Precision 3560

Setup and Specifications

Regulatory Model: P104F
Regulatory Type: P104F001
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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.

Contents

1

Set up your Precision 3560

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

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

NOTE: The battery may go into power-saving mode during shipment to conserve charge on the battery. Ensure that the power adapter is connected to your computer when it is turned on for the first time.

2. Finish Windows 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.

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

Table 1. Locate Dell apps

Resources	Description
	SupportAssist Proactively checks the health of your computer's hardware and software. The SupportAssist OS Recovery tool troubleshoots issues with the operating system. For more information, see the SupportAssist documentation at www.dell.com/support. **NOTE:** In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.

Table 1. Locate Dell apps (continued)

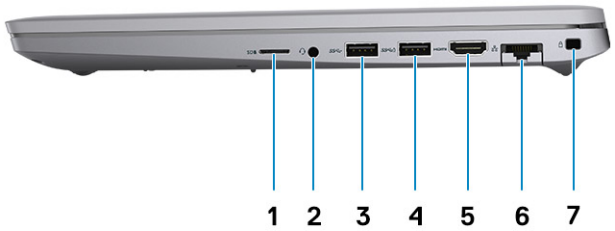
Resources	Description
	**Dell Update** Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article SLN305843 at www.dell.com/support.
	**Dell Digital Delivery** Download software applications, which are purchased but not pre-installed on your computer. For more information about using Dell Digital Delivery, see the knowledge base article 153764 at www.dell.com/support.

2

Views of Precision 3560

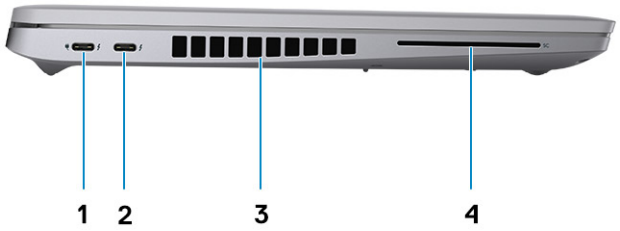
Topics:

Right



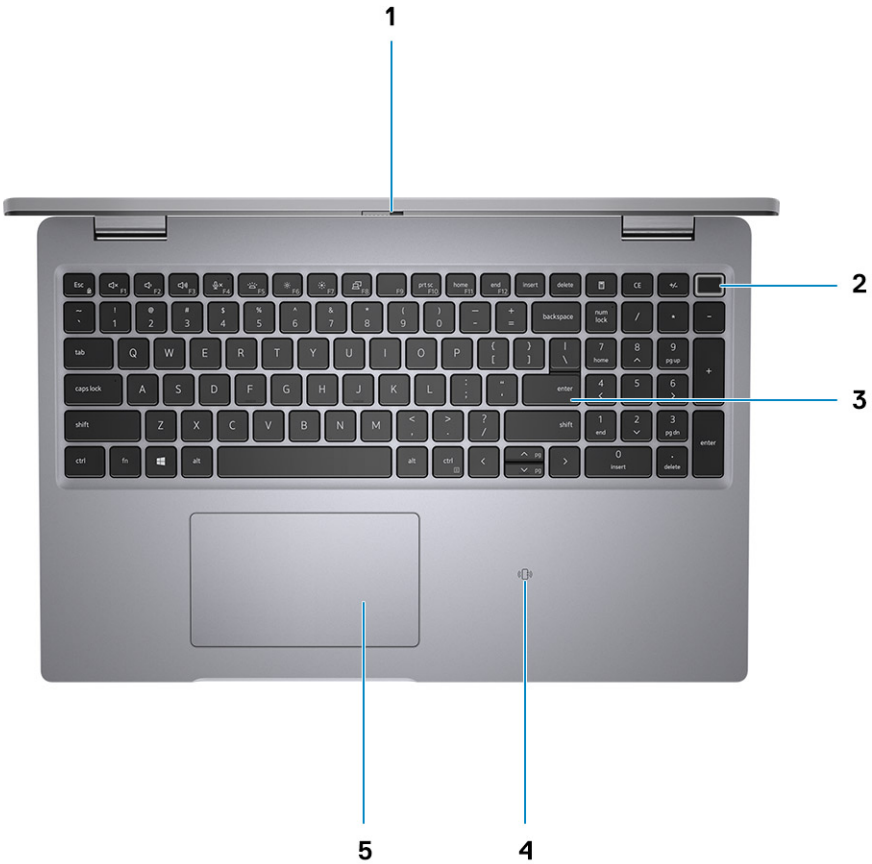
1. microSD-card slot
2. Universal audio port
3. USB 3.2 Gen 1 port
4. USB 3.2 Gen 1 port with PowerShare
5. HDMI 2.0 port
6. RJ45 Ethernet port
7. Wedge-shaped lock slot

Left



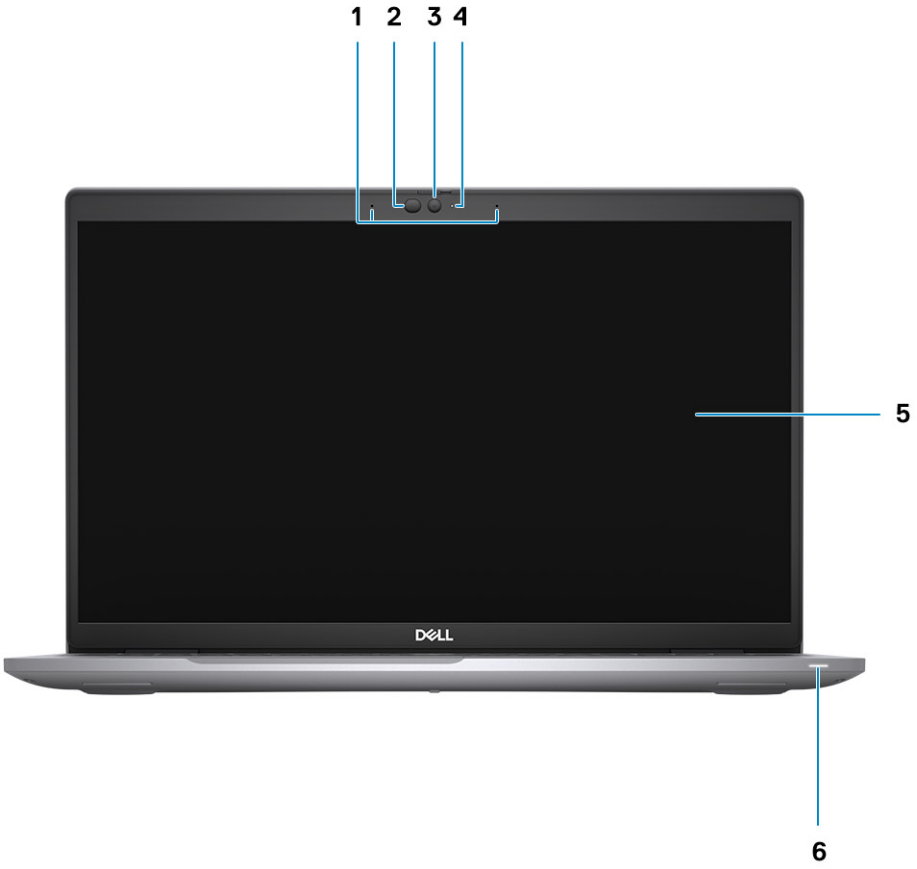
1. Thunderbolt 4 port with DisplayPort Alt Mode/USB4/Power Delivery
2. Thunderbolt 4 port with DisplayPort Alt Mode/USB4
3. Air vents
4. Smart card reader slot (optional)

Palm rest



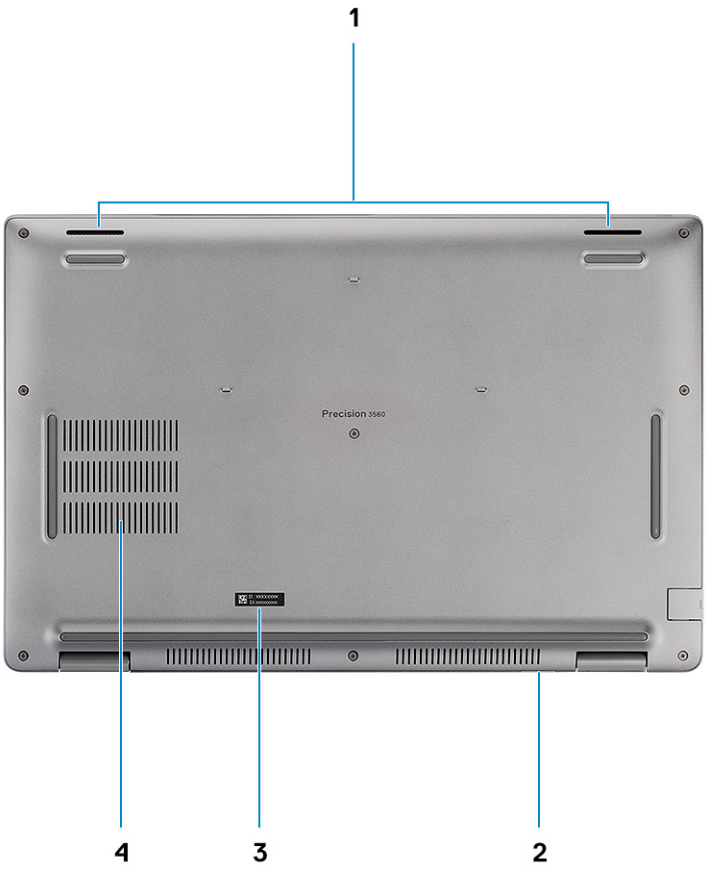
1. Privacy shutter
2. Power button (with optional fingerprint reader)
3. Keyboard
4. NFC/Contactless smart card reader—(optional)
5. Clickpad

Front



1. Dual-array microphones
2. IR emitter/Ambient Light Sensor (ALS)—(optional)
3. Camera (IR/RGB)
4. Camera status LED
5. Display panel
6. Battery diagnostic LED

Bottom



1. Speakers
2. MicroSim-card slot (optional)
3. Service tag label
4. Air vent

Battery charge and status LED

Table 2. Battery charge and status LED Indicator

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

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

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Specifications of Precision 3560

Topics:

Dimensions and weight

The following table lists the height, width, depth, and weight of your Precision 3560.

Table 3. Dimensions and weight

Description	Values
Height:	
Front height	19.87 mm (0.78 in.)
Rear height	22.15 mm (0.87 in.)
Width	357.80 mm (14.08 in.)
Depth	236.20 mm (9.29 in.)
Weight **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.	Minimum—1.59 kg (3.50 lb)

Processor

The following table lists the details of the processors supported by your Precision 3560.

Table 4. Processor

Description	Option one	Option two	Option three	Option four
Processor type	11th Generation Intel Core i5-1135G7	11th Generation Intel Core i5-1145G7	11th Generation Intel Core i7-1165G7	11th Generation Intel Core i7-1185G7
Processor wattage	17.50 W	17.50 W	17.50 W	17.50 W
Processor core count	4	4	4	4
Processor thread count	8	8	8	8
Processor speed	2.40 GHz to 4.20 GHz	2.60 GHz to 4.40 GHz	2.80 GHz to 4.70 GHz	3 GHz to 4.80 GHz
Processor cache	8 MB	8 MB	12 MB	12 MB
Integrated graphics	Intel Iris Xe Graphics **NOTE:** System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)	Intel Iris Xe Graphics **NOTE:** System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)	Intel Iris Xe Graphics **NOTE:** System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)	Intel Iris Xe Graphics **NOTE:** System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)

Chipset

The following table lists the details of the chipset supported by your Precision 3560.

Table 5. Chipset

Description	Values
Chipset	Intel PCH-LP
Processor	11th Generation Intel Core i5/i7 processors
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Upto Gen 4

Operating system

Your Precision 3560 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit
- Windows 10 Home, 64-bit

- Windows 10 Pro, 64-bit
- Ubuntu 20.04 LTS, 64-bit

Memory

The following table lists the memory specifications of your Precision 3560.

Table 6. Memory specifications

Description	Values
Memory slots	Two SO-DIMM slots
Memory type	DDR4
Memory speed	3200 MHz
Maximum memory configuration	64 GB
Minimum memory configuration	4 GB
Memory size per slot	4 GB, 8 GB, 16 GB, 32 GB, 64 GB
Memory configurations supported	• 4 GB, 1 x 4 GB, DDR4, 3200 MHz • 8 GB, 2 x 4 GB, DDR4, 3200 MHz, dual-channel • 8 GB, 1 x 8 GB, DDR4, 3200 MHz • 16 GB, 2 x 8 GB, DDR4, 3200 MHz, dual-channel • 16 GB, 1 x 16 GB, DDR4, 3200 MHz • 32 GB, 2 x 16 GB, DDR4, 3200 MHz, dual-channel • 64 GB, 2 x 32 GB, DDR4, 3200 MHz, dual-channel

External ports

The following table lists the external ports of your Precision 3560.

Table 7. External ports

Description	Values
Network port	One RJ45 Ethernet port
USB ports	• One USB 3.2 Gen 1 port • One USB 3.2 Gen 1 port with PowerShare • One Thunderbolt 4 ports with DisplayPort Alt Mode/ USB4/Power Delivery • One Thunderbolt 4 ports with DisplayPort Alt Mode/USB4
Audio port	One universal audio port
Video port	One HDMI 2.0 port
Media-card reader	• One microSD-card slot • One Smart card reader slot • One MicroSim-card slot
Power-adapter port	USB Type-C power input
Security-cable slot	One wedge-shaped lock slot

Internal slots

The following table lists the internal slots of your Precision 3560.

Table 8. Internal slots

Description	Values
M.2	• M.2 2230 slot for Wi-Fi and Bluetooth combo card • M.2 3042 for WWAN card • One M.2 2280 slot for solid-state drive (computer shipped with discrete graphics card) • Two M.2 2280 slots for solid-state drive (computer shipped with UMA graphics card) **NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article 000144170 at www.dell.com/support.

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Precision 3560.

Table 9. Ethernet specifications

Description	Values
Model number	• Intel I219-LM • Intel I219-V
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Precision 3560.

Table 10. Wireless module specifications

Description	Option one	Option two	Option three
Model number	Intel Wi-Fi 6 AX201	Intel AX210	Qualcomm QCA61x4A
Transfer rate	Up to 2400 Mbps	Up to 2400 Mbps	Up to 867 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6 (WiFi 802.11ax)	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6E (WiFi 802.11ax)	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac)
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth	Bluetooth 5.2	Bluetooth 5.2	Bluetooth 5.0

WWAN module

The following table lists the Wireless Wide Area Network (WWAN) module supported on your Precision 3560.

Table 11. WWAN module specifications

Description	Values
Model number	Intel 7360 (DW5820e)
Transfer rate	Up to 450 Mbps DL/50 Mbps UL (Cat 9)
Frequency bands supported	(1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 17, 18, 19, 20, 21, 26, 28, 29, 30, 38, 39, 40, 41, 66), HSPA+ (1, 2, 4, 5, 8)
Wireless standards	• LTE Category 16 • UMTS/HSPA+
Encryption	Not supported
Global Navigation Satellite System (GNSS)	Supports GPS, BDS, and GLONASS
NOTE: For instructions on how to find your computer's IMEI (International Mobile Station Equipment Identity) number, see the knowledge base article 000143678 at www.dell.com/support.	

Audio

Table 12. Audio specifications

Description		Values
Controller		REALTEK ALC3204
Stereo conversion		Supported
Internal interface		High definition audio interface
External interface		Universal audio port
Speakers		Two
Internal speaker amplifier		Supported (audio codec integrated)
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output		Not supported
Microphone		Dual-array microphones

Storage

Your computer supports one of the following configurations:

- One M.2 2230, Gen 3 PCIe x4 NVMe, Class 35 SSD (slot 1)
- One M.2 2230, Gen 3 PCIe x4 NVMe, Class 35 SSD (slot 1) with one M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Classs 40 SSD (slot 1)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Classs 40 SSD (slot 1) with M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)
- One M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SSD, Self-encrypting drive (slot 1)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SSD, Self-encrypting drive (slot 1) with one M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)

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

Table 13. Storage specifications

Form factor	Interface type	Capacity
M.2 2230, Class 35 solid-state drive	Gen 3 PCIe x4 NVMe	Up to 512 GB
M.2 2280, Class 40 solid-state drive	Gen 3 PCIe x4 NVMe	Up to 1 TB
M.2 2280, Class 40 solid-state drive	Gen 4 PCIe x4 NVMe	2 TB
M.2 2280, Class 40 solid-state drive, Self-encrypting drive	Gen 3 PCIe x4 NVMe	Up to 512

Media-card reader

Table 14. Media-card reader specifications

Description	Values
Type	One microSD-card
Cards supported	• Secure Digital (SD 4.0) • Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC)

Media-card reader

The following table lists the media cards supported by your Precision 3560.

Table 15. Media-card reader specifications

Description	Values
Media-card type	One microSD-card
Media-cards supported	• Secure Digital (SD 4.0) • 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.	

Keyboard

The following table lists the keyboard specifications of your Precision 3560.

Table 16. Keyboard specifications

Description	Values
Keyboard type	• US/UK/JP layout, single point, non-backlit keyboard • US/UK/JP layout, single point, backlit keyboard
Keyboard layout	QWERTY
Number of keys	• United States and Canada: 79 keys • United Kingdom: 80 keys • Japan: 83 keys
Keyboard size	X=18.05 mm key pitch Y=18.05 mm key pitch
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. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key.

Camera

The following table lists the camera specifications of your Precision 3560.

Table 17. Camera specifications

Description		Values
Number of cameras		Two
Camera type		FHD RGB Infrared camera or HD RGB Infrared camera
Camera location		Front camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	0.92 megapixel
	Video	1280 x 720 (HD/FHD) at 30 fps
Infrared camera resolution:		
	Still image	0.23 megapixel
	Video	640 x 480 (VGA) at 30 fps
Diagonal viewing angle:		
	Camera	• FHD: 87.6 degrees • HD: 87 degrees
	Infrared camera	• FHD: 87.6 degrees

Table 17. Camera specifications (continued)

Description		Values
		• HD: 87 degrees

Clickpad

The following table lists the clickpad specifications of your Precision 3560.

Table 18. Clickpad specifications

Description		Values
Clickpad resolution		>=300 dpi
Clickpad dimensions:		
	Horizontal	115 mm (4.53 inch)
	Vertical	67 mm (2.64 inch)

Power adapter

The following table lists the power adapter specifications of your Precision 3560.

Table 19. Power adapter specifications

Description		Values		
Type		65 W AC adapter, USB-C	90 W AC adapter, USB-C	130 W AC adapter, USB-C
Input voltage		100 VAC— 240 VAC	100 VAC—240 VAC	100 VAC—240 VAC
Input frequency		50 Hz—60 Hz	50 Hz—60 Hz	50 Hz—60 Hz
Input current (maximum)		1.7 A	1.5 A	1.8 A
Output current (continuous)		• 20 V/3.25 A (Continuous) • 15 V/3 A (Continuous) • 9.0 V/3 A (Continuous • 5.0 V/3 A (Continuous)	• 20 V/4.5 A (Continuous) • 15 V/3 A (Continuous) • 9.0 V/3 A (Continuous • 5.0 V/3 A (Continuous)	• 20 V/6.5 A (Continuous) • 5.0 V/1 A (Continuous)
Rated output voltage		20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/5 VDC
Temperature range:				
	Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
	Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

Battery

The following table lists the battery specifications of your Precision 3560.

Table 20. Battery specifications

Description		Values			
Battery type		3-cell, 42 Wh lithium-ion, ExpressChargeBoost	3-cell, 42 Wh lithium-ion, LCL	4-cell, 63 Wh lithium-ion, ExpressChargeBoost	4-cell, 63 Wh lithium-ion, LCL
Battery voltage		11.40 VDC	11.40 VDC	15.20 VDC	15.20 VDC
Battery weight (maximum)		0.18 kg (0.40 lb)	0.18 kg (0.40 lb)	0.25 kg (0.55 lb)	0.25 kg (0.55 lb)
Battery dimensions:					
	Height	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)
	Width	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)
	Depth	207.90 mm (8.19 in.)	207.90 mm (8.19 in.)	238.00 mm (9.37 in.)	238.00 mm (9.37 in.)
Temperature range:					
	Operating	• Charge: 0°C to 50°C (32°F to 122°F) • Discharge:0°C to 70°C (32°F to 158°F)	• Charge: 0°C to 50°C (32°F to 122°F) • Discharge:0°C to 70°C (32°F to 158°F)	• Charge: 0°C to 50°C (32°F to 122°F) • Discharge:0°C to 70°C (32°F to 158°F)	• Charge: 0°C to 50°C (32°F to 122°F) • Discharge:0°C to 70°C (32°F to 158°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)	–20°C to 60°C (-4°F to 140°F)
Battery operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate)		From 0% up to 35% in 20 minutes (ExpressCharge Boost), 2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) **NOTE:** Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) **NOTE:** Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	From 0% up to 35% in 20 minutes (ExpressCharge Boost), 2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) **NOTE:** Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) **NOTE:** Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.

Table 20. Battery specifications (continued)

Description	Values			
Life span (approximate)	1 year	1 year	3 years	3 years
Coin-cell battery	CR-2032	CR-2032	CR-2032	CR-2032

Display

Table 21. Display specifications

Description		Values				
Type		15-inch High Definition (HD)	15-inch Full High Definition (FHD)	15-inch Full High Definition (FHD)	15-inch Full High Definition (FHD)	Ultra High Definition (UHD)
Panel technology		Thin-Film-Transistor (TFT), TN (Twisted Nematic)	Thin-Film-Transistor (TFT), Wide Viewing Angle (WVA)	Thin-Film-Transistor (TFT), Wide Viewing Angle (WVA)	Thin-Film-Transistor (TFT), Wide Viewing Angle (WVA), Low Blue Light (LBL)	TFT, Wide Viewing Angle (WVA), Low Blue Light (LBL)
Luminance (typical)		220 nits	250 nits	250 nits	400 nits	400 nits
Dimensions						
	Height	344.16 mm	344.16 mm	344.16 mm	344.16 mm	344.16 mm
	Width	193.59 mm	193.59 mm	193.59 mm	193.59 mm	193.59 mm
	Diagonal	396.24 mm	396.24 mm	396.24 mm	396.24 mm	396.24 mm
Native resolution		1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160
Megapixels		1.05	2.07	2.07	2.07	8.29
Color gamut		NTSC 45%	NTSC 45%	NTSC 45%	sRGB 100%	sRGB 100%
Pixels per inch (PPI)		100	141	141	141	283
Contrast ratio (min)		500:1	700:1	700:1	700:1	1000:1
Response time (max)		25 ms	25 ms	25 ms	25 ms	19 ms
Refresh rate		60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
Horizontal view angle		40 +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees
Vertical view angle		10 (U) / 30 (D) +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees
Pixel pitch		0.252 mm	0.17925 mm	0.17925 mm	0.17925 mm	0.08964 mm

Table 21. Display specifications (continued)

Description	Values				
Power consumption (maximum)	4.2 W	4.6 W	4.5 W	4.5 W	4.5 W
Anti-reflective vs Anti-smudge	Anti-glare	Anti-glare	Anti-glare	Anti-glare	Anti-glare
Touch options	No	Yes	No	No	No
Stylus support	No	No	No	No	No

Sensor and control

The following table lists the location of the sensor and control available in your Precision 3560.

Table 22. Sensor and control

Sensor support	
Sensor	Ambient Light Sensor on the hinge-up (optional)
	P-sensor on the hinge-up (optional)
	Accelerometer (G sensor): One on the base (system board) and another on the hinge-up (optional)

Fingerprint reader (optional)

The following table lists the fingerprint-reader specifications of your Precision 3560.

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

Table 23. Fingerprint reader specifications

Description	Power button option	FIPS option
Fingerprint-reader sensor technology	Capacitive	Capacitive
Fingerprint-reader sensor resolution	500 dpi	508 dpi
Fingerprint-reader sensor pixel size	108 x 88	256 x 360

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Precision 3560.

Table 24. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel Iris X^e Graphics	HDMI 2.0, DisplayPort over USB Type-C	Shared system memory	11th Generation Intel Core i5/i7 processors **NOTE:** System with single-channel memory is shown as Intel UHD Graphics in

Table 24. GPU—Integrated

Controller	External display support	Memory size	Processor
			Intel Graphics Command Center (IGCC).

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Precision 3560.

Table 25. GPU—Discrete

Controller	External display support	Memory size	Memory type
NVIDIA T500	NA	2 GB	GDDR6

Hardware security

The following table lists the hardware security options supported by your Precision 3560.

Table 26. Hardware security

Hardware security options
Trusted Platform Module (TPM) 2.0 discrete
FIPS 140-2 certification for TPM
TCG (Trusted Computing Group) Certification for TPM
Fingerprint reader in power button tied to ControlVault 3
ControlVault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification
Contacted Smart Card and ControlVault 3
Contactless Smart Card, NFC, and ControlVault 3
SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL
FIPS 201 Full Scan FPR and ControlVault 3

Operating and storage environment

This table lists the operating and storage specifications of your Precision 3560.

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

Table 27. Computer environment

Description	Operating	Storage
Temperature range	0°C to 40°C (32°F to 104°F)	-40°C to 60°C (-40°F to 140°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude range	-15.2 m to 3048 m (-50 ft to 10000 ft)	-15.2 m to 10668 m (-50 ft to 35000 ft)

CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.

* 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

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 28. List of keyboard shortcuts

Keys	Primary Behavior	Secondary Behavior (Fn + Key)
Fn + Esc	Escape	Toggle Fn-key lock
Fn + F1	Mute audio	F1 behavior
Fn + F2	Decrease volume	F2 behavior
Fn + F3	Increase volume	F3 behavior
Fn + F4	Mic Mute	F4 behavior
Fn + F5	Keyboard backlight **NOTE:** Not applicable for non-backlight keyboard.	F5 behavior
Fn + F6	Decrease screen brightness	F6 behavior
Fn + F7	Increase screen brightness	F7 behavior
Fn + F8	Switch to external display	F8 behavior
Fn + F9	Disable camera	F9 behavior
Fn + F10	Print Screen	F10 behavior
Fn + F11	Home	F11 behavior
Fn + F12	End	F12 behavior
Fn + Left Arrow	Left Arrow	Home
Fn + Right Arrow	Right Arrow	End
Fn + Right Ctrl	Emulates right click	--

5

Dell low blue light display

WARNING: Prolonged exposure to blue light from the display may lead to long-term effects such as eye strain, eye fatigue, or damage to the eyes.

Blue light is a color in the light spectrum which has a short wavelength and high energy. Chronic exposure to blue light, particularly from digital sources, may disrupt sleep patterns and cause long-term effects such as eye strain, eye fatigue, or damage to the eyes.

The display on this computer is designed to minimize blue light and complies with TÜV Rheinland's requirement for low blue light displays.

Low blue light mode is enabled at the factory, so no further configuration is necessary.

To reduce the risk of eye strain, it is also recommended that you:

- Position the display at a comfortable viewing distance between 20 and 28 inches (50 and 70 cm) from your eyes.
- Blink frequently to moisten your eyes, wet your eyes with water, or apply suitable eye drops.
- Look away from your display, and gaze at a distant object at 20 ft (609.60 cm) away for at least 20 seconds during each break.
- Take an extended break for 20 minutes every two hours.

6

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:

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

Turn on (or restart) your computer and press F2 immediately.

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.
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 allows 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:

UEFI only:

- Windows Boot Manager
- UEFI RST PC SN730 NVMe 1024GB 20234D802529
- UEFI PXEv4 (MAC:8C47BE3E622C)
- ONBOARD NIC (IPV6)
- ONBOARD NIC (IPV4)

System setup options

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

Table 29. System setup options—System information menu

Overview	
Precision 3560	
BIOS Version	Displays the BIOS version number.
Service Tag	Displays the Service Tag of the computer.
Asset Tag	Displays the Asset Tag of the computer.
Manufacture Date	Displays the manufacture date of the computer.
Ownership Date	Displays the ownership date of the computer.
Express Service Code	Displays the express service code of the computer.
Ownership Tag	Displays the Ownership Tag of the computer.
Signed Firmware Update	Displays whether the Signed Firmware Update is enabled on your computer.
Battery Information	
Primary	Displays that battery is primary.
Battery Level	Displays the battery level of the computer.
Battery State	Displays the battery state of the computer.
Health	Displays the battery health of the computer.
AC Adapter	Displays whether the AC adapter is connected or not.
Processor Information	
Processor Type	Displays the processor type.
Maximum Clock Speed	Displays the maximum processor clock speed.
Minimum Clock Speed	Displays the minimum processor clock speed.
Current Clock Speed	Displays the current processor clock speed.
Core Count	Displays the number of cores on the processor.
Processor ID	Displays the processor identification code.
Processor L2 Cache	Displays the processor L2 Cache size.
Processor L3 Cache	Displays the processor L3 Cache size.

Table 29. System setup options—System information menu (continued)

Overview	
Microcode Version	Displays the microcode version.
Intel Hyper-Threading Capable	Displays whether the processor is Hyper-Threading (HT) capable.
64-Bit Technology	Displays whether 64-bit technology is used.
Memory Information	
Memory Installed	Displays the total computer memory installed.
Memory Available	Displays the total computer memory available.
Memory Speed	Displays the memory speed.
Memory Channel Mode	Displays single or dual channel mode.
Memory Technology	Displays the technology used for the memory.
DIMM_SLOT B	Displays the DIMM B memory size.
DIMM_SLOT A	Displays the DIMM A memory size.
Devices Information	
Panel Type	Displays the Panel Type of the computer.
Video Controller	Displays the video controller type of the computer.
Video Memory	Displays the video memory information of the computer.
Wi-Fi Device	Displays the wireless device information of the computer.
Native Resolution	Displays the native resolution of the computer.
Video BIOS Version	Displays the video BIOS version of the computer.
Audio Controller	Displays the audio controller information of the computer.
Bluetooth Device	Displays the Bluetooth device information of the computer.
LOM MAC Address	Displays the LAN On Motherboard (LOM) MAC address of the computer.
Pass Through MAC Address	Displays the pass through MAC address of the computer.
Cellular Device	Displays the M.2 PCIe SSD information of the computer.

Table 30. System setup options—Boot Configuration menu

Boot Configuration	
Boot Sequence	
Boot mode	Displays the boot mode.
Boot Sequence	Displays the boot sequence.
Secure Digital (SD) Card Boot	Enable or disable the SD card read-only boot. By default, the **Secure Digital (SD) Card Boot** option is not enabled.
Secure Boot	
Enable Secure Boot	Enable or disable the secure boot feature. By default, the option is not enabled.
Secure Boot Mode	Enable or disable to change the secure boot mode options. By default, the **Deployed Mode** is enabled.
Expert Key Management	
Enable Custom Mode	Enable or disable custom mode. By default, the **custom mode** option is not enabled.

Table 30. System setup options—Boot Configuration menu (continued)

Boot Configuration	
Custom Mode Key Management	Select the custom values for expert key management.

Table 31. System setup options—Integrated Devices menu

Integrated Devices	
Date/Time	Displays the current date in MM/DD/YYYY format and current time in HH:MM:SS AM/PM format.
Camera	Enables or disable the camera. By default, the **Enable Camera** option is selected
Audio	
Enable Audio	Enable or disable the integrated audio controller. By default, all the options are enabled.
USB/Thunderbolt Configuration	• Enable or disable booting from USB mass storage devices connected to external USB ports. By default, the **Enable External USB Ports** option is enabled. • Enable or disable booting from USB mass storage devices such as external hard drive, optical drive, and USB drive. By default, the **Enable USB Boot Support** option is enabled.
Enable Thunderbolt Technology Support	Enable or disable the associated ports and adapters. By default, the **Enable Thunderbolt Technology Support** option is selected.
Enable Thunderbolt Boot Support	Enable or disable the Thunderbolt adapter peripheral device and USB devices connected to the Thunderbolt adapter to be used during BIOS Pre-boot. By default, the **Enable Thunderbolt Boot Support** option is disabled.
Enable Thunderbolt (and PCIe behind TBT) pre-boot modules	Enable or disable the PCIe devices that are connected through a Thunderbolt adapter to execute the PCIe devices UEFI Option ROM (if present) during pre-boot. By default, the **Enable Thunderbolt (and PCIe behind TBT) pre-boot modules** option is disabled.
Disable USB4 PCIE Tunneling	Disable the USB4 PCIE Tunneling option. By default, the option is disabled.
Video/Power only on Type-C Ports	Enable or disable the Type-C port functionality to video or only power. By default, the **Video/Power only on Type-C Ports** option is disabled.
Type-C Dock Override	Enables to use connected Type-C Dell Dock to provide data stream with external USB ports disabled. When Type-C Dock override is enabled, the Video/Audio/Lan submenu is activated. By default, the **Type-C Dock Override** option is enabled.
Video	Enable or disable the usage of video on Dell Dock external ports. By default, the **Video** option is disabled.
Audio	Enable or disable the usage of audio on Dell Dock external ports. By default, the **Audio** option is enabled.
Lan	Enable or disable the usage of LAN on Dell Dock external ports. By default, the **Lan** option is enabled.
Miscellaneous Devices	Enable or disable Fingerprint Reader device.

Table 31. System setup options—Integrated Devices menu (continued)

Integrated Devices	
	By default, the **Enable Fingerprint Reader Device** option is enabled.
Unobtrusive Mode	
Enable Unobtrusive Mode	Enable or disable all the computer light and sound. By default, the **Enable Unobtrusive Mode** option is disabled.

Table 32. System setup options—Storage menu

Storage	
SMART Reporting	
Enable SMART Reporting	Enable or disable Self-Monitoring, Analysis, and Reporting Technology (SMART) during computer startup. By default, the **Enable SMART Reporting** option is not enabled.
Drive Information	
SATA-1	
Type	Displays the SATA-1 type information of the computer.
Device	Displays the SATA-1 device information of the computer.
M.2 PCIe SSD-1	
Type	Displays the M.2 PCIe SSD-1 type information of the computer.
Device	Displays the M.2 PCIe SSD-1 device information of the computer.
M.2 PCIe SSD-2	
Type	Displays the M.2 PCIe SSD-2 type information of the computer.
Device	Displays the M.2 PCIe SSD-2 device information of the computer.
Enable MediaCard	
Secure Digital (SD) Card	Enable or disable the SD card. By default, the **Secure Digital (SD) Card** option is enabled.
Secure Digital (SD) Card Read-Only Mode	Enable or disable the SD card read-only mode. By default, the **Secure Digital (SD) Card Read-Only Mode** option is not enabled.

Table 33. System setup options—Display menu

Display	
Display Brightness	
Brightness on battery power	Enable to set screen brightness when the computer is running on battery power.
Brightness on AC power	Enable to set screen brightness when the computer is running on AC power.
Full Screen Logo	Enable or disable full screen logo. By default, the option is not enabled.

Table 34. System setup options—Connection menu

Connection
Network Controller Configuration

Table 34. System setup options—Connection menu (continued)

Connection	
Integrated NIC	Controls the on-board LAN controller. By default, the **Enabled with PXE** option is enabled.
Enable UEFI Network Stack	Enable or disable UEFI Network Stack. By default, the **Enable UEFI Network Stack** and **Enabled w/PXE** option are enabled.
Wireless Device Enable	
WWAN/GPS	Enable or disable the internal WWAN/GPS device By default, the option enabled.
WWAN Bus Mode	Set the interface type of the Wireless Wan (WWAN) card. By default, the **Bus Mode PCIe** option is enabled.
WLAN	Enable or disable the internal WLAN device By default, the option enabled.
Bluetooth	Enable or disable the internal Bluetooth device By default, the option enabled.
Contactless smartcard/NFC	Enable or disable the internal Contactless smartcard/NFC device By default, the option enabled.
Enable UEFI Network Stack	Enable or disable UEFI Network Stack and controls the on-board LAN Controller. By default, the **Enable UEFI Network Stack** option are enabled.
Wireless Radio Control	
Control WLAN radio	Sense the connection of the computer to a wired network and subsequently disable the selected wireless radios (WLAN). By default, the option is disabled.
Control WWAN radio	Sense the connection of the computer to a wired network and subsequently disable the selected wireless radios (WWAN). By default, the option is disabled.
HTTPs Boot Feature	
HTTPs Boot	Enable or disable the HTTPs Boot feature. By default, the **HTTPs Boot** option is enabled.
HTTPs Boot Mode	With Auto Mode, the HTTPs Boot extracts Boot URL from the DHCP. With Manual Mode, the HTTPs Boot reads Boot URL from the user-provided data. By default, the **Auto Mode** option is enabled.

Table 35. System setup options—Power menu

Power	
Battery configuration	Enables the computer to run on battery during peak power usage hours. Use the table **Custom Charge Start** and **Custom Charge Stop**, to prevent AC power usage between certain times of each day. By default, the **Adaptive** option is enabled.
Advanced Configuration	

Table 35. System setup options—Power menu (continued)

Power	
Enable Advanced Battery Charge Configuration	Enable or disable the advanced battery charge configuration. By default, the **Enable Advanced Battery Charge Configuration** option is disabled.
Peak Shift	Enables the computer to run on battery during peak power usage hours. By default, the **Enable Peak Shift** option is enabled.
Enable Peak Shift	
USB PowerShare	
Enable USB PowerShare	Enable or disable the USB PowerShare. By default, the **Enable USB PowerShare** option is disabled
Thermal Management	Enables to cool the fan and processor heat management to adjust the computer performance, noise, and temperature. By default, the **Optimized** option is enabled.
USB Wake Support	
Wake on Dell USB-C Dock	When enabled, connecting a Dell USB-C Dock will wake the computer from standby. By default, the **Wake on Dell USB-C Dock** option is enabled.
Block Sleep	Enables to block entering sleep (S3) mode in the operating system. By default, the **Block Sleep** option is disabled.
Lid Switch	Enable or disable the lid switch. By default, the **Lid Switch** option is enabled.
Intel Speed Shift Technology	Enable or disable the Intel speed shift technology support. By default, the **Intel Speed Shift Technology** option is enabled.
Long Life Cycle Primary Battery	By default, the **Normal Battery** option is enabled.

Table 36. System setup options—Security menu

Security	
TPM 2.0 Security	
TPM 2.0 Security On	Enable or disable TPM 2.0 security options. By default, the **TPM 2.0 Security On** option is enabled.
Attestation Enable	Enables to control whether the Trusted Platform Module (TPM) Endorsement Hierarchy is available to the operating system. By default, the **Attestation Enable** option is enabled.
Key Storage Enable	Enables to control whether the Trusted Platform Module (TPM) Storage Hierarchy is available to the operating system. By default, the **Key Storage Enable** option is enabled.
SHA-256	BIOS and the TPM will use the SHA-256 hash algorithm to extend measurements into the TPM PCRs during BIOS boot. By default, the **SHA-256** option is enabled.
Clear	Enables to clear the TPM owner information and returns the TPM to the default state. By default, the **Clear** option is disabled.

Table 36. System setup options—Security menu (continued)

Security	
PPI ByPass for Clear Commands	Controls the TPM Physical Presence Interface (PPI). By default, the **PPI ByPass for clear Commands** option is disabled.
Intel Total Memory Encryption	
Total Memory Encryption	Enable or disable you to protect memory from physical attacks including freeze spray, probing DDR to read the cycles, and others. By default, the **Total Memory Encryption** option is disabled.
Chassis intrusion	Controls the chassis intrusion feature. By default, the **On-Silent** option is enabled.
SMM Security Mitigation	Enable or disable SMM Security Mitigation. By default, the option is enabled.
Data Wipe on Next Boot	
Start Data Wipe	Enable or disable the data wipe on next boot. By default, the option is enabled.
Absolute	Enable or disable or permanently disable the BIOS module interface of the optional Absolute Persistence Module service from Absolute software. By default, the option is enabled.
UEFI Boot Path Security	Controls whether or not the computer will prompt the user to enter the admin password (if set) when booting to a UEFI boot device from the F12 boot menu. By default, the **Always Except Internal HDD** option is enabled.

Table 37. System setup options—Passwords menu

Passwords	
Admin Password	Set, change, or delete the administrator password.
System Password	Set, change, or delete the computer password.
NVMe SSD0	Set, change, or delete the NVMe SSD0 password.
Password Configuration	
Upper Case Letter	Reinforces password must have at least one upper case letter. By default, the option is disabled.
Lower Case Letter	Reinforces password must have at least one lower case letter. By default, the option is disabled.
Digit	Reinforces password must have at least one digit. By default, the option is disabled.
Special Character	Reinforces password must have at least one special character. By default, the option is disabled.
Minimum Characters	Set the minimum characters allowed for password.
Password Bypass	When enabled, this always prompts for computer and internal hard drive passwords when powered on from the off state. By default, the **Disabled** option is enabled.
Password Changes	

Table 37. System setup options—Passwords menu (continued)

Passwords	
Enable Non-Admin Password Changes	Enable or disable to change computer and hard drive password without the need for admin password. By default, the option is enabled.
Admin Setup Lockout	
Enable Admin Setup Lockout	Enables administrators control over how their users can or cannot access BIOS setup. By default, the option is disabled.
Master Password Lockout	
Enable Master Password Lockout	When enabled, this will disable the master password support. By default, the option is disabled.
Allow Non-Admin PSID Revert	
Enable Allow Non-Admin PSID Revert	Controls access to the Physical Security ID (PSID) revert of NVMe hard-drives from the Dell Security Manager prompt. By default, the option is disabled.

Table 38. System setup options—Update, Recovery menu

Update, Recovery	
UEFI Capsule Firmware Updates	Enable or disable BIOS updates through UEFI capsule update packages. By default, the option is enabled.
BIOS Recovery from Hard Drive	Enables the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key. By default, the option is enabled.
BIOS Downgrade	
Allow BIOS Downgrade	Enable or disable the flashing of the computer firmware to previous revision is blocked. By default, the option is enabled.
SupportAssist OS Recovery	Enable or disable the boot flow for SupportAssist OS Recovery tool in the event of certain computer errors. By default, the option is enabled.
BISOConnect	Enable or disable cloud Service OS recovery if the main operating system fails to boot with the number of failures equal to or greater than the value specified by the Auto OS Recovery Threshold setup option and local Service OS does not boot or is not installed. By default, the option is enabled.
Dell Auto OS Recovery Threshold	Controls the automatic boot flow for SupportAssist System Resolution Console and for Dell OS Recovery Tool. By default, the threshold value is set to 2.

Table 39. System setup options—System Management menu

System Management	
Service Tag	Display the Service Tag of the computer.
Asset Tag	Create a computer Asset Tag.
AC Behavior	

Table 39. System setup options—System Management menu (continued)

System Management	
Wake on AC	Enable or disable the wake on AC option. By default, the option is disabled.
Wake on LAN	
Wake on LAN	Enable or disable the computer to power on by special LAN signals when it receives a wakeup signal from the WLAN. By default, the **Disabled** option is selected.
Auto on Time	Enable to set the computer to turn on automatically every day or on a preselected date and time. This option can be configured only if the Auto On Time is set to Everyday, Weekdays, or Selected Days. By default, the option is disabled.

Table 40. System setup options—Keyboard menu

Keyboard	
Numlock Enable	Enable or disable the Numlock function when the computer boots. By default, the option is enabled.
Fn Lock Options	By default, the Fn lock option is enabled.
Keyboard Illumination	Enables to change the keyboard illumination settings. By default, the **Bright** option is enabled.
Keyboard Backlight Timeout on AC	Set the timeout value for the keyboard backlight when an AC adapter is connected to the computer. By default, the **10 seconds** option is enabled.
Keyboard Backlight Timeout on Battery	Set the timeout value for the keyboard backlight when the is running only on battery power. By default, the **10 seconds** option is enabled.
Device Configuration Hotkey Access	Manages whether you can access device configuration screens through hotkeys during computer startup. By default, the option is enabled.

Table 41. System setup options—Pre-boot Behavior menu

Pre-boot Behavior	
Adapter Warnings	
Enable Adapter Warnings	Enable or disable the warning messages during boot when the adapters with less power capacity are detected. By default, the option is enabled.
Warning and Errors	Enable or disable the action to be done when a warning or error is encountered. By default, the **Prompt on Warnings and Errors** option is enabled.
Fastboot	Enable to set the speed of the boot process. By default, the **Minimal** option is enabled.
Extend BIOS POST Time	Set the BIOS POST time. By default, the **0 seconds** option is enabled.
MAC Address Pass-Through	Replaces the external NIC MAC address with the selected MAC address from the computer.

Table 41. System setup options—Pre-boot Behavior menu (continued)

Pre-boot Behavior	
	By default, the **System Unique MAC Address** option is enabled.

Table 42. System setup options—Virtualization menu

Virtualization	
Intel Virtualization Technology	
Enable Intel Virtualization Technology (VT)	Specify whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology. By default, the option is enabled.
VT for Direct I/O	Specify whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology for Direct I/O. By default, the option is enabled.
Intel Trusted Execution Technology (TXT)	
Enable Intel Trusted Execution Technology (TXT)	Specifies whether a measured Virtual Machine Monitor (MVMM) can utilize the additional hardware capabilities provided by Intel Trusted Execution Technology. By default, the option is disabled.

Table 43. System setup options—Performance menu

Performance	
Multi Core Support	
Active Cores	Enables to change the number of CPU cores available to the operating system. By default, the **All Cores** options is enabled.
Intel SpeedStep	
Enable Intel SpeedStep Technology	Enables the computer to dynamically adjust processor voltage and core frequency, decreasing average power consumption and heat production. By default, the option is enabled.
C-States Control	
Enable C-State Control	Enable or disable additional processor sleep states. By default, the option is enabled.
Intel TurbocBoost Technology	
Enable Intel Turbo Boost Technology	Enable or disable Intel TurboBoost mode of the processor. By default, the option is enabled.
Intel Hyper-Threading Technology	
Enable Intel Hyper-Threading Technology	Enable or disable Hyper-Threading in the processor. By default, the option is enabled.
Dynamic Tuning:Machine Learning	
Enable Dynamic Tuning:Machine Learning	Enables the operating system capability to enhance dynamic power tuning capabilities based on detected workloads. By default, the option is disabled.

Table 44. System setup options—System Logs menu

System Logs	
BIOS Event Log	
Clear Bios Event Log	Display BIOS events. By default, the **Keep** option is enabled.
Thermal Event Log	
Clear Thermal Event Log	Display Thermal events. By default, the **Keep** option is enabled.
Power Event Log	
Clear Power Event Log	Display power events. By default, the **Keep** option is enabled.
License Information	Displays the license information of the computer.

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 45. 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

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

To enter the system setup, press F2 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.
   - 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

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.

To enter the System Setup, press **F2** 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**, 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.

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.

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Getting help and contacting Dell

Self-help resources

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

Table 46. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
Tips	
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	www.dell.com/support/windows www.dell.com/support/linux
Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on.	www.dell.com/support
Dell knowledge base articles for a variety of computer concerns.	1. Go to https://www.dell.com/support/home/?app=knowledgebase. 2. Type the subject or keyword in the **Search** box. 3. Click **Search** to retrieve the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

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

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.