Precision 7550

Setup and specifications guide

Regulatory Model: P93F
Regulatory Type: P93F001
May 2021
Rev. A05

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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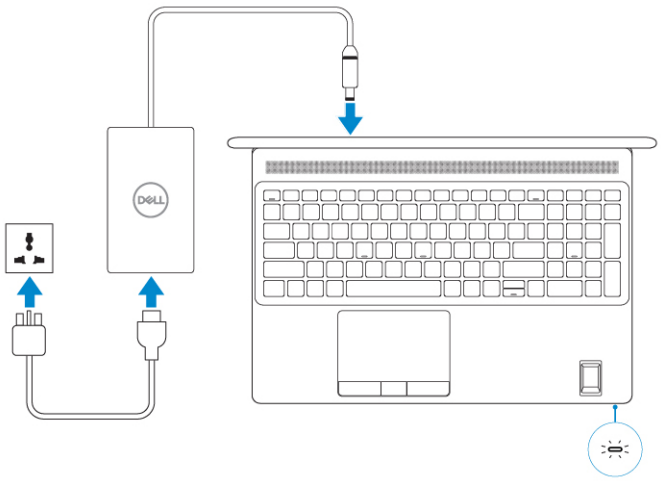
Contents

1

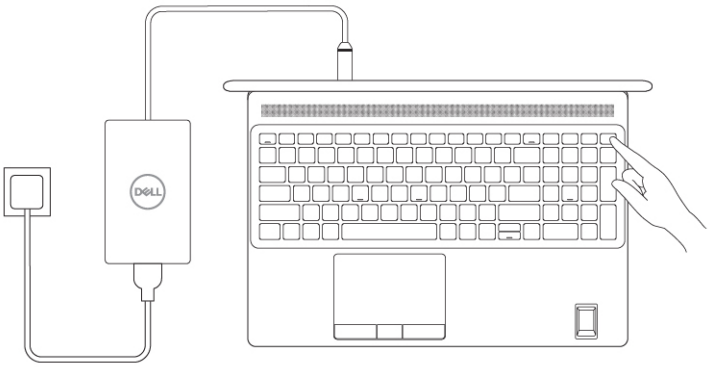
Set up your computer

Steps

1. Connect the power cable.



2. Press the power button.



3. Finish Windows system setup.

   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.

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

Table 1. Locate Dell apps

Dell apps	Details
	**Dell Product Registration** Register your computer with Dell.
	**Dell Help & Support** Access help and support for your computer.
	**SupportAssist** Proactively checks the health of your computer's hardware and software. **NOTE:** Renew or upgrade your warranty by clicking the warranty expiry date in SupportAssist.
	**Dell Update** Updates your computer with critical fixes and important device drivers as they become available.
	**Dell Digital Delivery** Download software applications including software that is purchased but not preinstalled on your computer.

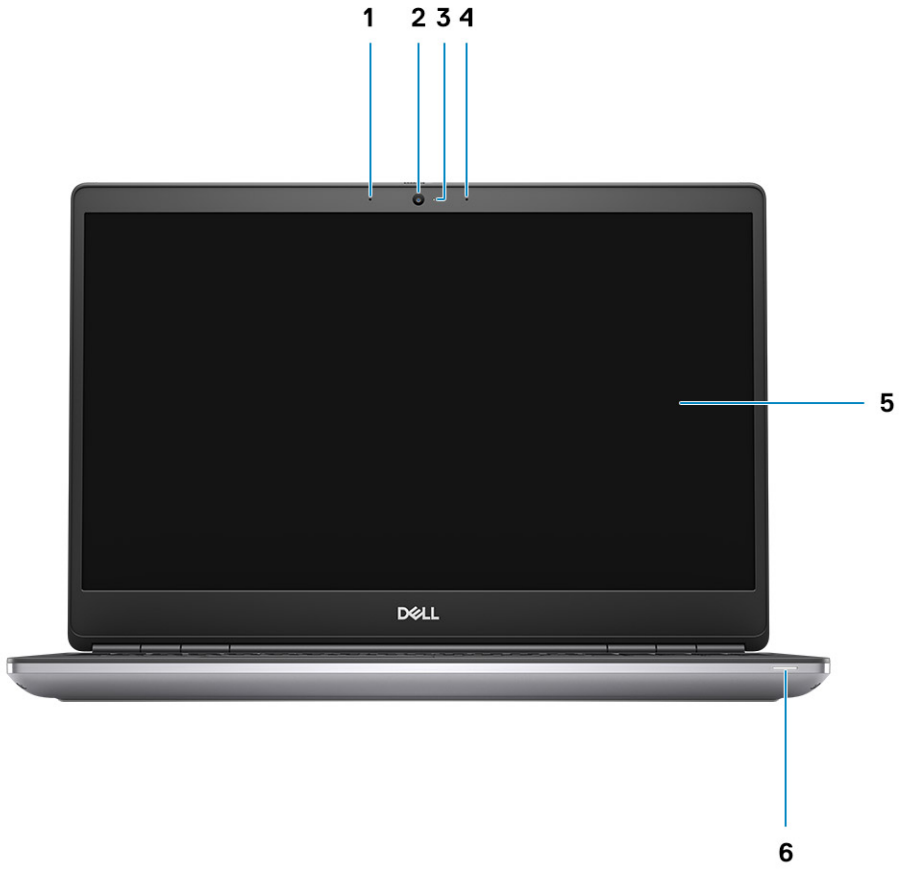
2

Chassis overview

Topics:

Display view

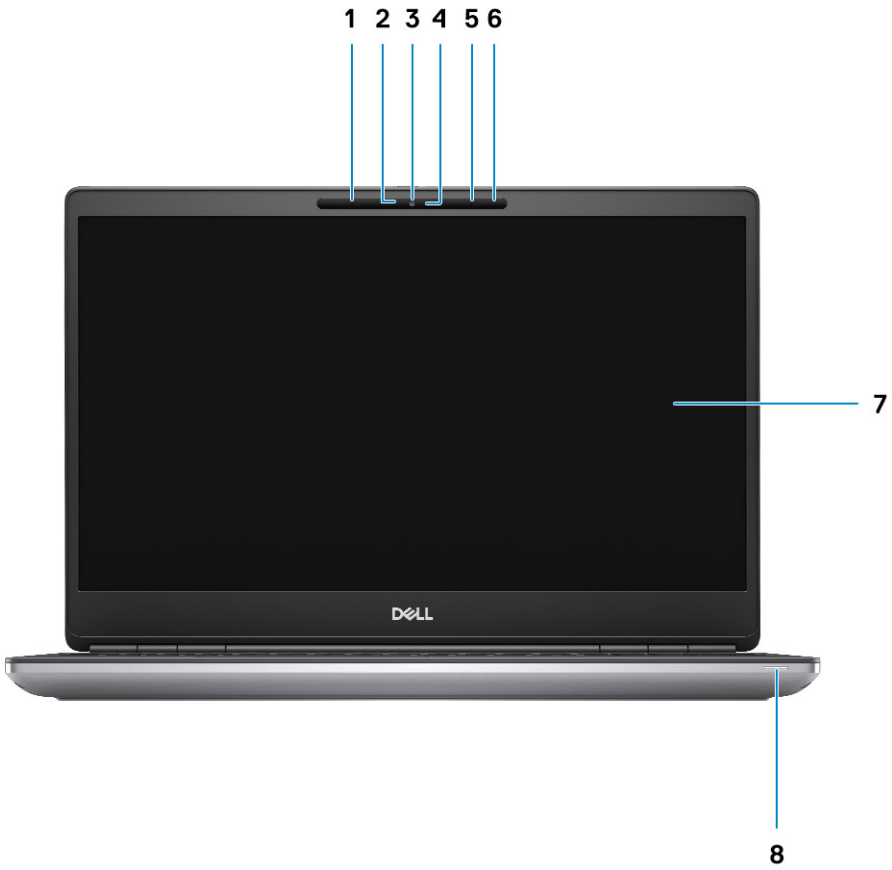
Display view with RGB camera



1. Microphone
2. Camera
3. Camera LED
4. Microphone
5. Display

6. Battery status light

Display view with IR camera



1. Microphone
2. IR camera sensor
3. Camera
4. Camera LED
5. Microphone
6. Proximity sensor
7. Display
8. Battery status light

Right view

1. SD card reader
2. Headset/Microphone port
3. USB 3.2 Gen 1 Type-A port
4. USB 3.2 Gen 1 Type-A port with PowerShare
5. Wedge-shaped lock slot

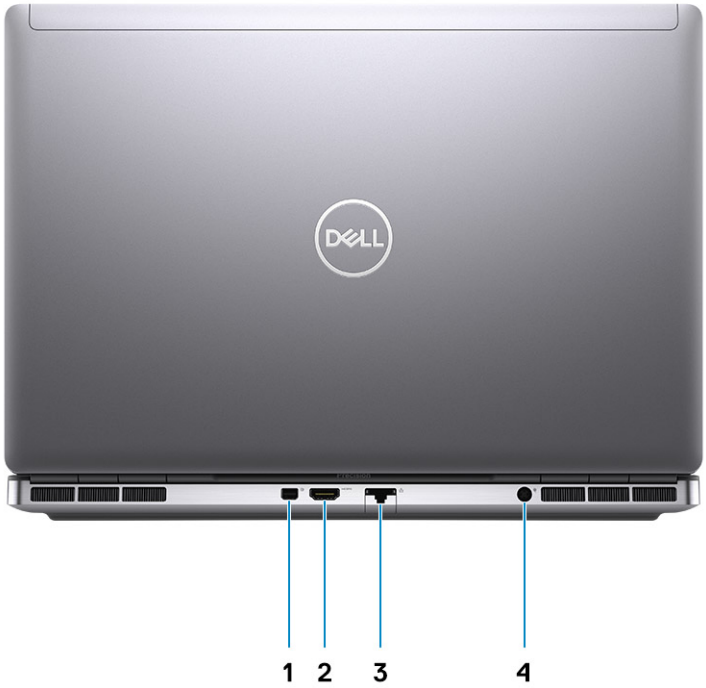
Left view

1. USB 3.2 Gen 2 Type-C Thunderbolt 3 port
2. USB 3.2 Gen 2 Type-C Thunderbolt 3 port
3. Smart card-reader (optional)

Palmrest view

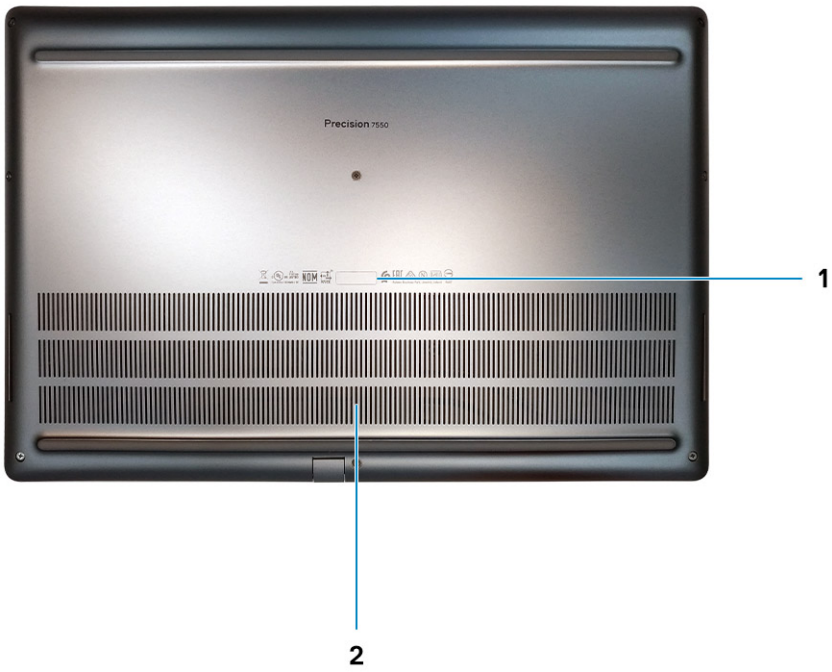
1. Camera shutter
2. Power button with optional fingerprint reader
3. Touchpad

Back view



1. Mini DisplayPort 1.4
2. HDMI 2.0 port
3. Network port
4. Power adapter port

Bottom view



1. Service tag label
2. Fan vent

Keyboard shortcuts

NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys that are used for shortcuts remain the same across all language configurations.

Table 2. List of keyboard shortcut keys (continued)

Hot keys	Function
Fn+ESC - Fn Lock	Allows the user to toggle between **locked** and **unlocked** Fn keys.
Fn+F1 - Audio Volume Mute	Temporarily mutes/unmutes the audio. The audio level before muting is returned after unmuting.
Fn+F2 – Audio Volume Down/Decrease	Decreases the audio volume until minimum/off is reached.
Fn+F3 – Audio Volume Up/Increase	Increases the audio volume until maximum is reached.
Fn+F4 – Microphone Mute	Silences the on-board microphone so it cannot record audio. There is an LED on the F4 function key that notifies the user of the state of this feature:

Table 2. List of keyboard shortcut keys

Hot keys	Function
	• LED off = microphone capable of recording audio • LED on = microphone muted and unable to record audio
Fn+F5—KB Illumination/Backlight	Determines the Keyboard Illumination/Backlight brightness level. The hot key cycles through the following brightness states when pressed: Disabled, Dim, Bright. For more detail, see Keyboard Illumination/Backlight section.
Fn+F6—Brightness Decrease	Decreases the stepping of LCD brightness for each press until minimum is reached. For details, see the LCD Brightness section.
Fn+F7—Brightness Increase	Increases the stepping of LCD brightness for each press until maximum is reached. For details, see the LCD Brightness section.
Fn+F8 – LCD and Projector display	Determines video output to LCD and external Video devices when attached and displays present.
Fn+F9 – Scroll Lock	Used as Scroll Lock key.
Fn+F10 – Print screen	It is used as Print Screen key
Fn+F11 - Home	It is used as Home key.
Fn+F12 - End	It is used as End key
Fn+RightCtrl – Context Menu	It is used as Context Menu key. (a.k.a. Right-Click menu)
Fn+Up arrow	It is used to scroll page up.
Fn+Down arrow	It is used to scroll page down.
Fn+B – Pause/Break	It is used as Pause/Break key. Specifically, Fn+B = Pause and Fn+Ctrl+B = Break.

3

Technical specifications

NOTE: Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information about the configuration of your computer, go to Help and Support in your Windows operating system and select the option to view information about your computer.

Topics:

Processors

Table 3. Processors

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics
10th Generation Intel Core i5-10400H, vPro	45 W	4	8	2.60 GHz to 4.60 GHz	8 MB	Intel UHD Graphics 630
10th Generation Intel Core i7-10750H	45 W	6	12	2.60 GHz to 5.0 GHz	12 MB	Intel UHD Graphics 630
10th Generation Intel Core i7-10850H, vPro	45 W	6	12	2.70 GHz to 5.1 GHz	12 MB	Intel UHD Graphics 630
10th Generation Intel Core i7-10875H, vPro	45 W	8	16	2.30 GHz to 5.10 GHz	16 MB	Intel UHD Graphics 630

Table 3. Processors

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics
10th Generation Intel Core i9-10885H, vPro	45 W	8	16	2.40 GHz to 5.30 GHz	16 MB	Intel UHD Graphics 630
Intel Xeon W-10855M, vPro	45 W	6	12	2.80 GHz to 5.10 GHz	12 MB	Intel UHD Graphics P630
Intel Xeon W-10885M, vPro	45 W	8	16	2.40 GHz to 5.30 GHz	16 MB	Intel UHD Graphics P630

Chipset

Table 4. Chipset

Description	Values
Chipset	Intel WM490
Processor	10th Generation Intel Core i5/i7/i9/Xeon
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen3

Operating system

Your Precision 7550 supports the following operating systems:

- Windows 10 Home (64-bit)
- Windows 10 Professional (64-bit)
- Windows 10 Enterprise (64-bit)
- Windows 10 Pro Education (64-bit)
- Windows 10 Pro China (64-bit)
- Windows 10 Pro for Workstations (64-bit)
- Red Hat Enterprise Linux 8.2 (Certification Only)
- Ubuntu 18.04 SP1

Memory

The following table lists the memory specifications of your Precision 7550:

Table 5. Memory specifications

Description	Values
Slots	Four-SODIMM slots
Type	Dual channel DDR4
Speed	2666 MHz, 2933 MHz, 3200 MHz

Table 5. Memory specifications (continued)

Description	Values
Maximum memory	128 GB
Minimum memory	8 GB
Memory size per slot	4 GB, 8GB, 16 GB, 32 GB
Configurations supported	• 8 GB, 1 x 8 GB, DDR4, 2666 MHz, ECC, SODIMM • 16 GB, 1 x 16 GB, DDR4, 2666 MHz, ECC, SODIMM • 16 GB, 2 x 8 GB, DDR4, 2666 MHz, ECC, SODIMM • 32 GB, 1 x 32 GB, DDR4, 2666 MHz, ECC, SODIMM • 32 GB, 2 x 16 GB, DDR4, 2666 MHz, ECC, SODIMM • 32 GB, 4 x 8 GB, DDR4, 2666 MHz, ECC, SODIMM • 64 GB, 4 x 16 GB, DDR4, 2666 MHz, ECC, SODIMM • 128 GB, 4 x 32 GB, DDR4, 2666 MHz, ECC, SODIMM • 8 GB, 1 x 8 GB, DDR4, 2933 MHz, ECC, SODIMM • 16 GB, 1 x 16 GB, DDR4, 2933 MHz, ECC, SODIMM • 16 GB, 2 x 8 GB, DDR4, 2933 MHz, ECC, SODIMM • 32 GB, 1 x 32 GB, DDR4, 2933 MHz, ECC, SODIMM • 32 GB, 2 x 16 GB, DDR4, 2933 MHz, ECC, SODIMM • 32 GB, 4 x 8 GB, DDR4, 2933 MHz, ECC, SODIMM • 64 GB, 4 x 16 GB, DDR4, 2933 MHz, ECC, SODIMM • 128 GB, 4 x 32 GB, DDR4, 2933 MHz, ECC, SODIMM • 8 GB, 1 x 8 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 16 GB, 1 x 16 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 16 GB, 2 x 8 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 32 GB, 1 x 32 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 32 GB, 2 x 16 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 32 GB, 4 x 8 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 64 GB, 4 x 16 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 128 GB, 4 x 32 GB, DDR4, 2933 MHz, Non-ECC, SODIMM • 8 GB, 1 x 8 GB, DDR4, 3200 MHz SuperSpeed, Non-ECC, SODIMM • 16 GB, 1 x 16 GB, DDR4, 3200 MHz SuperSpeed, Non-ECC, SODIMM • 16 GB, 2 x 8 GB, DDR4, 3200 MHz SuperSpeed, Non-ECC, SODIMM • 32 GB, 4 x 8 GB, DDR4, 3200 MHz SuperSpeed, Non-ECC, SODIMM • 64 GB, 4 x 16 GB, DDR4, 3200 MHz SuperSpeed, Non-ECC, SODIMM

Storage

Your computer supports the following configurations:

- M.2 2230, solid-state drive (class 35)
- M.2 2280, solid-state drive (class 40)
- M.2 2280, solid-state drive (class 50)

The primary drive of your computer varies with the storage configuration.

Table 6. Storage specifications

Table 6. Storage specifications

Storage type	Interface type	Capacity
M.2 2230, Gen 3 PCIe x4 NVMe, Class 35 solid-state drive	Gen 3 PCIe NVMe	Up to 256 GB
M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 solid-state drive	Gen 3 PCIe NVMe	Up to 2 TB
M.2 2280, Gen 3 PCIe x4 NVMe, Class 50 solid-state drive	Gen 3 PCIe NVMe	Up to 1 TB
M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SED solid-state drive	Gen 3 PCIe NVMe	Up to 1 TB

Audio and Speaker

The following table lists the audio specifications of your Precision 7550.

Table 7. Audio specifications

Description	Values
Type	4 Channel High Definition Audio
Controller	Realtek ALC3281
Stereo conversion	Supported
Internal interface	High definition audio interface
External interface	Universal Audio Jack
Speakers	2
Internal speaker amplifier	Supported (audio codec integrated)
External volume controls	Keyboard shortcut controls
Speaker output average	2 W
Speaker output peak	2.5 W
Subwoofer output	Not supported
Microphone	Dual-array microphones

Graphics and Video controller

Table 8. Integrated graphics specifications

Controller	External display support	Memory size	Processor
Intel UHD Graphics 630	mDP/HDMI/Type-C	Shared system memory	10th Generation Intel Core i5/i7/i9
Intel UHD Graphics P630	mDP/HDMI/Type-C	Shared system memory	Intel Xeon

Table 9. Discrete graphics specifications

Controller	External display support	Memory size	Memory Type
NVIDIA Quadro T1000	mDP/HDMI/Type-C	4 GB	GDDR6
NVIDIA Quadro T2000	mDP/HDMI/Type-C	4 GB	GDDR6
NVIDIA Quadro RTX3000	mDP/HDMI/Type-C	6 GB	GDDR6
NVIDIA Quadro RTX4000	mDP/HDMI/Type-C	8 GB	GDDR6
NVIDIA Quadro RTX5000	mDP/HDMI/Type-C	16 GB	GDDR6

Media-card reader

The following table lists the media cards supported by your Precision 7550.

Table 10. Media-card reader specifications

Description	Values
Media-card type	1 SD card
Media-cards supported	• Secure Digital (SD) • Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC)
NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.	

Communications

Ethernet

Table 11. Ethernet specifications

Description	Values
Model number	Intel Ethernet Connection I219-LM
Transfer rate	10/100/1000 Mbps

Wireless LAN module

Table 12. Wireless LAN module specifications (continued)

Description	Values
Model number	Intel Wi-Fi 6 AX201
Transfer rate	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz
Wireless standards	• Wi-Fi 802.11a/b/g

Table 12. Wireless LAN module specifications

Description	Values
	• Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6 (WiFi 802.11ax)
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth	Bluetooth 5.1

WWAN module

Table 13. WWAN module specifications

Description	Values
Model number	Qualcomm Snapdragon X20 LTE (DW5821e)
Transfer rate	Up to 1 Gbps DL/150 Mbps UL (Cat 16)
Frequency bands supported	• (1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 32, 38, 39, 40, 41, 42, 43, 46, 66) • HSPA+ (1, 2, 4, 5, 6, 8, 9,19)
Network standards	• LTE FDD/TDD • WCDMA/HSPA+ • GPS/GLONASS/Beidou/Galileo
Host interface	USB 3.2 Gen 1/ USB 2.0
Power supply	DC 3.135 V to 4.4 V, Typical 3.3 V
Antenna connector	• WWAN Main Antenna x 1 • WWAN Diversity Antenna x 1 • 4 x 4 MIMO Antenna x 2

NOTE: WWAN configuration not available with computers with IR camera.

Ports and connectors

Table 14. Ports and connectors

Description	Values
External:	
Network	1 RJ-45 port 10/100/1000 Mbps
USB	• 1 USB 3.2 Gen 1 Type-A port • 1 USB 3.2 Gen 1 Type-A port with PowerShare • 2 USB 3.2 Gen 2 Type-C Thunderbolt 3 ports
Audio	1 Universal audio Jack
Video	1 HDMI 2.0 port, 1 Mini DisplayPort 1.4* UMA with HBR2
Memory card reader	1 SD 6.0

Table 14. Ports and connectors

Description	Values
Smart card reader	1 Smart card reader
Micro Subscriber Identity Module (uSIM) Card	1 Micro SIM card
Power port	DC-in port (7.4 mm standard plug)
Security	1 Wedge-shaped security slot
Internal:	
M.2	• Three PCIe expansion card slots • Two SATA M.2 2280 slot for solid-state drive • Three NVMe M.2 2280 slot for solid-state drive **NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.

Power adapter

Table 15. Power adapter specifications

Description		Values
Type		180 W adapter
Diameter (connector)		7.40 mm
Dimensions (L x W x H)		23 mm x 75 mm x 152 mm (0.91 in. x 2.95 in. x 5.98 in.)
Weight		1.28 lbs/ 0.58 kg
Input voltage		100 VAC x 240 VAC
Input frequency		50 Hz x 60 Hz
Input current (maximum)		2.34 A
Output current (continuous)		9.23 A
Rated output voltage		19.50 VDC
Temperature range:		
	Operating	0°C to 40°C (32°F to 104°F)
	Storage	-40°C to 70°C (-40°F to 158°F)

Battery

Table 16. Battery specifications

Description	Values		
Type	6-cell, 68 WHr, Lithium-ion, ExpressChargeBoost	6-cell, 95 WHr, Lithium-ion, ExpressCharge Boost	6-cell, 95 WHr, Lithium-ion LcL

Table 16. Battery specifications

Description		Values		
Voltage		11.40 VDC	11.40 VDC	11.40 VDC
Weight (maximum)		0.39 Kg (0.86 lb)	0.43 kg (0.95 lb)	0.43 kg (0.95 lb)
Dimensions:				
	Height	10. 3 mm (0.41 in.)	10. 3 mm (0.41 in.)	10. 3 mm (0.41 in.)
	Width	284.00 mm (11.18 in.)	284.00 mm (11.18 in.)	284.00 mm (11.18 in.)
	Depth	76.75 mm (3.02 in.)	76.75 mm (3.02 in.)	76.75 mm (3.02 in.)
Temperature range:				
	Operating	0 °C to 60 °C (32 °F to 140 °F)	0 °C to 60 °C (32 °F to 140 °F)	0 °C to 60 °C (32 °F to 140 °F)
	Storage	–20 °C to 60 °C (-4 °F to 140°F)	–20 °C to 60 °C (-4 °F to 140°F)	–20 °C to 60 °C (-4 °F to 140°F)
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.
Charging time (approximate)		**Express Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 45°C normal express charge[1] • 46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **NOTE:** 0 to 80% RSOC in 60 minutes; 0 to 100% RSOC in 120 minutes **Standard Charge/ Predominately AC User Charge Method** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **Express Charge Boost Charge Method (Fast Charge for Initial 35%)** • 16 - 45°C target charge time from 0 to 35% RSOC is 20mins for Accelerated Charge	**Express Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 45°C normal express charge[1] • 46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **NOTE:** 0 to 80% RSOC in 60 minutes; 0 to 100% RSOC in 120 minutes **Standard Charge/ Predominately AC User Charge Method** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **Express Charge Boost Charge Method (Fast Charge for Initial 35%)** • 16 - 45°C target charge time from 0 to 35% RSOC is 20mins for Accelerated Charge	**Standard Charge/ Predominately AC User Charge Method** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours
Life span (approximate)		300 discharge/charge cycles	300 discharge/charge cycles	1000 discharge/charge cycles
Coin-cell battery		Supported	Supported	Supported

Table 16. Battery specifications

Description	Values		
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.

Dimensions and weight

Table 17. Dimensions and weight

Description	Values
Height:	
Front	25.00 mm (00.98 in.)
Rear	27.36 mm (1.08 in.)
Width	360.00 mm (14.17 in.)
Depth	242.00 mm (9.53 in.)
Weight (starting at)	2.45 kg (5.42 lb) **NOTE:** The weight of your computer depends on the configuration ordered and the manufacturing variability.

Keyboard

Table 18. Keyboard specifications

Description	Values
Type	Standard keyboard
Layout	QWERTY
Number of keys	• United States and Canada: 101 keys • United Kingdom: 102 keys • Japan: 105 keys
Size	X=18.70 mm key pitch Y=18.05 mm key pitch
Shortcut keys	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. **NOTE:** You can define the primary behavior of the function keys (F1–F12) changing **Function Key Behavior** in BIOS setup program.

Touchpad

Table 19. Touchpad specifications

Description		Values
Resolution:		
	Horizontal	1084
	Vertical	984
Dimensions:		
	Horizontal	3.92 inches (99.50 mm)
	Vertical	80 mm (3.15 in.)

Fingerprint reader

The following table lists the fingerprint-reader specifications of your Precision 7550.

Table 20. Fingerprint reader on power button specifications

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	500 / 363 ppi
Fingerprint-reader sensor pixel size	• X: 108 / 76 • Y: 88 / 100
Fingerprint-reader sensor	• Horizontal: 8.40 mm x 6.90 mm • Vertical: 8.40 mm x 5.25 mm

Table 21. Fingerprint reader on palmrest specifications

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	508 dpi
Fingerprint-reader sensor pixel size	360

Display

The following table lists the display specifications of your Precision 7550.

Table 22. Display specifications

Description	Option one	Option two	Option three	Option four	Option five
Display type	15.6 in. Full High Definition (FHD)	15.6 in. Full High Definition (FHD)	15.6 in. Full High Definition (FHD)	15.6 in. Ultra High Definition (UHD)	15.6 in. Ultra High Definition (UHD)
Display-panel technology	WVA (Wide view angle)	WVA (Wide view angle)	WVA (Wide view angle)	HDR400	HDR600

Table 22. Display specifications

Description		Option one	Option two	Option three	Option four	Option five
Display-panel dimensions (active area):						
	Height	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)	193.59 mm (7.62 in.)
	Width	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)	344.16 mm (13.55 in.)
	Diagonal	394.87 mm (15.60 in.)	394.87 mm (15.60 in.)	394.87 mm (15.60 in.)	394.87 mm (15.55 in.)	394.87 mm (15.55 in.)
Display-panel native resolution		1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160	3840 x 2160
Luminance (typical)		220 nits	500 nits	500 nits	500 nits	600 nits
Megapixels		2.07	2.07	2.07	8.29	8.29
Color gamut		45% NTSC	100% DCIP3	100% DCIP3	100% Adobe	100% Adobe
Pixels Per Inch (PPI)		141	141	141	282	282
Contrast ratio (typ)		600:01	600:01	600:01	1500:1	6000:1
Response time (max)		35 ms	35 ms	35 ms	35 ms	35
Refresh rate		60 Hz	60 Hz	60 Hz	60 Hz	60
Horizontal view angle		+/- 80 degrees(min)	+/- 80 degrees(min)	+/- 80 degrees(min)	+/- 80 degrees(min)	+/- 80 degrees(min)
Vertical view angle		+/- 80 degrees(min)	+/- 80 degrees(min)	+/- 80 degrees(min)	+/- 80 degrees(min)	+/- 80 degrees(min)
Pixel pitch		0.18 x 0.18 mm	0.18 x 0.18 mm	0.18 x 0.18 mm	0.090 x 0.090 mm	0.090 x 0.090 mm
Power consumption (maximum)		4.20 W	7.2 W	7.4 W	10 W	18 W
Anti-glare vs glossy finish		Anti-glare	Anti-glare	Anti-glare	Anti-glare	Anti-glare
Touch options		No	No	Yes	No	No

Camera

Table 23. Camera specifications (continued)

Description	Values
Number of cameras	One
Type	There are 2 camera options: • HD RGB camera

Table 23. Camera specifications

Description	Values
	• IR camera
Location	Front camera
Sensor type	Proximity sensor technology
Resolution	
Camera	
Still image	0.92 megapixel
Video	1280 x 720 (HD) at 30 fps
Infrared camera	
Still image	0.30 megapixel
Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle	
Camera	74.9 degrees
Infrared camera	70 degrees

Security

Table 24. Security

Security options	Precision 7550
Trusted Platform Module (TPM) 2.0	Discreet TPM 2.0 IC FIPS-140-2 Certified / TCG Certified, TCG Certificatication for TPM (Trusted Computing Group)
Firmware TPM	Supported
Chassis lock slot and loop support	Yes, wedge-shaped lock slot
Finger print Reader	Two Optional fingerprint reader • on Power button • FIPS fingerprint reader in the palmrest
Optional Security Hardware Authentication Bundles	• Touch Fingerprint Reader (in Power Button) with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification • Contacted Smart Card and Control Vault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification • Touch Fingerprint Reader (in Power Button), Contacted Smart Card, and Control Vault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification • Touch Fingerprint Reader in Power Button, Contacted Smart Card, Contactless Smart Card, NFC, and Control Vault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification • Optional Face IR camera (Windows Hello compliant) with Proximity Sensor

Service and support

NOTE: For more details on Dell Service Plans, see https://www.dell.com/learn/us/en/19/services/warranty-support-services.

Table 25. Warranty

Warranty
3 Years Hardware Service with Onsite/In-Home Service After Remote Diagnosis
4 Years Hardware Service with Onsite/In-Home Service after Remote Diagnosis
5 Years Hardware Service with Onsite/In-Home Service after Remote Diagnosis
3 Years ProSupport with Next Business Day Onsite Service
4 Years ProSupport with Next Business Day Onsite Service
5 Years ProSupport with Next Business Day Onsite Service
3 Years ProSupport Plus with Next Business Day Onsite Service
4 Years ProSupport Plus with Next Business Day Onsite Service
5 Years ProSupport Plus with Next Business Day Onsite Service

Table 26. Accidental damage services

Accidental Damage Services
3 Years Accidental Damage Service
4 Years Accidental Damage Service
5 Years Accidental Damage Service

Computer environment

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

Table 27. 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 (maximum)	-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)

* 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.

4

Software

This chapter details the supported operating systems along with instructions on how to install the drivers.

Topics:

Downloading Windows drivers

Steps

1. Turn on the notebook.
2. Go to **Dell.com/support**.
3. Click **Product Support**, enter the Service Tag of your notebook, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto detect feature or manually browse for your notebook model.

4. Click **Drivers and Downloads**.
5. Select the operating system installed on your notebook.
6. Scroll down the page and select the driver to install.
7. Click **Download File** to download the driver for your notebook.
8. After the download is complete, navigate to the folder where you saved the driver file.
9. Double-click the driver file icon and follow the instructions on the screen.

5

System setup

CAUTION: Unless you are an expert computer user, do not change the settings in the BIOS Setup program. Certain changes can make your computer work incorrectly.

NOTE: Before you change BIOS Setup program, it is recommended that you write down the BIOS Setup program screen information for future reference.

Use the BIOS Setup program for the following purposes:

- Get information about the hardware installed in your computer, such as the amount of RAM and the size of the hard drive.
- Change the system configuration information.
- Set or change a user-selectable option, such as the user password, type of hard drive installed, and enabling or disabling base devices.

Topics:

Boot menu

Press <F12> when the Dell logo appears to initiate a one-time boot menu with a list of the valid boot devices for the system. Diagnostics and BIOS Setup options are also included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

The options are:

- **UEFI Boot Devices**:
  - Windows Boot Manager
  - UEFI Hard Drive
  - Onboard NIC (IPV4)
  - Onboard NIC (IPV6)
- **Pre-Boot Tasks**:
  - BIOS Setup
  - Diagnostics
  - BIOS Update
  - SupportAssist OS Recovery
  - BIOS Flash Update - Remote
  - Device Configuration

Navigation keys

NOTE: For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.

Keys	Navigation
Up arrow	Moves to the previous field.

Keys	Navigation
Down arrow	Moves to the next field.
Enter	Selects a value in the selected field (if applicable) or follow the link in the field.
Spacebar	Expands or collapses a drop-down list, if applicable.
Tab	Moves to the next focus area.
Esc	Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that prompts you to save any unsaved changes and restarts the system.

Boot Sequence

Boot sequence enables you to bypass the System Setup–defined boot device order and boot directly to a specific device (for example: optical drive or hard drive). During the Power-on Self-Test (POST), when the Dell logo appears, you can:

- Access System Setup by pressing F2 key
- Bring up the one-time boot menu by pressing F12 key.

The one-time boot menu displays the devices that you can boot from including the diagnostic option. The boot menu options are:

- Removable Drive (if available)
- STXXXX Drive

  NOTE: XXXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

  NOTE: Choosing **Diagnostics**, displays the **SupportAssist diagnostics** screen.

The boot sequence screen also displays the option to access the System Setup screen.

BIOS setup

NOTE: Depending on the tabletlaptop and its installed devices, the items listed in this section may or may not appear.

Overview

Table 28. Overview

Option	Description

System Information	This section lists the primary hardware features of your computer.
	The options are:
	• **System Information**
	  ○ BIOS version
	  ○ Service Tag
	  ○ Asset Tag
	  ○ Manufacture Date
	  ○ Ownership Date
	  ○ Express Service Code
	  ○ Ownership Tag
	  ○ Signed Firmware Update
	• **Battery**
	  ○ Primary

Table 28. Overview

Option	Description
	○ Battery Level ○ Battery State ○ Health ○ AC Adapter ● **Processor Information** ○ Processor Type ○ Maximum Clock Speed ○ Minimum Clock Speed ○ Current Clock Speed ○ Core Count ○ Processor ID ○ Processor L2 Cache ○ Processor L3 Cache ○ Microcode Version ○ Intel Hyper-Threading Capable ○ 64-Bit Technology ● **Memory Configuration** ○ Memory Installed ○ Memory Available ○ Memory Speed ○ Memory Channel Mode ○ Memory Technology ○ DIMM_Slot 1 ○ DIMM_Slot 2 ● **Device Information** ○ Panel Type ○ Video Controller ○ Video Memory ○ Wi-Fi Device ○ Native Resolution ○ Video BIOS Version ○ Audio Controller ○ Bluetooth Device ○ LOM MAC Address

Boot configuration

Table 29. Boot configuration (continued)

Option	Description
Boot Sequence	Allows you to change the order in which the computer attempts to find an operating system. The options are: ● **Windows Boot Manager** ● **UEFI Hard Drive** ● **Onboard NIC (IPV4)** ● **Onboard NIC (IPV6)** **NOTE:** Legacy Boot mode is not supported on this platform.
Secure Boot	Secure Boot helps ensure your system boots using only validated boot software.

Table 29. Boot configuration

Option	Description
	Enable Secure Boot—By default, this option is disabled. **NOTE:** The system has to be in UEFI boot mode to enable **Enable Secure Boot**.
Secure Boot Mode	Changes to the Secure Boot operation mode modifies the behavior of Secure Boot to allow evaluation of UEFI driver signatures. The options are: • **Deployed Mode**—By default, this option is enabled. • **Audit Mode**
Expert Key Management	Allows you to enable or disable Expert Key Management. **Enable Custom Mode**—By default, this option is disabled. The Custom Mode Key Management options are: • **PK**—By default, this option is enabled. • **KEK** • **db** • **dbx**

Integrated Devices

Table 30. Integrated device options

Option	Description
Date/Time	Allows you to set the date and time. The change to the system date and time takes effect immediately.
Camera	Allows you to enable or disable camera. **Enable Camera** - This option is enabled by default.
Audio	Allows you to turn off all integrated audio. By default, the **Enable Audio** option is selected. Allows you to enable or disable the integrated audio or microphone and speaker separately. By default, the Enable Audio option is selected. The options are: • **Enable Microphone** • **Enable Internal Speaker**
USB Configuration	Allows you to enable or disable the internal or integrated USB configuration. The options are: • **Enable USB Boot Support** • **Enable External USB Port** By default, all the options are enabled.

Storage

Table 31. Storage options

Table 31. Storage options

Option	Description
SATA Operation	Allows you to configure the operating mode of the integrated SATA hard drive controller. The options are: • **Disabled** • **AHCI** • **RAID On**—By default, the RAID On option is enabled. **NOTE:** SATA is configured to support RAID mode.
Storage Interface	Allows you to enable or disable various drives on board. The options are: • **M.2 PCIe SSD-1** • **M.2 PCIe SSD-0** By default, all the options are enabled.
SMART Reporting	This field controls whether hard drive errors for integrated drives are reported during system startup. This technology is part of the Self Monitoring Analysis and Reporting Technology (SMART) specification. By default, the **Enable SMART Reporting** option is disabled .
Drive Information	Provides information about drive type and device.

Video

Table 32. Video options

Option	Description
LCD Brightness	Allows you to set the screen brightness when running on battery and AC power. The options are: • **Brightness on battery power** - By default, set to 50. • **Brightness on AC power** - By default, set to 100.
Switchable Graphics	This option enables or disables switchable graphics technology such as NVIDIA Optimus and AMD PowerExpress. It should only be enabled for Windows 7 and later versions of Windows or the Ubuntu OS. This feature is not applicable in other operating system. The Enable Dock Display port enables the docking station or the display port interface to drive an external port displaywhen Switchable Graphics is enabled and running from the integrated graphics controller. The options are: • **Enable Switchable Graphics** - By default • **Graphics special mode** • **Enable Dock Display port**

Connection options

Table 33. Connection

Option	Description
Integrated NIC	Integrated NIC controls the onboard LAN controller. It allows pre-OS and early operating system networking features to use any enabled NICs when UEFI networking protocols are installed and available. The options are: • **Disabled** • **Enabled** • **Enabled with PXE** - This option is enabled by default.
Wireless Device Enable	Allows you to enable or disable the internal wireless devices. The options are: • **WLAN** • **Bluetooth** Both the options are enabled by default.
Enable UEFI Network Stack	Allows you to control the onboard LAN controller. It allows pre-OS and early operating system networking features to use any enabled NICs when UEFI networking protocols are installed and available. **Enable UEFI Network Stack** - This option is enabled by default.

Power management

Table 34. Power Management (continued)

Option	Description
Battery Configuration	Allows the system to run on battery during peak power usage hours. The options are: • **Adaptive**—enabled by default • **Standard** • **ExpressCharge** • **Primarily AC Use** • **Custom** **NOTE:** If Custom Charge is selected, you can also configure Custom Charge Start and Custom Charge Stop.
Advanced Configuration	This option enables you to maximize the battery health. By default, the **Enable Advanced Battery Charge Mode** option is disabled. **NOTE:** The user can charge battery using feature **Beginning of Day** and **Work Period**. By default, **Work Period** is disabled. Use ExpressCharge for accelerated battery charging.
Peak Shift	Allows the system to run on battery during peak power usage hours. **Peak Shift** - By default, this option is disabled. **NOTE:** The user can:

Table 34. Power Management

Option	Description
	• Set **Battery Threshold** Min = 15, Max = 100 • Prevent AC power between certain times of the day using **Peak Shift Start**, **Peak Shift End**, and **Peak Shift Charge Start**.
Thermal Management	Allows cooling of fans and the processor heat management to adjust system performance, noise, and temperature. The options are: • **Optimized**—enabled by default • **Cool** • **Quiet** • **Ultra Performance**
USB Wake Support	**Enable USB Wake Support** — Allows you to enable USB devices to wake the system from standby mode. By default, the option **Enable USB Wake Support** is disabled. **Wake on Dell USB-C Dock** — Allows you to connect a Dell USB-C Dock to wake the system from standby mode. By default, the option **Wake on Dell USB-C Dock** is enabled. **NOTE:** These features are only functional when the AC power adapter is connected. If the AC power adapter is removed before Standby, the BIOS removes power from all USB ports to conserve battery power.
Block Sleep	This option enables you to block entering to sleep (S3) mode in operating system environment. By default, the **Block Sleep** option is disabled. **NOTE:** When Block Sleep is enabled, the system does not go to sleep. Intel Rapid Start gets disabled automatically, and the operating system power option remains blank if it was set to Sleep.
Lid Switch	Allows you to disable the lid switch. The options are: • **Enable Lid Switch**—enabled by default • **Power On Lid Open**—enabled by default
Intel Speed Shift technology	Allows you to enable or disable the Intel Speed Shift Technology support. By default,**Intel Speed Shift technology** is enabled. Enabling this option allows the operating system to select appropriate processor performance.

Security

Table 35. Security

Option	Description
TPM 2.0 Security	Allows you to enable or disable the Trusted Platform Module (TPM). The options are: • **TPM 2.0 Security On**—This option is enabled by default. • **PPI Bypass for Enable Commands** • **PPI Bypass for Disable Commands** • **PPI Bypass for Clear Command** • **Attestation Enable**—This option is enabled by default. • **Key Storage Enable**—This option is enabled by default.

Table 35. Security (continued)

Option	Description
	• **SHA-256**—This option is enabled by default. • **Clear** • **TPM State**—This option is enabled by default.
Intel Software Guard Extensions	Provides a secure environment for running code or storing sensitive information in the context of the main operating system and sets enclave reserve memory size. **Intel SGX** The options are: • **Disabled** • **Enabled** • **Software Control**—This option is enabled by default.
SMM Security Mitigation	Allows you to enable or disable additional UEFI SMM Security Mitigation protection. **SMM Security Mitigation** - By default, this option is enabled.
Data Wipe on Next Boot	Allows BIOS to queue up data wipe cycle for storage devices connected to the motherboard on the next reboot. **Start Data Wipe** - By default, this option is disabled. **NOTE:** Secure Wipe operation deletes information in a way that it cannot be reconstructed.
Absolute	This field allows you to Enable, Disable, or Permanently Disable the BIOS module interface of the optional Absolute Persistence Module service from Absolute® Software. The options are: • **Enable Absolute**—This option is enabled by default. • **Disable Absolute** • **Permanently Disable Absolute**
UEFI Boot Path Security	Controls whether the system prompts the user to enter the admin password (if set) when booting to a UEFI boot path device from the F12 boot menu. The options are: • **Never** • **Always** • **Always Except Internal HDD**—This option is enabled by default. • **Always Except Internal HDD&PXE**

Password

Table 36. Security

Option	Description
Admin Password	Allows you to set, change, or delete the administrator (admin) password. The entries to set password are: • **Enter the old password:** • **Enter the new password:** Press **Enter** once you enter the new password and again press **Enter** to confirm the new password. **NOTE:** Deleting the admin password deletes the system password (if set). The admin password can also be used to delete hard drive password. For this reason, you cannot set an admin password if a system password or hard drive password is set. Hence, an admin

Table 36. Security (continued)

Option	Description
	password has to be set first if the admin password has to be used with system password and/or hard drive password.
System Password	Allows you to set, change, or delete the system password. The entries to set password are: • **Enter the old password:** • **Enter the new password:** Press **Enter** once you enter the new password and again press **Enter** to confirm the new password.
Password Configuration	Allows you to configure a password. **Upper Case Letter** — When enabled, this field reinforces password must contain at least one upper capital letter. **Lower Case Letter** — When enabled, this field reinforces password must contain at least one lower capital letter. **Digit** — When enabled, this field reinforces password must contain at least one-digit number. **Special Character** — When enabled, this field reinforces password must contain at least one special character. **NOTE:** These options by default are disabled. **Minimum Characters** — Defines the number of characters allowed for a password. Min = 4
Password Bypass	Allows you to bypass the System password and the Internal hard drive password, when it is set, during a system restart. The options are: • **Disabled**—This option is enabled by default. • **Reboot bypass**
Password Changes	Allows you to change the system password and hard drive password without the need of administrator password. **Enable Non-Admin Password Changes** - By default, this option is disabled.
Admin Setup Lockout	Allows the administrator to control how the user can access BIOS setup. **Enable Admin Setup Lockout** - By default, this option is disabled. **NOTE:** • If the admin password is set and **Enable Admin Setup Lockout**is enabled, you cannot view the BIOS setup (using F2 or F12) without the admin password. • If the admin password is set and **Enable Admin Setup Lockout**is disabled, the BIOS setup can be entered and items that are viewed in Locked mode.
Master Password Lockout	Allows you to disable master password support. **Enable Master Password Lockout** - By default, this option is disabled. **NOTE:** The Hard Disk password has to be cleared before the settings can be changed.

Update and Recovery

Table 37. Update and recovery

Option	Description
UEFI Capsule Firmware Updates	Allows you to update the system BIOS through UEFI capsule update packages. **Enable UEFI Capsule Firmware Updates** - By default, this option is enabled.
BIOS Recovery from Hard Drive	Allows you to recover BIOS on the primary hard drive or USB drive in corrupted conditions. **BIOS Recovery from Hard Drive** - By default, this option is enabled. **NOTE:** BIOS Recovery from hard drives is not available for Self-Encrypting Drives (SED).
BIOS Downgrade	Allows you to control flashing of the system firmware to previous versions. **Allow BIOS Downgrade** - By default, this option is enabled.
SupportAssist OS Recovery	Allows you to enable or disable the boot flow for SupportAssist OS Recovery if there are certain system errors. **SupportAssist OS Recovery** - By default, this option is enabled. **NOTE:** If **SupportAssist OS Recovery** setup option is disabled, then all the automatic boot flow for SupportAssist OS Recovery tool is disabled.
BIOSConnect	Allows you to recover cloud service operating system if the main operating system and/or local service operating system fails to boot with the number of failures equal to or greater than the value specified by the Auto operating system Recovery Threshold setup. **BIOSConnect** - By default, this option is enabled.
Dell Auto OS Recovery Threshold	The Auto OS Recovery threshold setup options control the automatic flow for SupportAssist System Resolution Console and for Dell OS Recovery Tool. The options are: • **Off** • **1** • **2** - Default • **3**

System management

Table 38. System management (continued)

Option	Description
Service Tag	Displays the service tag of your computer.
Asset Tag	An Asset Tag is a string of 64 characters that are used by IT administrator to uniquely identify a particular system. On an asset tag is set, it cannot be changed.
AC Behavior	Allows you to enable or disable the computer from turning on automatically when an AC adapter is connected. **Wake on AC** By default, this option is disabled.
Auto On Time	This setting allows a system to automatically power on for defined days/time. The options are: • **Disabled** - This option is enabled by default.

Table 38. System management

Option	Description
	• **Every Day** • **Weekdays** • **Select Days**

Keyboard

Table 39. Keyboard (continued)

Option	Description
Numlock Enable	Allows you to enable or disable Numlock function when the system boots. **Enable Numlock** This option is enabled by default.
Fn Lock Options	Allows you to change the function key settings. **Fn Lock Mode** This option is enabled by default. The options are: • **Lock Mode Standard** • **Lock Mode Secondary**- This option is enabled by default.
Keyboard Illumination	Allows you to set keyboard illumination settings using hotkeys <Fn>+<F5> during normal system operation. The options are: • **Disabled** • **Dim** • **Bright**- This option is enabled by default. **NOTE:** The keyboard illumination brightness is set at 100%.
Keyboard Backlight Timeout on AC	This feature defines the timeout value for the keyboard backlight when an AC adapter is plugged in the system. The options are: • **5 seconds** • **10 seconds** - This option is enabled by default. • **15 seconds** • **30 seconds** • **1 minute** • **5 minutes** • **15 minutes** • **Never** **NOTE:** If **Never** is selected, the backlight stays on always when the system has AC adapter plugged in.
Keyboard Backlight Timeout on Battery	This feature defines the timeout value for the keyboard backlight when the system is running only on battery power. The options are: • **5 seconds** • **10 seconds** - This option is enabled by default. • **15 seconds** • **30 seconds**

Table 39. Keyboard

Option	Description
	• **1 minute** • **5 minutes** • **15 minutes** • **Never** **NOTE:** If **Never** is selected, the backlight stays on always when the system is running on battery power.

Pre-boot behavior

Table 40. Pre-boot behavior

Option	Description
Adapter Warnings	This option displays warning messages during boot when adapters with little power capacity are detected. • **Enable Adapter Warnings**—enabled by default
Warnings and Errors	This option causes the boot process to only pause when warnings and errors are detected rather than stop, prompt, and wait for user input. This feature is useful where the system is being remotely managed. Select one of the following options: • **Prompt on Warnings and Errors**—enabled by default • **Continue on Warnings** • **Continue on Warnings and Errors** **NOTE:** Errors deemed critical to the operation of the system hardware always stop the system.
USB-C Warnings	This option enables or disables dock warning messages. **Enable Dock Warning Messages** — enabled by default.
Fastboot	This option allows you to configure the speed of UEFI boot process. Select one of the following options: • **Minimal** • **Thorough**—enabled by default • **Auto**
Extend BIOS POST Time	This option allows you to configure the BIOS POST load time. Select one of the following options: • **0 seconds**—enabled by default. • **5 seconds** • **10 seconds**
Mouse/Touchpad	This option defines how the system handles mouse and touchpad input. Select one of the following options: • **Serial Mouse** • **PS/2 Mouse** • **Touchpad and PS/2 Mouse**—enabled by default.

Virtualization support

Table 41. Virtualization Support

Option	Description
Intel Virtualization Technology	This option specifies whether the system can run on a Virtual Machine Monitor (VMM). By default, the **Enable Intel Virtualization Technology (VT)** option is enabled.
VT for Direct I/O	This option specifies whether the system can perform Virtualization technology for direct I/O; an Intel method for virtualization for memory map I/O. By default, the **Enable Intel VT for Direct I/O** option is enabled.

Performance

Table 42. Performance

Option	Description
Multi Core Support	This field specifies whether the process has one or all cores enabled. The default value is set to maximum number of cores. • **All Cores**— This option is enabled by default. • **1** • **2** • **3**
Intel SpeedStep	This feature allows the system to dynamically adjust processor voltage and core frequency, decreasing average power consumption and heat production. **Enable Intel SpeedStep** This option is enabled by default.
C-States Control	This feature allows you to enable or disable the CPU's ability to enter and exit low-power states. **Enable C-state control** This option is enabled by default.
Intel Turbo Boost Technology	This option allows you to enable or disable the Intel TurboBoost mode of the processor. **Enable Intel Turbo Boost Technology** This option is enabled by default.
Intel Hyper-Threading Technology	This option allows you to enable or disable the HyperThreading in the processor. **Enable Intel Hyper-Threading Technology** This option is enabled by default.

System logs

Table 43. System Logs

Option	Description
BIOS Event Log	Allows you to either keep and clear the BIOS event log. **Clear BIOS Event Log**

Table 43. System Logs (continued)

Option	Description
	The options are: • **Keep** - This option is enabled by default. • **Clear**
Thermal Event Log	Allows you to either keep and clear the Thermal event log. **Clear Thermal Event Log** The options are: • **Keep** - This option is enabled by default. • **Clear**
Power Event Log	Allows you to either keep and clear the Power event log. **Clear Power Event Log** The options are: • **Keep** - This option is enabled by default. • **Clear**

Updating the BIOS in Windows

Prerequisites

It is recommended to update your BIOS (System Setup) when you replace the system board or if an update is available. For laptops, ensure that your computer battery is fully charged and connected to a power before initiating a BIOS update.

About this task

NOTE: If BitLocker is enabled, it must be suspended prior to updating the system BIOS, and then re enabled after the BIOS update is completed.

Steps

1. Restart the computer.
2. Go to **Dell.com/support**.
   - Enter the **Service Tag** or **Express Service Code** and click **Submit**.
   - Click **Detect Product** and follow the instructions on screen.
3. If you are unable to detect or find the Service Tag, click **Choose from all products**.
4. Choose the **Products** category from the list.

   NOTE: Choose the appropriate category to reach the product page.

5. Select your computer model and the **Product Support** page of your computer appears.
6. Click **Get drivers** and click **Drivers and Downloads**.
   The Drivers and Downloads section opens.
7. Click **Find it myself**.
8. Click **BIOS** to view the BIOS versions.
9. Identify the latest BIOS file and click **Download**.
10. Select your preferred download method in the **Please select your download method below** window, click **Download File**.
    The **File Download** window appears.
11. Click **Save** to save the file on your computer.
12. Click **Run** to install the updated BIOS settings on your computer.
    Follow the instructions on the screen.

Updating BIOS on systems with BitLocker enabled

CAUTION: If BitLocker is not suspended before updating the BIOS, the next time you reboot the system it will not recognize the BitLocker key. You will then be prompted to enter the recovery key to progress and the system will ask for this on each reboot. If the recovery key is not known, this can result in data loss or an unnecessary operating system reinstall. For more information about this subject, see Knowledge Article: Updating the BIOS on Dell Systems With BitLocker Enabled

Updating your system BIOS using a USB flash drive

About this task

If the system cannot load into Windows, but there is still a need to update the BIOS, download the BIOS file using another system and save it to a bootable USB Flash Drive.

NOTE: You will need to use a bootable USB flash drive. Please refer to the following article for further details How to Create a Bootable USB Flash Drive using Dell Diagnostic Deployment Package (DDDP)

Steps

1. Download the BIOS update .EXE file to another system.
2. Copy the file e.g. O9010A12.EXE onto the bootable USB flash drive.
3. Insert the USB flash drive into the system that requires the BIOS update.
4. Restart the system and press F12 when the Dell splash logo appears to display the One Time Boot Menu.
5. Using arrow keys, select **USB Storage Device** and click **Enter**.
6. The system will boot to a Diag C:\> prompt.
7. Run the file by typing the full filename, for example, O9010A12.exe and press **Enter**.
8. The BIOS Update Utility will load. Follow the instructions on screen.

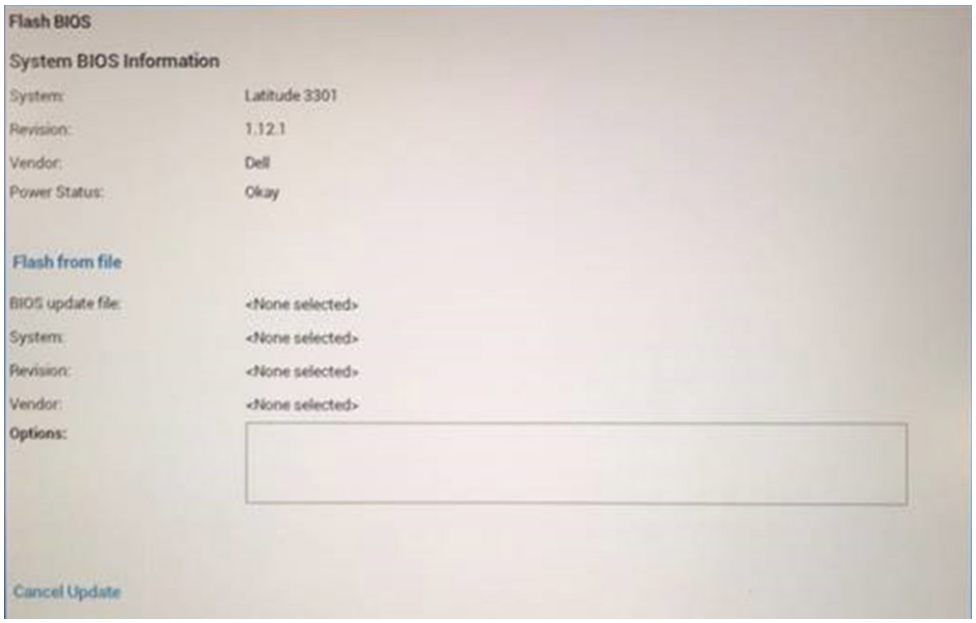


Figure 1. DOS BIOS Update Screen

System and setup password

Table 44. System and setup password

Table 44. System and setup password

Password type	Description
System password	Password that you must enter to log on to your system.
Setup password	Password that you must enter to access and make changes to the BIOS settings of your computer.

You can create a system password and a setup password to secure your computer.

CAUTION: The password features provide a basic level of security for the data on your computer.

CAUTION: Anyone can access the data stored on your computer if it is not locked and left unattended.

NOTE: System and setup password feature is disabled.

Assigning a system setup password

Prerequisites

You can assign a new **System or Admin Password** only when the status is in **Not Set**.

About this task

To enter the system setup, press F2 immediately after a power-on or reboot.

Steps

1. In the **System BIOS** or **System Setup** screen, select **Security** and press **Enter**.
   The **Security** screen is displayed.
2. Select **System/Admin Password** and create a password in the **Enter the new password** field.
   Use the following guidelines to assign the system password:
   - A password can have up to 32 characters.
   - The password can contain the numbers 0 through 9.
   - Only lower case letters are valid, upper case letters are not allowed.
   - Only the following special characters are allowed: space, (”), (+), (,), (-), (.), (/), (;), ([), (\), (]), (`).
3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
4. Press **Esc** and a message prompts you to save the changes.
5. Press **Y** to save the changes.
   The computer reboots.

Deleting or changing an existing system setup password

Prerequisites

Ensure that the **Password Status** is Unlocked (in the System Setup) before attempting to delete or change the existing System and Setup password. You cannot delete or change an existing System or Setup password, if the **Password Status** is Locked.

About this task

To enter the System Setup, press **F2** immediately after a power-on or reboot.

Steps

1. In the **System BIOS** or **System Setup** screen, select **System Security** and press **Enter**.
   The **System Security** screen is displayed.
2. In the **System Security** screen, verify that **Password Status** is **Unlocked**.

3. Select **System Password**, alter or delete the existing system password and press **Enter** or **Tab**.
4. Select **Setup Password**, alter or delete the existing setup password and press **Enter** or **Tab**.

   NOTE: If you change the System and/or Setup password, re enter the new password when prompted. If you delete the System and Setup password, confirm the deletion when prompted.

5. Press **Esc** and a message prompts you to save the changes.
6. Press **Y** to save the changes and exit from System Setup.
   The computer restarts.

6

Getting help

Topics:

- Contacting Dell

Contacting Dell

Prerequisites

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.

About this task

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:

Steps

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.