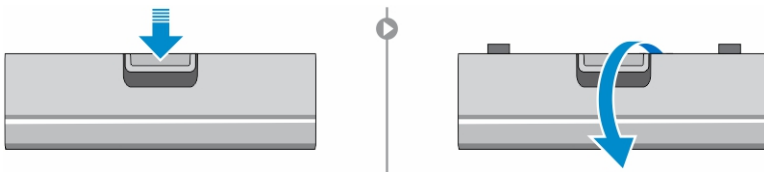
- NOTE:** It is recommended that you turn on and shut down your computer at least once before you install any cards or connect the computer to a docking device or other external device, such as a printer.

Removing and Installing Components

Opening the Hard Drive Bay Doors

There are six press-latch doors. Two on the right side, two on the left and two on back side of the computer.

1. Hold the latch button down.
2. Pull the door open and away from the computer.



Closing The Hard Drive Bay Doors

Follow the steps below to close the press-latch doors :

1. Rotate the door back towards the computer.
2. Press firmly on the door until a click is heard and latch is engaged.

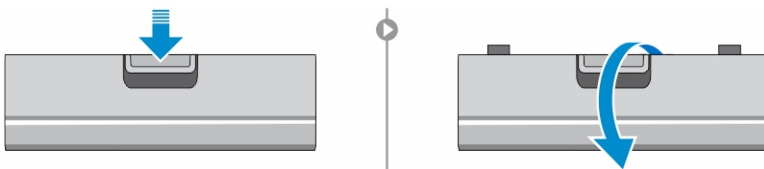
Removing the Battery

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 any other computer with your computer.

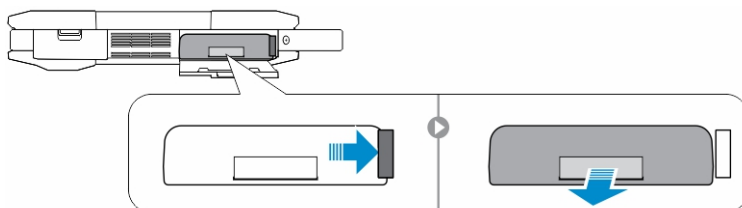
WARNING: Before removing or replacing the battery, turn off the computer, disconnect the AC adapter from the electrical outlet and the computer, disconnect the modem from the wall connector and computer, and remove any other external cables from the computer.

WARNING: Not for use in hazardous locations. See installation instructions.

1. Hold the latch button down.
2. Pull the door open and away from the computer to expose the battery compartment.



3. To remove the battery:
 - a) Push and hold the battery release button to the right while pulling on the plastic battery tab

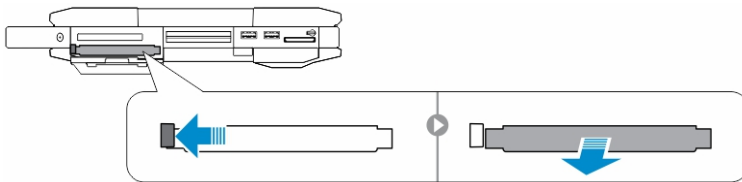


Installing the Battery

1. Slide the battery into its slot until it clicks into place.
2. Press firmly on the door until a click is heard and latch is engaged.

Removing the hard drive

1. Push the latch button down.
2. Pull the door open and away from the computer to expose the hard drive compartment
3. To remove the hard drive:
 - a) Push and hold the hard drive release button to the left while pulling on the plastic hard drive tab.



Installing the Hard Drive

1. Push the hard drive into its compartment until it snaps in place.
2. Press firmly on the door until a click is heard and latch is engaged.

Using the Backlit Keyboard

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

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

Alternatively, the system can be configured with 2 additional custom colors in the System Setup (BIOS)

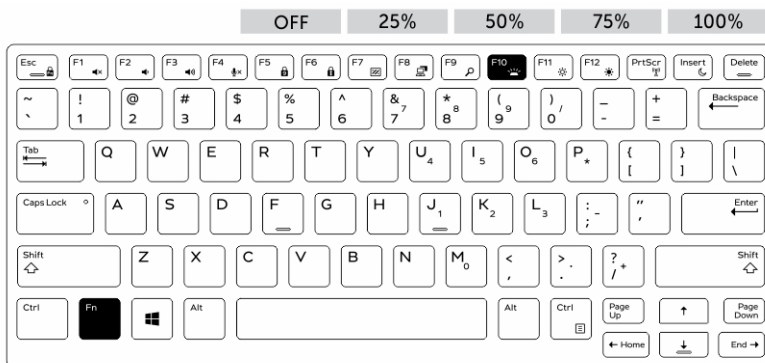
Topics:

- [Turning the Keyboard Backlight On/Off or Adjusting Brightness](#)
- [Changing the Keyboard Backlight Color](#)
- [Customizing the Backlit Keyboard in System Setup \(BIOS\)](#)
- [Function Fn key lock features](#)

Turning the Keyboard Backlight On/Off or Adjusting Brightness

To turn backlight On/Off or adjust the backlight brightness settings, perform the steps:

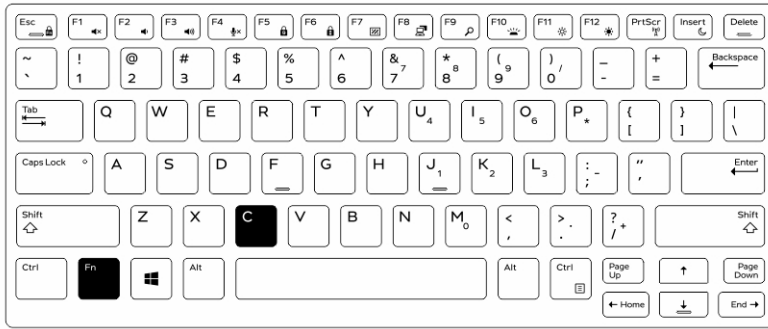
1. Press **<Fn> + <F10>** (Fn key not needed if function key <Fn> lock is activated) to initialize the keyboard backlight switch.
2. The first use of the above key combination will turn on the backlight to its lowest setting.
3. Additional pressing of the key combinations will cycle the brightness settings through 25%, 50%, 75% and 100% .
4. Cycle through the key combination to either adjust the brightness or completely 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. 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 **RGB Keyboard Backlight**.
You can enable/disable the standard colors (White, Red, Green and Blue).
5. To set a custom RGB value, use the input boxes on the right side of the screen.
6. Click **Apply** changes and click **Exit** close the 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.

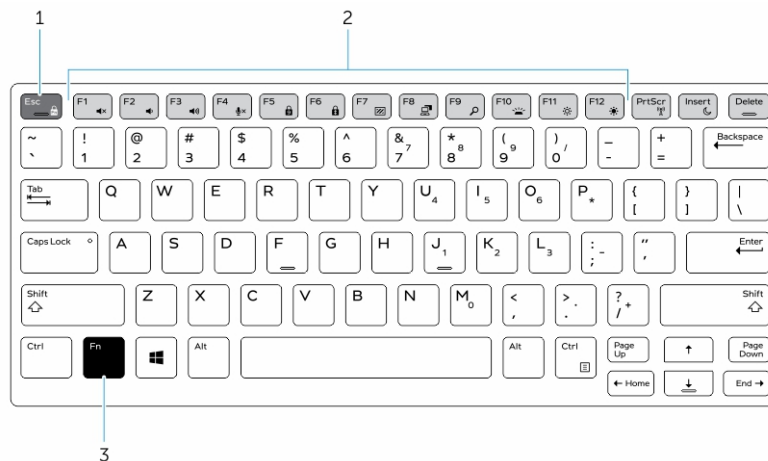


Figure 5. Fn key callouts

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.

Stealth Mode

Latitude fully rugged products come equipped with a Stealth mode. Stealth mode allows you to turn off the Display, all the LED lights, internal speakers, the fan and all wireless radios with a single key combination.

NOTE: This mode is aimed at using the computer in covert operations. When the stealth mode is activated, the computer remains functional but will not emit any light or sound.

Topics:

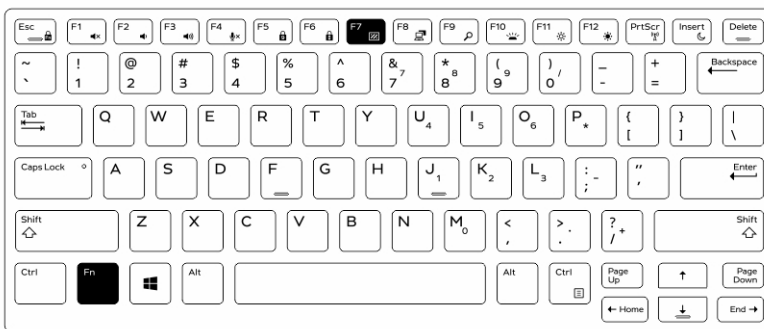
- [Turning stealth mode on/off](#)
- [Disabling Stealth Mode in the System Setup \(BIOS\)](#)

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)

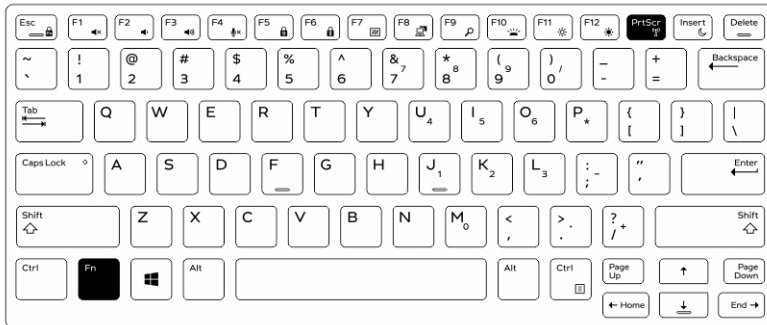
1. Power off the computer.
2. Power on the computer and at the Dell logo, tap the <F2> key repeatedly to bring up the **System Setup** menu.
3. Expand and open the **System Configuration** menu.
4. Select **Stealth Mode Control**.

NOTE: Stealth mode is enabled by default.

5. Select **Disable** to disable the stealth mode.
6. When complete, **Apply** changes and **Exit** the BIOS or system setup.

Enabling and Disabling Wireless (WiFi) Feature

1. To enable wireless network, press the <Fn>+ <PrtScr> keys.
2. Press the <Fn> +< PrtScr> keys again to disable wireless networking.



Smart Cards

There are two main types of Smart or Common Access Cards (CAC):

1. Enclosed Smart Cards — These cards have a contact area with many gold plated connection pads. When inserted into a card reader, the information from the chip can be read and written

Insert the card into the smart card slot with the gold contact pad facing upward and pointing toward the smart card slot. Slide the card into the slot until it is fully seated in its connector.

2. Contactless Smart Cards — These cards do not require any physical contact with the reader. The chip communicates with the card reader through RFID induction technology.

These cards require only close proximity to an antenna of a card reader to complete transactions.

Specifications



 **NOTE:** Offerings may vary by region. For more information regarding the configuration of your computer, click Start (Start icon) > Help and Support, and then select the option to view information about your computer. 

Table 1. System Information

Feature	Specification
Chipset	Intel Mobile Express Series 6 chipset
DRAM bus width	64-bit
Flash EPROM	SPI 32 Mbits
PCIe Gen1 bus	100 MHz

Table 2. Processor

Feature	Specification
Types	<ul style="list-style-type: none"> • Intel Core i3 series • Intel Core i5 series • Intel Core i7 series
L3 cache	up to 4 MB
External bus frequency	1600 MHz

Table 3. Memory

Feature	Specification
Memory connector	two SODIMM slots
Memory capacity	4 GB, or 8 GB
Memory type	DDR3 SDRAM 1600 Mhz
Minimum memory	4 GB
Maximum memory	16 GB

Table 4. Audio

Feature	Specification
Type	four-channel high definition audio
Controller	Realtek ALC3226
Stereo conversion	24-bit (analog-to-digital and digital-to-analog)
Interface:	
Internal	HD audio
External	microphone-in/stereo headphones/external speakers connector
Speakers	one mono speaker
Internal speaker amplifier	2W (RMS)
Volume controls	Volume Up/Volume Down buttons

CAUTION: Excessive sound pressure from earphones or headphones can cause hearing damage or loss. Adjustment of the volume control as well as the equalizer to settings other than the center position may increase the earphone or headphones output voltage, and therefore the sound pressure level. The use of factors influencing the earphones or headphones output other than those specified by the manufacturers (e.g. operating system, equalizer software, firmware, driver etc.) may increase the earphones or headphones output voltage and therefore the sound pressure level. The use of earphones and headphones other than those specified by the manufacturer may lead to heightened sound pressure level.

Table 5. Video

Feature	Specification
Type	integrated on system board
Controller	
UMA	
Intel Core i3/i5	Intel HD Graphics 4400
Intel Core i7	Intel HD Graphics 5000
Discrete (Optional)	Nvidia GeForce (N14M-GE) Discrete Graphics Card, 2 GB Graphics

Table 6. Communications

Feature	Specification
Network adapter	10/100/1000 MB/s Ethernet (RJ-45)
Wireless	WLAN with Bluetooth 4.0 WWAN

Table 7. Ports and Connectors

Feature	Specification
Audio (optional)	one microphone/stereo headphone/speaker connector
Video	<ul style="list-style-type: none"> one 15-pin VGA connector one 19-pin HDMI connector
Network adapter	one RJ-45 connector (second optional)
USB 2.0	two 4-pin USB 2.0 compliant connector
USB 3.0	<ul style="list-style-type: none"> one 9-pin USB 3.0 compliant connector one 9-pin USB 3.0 compliant connector with PowerShare
Memory card reader	one SD card reader
Expansion card	<ul style="list-style-type: none"> one ExpressCard reader optional PCMCIA reader (replaces ExpressCard reader)
Serial	one DB9 serial connector (second optional)
Docking port	one
Subscriber Identity Module (SIM) port	one micro-SIM slot with security feature

Table 8. Display

Feature	Specification
Type	WLED display
Size	14.0 inches
Dimensions:	
Height	190.00 mm (7.48 inches)

Feature	Specification
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
Operating angle	0° (closed) to 180°
Refresh rate	60 Hz
Minimum Viewing angles:	
Horizontal	· +/- 70° for HD
Vertical	· +/- 70° for HD
Pixel pitch	1875 mm

Table 9. Keyboard

Feature	Specification
Number of keys	84 keys: US English, Thai, French-Canadian, Korean, Russian, Hebrew, English-International
Layout	QWERTY/AZERTY/Kanji

Table 10. Touchpad

Feature	Specification
Active Area:	
X-axis	99.5 mm
Y-axis	53 mm

Table 11. Battery

Feature	Specification
Type	6–cell or 9–cell “smart” lithium ion
Dimensions:	
Height	21 mm (0.82 inches)
Width	166.9 mm (6.57 inches)
Depth	80 mm (3.14 inches)
Weight	6–cell : 365.5 g (0.80 lbs) ; 9–cell : 520 g (1.14 lbs)
Voltage	14.8 VDC
Life span	300 discharge/charge cycles
Temperature range:	
Operating	<ul style="list-style-type: none"> · Charging : 0 °C to 60 °C (32 °F to 140 °F) · Discharging: 0 °C to 70 °C (32 °F to 158 °F)
Non-Operating	-51 °C to 71 °C (-60 °F to 160 °F) i NOTE: The battery pack is capable of safely withstanding the above storage temperatures with 100% charge. i 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	3V CR2032 lithium coin cell

Table 12. AC Adapter

Type	65 W/90 W
Input voltage	100 VAC to 240 VAC
Input current (maximum)	1.5A / 1.7A
Input frequency	50 Hz to 60 Hz
Output power	65 W/90 W
Output current	3.34 A/4.62 A(continuous)
Rated output voltage	19.5 +/- 1.0 VDC
Temperature range:	
Operating	0 °C to 40 °C (32 °F to 104 °F)
Non-Operating	-40 °C to 70 °C (-40 °F to 158 °F)

Table 13. Auto-air Adapter

Type	90 W
Input voltage	11 VDC to 16 VDC
Input current (maximum)	9.0 A
Output power	90 W
Output current	4.86 A(continuous)
Rated output voltage	19.5 +/- 1.0 VDC
Temperature range:	
Operating	0 °C to 35 °C (32 °F to 95 °F)

Table 14. Physical

Feature	Specification
Height	44 mm (1.73 inches)
Width	347 mm (13.66 inches)
Depth	243 mm (9.57 inches)
Weight	6.5 lbs (2.95 kg)

Table 15. Environmental

Feature	Specification
Temperature:	
Operating	-29 °C to 63 °C (-20 °F to 140 °F)
Storage	-51 °C to 71 °C (-60 °F to 160 °F))
Relative humidity (maximum):	
Operating	10 % to 90 % (non condensing)
Storage	5 % to 95 % (non condensing)
Altitude (maximum):	
Operating	-15.24 m to 4572 (-50 ft to 15,000 ft)3048 2000 (-50 ft to 10,000 ft 6560 ft)
Non-Operating	1-15.24 m to 4572 (-50 ft to 15,000 ft)
Airborne contaminant level	G1 as defined by ISA-71.04-1985

Topics:

- [Information para NOM \(únicamente para México\)](#)


Information para NOM (únicamente para México)

The following information is provided on the device described in this document in compliance with the requirements of the official Mexican standards (NOM).

Table 16. NOM Information

Voltaje de alimentación	100 VAC – 240 VAC
Frecuencia	50 Hz – 60 Hz
Consumo eléctrico	1,5 A/1,7 A
Voltaje de salida	19,50 V de CC
Intensidad de salida	3,34 A/4,62 A

Contacting Dell

 **NOTE:** If you do not have an active internet connection, you can find the 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:

Go to **Dell.com/contactdell**.