Precision 5540

Setup and Specifications

Regulatory Model: P56F
Regulatory Type: P56F003
May 2022
Rev. A07

DELL Technologies

Notes, cautions, and warnings

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

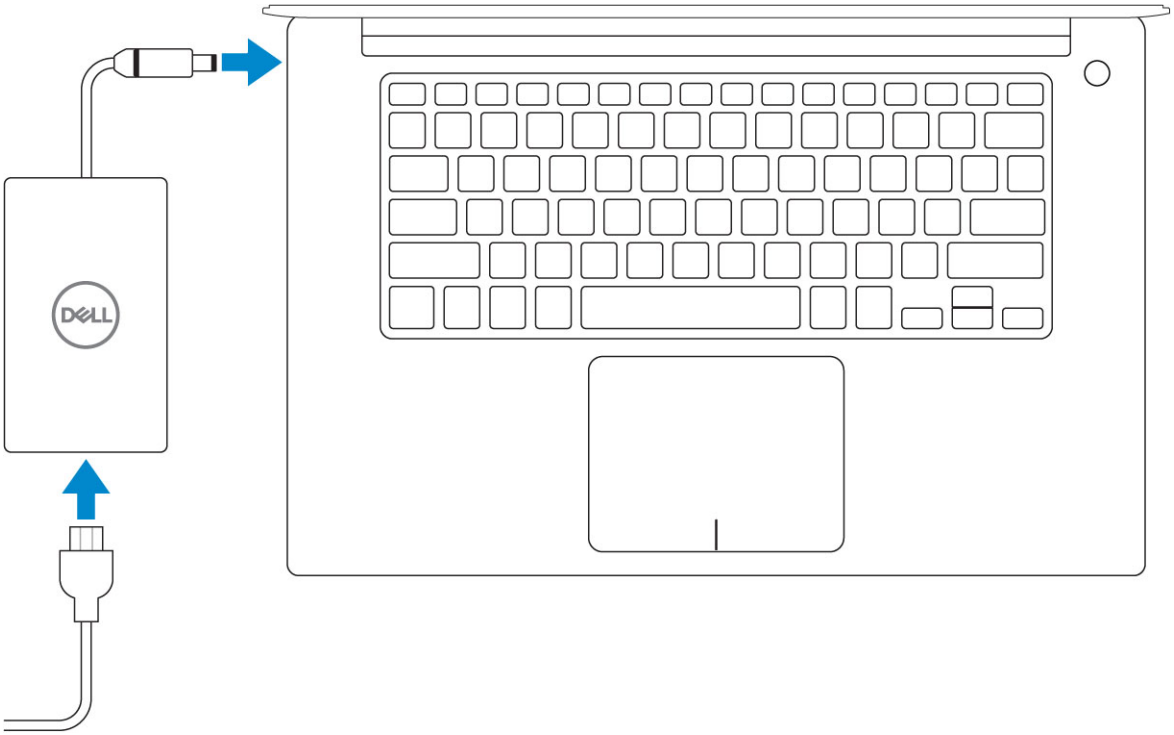
CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

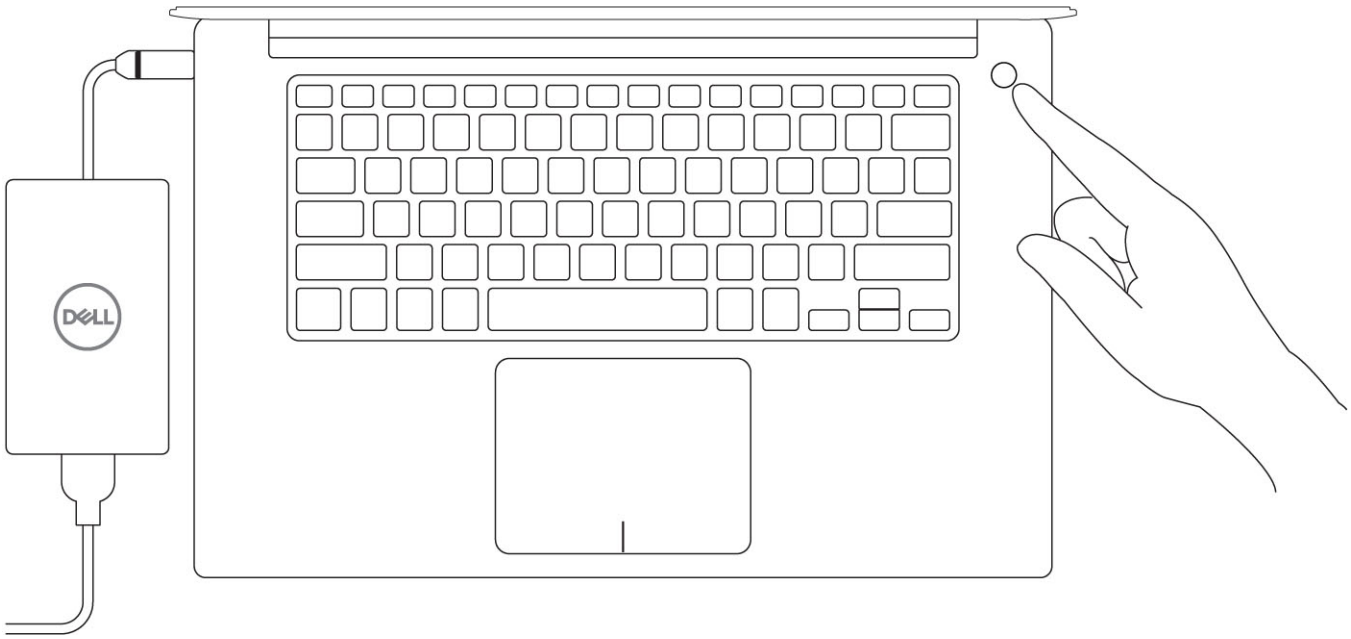
1

Set up your computer

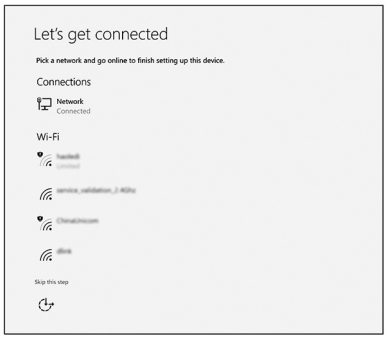
1. Connect the power adapter.



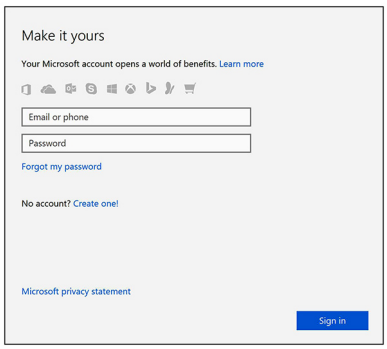
2. Press the power button.



3. Follow the instructions on the screen to finish Windows setup:
   a. Connect to a network.

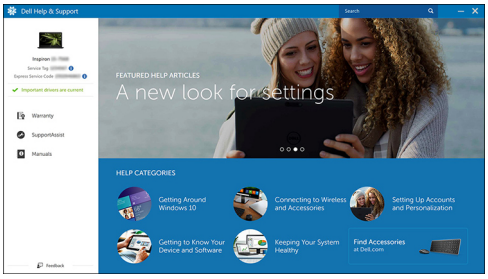


b. Sign-in to your Microsoft account or create a new account.



4. Locate Dell apps.

Table 1. Locate Dell apps

	Register your computer
	Dell Help & Support 
	SupportAssist — Check and update your computer

2

Chassis

This chapter illustrates the multiple chassis views along with the ports and connectors and also explains the FN hot key combinations.

Topics:

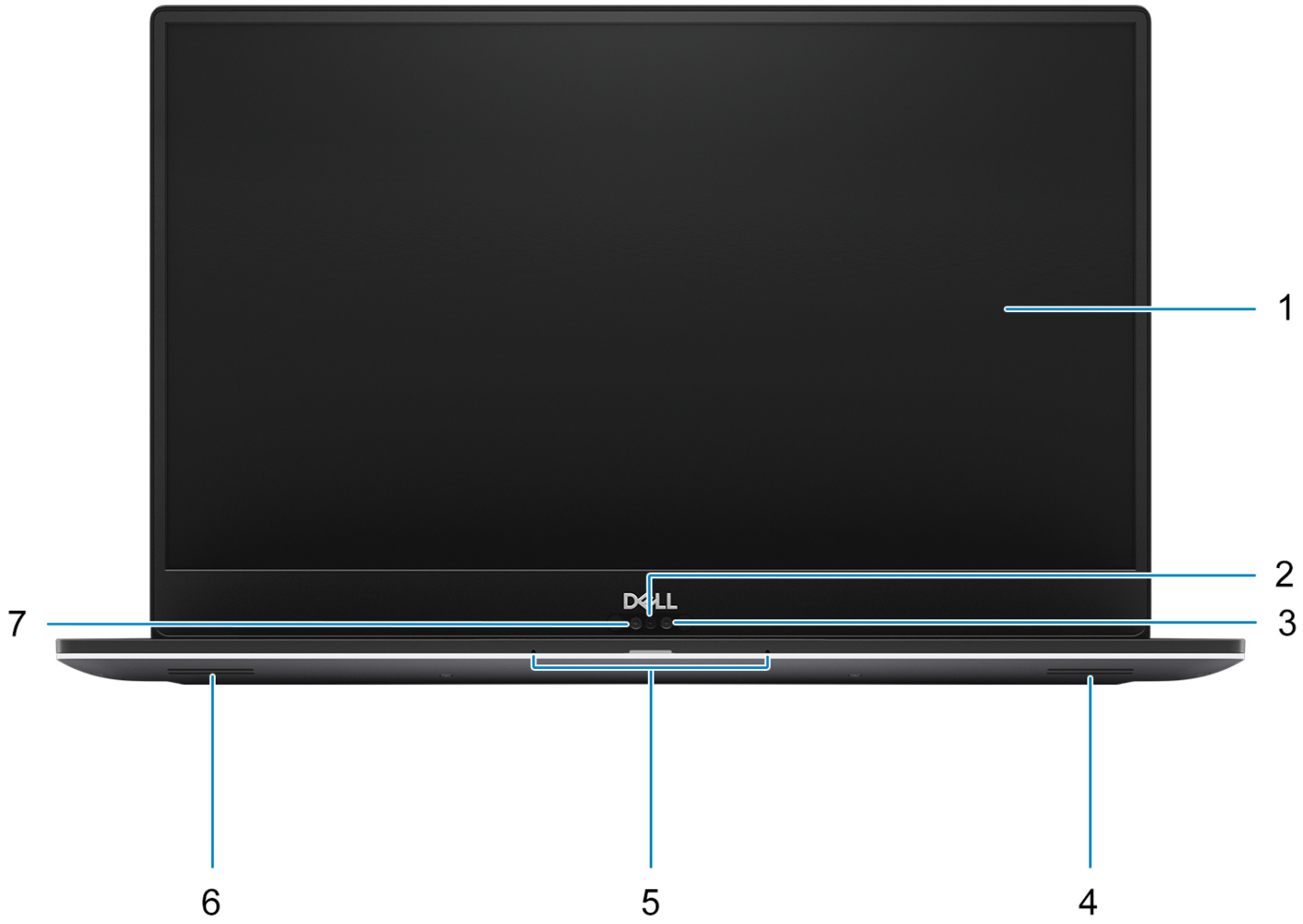
- System overview
- Hot key combinations

System overview

Front view

1. Power button with light indicator/Power button with fingerprint reader without light indicator (optional)
2. Keyboard
3. Palmrest
4. Touchpad

Front open view



1. Display
2. Camera-status light
3. Infrared camera
4. Right speaker
5. Microphones
6. Left speaker
7. HD camera

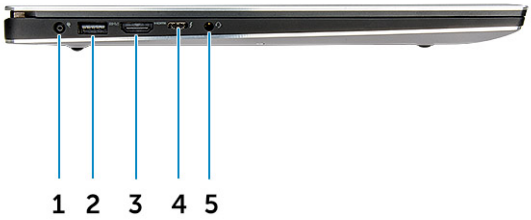


Figure 1. Left view

1. Power connector port
2. USB 3.1 Gen 1 port with PowerShare
3. HDMI port
4. Thunderbolt 3 Type-C port
5. Headset port

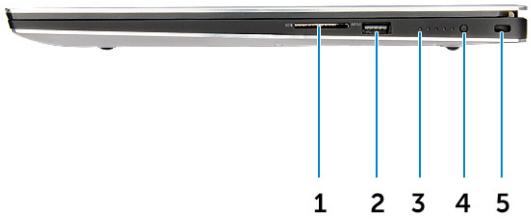


Figure 2. Right view

1. Memory card reader
2. USB 3.1 Gen 1 port with PowerShare
3. Battery-charge status lights
4. Battery-charge status button
5. Noble wedge security slot

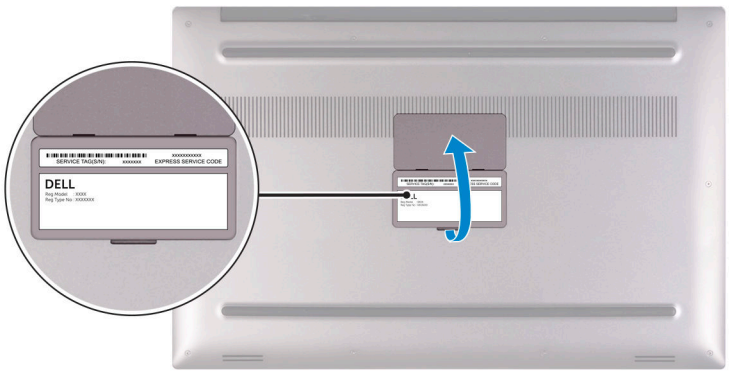


Figure 3. Bottom view

1. Service tag label
2. Regulatory label

Hot key combinations

Keyboard shortcuts

Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press

shift and the key, the symbol shown on the upper part of the key is typed out. For example, if you press 2, 2 is typed out; if you press Shift+ 2, @ is typed out.

The keys F1-F12 at the top row of the keyboard are function keys for multi-media control, as indicated by the icon at the bottom of the key. Press the function key to invoke the task represented by the icon. For example, pressing F1 mutes the audio (refer to the table below).

However, if the function keys F1-F12 are needed for specific software applications, multi-media functionality can be disabled by pressing Fn + Esc. Subsequently, multi-media control can be invoked by pressing Fn and the respective function key. For example, mute audio by pressing Fn + F1.

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

Table 2. Hot key combinations

Fn key combination	Description
Fn+ F1	Speaker Mute
Fn+ F2	Volume Down
Fn+ F3	Volume Up
Fn+ F4	Play previous track/chapter
Fn+ F5	Play/Pause
Fn+ F6	Play next track/chapter
Fn+ F7	Task view
Fn+ F8	Display Toggle (Win + P)
Fn+ F9	Search
Fn+ F10	Increase Keyboard Back light Brightness (optional)
Fn+ F11	Panel Brightness Down
Fn+ F12	Panel Brightness Up

Table 2. Hot key combinations (continued)

Fn key combination	Description
Fn+ PrtScr	Wireless

Table 3. Keyboard shortcuts

Function key	Behavior
Fn+B	Pause/break
Fn+S	Toggle scroll lock
Fn+R	System request
Fn+Ctrl	Open application menu
Fn+Esc	Toggle Fn-key lock

3

Engineering specifications

This chapter lists out the specification of each and every component in a comprehensive format. Specific features/models/configurations/options discussed in the document may or may not be available.

Topics:

- Processor specifications
- Physical specifications
- BIOS defaults
- Communication specifications
- Memory
- Video specifications
- Audio specifications
- Display specifications
- Keyboard specifications
- Camera
- Touchpad specifications
- Power supply specifications
- Power adapter
- Battery
- Storage specifications
- Port and connector specifications

Processor specifications

NOTE: Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.

Table 4. Processor specifications

Processor Type	Values
Intel Core Processor i9-9980HK	8 Core, 16MB Cache, 2.40GHz up to 5.00GHz Turbo, 45W
Intel Core Processor i9-9880H	8 Core, 16MB Cache, 2.30GHz up to 4.80GHz Turbo, 45W, vPro
Intel Xeon Processor E-2276M	6 Core, 12M Cache, 2.80GHz up to 4.70GHz Turbo, 45W, vPro
Intel Core Processor i7-9850H	6 Core, 12M Cache, 2.60GHz up to 4.6GHz Turbo, 45W, vPro
Intel Core Processor i7-9750H	6 Core, 12M Cache, 2.60GHz up to 4.5GHz Turbo, 45W
Intel Core Processor i5-9400H	4 Core, 8M Cache, 2.50GHz up to 4.3GHz Turbo, 45W, vPro

Physical specifications

Table 5. Dimensions and weight

Features	Specification
Height	11.2 mm (0.44 in)
Width	357 mm (14.06 in)

Table 5. Dimensions and weight (continued)

Features	Specification
Depth	235 mm (9.26 in)
Weight	1.8 kg (3.97 lb) **NOTE:** The weight of your computer depends on the configuration ordered and the manufacturing variability.

BIOS defaults

Table 6. BIOS defaults

System Configuration	SATA Operation	RAID On
	Drives	SATA-0, SATA-1, and M.2 PCIe SSD-0
	SMART Reporting	Disabled
	USB Configuration	Default Enabled: Enable Boot Support, Enabled Thunderbolt Ports; Always Allow Dell Docks; Enabled External USB Port , Security level- User Authorization
	USB PowerShare	Disabled
	Audio	Enabled, microphone enabled, and Internal speaker enabled
	Keyboard Illumination	Bright
	Miscellaneous Devices	Camera enabled, SD card enabled
Video	LCD Brightness	AC 100%, DC 50%
Performance	Multiple Core Support:	All
	Intel SpeedStep™:	Enabled
	C States Control:	Enabled
	Intel TurboBoost	Enabled
Virtualization Support	Virtualization	Enabled
	VT for Direct I/O:	Enabled
	Trusted Execution	Disabled
Security	Password	
	Password Configuration	Min=4, Max=32
	Password Bypass	Disabled
	Password Change	Permitted
	Non-Admin Setup Changes	Disabled
	UEFI Capsule Firmware Updates	Enabled
	TPM 2.0 Security	Enabled
	Computrace	Deactivate

Table 6. BIOS defaults (continued)

	CPU XD Support	Enabled
	OROM Keyboard Access	Enabled
	Admin Setup Lockout	Disabled
	Master Password Lockout	Disabled
SupportAssist System Resolution	Auto OS Recovery Threshold	2
	SupportAssist OS Recovery	Enabled

Communication specifications

Table 7. Communication specifications

Features	Specifications
Network adapter	Ethernet via USB-to-Ethernet Dongle (Optional)
Wireless	• Intel Wi-Fi 6 AX200 2x2 .11ax 160MHz + Bluetooth 5.0 • Intel Wireless-AC 9260 2x2 802.11ac + BT5.0 (vPro) • Qualcomm QCA6174A 2x2 802.11ac + BT5.0 • Bluetooth 5.0

Memory

Table 8. Memory specifications

Memory type	2x DDR4 SoDIMM
Memory capacity per slot	up to 32 GB
Memory speed	2666 MHz
Minimum memory	8 GB
Maximum memory	64 GB
DIMM configurations	• 8 GB x 1 • 4 GB x 2 • 16 GB x 1 • 8 GB x 2 • 16 GB x 2 • 32 GB x2

Video specifications

Table 9. Video

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support
Integrated Intel UHD 630	GFX	Intel HD GFX	Integrated	Shared system memory	HDMI 2.0
Nvidia Quadro T1000 w/4GB GDDR5	Discrete	Intel Xeon E-2276M	GDDR5	4 GB	HDMI 2.0

Table 9. Video (continued)

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support
Nvidia Quadro T2000 w/4GB GDDR5	Discrete	Intel Xeon E-2276M	GDDR5	4 GB	HDMI 2.0

Audio specifications

Table 10. Audio specifications

Features	Specification
Controller	Waves MaxxAudio Pro
Type	Integrated
Interface	• High-quality speakers • Dual-array microphones

Display specifications

Table 11. Display specifications

Features	Specification
Type	• UltraSharp FHD IGZO4, 1920x1080, AG, NT, W/Prem Panel Guar, 100% sRGB color gamut, Titan Gray. UltraSharp FHD IGZO4, 1920x1080, AG, NT, w/Prem Panel Guar, 100% sRGB color gamut, Platinum Silver. 15.6" Ultrasharp UHD IGZO4, 3840x2160, Touch, w/Prem Panel Guar, 100% Adobe color gamut, Titan Gray. 15.6" Ultrasharp UHD IGZO4, 3840x2160, Touch, w/Prem Panel Guar, 100% Adobe color gamut, Platinum Silver. 15.6" Ultrasharp OLED UHD, 3840x2160, non-touch, w/ Prem Panel Guar, 100% DCI-P3 color gamut, Titan Gray • 15.6" Ultrasharp OLED UHD, 3840x2160, non-touch, w/ Prem Panel Guar, 100% DCI-P3 color gamut, Platinum Silver. • OLED Panel Active Matrix Organic Light Emitting Diode (AMOLED) panel Color Depth: 8 bit+2 bit FRC Color Gamut: DCI-P3 Typ.100% Response Time: 1ms Interface type: eDP1.4b + PSR2 (4lane) Polarizer type: Anti Glare Display Mode: Wide view angle: 80/80/80/80 for U/D/L/R (Min)
Height (Active area)	• FHD - 194.5 mm (7.66 inches) • UHD - 194.5 mm (7.66 inches)

Table 11. Display specifications (continued)

Features	Specification
Width (Active area)	• FHD - 345.6 mm (13.61 inches) • UHD - 345.6 mm (13.55 inches)
Diagonal	• FHD - 396.52 mm (15.61 inches) • UHD - 396.52 mm (15.61 inches)
Megapixels	• FHD - 2.07 • UHD - 8.29
Pixels Per Inch (PPI)	• FHD - 141 • UHD - 282 • UHD - 3840 x 2160
Contrast ratio	• FHD - 1500:1 • UHD - 1500:1 • OLED - 100,000:1
Refresh rate	60 Hz
Horizontal viewing angle (min)	+/- 89 degrees
Vertical viewing angle (min)	+/- 89 degrees
Pixel pitch	• FHD - 0.18 mm • UHD - 0.09 mm
Power consumption (max)	• 4.22 W (FHD 100% sRGB color gamut) • 9.23 W (UHD Adobe 100% color gamut) • 4.3 W (OLED UHD 100% color gamut, Titan Gray) • 14.8 (OLED UHD 100% color gamut, Platinum Silver)

Keyboard specifications

Table 12. Keyboard specifications

Features	Specification
Number of keys	• 80 (U.S. and Canada) • 81 (Europe) • 84 (Japan)
Size	Full sized • X= 19.05 mm key pitch • Y= 18.05 mm key pitch
Backlit keyboard	Easy enable/disable via hotkey <Fn+F10 Key> variable brightness levels
Layout	QWERTY

Camera

Table 13. Camera specifications

Features	Specification
Resolution	HD Camera: • Still image: 0.92 megapixels • Video: 1280x720 at 30 fps • Infrared camera (optional) • Still image: 0.92 megapixel • Video: 340 x 340 @ 30 fps
Diagonal viewing angle	• Camera - 66 degrees

Touchpad specifications

Table 14. Touchpad specifications

Features	Specifications
Resolution	• Horizontal: 1952 • Vertical: 3220
Dimensions	• Width: 4.03 inches (102.40 mm) • Height: 2.45 inches (62.40 mm)
Multi-touch	Support 5 fingers

Power supply specifications

Table 15. Power supply

Features	Specification
Input Voltage	100 – 240 VAC
Input frequency	50 – 60 Hz
Type	130 W AC Adapter

Power adapter

Table 16. Power adapter specifications

Features	Specification
Type	130W adapter
Input Voltage	100 to 240 VAC
Adapter size	Height:22 mm (0.86 inches) Width:66 mm (2.59 inches) Depth:143 mm (5.62 inches)

Table 16. Power adapter specifications (continued)

Features	Specification
Input frequency	50 Hz to 60 Hz
Output current	130 W - 6.67 A (continuous)
Rated output voltage	19.5 VDC
Temperature range (Operating)	0° to 40° C (32° to 104° F)
Temperature range (Non-Operating)	40° to 70° C (-40° to 158° F)

Battery

NOTE: 97 WHr battery is not available with the 2.5 inch drives.

Table 17. Battery specifications

Features	Specifications
Type	• 56 WHr lithium-ion polymer 3 cell battery • 97 WHr lithium-ion polymer 6 cell battery
Dimension	1. 56 WHr lithium-ion polymer • Length: 223.2 mm (8.79 inch) • Width: 71.8 mm (2.83 inch) • Height: 7.2 mm (0.28 inch) • Weight: 250.00 g (0.55 lb) 2. 97 WHr lithium-ion polymer • Length: 332 mm (13.07 inch) • Width: 96.0 mm (3.78 inch) • Height: 7.7 mm (0.30 inch) • Weight: 450.00 g (0.992 lb)
Weight (maximum)	450.00 g (0.992 lb)
Voltage	• 56 WHr - 11.4 VDC • 97 WHr - 11.4 VDC
Life span	300 discharge/recharge cycles
Charging time when the computer is off (approximate)	4 hours
Operating time	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions
Temperature range: Operating	0°C to 35°C (32°F to 95°F)
Temperature range: Storage	-40°C to 65°C (-40°F to 149°F)
Coin-cell battery	ML1220

Storage specifications

NOTE: The 2.5 inches drives are not available with the 97 WHr battery and are available only on 3 Cell 56 WHr battery configurations

Table 18. Storage specifications

Storage specifications
2.5" 7mm 500GB 7200RPM SATA Hard Drive
2.5" 7mm 500GB 7200RPM SATA FIPS Hard Drive
2.5" 7mm 1TB 7200RPM SATA Hard Drive
2.5" 7mm 2TB 5400RPM SATA Hard Drive
256GB M.2 NVMe PCIe SSD Class 40
512GB M.2 NVMe PCIe SSD Class 40
1TB M.2 NVMe PCIe SSD Class 40
2TB M.2 NVMe PCIe SSD Class 40
512GB M.2 NVMe PCIe SED SSD Class 40
1TB M.2 NVMe PCIe SED SSD Class 40
512GB M.2 NVMe PCIe SSD Class 50
1TB M.2 NVMe PCIe SSD Class 50

Port and connector specifications

Table 19. Ports and connectors

Features	Specification
USB	• Two USB 3.1 Gen 1 ports with PowerShare • One Thunderbolt 3 port (USB 3.1 Gen 2 Type-C) with power delivery
Security	One security-cable slot (wedge-shaped)
Audio	One headset (headphone and microphone combo) port
Video	One HDMI 2.0b port
Memory Card reader	One SD-card slot

4

BIOS 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: Depending on the computer and its installed devices, the items listed in this section may or may not be displayed.

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:

- BIOS overview
- Entering BIOS setup program
- Navigation keys
- One time boot menu
- System Setup Options
- Updating the BIOS
- System and setup password
- Clearing BIOS (System Setup) and System passwords

BIOS overview

The BIOS manages data flow between the computer's operating system and attached devices such as hard disk, video adapter, keyboard, mouse, and printer.

Entering BIOS setup program

1. Turn on your computer.
2. Press F2 immediately to enter the BIOS setup program.

   NOTE: If you wait too long and the operating system logo appears, continue to wait until you see the desktop. Then, turn off your computer and try again.

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.

Table 20. Navigation keys

Keys	Navigation
Up arrow	Moves to the previous field.

Table 20. Navigation keys (continued)

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. **NOTE:** For the standard graphics browser only.
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.

One time boot menu

To enter **one time boot menu**, turn on your computer, and then press F12 immediately.

NOTE: It is recommended to shutdown the computer if it is on.

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 (if available)

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

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

System Setup Options

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

Table 21. Main

Option	Description
System Time/Date	Allows you to set the date and time.
BIOS Version	Displays the BIOS version.
Product Name	Displays the product name. **Dell Precision 5530** (Default Setting)
Service Tag	Displays the service tag.
Asset Tag	Displays the asset tag. **None** (Default Setting)
CPU Type	Displays the CPU type.
CPU Speed	Displays the CPU speed.
CPU ID	Displays the CPU ID.
CPU Cache	Displays the sizes of the CPU caches.

Table 21. Main (continued)

Option	Description
Fixed HDD	Displays the type and size of the HDD.
mSATA Device	Displays the type and size of the mSATA device.
AC Adapter Type	Displays the type of the AC adapter. **None** (Default Setting)
System Memory	Displays the size of the system memory.
Extended Memory	Displays the size of the extended memory.
Memory Speed	Displays the speed of the memory.
Keyboard Type	Displays the type of keyboard. **Backlits** (Default Setting)

Table 22. Advanced

Option	Description
Intel (R) SpeedStep (TM)	Allows you to enable or disable the Intel (R) SpeedStep (TM) feature. **Enabled** (Default Setting)
Virtualization	This option specifies whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization technology. Allows you to enable or disable the Virtualization feature. **Enabled** (Default Setting)
Multi Core Support	Specifies whether the processor will have one or more cores enabled. **All** (Default Setting)
Intel TurboBoost	Enables or disables the Intel TurboBoost mode of the processor. **Enabled** (Default Setting)
C-States Control	This option enables or disables additional processor sleep states. **Enabled** (Default Setting)
Audio	Enables or disables the integrated audio controller. **Enabled** (Default Setting)
Keyboard Illumination	This field lets you choose the operating mode of the keyboard illumination feature. **Disabled** (Default Setting)
USB Configuration	Allows you to configure the integrated USB controller. **Default Enabled**: Enable Boot Support, Enable Thunderbolt Ports; Always Allow Dell Docks; Enable External USB Port
Touchscreen	This field controls whether the touchscreen is enabled or disabled. **Enabled** (Default Setting)
AC Behavior	Allows the system (if OFF or in Hibernate) to power-on automatically when AC is inserted.
Wake On LAN	Allows the computer to power up from the off state when triggered by special LAN. **Disabled** (Default Setting)
Advanced Battery Charge Configuration	Maximizes battery health while still supporting heavy use during the work day. **Disabled** (Default Setting)
Block Sleep	Lets you to block entering to sleep (S3 state) in OS environment. **Disabled** (Default Setting)

Table 22. Advanced (continued)

Option	Description
Auto On Time	Sets the time of day when you would like the system to turn on automatically. **Disabled** (Default Setting)
Peak Shift	Minimizes AC power usage at times of peak demand. **Disabled** (Default Setting)
USB Wake Support	Allows you to enable USB devices to wake the system from Standby. **Enabled** (Default Setting)
LCD Brightness	This options sets the panel brightness independently for Battery and AC power.
USB Emulation	Allows you to enable or disable the USB Emulation feature. **Enabled** (Default Setting)
USB PowerShare	Allows you to enable or disable the USB PowerShare feature. **Enabled** (Default Setting)
USB Wake Support	This option allows you to enable USB devices to wake the system from Standby. **Disable**(Default Setting)
SATA Operation	Displays the SATA Operation information.
Adapter Warnings	Allows you to enable or disable the adapter warnings feature.
Multimedia Key Behaviour	**Function Key** (Default Setting)
Battery Health	Displays the battery health information.
Battery Charge Configuration	**Adaptive** (Default Setting)
Miscellaneous Devices	Allows you enable or disable the various on board devices. The options are: • **External USB Ports** - **Enabled** (Default Setting) • **USB Debug** - **Disabled** (Default Setting)

Table 23. Security

Option	Description
Unlock Setup Status	**Unlocked** (Default Setting)
Admin Password Status	Displays the status of the admin password. Default Setting: **Not set**
System Password Status	Displays the status of the system password. Default Setting: **Not set**
HDD Password Status	Displays the status of the system password. Default Setting: **Not set**
Asset Tag	Allows you to set the asset tag.
Admin Password	Allows you to set, change, or delete the administrator (admin) password. **NOTE:** You must set the admin password before you set the system or hard drive password. **NOTE:** Successful password changes take effect immediately.

Table 23. Security (continued)

Option	Description
	NOTE: Deleting the admin password automatically deletes the system password and the hard drive password. **NOTE:** Successful password changes take effect immediately.
System Password	Allows you to set, change or delete the system password. **NOTE:** Successful password changes take effect immediately.
HDD Password	Allows you to set, change or delete the administrator password.
Strong Password	This field enforces strong passwords that contain at least one uppercase character, one lowercase character, and be at least 8 characters long.
Password Change	Allows you to enable or disable permissions to set a System password and a Hard Drive password when the admin password is set. Default Setting: **Permitted**
Password Bypass	This option lets you bypass the System (Boot) password and the internal HDD password prompts during system re-start. **Disabled** (Default Setting)
Password configuration	These fields control the minimum and maximum number of characters allowed for Admin and System passwords.
Computrace	Allows you to activate or disable the optional Computrace software The options are: • **Deactivate** (Default Setting) • Activate **NOTE:** The Activate and Disable options will permanently activate or disable the feature and no further changes will be allowed.
TPM Security	This option lets you control whether the Trusted Platform Module (TPM) in the system is enabled and visible to the operating system. When disabled the BIOS will not turn On the TPM During POST. The TPM will be non-functional and invisible to the operating system. When enabled, the BIOS will turn On the TPM during POST so that it can be used by the operating system. This option is **Enable** by default. **NOTE:** Disabling this option does not change any settings you may have made to the TPM, nor does it delete or change any information or keys you may have stored there. It simply turns Off the TPM so that it cannot be used. When you re-enable this option, the TPM will function exactly as it did before it was disabled. **NOTE:** Changes to this option take effect immediately.
UEFI Capsule Firmware Updates	This option controls whether this system allows BIOS updates via UEFI capsule update packages. **Enabled** (Default Setting)
CPU XD Support	This option enables or disables the Execute Disable mode for the processor. **Enabled** (Default Setting)
OROM Keyboard Access	This option determines whether users are able to enter Option ROM configuration screens via hotkeys during boot.

Table 24. Boot

Option	Description
Boot List Option	Default Setting: **Legacy**
Secure Boot	This option enables or disables the Secure Boot feature. • **Disabled** (Default Setting) - Windows 10) • Enabled - Windows 10
Load Legacy Option ROM	This option enables or disables the Load Legacy Option ROM feature.

Table 24. Boot (continued)

Option	Description
	• **Enabled** (Default Setting) - Windows 10 • Disabled - Windows 10
Expert Key Management	Expert Key Management allows the PK, KEK, db, and dbx security key databases to be manipulated. **Disabled** (Default Setting)
Intel Software Guard Extensions	Intel SGX Enabled: Enables Intel Software Guard Extensions (SGX) to provide a secured environment for running code/storing sensitive information in the context of the main OS. **Enabled** (Default Setting)
Set Boot Priority	Allows you to change the order in which the computer attempts to find an operating system: • 1 st Boot Priority [CD/DVD/CD-RW Drive] • 2nd Boot Priority [Network] • 3rd Boot Priority [mini SSD] • 4th Boot Priority [USB Storage Device • 5th Boot Priority [Hard Drive] • 6th Boot Priority [Diskette Drive]
Adapter Warnings	Lets you choose whether the system displays warning messages when you use certain power adapters. **Enabled** (Default Setting)
SupportAssist OS Recovery	Enables for disables the boot flow for SupportAssist OS Recovery tool in the event of certain errors. **Enabled** (Default Setting)
Keypad (embedded)	Lets you choose one of two methods to enable the keypad that is embedded in the internal keyboard. Fn Key Only **Enabled** by default.
Fastboot	This option can speed up the boot process by bypassing some compatibility steps. **Minimal** (Default Setting)
Extend BIOS POST Time	Creates an additional pre-boot delay to see POST messages.
Warnings and Errors	This option cause the boot process to only pause when warnings or errors are detected. **Enabled** (Default Setting)
Wireless Switch	Determines which wireless devices can be controlled by the Wireless Switch. WLAN and Bluetooth Enabled (Default Setting)
SupportAssist System Resolution	Auto OS Recovery Threshold: Controls the automatic boot flow for SupportAssist System Resolution Console and for Dell OS Recovery Tool. Setting 2 default

Table 25. Exit

Option	Description
Save Changes and Reset	Allows you to save the changes you made.
Discard Changes and Reset	Allows you to discard the changes you made.
Restore Defaults	Allows you to restore the default options.
Discard Changes	Allows you to discard the changes you made.
Save Changes	Allows you to save the changes you made.

Updating the BIOS

Updating the BIOS in Windows

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 re-install. For more information on this subject, see Knowledge Article: https://www.dell.com/support/article/sln153694

1. Go to www.dell.com/support.
2. Click **Product support**. In the **Search support** box, enter the Service Tag of your computer, and then click **Search**.

   NOTE: If you do not have the Service Tag, use the SupportAssist feature to automatically identify your computer. You can also use the product ID or manually browse for your computer model.

3. Click **Drivers & Downloads**. Expand **Find drivers**.
4. Select the operating system installed on your computer.
5. In the **Category** drop-down list, select **BIOS**.
6. Select the latest version of BIOS, and click **Download** to download the BIOS file for your computer.
7. After the download is complete, browse the folder where you saved the BIOS update file.
8. Double-click the BIOS update file icon and follow the on-screen instructions.
   For more information, see knowledge base article 000124211 at www.dell.com/support.

Updating the BIOS in Linux and Ubuntu

To update the system BIOS on a computer that is installed with Linux or Ubuntu, see the knowledge base article 000131486 at www.dell.com/support.

Updating the BIOS using the USB drive in Windows

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 re-install. For more information on this subject, see Knowledge Article: https://www.dell.com/support/article/sln153694

1. Follow the procedure from step 1 to step 6 in Updating the BIOS in Windows to download the latest BIOS setup program file.
2. Create a bootable USB drive. For more information, see the knowledge base article 000145519 at www.dell.com/support.
3. Copy the BIOS setup program file to the bootable USB drive.
4. Connect the bootable USB drive to the computer that needs the BIOS update.
5. Restart the computer and press **F12** .
6. Select the USB drive from the **One Time Boot Menu**.
7. Type the BIOS setup program filename and press **Enter**.
   The **BIOS Update Utility** appears.
8. Follow the on-screen instructions to complete the BIOS update.

Updating the BIOS from the F12 One-Time boot menu

Update your computer BIOS using the BIOS update.exe file that is copied to a FAT32 USB drive and booting from the F12 One-Time boot menu.

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 re-install. For more information on this subject, see Knowledge Article: https://www.dell.com/support/article/sln153694

BIOS Update

You can run the BIOS update file from Windows using a bootable USB drive or you can also update the BIOS from the F12 One-Time boot menu on the computer.

Most of the Dell computers built after 2012 have this capability, and you can confirm by booting your computer to the F12 One-Time Boot Menu to see if BIOS FLASH UPDATE is listed as a boot option for your computer. If the option is listed, then the BIOS supports this BIOS update option.

NOTE: Only computers with BIOS Flash Update option in the F12 One-Time boot menu can use this function.

Updating from the One-Time boot menu

To update your BIOS from the F12 One-Time boot menu, you need the following:

- USB drive formatted to the FAT32 file system (key does not have to be bootable)
- BIOS executable file that you downloaded from the Dell Support website and copied to the root of the USB drive
- AC power adapter that is connected to the computer
- Functional computer battery to flash the BIOS

Perform the following steps to perform the BIOS update flash process from the F12 menu:

CAUTION: Do not turn off the computer during the BIOS update process. The computer may not boot if you turn off your computer.

1. From a turn off state, insert the USB drive where you copied the flash into a USB port of the computer.
2. Turn on the computer and press F12 to access the One-Time Boot Menu, select BIOS Update using the mouse or arrow keys then press Enter.
   The flash BIOS menu is displayed.
3. Click **Flash from file**.
4. Select external USB device.
5. Select the file and double-click the flash target file, and then click **Submit**.
6. Click **Update BIOS**. The computer restarts to flash the BIOS.
7. The computer will restart after the BIOS update is completed.

System and setup password

Table 26. System and setup password

Password type	Description
System password	Password that you must enter to log in 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 that is 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

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

To enter the system setup, press F12 immediately after a power-on or reboot.

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.
   - At least one special character: ! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [\ ] ^ _ ` { | }
   - Numbers 0 through 9.
   - Upper case letters from A to Z.
   - Lower case letters from a to z.
3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
4. Press Esc and save the changes as prompted by the pop-up message.
5. Press Y to save the changes.
   The computer restarts.

Deleting or changing an existing system setup password

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

To enter the System Setup, press F12 immediately after a power-on or reboot.

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

   NOTE: If you change the System and/or Setup password, reenter the new password when prompted. If you delete the System and/or 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.

Clearing BIOS (System Setup) and System passwords

To clear the system or BIOS passwords, contact Dell technical support as described at www.dell.com/contactdell.

NOTE: For information on how to reset Windows or application passwords, refer to the documentation accompanying Windows or your application.

5

Software

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

Topics:

- Supported operating systems
- Downloading drivers
- Downloading the chipset driver

Supported operating systems

The topic lists the operating systems supported for Precision 5530 .

Table 27. Supported operating systems

Features	Specifications
Supported operating systems	Description
Windows 10	• Microsoft 10 Windows Pro 64-bit • Microsoft Windows 10 Home 64-bit • Microsoft Windows 10 Pro National Academic (64-bit) • Microsoft Windows 10 Home National Academic (64-bit) • Microsoft Windows 10 Pro for Enterprise • Microsoft windows 10 Pro for Workstation (64-bit)
Other	• Ubuntu 16.04 LTS SP1 64-bit • RedHat Enterprise Linux 7.5

Downloading drivers

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

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

4. Click **Drivers and Downloads**.
5. Select the operating system installed on your .
6. Scroll down the page and select the driver to install.
7. Click **Download File** to download the driver for your .
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.

Downloading the chipset driver

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

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

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

6

Getting help

Topics:

- Contacting Dell

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.