CERTIFICACIONES

Bogotá, 01 de noviembre de 2024

Señores
ESCUELA SUPERIOR DE GUERRA “GENERAL RAFAEL REYES PRIETO”
Ciudad

Yo FABIO NELSON FARFAN CORZO, identificado como aparece al pie de mi nombre, en mi calidad de proponente certifico que:

1. Los equipos ofrecidos son de un fabricante con representación legal en Colombia.
2. Soy distribuidor autorizado para los equipos ofertados, lo cual es verificable mediante certificación adjunta.
3. En caso de ser adjudicatario, lo equipos contaran con la siguiente garantía:

   Tres (03) años para todos los ítems en sitio con cubrimiento de mano de obra y repuestos en Sitio.
   Todos los computadores y todos sus componentes Teclado y Mouse cuentan con garantía de tres (3) años en sitio con cubrimiento de mano de obra y repuestos.
   Garantizo el suministro de repuestos de los equipos de cómputo por un tiempo no menor a tres (03) años

4. Los equipos cumplen con norma EPEAT nivel Gold será verificable en la página web EPEAT y verificable en la ficha técnica. https://www.epeat.net/search-computers-and-displays
5. Los equipos cumplen con la norma Energy Star certificación Versión 8.0 o superior https://www.energystar.gov/productfinder/product/certified-computers/
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Atentamente,



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Cota, 1 de noviembre de 2024

Señores:
ESCUELA SUPERIOR DE GUERRA GENERAL RAFAEL REYES PRIETO

BOGOTÁ

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Chief Sales Officer
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Latitude 5530

Setup and Specifications

Regulatory Model: P104F
Regulatory Type: P104F005/P104F006
May 2023
Rev. A01

Notes, cautions, and warnings

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

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

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

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1

Set up your Latitude 5530

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: To conserve battery power, the battery might enter power saving mode. Connect the power adapter and press the power button to turn on the computer.

2. Finish operating system setup.

   For Ubuntu:

   Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, search in the Knowledge Base Resource at www.dell.com/support.

   For Windows:

   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
	**Dell Product Registration** Register your computer with Dell.
	**Dell Help & Support** Access help and support for your computer.
	**SupportAssist** SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you need to make system updates. SupportAssist proactively checks the health of your system's hardware and software. When an issue is detected, the necessary system state information is sent to Dell to begin troubleshooting. SupportAssist is preinstalled on most of the Dell devices running Windows operating system. For more information, see SupportAssist for Home PCs User's Guide on www.dell.com/serviceabilitytools. **NOTE:** In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.
	**Dell Update** Updates your computer with critical fixes and latest device drivers as they become available. For more information on using Dell Update, search in the Knowledge Base Resource at www.dell.com/support.
	**Dell Digital Delivery** Download software applications, which are purchased but not preinstalled on your computer. For more information on using Dell Digital Delivery, search in the Knowledge Base Resource at www.dell.com/support.

2

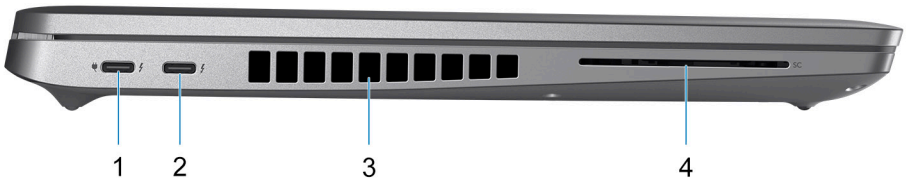
Views of Latitude 5530

Right



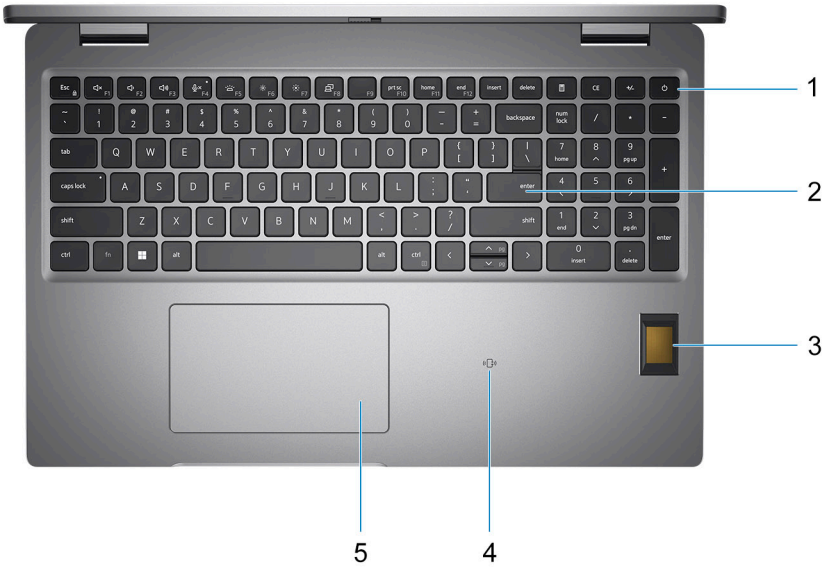
1. microSD-card slot
2. Universal audio port
3. USB 3.2 Gen 1 port
4. USB 3.2 Gen 1 port with PowerShare
5. HDMI 2.0 port
6. RJ45 Ethernet port (flip-down)
7. Wedge-shaped lock slot

Left



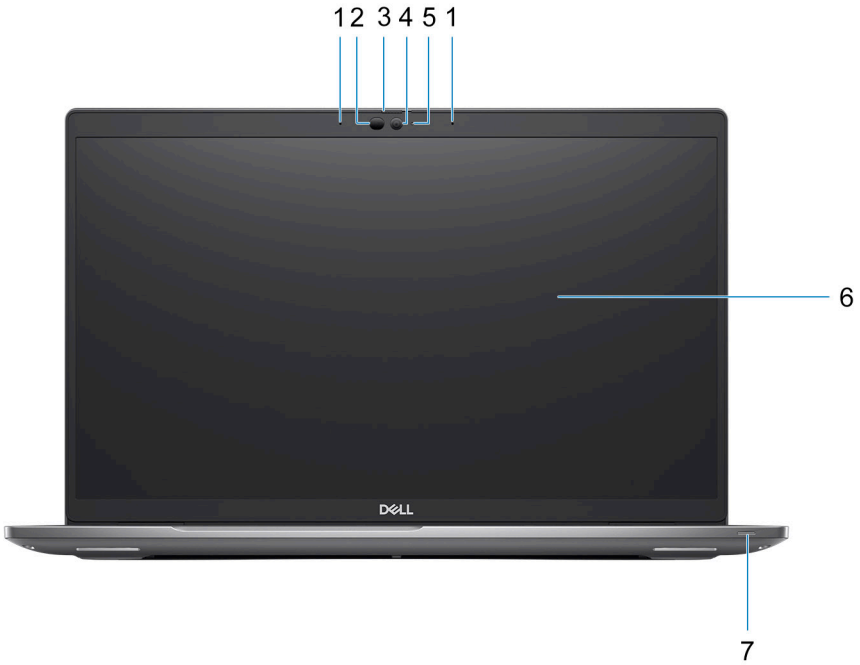
1. Thunderbolt 4 ports with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery
2. Thunderbolt 4 ports with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery
3. Fan vents
4. Smart-card reader slot (optional)

Top



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

Front



1. Dual array microphone

2. IR emitter/Ambient Light Sensor (ALS) (optional)
3. Camera shutter
4. HD RGB camera / FHD IR camera / FHD IR camera with Proximity Sensor (optional)
5. Camera status LED
6. LCD panel
7. Battery indicator LED

Bottom



1. Speaker
2. Service tag label
3. Fan vents

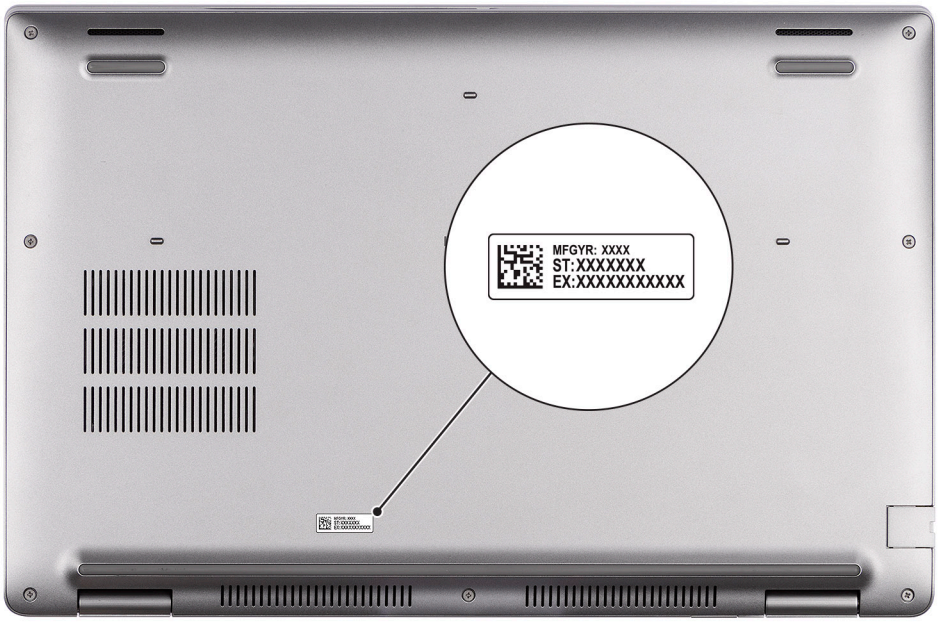
Back



1. microSIM-card slot (optional)

Service Tag

The service tag is a unique alphanumeric identifier that allows Dell service technicians to identify the hardware components in your computer and access warranty information.



Battery charge and status light

The following table lists the battery charge and status light behavior of your Latitude 5530.

Table 2. Battery charge and status light behavior

Power Source	LED Behavior	System 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) - System is turned on.
- S4 (Hibernate) - The system consumes the least power compared to all other sleep states. The system is almost at an OFF state, expect for a trickle power. The context data is written to hard drive.
- S5 (OFF) - The system is in a shutdown state.

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Specifications of Latitude 5530

Dimensions and weight

The following table lists the height, width, depth, and weight of your Latitude 5530.

Table 3. Dimensions and weight

Description	Values
Height:	
Front height	20.77 mm (0.82 in.)
Rear height	22.15 mm (0.87 in.)
Width	357.80 mm (14.09 in.)
Depth	233.30 mm (9.19 in.)
Weight **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.	1.59 kg (3.50 lb) (starting weight)

Processor

The following table lists the details of the processors that are supported by your Latitude 5530 .

Table 4. Processor

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight	Option nine
Processor type	11th Generation Intel Core i5-1145G7, vPro	12th Generation with Intel Core i3-1215U	Intel vPro Essentials with 12th Gen Intel Core i5-1235U	Intel vPro Enterprise with 12th Gen Intel Core i5-1245U	Intel vPro Essentials with 12th Gen Intel Core i7-1255U	Intel vPro Enterprise with 12th Gen Intel Core i7-1265U	Intel vPro Essentials with 12th Gen Intel Core i5-1240P	Intel vPro Enterprise with 12th Gen Intel Core i5-1250P	Intel vPro Enterprise with 12th Gen Intel Core i7-1270P
Processor wattage	15 W	15 W	15 W	15 W	15 W	15 W	28 W	28 W	28 W
Processor core count	4	2+4	2+8	2+8	2+8	2+8	4+8	4+8	4+8
Processor thread count	8	8	12	12	12	12	16	16	16
Processor speed	2.60 GHz to 4.40 GHz	1.20 GHz to 4.40 GHz	1.30 GHz to 4.40 GHz	1.60 GHz to 4.40 GHz	1.70 GHz to 4.70 GHz	1.80 GHz to 4.80 GHz	1.70 GHz to 4.40 GHz	1.70 GHz to 4.40 GHz	2.20 GHz to 4.80 GHz
Processor cache	8 MB	10 MB	12 MB	12 MB	12 MB	12 MB	12 MB	12 MB	18 MB

Table 4. Processor (continued)

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight	Option nine
Integrated graphics	Intel Iris Xe Graphics	Intel UHD Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	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 Latitude 5530.

Table 5. Chipset

Description	Values
Chipset	Intel PCH-LP
Processor	• 12th Generation Intel Core i3/i5/i7 processors • 11th Generation Intel Core i5 processor
DRAM bus width	64-bit (for dual-channel)
Flash EPROM	• vPro: 16 MB + 32 MB • Non-vPro: 32 MB
PCIe bus	Up to Gen 4.0

Operating system

Your Latitude 5530 supports the following operating systems:

- Windows 11 Home
- Windows 11 Pro
- Windows 11 Pro Downgrade (Windows 10 Pro Image-factory installed)
- Ubuntu Linux 20.04 LTS

Memory

The following table lists the memory specifications of your Latitude 5530.

Table 6. Memory specifications

Description	Values
Memory slots	Two-SoDIMM
Memory type	DDR4
Memory speed	3200 MHz
Maximum memory configuration	64 GB
Minimum memory configuration	4 GB

Table 6. Memory specifications (continued)

Description	Values
Memory size per slot	4 GB, 8 GB, 16 GB, 32 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 Latitude 5530.

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 • Two Thunderbolt 4 ports with DisplayPort Alt Mode/USB-C/USB4/Power Delivery
Audio port	One Universal audio port
Video port	One HDMI 2.0 port
Media-card reader	One microSD-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 Latitude 5530.

Table 8. Internal slots

Description	Values
M.2	• One M.2 2230 slot for Wi-Fi and Bluetooth card • Two M.2 2230/2280 slots for solid-state drive **NOTE:** To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at www.dell.com/support.

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Latitude 5530.

Table 9. Ethernet specifications

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

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Latitude 5530.

Table 10. Wireless module specifications

Description	Option one	Option two	Option Three	Option Four
Model number	Realtek RTL8822CE	Intel AX211	Intel AX201	MediaTek MT7921
Transfer rate	Up to 867 Mbps	Up to 2400 Mbps	Up to 2400 Mbps	Up to 1200 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (Wi-Fi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac)	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (Wi-Fi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac) • Wi-Fi 6E (Wi-Fi 802.11ax) **NOTE:** Wi-Fi 6E is available only in selected countries.	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (Wi-Fi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac) • Wi-Fi 6E (Wi-Fi 802.11ax) **NOTE:** Wi-Fi 6E is available only in selected countries.	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (Wi-Fi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac) • Wi-Fi 6E (Wi-Fi 802.11ax) **NOTE:** Wi-Fi 6E is available only in selected countries.
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	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth	Bluetooth 5.0	Bluetooth 5.2	Bluetooth 5.2	Bluetooth 5.2

WWAN module

The following table lists the Wireless Wide Area Network (WWAN) module supported on your Latitude 5530.

Table 11. WWAN module specifications

Description	Values
Model number	Intel 7360 (DW5820e)
Transfer rate	Up to 450 Mbps DL/50 Mbps UL (Cat 9)

Table 11. WWAN module specifications (continued)

Description	Values
Frequency bands supported	• LTE FDD: 450 Mbps DL/50 Mbps UL (Cat 9) • LTE TDD: B347 Mbps DL/30 Mbps UL (Cat 9) • UMTS/HSPA+: UMTS 384 Kbps DL/384 Kbps UL
Wireless standards	• LTE Category 9 • 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

The following table lists the audio specifications of your Latitude 5530.

Table 12. Audio specifications

Description		Values
Audio controller		Realtek ALC3204 with Waves MaxxAudio Pro
Stereo conversion		24-bit Digital-to-Analog (DAC) and Analog-to-Digital (ADC)
Internal audio interface		High definition audio interface
External audio interface		Universal audio jack
Number of 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

This section lists the storage options on your Latitude 5530.

Table 13. Storage matrix

Storage		SSD Slot 1	SSD Slot 2
M.2 2230, Gen 3 PCIe x4 NVMe		Yes	No
M.2 2230, Gen 3 PCIe x4 NVMe	M.2 2280, Gen 4 PCIe x4 NVMe	Yes	Yes (speed limited to Gen 3)

Table 13. Storage matrix (continued)

Storage		SSD Slot 1	SSD Slot 2
M.2 2280, Gen 3 PCIe x4 NVMe		Yes	No
M.2 2280, Gen 3 PCIe x4 NVMe	M.2 2280, Gen 4 PCIe x4 NVMe	Yes	Yes (speed limited to Gen 3)
M.2 2280, Gen 4 PCIe x4 NVMe		Yes	No
M.2 2280, Gen 3 PCIe x4 NVMe, SED		Yes	No
M.2 2280, Gen 3 PCIe x4 NVMe, SED	M.2 2280, Gen 4 PCIe x4 NVMe	Yes	Yes (speed limited to Gen 3)

The primary drive of your Latitude 5530 varies with the storage configuration.

Table 14. Storage specifications

Storage type	Interface type	Capacity
M.2 2230, Class 35 SSD	PCIe NVMe Gen3 x4	Up to 1 TB
M.2 2230, Class 35 SSD	PCIe NVMe Gen4 x4	Up to 1 TB
M.2 2230, Class 35 SSD, self-encrypting drive	PCIe NVMe Gen3 x4	256 GB
M.2 2230, Class 35 SSD, self-encrypting drive	PCIe NVMe Gen4 x4	256 GB
M.2 2280, Class 40 SSD	PCIe NVMe Gen3x4	Up to 1 TB
M.2 2280, Class 40 SSD	PCIe NVMe Gen4 x4	Up to 2 TB
M.2 2280, Class 40 SSD, self-encrypting drive	PCIe NVMe Gen3 x4	Up to 1 TB
M.2 2280, QLC PCIe NVMe	PCIe NVMe	512 GB

Media-card reader

The following table lists the media-card reader specifications of your Latitude 5530.

Table 15. Media-card reader (standard offering)

Description	Values
Media supported (Maximum capacity supported will vary by Flash Media Types)	
Media Supported	• Micro Secure Digital (mSD) • Micro Secure Digital High Capacity (mSDHC) • Micro Secure Digital Extended Capacity (mSDXC)
Support Specification Versions	microSD 4.0 card

Keyboard

The following table lists the keyboard specifications of your Latitude 5530.

Table 16. Keyboard specifications

Description	Values
Keyboard type	• Standard backlit keyboard • Standard non-backlit keyboard
Keyboard layout	QWERTY
Number of keys	• United States and Canada: 99 keys • United Kingdom: 100 keys • Japan: 103 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. **NOTE:** You can define the primary behavior of the function keys (F1–F12) changing **Function Key Behavior** in BIOS setup program.

Camera

The following table lists the camera specifications of your Latitude 5530.

Table 17. Camera specifications

Description	Option one	Option two	Option three
Number of cameras	One	One	One
Camera type	Integrated 6 mm HD RGB Webcam	Integrated 6 mm FHD RGB + IR Webcam	Integrated 6 mm FHD RGB + IR Webcam with proximity sensor and ALS (Optional)
Camera location	Front camera	Front camera	Front camera
Camera sensor type	CMOS sensor technology	CMOS sensor technology	CMOS sensor technology
Camera resolution:			
Still image	0.92 megapixel	0.92 megapixels	0.92 megapixels
Video	1280 x 720 (HD) at 30 fps	1920 x 1080 (FHD) at 30 fps	1920 x 1080 (FHD) at 30 fps
Infrared camera resolution:			
Still image	NA	0.23	0.23
Video	NA	640 x 360	640 x 360
Diagonal viewing angle:			

Table 17. Camera specifications (continued)

Description	Option one	Option two	Option three
Camera	78.60 degrees	87 degrees	87.60 degrees
Infrared camera	NA	87 degrees	87.60 degrees

Clickpad

The following table lists the touchpad specifications of your Latitude 5530.

Table 18. Clickpad specifications

Description		Values
Clickpad resolution:		>300 dpi
Clickpad dimensions:		
	Horizontal	115 mm (4.53 in.)
	Vertical	67 mm (2.64 in.)
Clickpad gestures		For more information about clickpad gestures available on Windows, see the Microsoft knowledge base article 4027871 at support.microsoft.com.

Power adapter

The following table lists the power adapter specifications of your Latitude 5530.

Table 19. Power adapter specifications

Description	Option one	Option two	Option three	Option four
Type	60 W AC adapter, USB-C	60 W AC adapter, USB-C, 2-pin	65 W AC adapter, USB-C	90 W AC adapter, USB-C
Power-adapter dimensions:				
Height	22 mm (0.87 in.)	22 mm (0.87 in.)	28 mm (1.10 in.)	22 mm (0.87 in.)
Width	55 mm (2.16 in.)	55 mm (2.16 in.)	51 mm (2.01 in.)	66 mm (2.60 in.)
Depth	66 mm (2.60 in.)	66 mm (2.60 in.)	112 mm (4.41 in.)	130 mm (5.12 in.)
Input voltage	100 VAC–240 VAC	100 VAC–240 VAC	100 VAC x 240 VAC	100 VAC x 240 VAC
Input frequency	50 Hz–60 Hz	50 Hz–60 Hz	50 Hz to 60 Hz	50 Hz to 60 Hz
Input current (maximum)	1.70 A	1.70 A	1.70 A	1.50 A
Output current (continuous)	• 20 V/3 A (Continuous) • 15 V/3 A (Continuous) • 9 V/3 A (Continuous) • 5 V/3 A (Continuous)	• 20 V/3 A (Continuous) • 15 V/3 A (Continuous) • 9 V/3 A (Continuous) • 5 V/3 A (Continuous)	• 20 V/3.25 A (Continuous) • 15 V/3 A (Continuous) • 9 V/3 A (Continuous) • 5 V/3 A (Continuous)	• 20 V/4.5 A (Continuous) • 15 V/3 A (Continuous) • 9 V/3 A (Continuous) • 5 V/3 A (Continuous)

Table 19. Power adapter specifications (continued)

Description	Option one	Option two	Option three	Option four
Rated output voltage	20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/15 VDC/9 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)	0°C to 40°C (32°F to 104°F)
Storage	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
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.				

Battery

The following table lists the battery specifications of your Latitude 5530.

Table 20. Battery specifications

Description		Option one	Option two	Option three	Option four
Battery type		3 cell, rechargeable Li-ion battery, 41 WHr, ExpressCharge Boost	3 cell, rechargeable Li-ion battery, 41 WHr, Long Cycle Life	4 cell, rechargeable Li-ion battery, 58 WHr, ExpressCharge Boost	4 cell, rechargeable Li-ion battery, 58 WHr, Long Cycle Life
Battery voltage		11.25 VDC	11.25 VDC	7.6 VDC	7.6 VDC
Battery weight (minimum)		0.177 kg (0.38 lbs)	0.177 kg (0.38 lbs)	0.23 kg (0.51 lbs)	0.23 kg (0.51 lbs)
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	206.4 mm (8.12 in.)	206.4 mm (8.12 in.)	242.0 mm (9.52 in.)	242.0 mm (9.52 in.)
	Depth	89.4 mm (3.51 in.)	89.4 mm (3.51 in.)	89.4 mm (3.51 in.)	89.4 mm (3.51 in.)
Temperature range:					
	Operating	• Charge: 0 °C to 45 °C (32 °F to 113 °F) • Discharge: 0 °C to 70 °C (32 °F to 158 °F)	• Charge: 0 °C to 45 °C (32 °F to 113 °F) • Discharge: 0 °C to 70 °C (32 °F to 158 °F)	• Charge: 0 °C to 45 °C (32 °F to 113 °F) • Discharge: 0 °C to 70 °C (32 °F to 158 °F)	• Charge: 0 °C to 45 °C (32 °F to 113 °F) • Discharge: 0 °C to 70 °C (32 °F to 158 °F)
	Storage	-40 °C to 65 °C (-40 °F to 149 °F)	-40 °C to 65 °C (-40 °F to 149 °F)	-40 °C to 65 °C (-40 °F to 149 °F)	-40 °C to 65 °C (-40 °F to 149 °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.

Table 20. Battery specifications (continued)

Description	Option one	Option two	Option three	Option four
Battery charging time (approximate) **NOTE:** Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, *Me and My Dell* on www.dell.com.	**Express Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 45°C normal express charge • 46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **Standard Charge/ Predominately AC User Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **Express Charge Boost Charge Method (Fast Charge for Initial 35%):** • 16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge	**Standard Charge/ Predominately AC User Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours	**Express Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 45°C normal express charge • 46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **Standard Charge/ Predominately AC User Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours **Express Charge Boost Charge Method (Fast Charge for Initial 35%):** • 16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge	**Standard Charge/ Predominately AC User Charge Method:** • 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours • 16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours
Coin-cell battery	Yes	Yes	Yes	Yes

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.

CAUTION: Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.

Display

The following table lists the display specifications of your Latitude 5530.

Table 21. Display specifications

Description		Option one	Option two	Option three	Option four	Option five
Display type		High Definition (HD)	Full High Definition (FHD)	Full High Definition (FHD), non-touch	Full High Definition (FHD), Low Blue Light	Ultra High Definition (UHD), Low Blue Light
Display-panel technology		Twisted Nematic (TN)	Wide Viewing Angle (WVA)	Wide Viewing Angle (WVA)	Wide Viewing Angle (WVA)	Wide-Viewing Angle (WVA)
Display-panel dimensions (active area):						
	Height	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)
	Width	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)
	Diagonal	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)
Display-panel native resolution		1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160
Luminance (typical)		220 nits	250 nits	250 nits	400 nits	400 nits
Megapixels		1.05	2.07	2.07	2.07	8.3
Color gamut		45% NTSC	45% NTSC	45% NTSC	100% sRGB	100% sRGB
Pixels Per Inch (PPI)		100	141	141	141	283
Contrast ratio (typical)		500:1	700:1	700:1	700:1	1000:1
Response time (max)		25 ms	25 ms	35 ms	35 ms	35 ms
Refresh rate		60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
Horizontal view angle		40/40 +/- degrees	85/85 +/- degrees	85/85 +/- degrees	85/85 +/- degrees	85/85 +/- degrees
Vertical view angle		10(U)/30(D) +/- degrees	80(U)/80(D) +/- degrees	80(U)/80(D) +/- degrees	80(U)/80(D) +/- degrees	80(U)/80(D) +/- degrees
Pixel pitch		0.252 x 0.252 mm	0.179 x 0.179 mm	0.179 x 0.179 mm	0.179 x 0.179 mm	0.0896 x 0.0896 mm
Power consumption (maximum)		4.20 W	4.60 W	4.60 W	4.50 W	4.50 W
Anti-glare vs glossy finish		Anti-glare	Anti-glare	Anti-glare	Anti-glare	Anti-glare
Touch options		No	No	Yes	No	No

Fingerprint reader (optional)

Table 22. Fingerprint reader specifications

Description	Power button option	FIPS option
Sensor technology	Capacitive	Capacitive
Sensor resolution	500 dpi	508 dpi
Sensor pixel size, X	108	256
Sensor pixel size, Y	88	360

Sensor

The following table lists the sensor of your Latitude 5530.

Table 23. Sensor

Sensor support
Ambient Light Sensor on the hinge-up (optional)
P-sensor on the hinge-up (optional)
1 Accelerometer in the base (system board)
1 Accelerometer (Accelerometer + Gyro) in the hinge- up sensor board (Upsell config. with Proximity/ALS/IR camera)

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Latitude 5530.

Table 24. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	12th Generation Intel i3 processor
Intel Iris Xe Graphics	Shared system memory	11th/12th Generation Intel Core i5/i7 processors with dual-channel memory **NOTE:** System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Latitude 5530.

Table 25. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce MX550	2 GB	GDDR6

Hardware security

The following table lists the hardware security of your Latitude 5530.

Table 26. Hardware security

Windows Hello - Fingerprint Reader (optional)
Trusted Platform Module (TPM) 2.0 FIPS 140-2 Certified
TCG Certification for TPM (Trusted Computing Group)
One wedge-shaped lock slot
Fingerprint Reader in Power Button tied to ControlVault 3
ControlVault 3 Advanced Authentication (optional) FIPS 140-2 Level 3 Certified
Contacted Smartcard reader with Control Vault 3 (optional) FIPS 201 Certified
Contactless Smartcard, NFC/FPR with CV3 (optional)
SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL
FIPS 201 Full Scan FPR and ControlVault 3

Smart-card reader

Contactless smart-card reader

This section lists the contactless smart-card reader specifications of your Latitude 5530.

Table 27. Contactless smart-card reader specifications

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
Felica Card Support	Reader and software capable of supporting Felica contactless cards	Yes
ISO 14443 Type A Card Support	Reader and software capable of supporting ISO 14443 Type A contactless cards	Yes
ISO 14443 Type B Card Support	Reader and software capable of supporting ISO 14443 Type B contactless cards	Yes
ISO/IEC 21481	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO/IEC 18092	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO 15693 Card Support	Reader and software capable of supporting ISO15693 contactless cards	Yes
NFC Tag Support	Supports reading and processing of NFC compliant tag information	Yes
NFC Reader Mode	Support for NFC Forum Defined Reader mode	Yes
NFC Writer Mode	Support for NFC Forum Defined Writer mode	Yes

Table 27. Contactless smart-card reader specifications (continued)

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
NFC Peer-to-Peer Mode	Support for NFC Forum Defined Peer to Peer mode	Yes
EMVCo Compliant	Compliant with EMVCO smart card standards as posted to www.emvco.com	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
NFC Proximity OS Interface	Enumerates NFP (Near Field Proximity) device for OS to utilize	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers	Yes
Windows Certified	Device certified by Microsoft WHCK	Yes
Dell ControlVault support	Device connects to Dell ControlVault for usage and processing	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	Yes

NOTE: 125 Khz proximity cards are not supported.

Table 28. Supported cards

Manufacturer	Card
HID	jCOP readertest3 A card (14443a)
	1430 1L
	DESFire D8H
	iClass (Legacy)
	iClass SEOS
NXP/Mifare	Mifare DESFire 8K White PVC Cards
	Mifare Classic 1K White PVC Cards
	NXP Mifare Classic S50 ISO Card
G&D	idOnDemand - SCE3.2 144K
	SCE6.0 FIPS 80K Dual+ 1 K Mifare
	SCE6.0 nonFIPS 80K Dual+ 1 K Mifare
	SCE6.0 FIPS 144K Dual + 1K Mifare
	SCE6.0 nonFIPS 144K Dual + 1 K Mifare
	SCE7.0 FIPS 144K
Oberthur	idOnDemand - OCS5.2 80K
	ID-One Cosmo 64 RSA D V5.4 T=0 card

Contacted smart-card reader

The following table lists the contacted smart-card reader specifications of your Latitude 5530.

Table 29. Contacted smart-card reader specifications

Title	Description	Dell ControlVault 3 smart-card reader
ISO 7816 -3 Class A Card Support	Reader capable of reading 5V powered smart mcard	Yes
ISO 7816 -3 Class B Card Support	Reader capable of reading 3V powered smart card	Yes
ISO 7816 -3 Class C Card support	Reader capable of reading 1.8V powered smart card	Yes
ISO 7816-1 Compliant	Specification for the reader	Yes
ISO 7816 -2 Compliant	Specification for smart card device physical characteristics (size, location of connection points, etc.)	Yes
T=0 support	Cards support character level transmission	Yes
T=1 support	Cards support block level transmission	Yes
EMVCo Compliant	Compliant with EMVCo (for electronic payment standards) smart card standards as posted to www.emvco.com	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers.	Yes
Windows Certified	Device certified by WHCK	Yes
FIPS 201 (PIV/HSPD-12) Compliant via GSA	Device compliant with FIPS 201/PIV/ HSPD-12 requirements	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	Yes

Operating and storage environment

This table lists the operating and storage specifications of your Latitude 5530.

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

Table 30. Computer environment

Description	Operating	Storage
Temperature range	0°C to 40°C (32°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS

Table 30. Computer environment (continued)

Description	Operating	Storage
Shock (maximum)	140 G†	160 G†
Altitude range	-15.2 m to 3048 m (-49.87 ft to 10000 ft)	-15.2 m to 10668 m (-49.87 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.

4

ComfortView Plus

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.

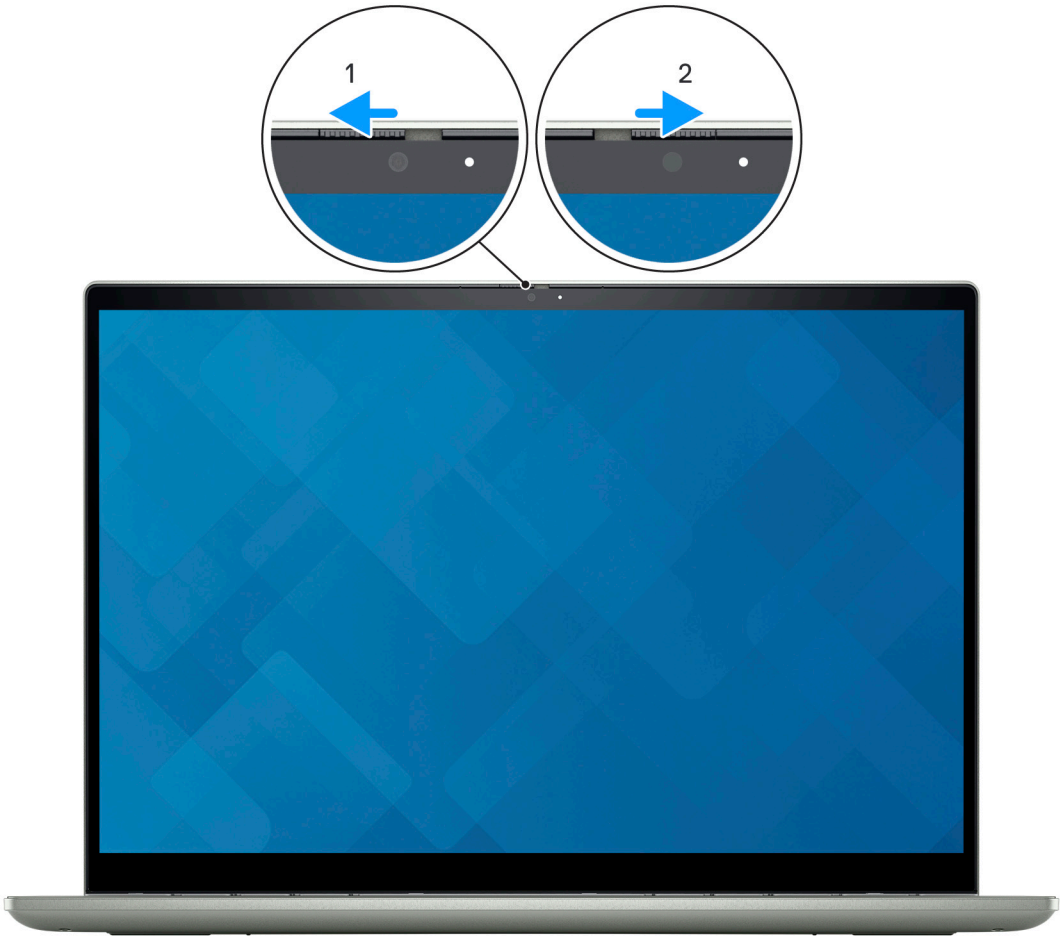
To reduce the risk of eye strain, it is also recommended that you:

- 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.

5

Using the privacy shutter

1. Slide the privacy shutter to the left to access the camera lens.
2. Slide the privacy shutter to the right to cover the camera lens.



6

Dell Optimizer

This section details the Dell Optimizer specifications of your Latitude 5530.

On Latitude 5530 with Dell Optimizer, the following features are supported:

- **ExpressConnect**—Automatically joins the access point with the strongest signal, and directs bandwidth to conferencing applications when in use.
- **ExpressSign-in**—The Intel Context Sensing Technology's proximity sensor detects your presence to instantly wake up the computer and login using the IR camera and Windows Hello feature. Windows locks when you walk away.
- **ExpressResponse**—Prioritizes the most important applications. Applications open faster and perform better.
- **ExpressCharge**—Extends the battery runtime and improves battery performance by adapting to your patterns.
- **Intelligent Audio**—Collaborate like you're in the same room. Intelligent Audio enhances your audio quality and reduces background noises, so you can hear and be heard, creating a better conference experience for all.

For more information about configuring and using these features, see Dell Optimizer User Guide.

7

Keyboard shortcuts of Latitude 5530

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

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: You can also define the primary behavior of the function keys (F1–F12) by changing **Function Key Behavior** in BIOS setup program.

Table 31. List of keyboard shortcuts

Function key	Primary behavior
F1	Mute audio
F2	Decrease volume
F3	Increase volume
F4	Mic mute
F5	Keyboard backlight **NOTE:** Non-backlight keyboards have F5 function key without the backlight icon and do not support toggle keyboard backlight function. **NOTE:** Toggle to cycle the keyboard backlight status through off, low-backlight, and high-backlight
F6	Decrease screen brightness
F7	Increase screen brightness
F8	Switch to external display
F9	Operating system and application specific F9 behavior
F10	Print Screen
F11	Home
F12	End

The **Fn** key is also used with selected keys on the keyboard to invoke other secondary functions.

Table 32. Secondary behavior

Function key	Secondary behavior
Fn + F1	Operating system and application specific F1 behavior
Fn + F2	Operating system and application specific F2 behavior
Fn + F3	Operating system and application specific F3 behavior

Table 32. Secondary behavior (continued)

Function key	Secondary behavior
Fn + F4	Operating system and application specific F4 behavior
Fn + F5	Operating system and application specific F5 behavior
Fn + F6	Operating system and application specific F6 behavior
Fn + F8	Operating system and application specific F8 behavior
Fn + F9	Operating system and application specific F9 behavior
Fn + F10	Operating system and application specific F10 behavior
Fn + F11	Operating system and application specific F11 behavior
Fn + F12	Operating system and application specific F12 behavior
Fn + PrtScr	Turn off/on wireless
Fn + B	Pause/Break
Fn + Insert	Sleep
Fn + S	Toggle scroll lock
Fn + H	Toggle between power and battery-status light/hard-drive activity light
Fn + R	System request
Fn + Ctrl	Open application menu
Fn + Esc	Toggle Fn-key lock
Fn + PgUp	Page up
Fn + PgDn	Page down
Fn + Left Arrow	Home
Fn + Right Arrow	End

8

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 33. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell app	
Tips	
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	www.dell.com/support/windows
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support. For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer.
Dell knowledge base articles for a variety of computer concerns	1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select **Support** > **Knowledge Base**. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

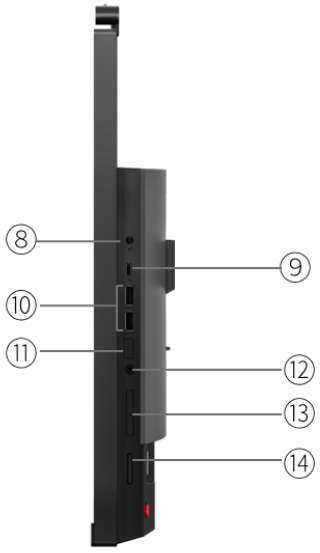
To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

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

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

OVERVIEW





1. OSD joystick	8. Microphone mute button
2. 3x USB 3.2 Gen 1	9. Thunderbolt 4
3. USB-C 3.2 Gen 2 (data transfer, 15W charging)	10. 2x USB 3.2 Gen 2
4. Ethernet (RJ-45)	11. Thunderbolt 3 (for display and file sharing) *
5. HDMI in 1.4 / out 2.1 TMDS combo port	12. Headphone / microphone combo jack (3.5mm)
6. DisplayPort 1.4	13. Card reader *
7. Power connector	14. Power button

Notes:

- Items with * are only available on selected models
- Please note the optional Thunderbolt 3 is not a Thunderbolt host port. For the details, please refer to the Ports section of specifications.

PERFORMANCE

Processor

Processor Family

13th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-13400	10 (6 P-core + 4 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.6GHz / E-core 3.3GHz	20MB	Intel® UHD Graphics 730
Core i5-13500	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.5GHz	24MB	Intel® UHD Graphics 770
Core i5-13600[2]	14 (6 P-core + 8 E-core)	20	P-core 2.7GHz / E-core 2.0GHz	P-core 5.0GHz / E-core 3.7GHz	24MB	Intel® UHD Graphics 770
Core i7-13700	16 (8 P-core + 8 E-core)	24	P-core 2.1GHz / E-core 1.5GHz	Max Turbo up to 5.2GHz / P-core 5.1GHz / E-core 4.1GHz	30MB	Intel® UHD Graphics 770
Core i9-13900	24 (8 P-core + 16 E-core)	32	P-core 2.0GHz / E-core 1.5GHz	Max Turbo up to 5.6GHz / P-core 5.2GHz / E-core 4.2GHz	36MB	Intel® UHD Graphics 770

Notes:

[1] Intel® Max Turbo frequency will vary depending on application workload and the hardware and software configurations, see http://www.intel.com/technology/turboboost/ for more information.

[2] Special bid only.

Operating System

Operating System**[1]

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Windows® 11 DG Windows® 10 Pro 64
- No preload operating system

Notes:

[1] Windows® 10 drivers support Windows® 10 21H1, 21H2 and 22H2, and Windows® 11 drivers support Windows® 11 21H2, 22H2 and MayCI

Graphics

Graphics**

Graphics	Type	Memory	Max Resolution	Connector	Key Features
Intel® UHD graphics 730	Integrated	Shared	4096x2160@60Hz(HDMI®), 4096x2304@60Hz - 36 bpp / 5120x3200@60Hz - 24 bpp (DP), 7680x4320@60Hz - 30 bpp (Thunderbolt™ 4)	1x HDMI® 2.1 TMDS, 1x DP 1.4, 1x Thunderbolt™ 4	DirectX® 12, OpenGL 4.6
Intel® UHD graphics 770	Integrated	Shared	4096x2160@60Hz(HDMI®), 4096x2304@60Hz - 36 bpp / 5120x3200@60Hz - 24 bpp (DP), 7680x4320@60Hz - 30 bpp (Thunderbolt™ 4)	1x HDMI® 2.1 TMDS, 1x DP 1.4, 1x Thunderbolt™ 4	DirectX® 12, OpenGL 4.6
NVIDIA® GeForce RTX™ 4050	Discrete	6GB GDDR6	4096x2160@60Hz(HDMI®), 4096x2304@60Hz - 36 bpp / 5120x3200@60Hz - 24 bpp (DP), 7680x4320@60Hz - 30 bpp (Thunderbolt™ 4)	1x HDMI® 2.1a TMDS, 1x DP 1.4, 1x Thunderbolt™ 4	DirectX® 12, OpenGL 4.6

Monitor Support

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via DisplayPort™, HDMI® and Thunderbolt™ 4; work as standalone monitor via HDMI® (HDMI® in / out combo) or optional Thunderbolt™ 3 port

Chipset

Chipset

Intel® Q670 chipset

Memory

Max Memory[1][2]

- Models with Core i5: Up to 64GB DDR5-4800
- Models with Core i7/i9: Up to 64GB DDR5-5200

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type**

- DDR5-4800[3]
- DDR5-5200[4]
- DDR5-5600

Memory Protection

Non-ECC

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.
[2] Installed memory is actually 5600MHz, but may run at 4800MHz or 5200MHz depending on the memory support capability of processor.
[3] Installed memory is actually DDR5-5600 but may run as DDR5-4800 depending on the memory support capability of Intel®.
[4] Installed memory is actually DDR5-5600 but may run as DDR5-5200 depending on the memory support capability of Intel®.

Storage

Storage Support[1]

Up to three drives, 1x 2.5" HDD + 2x M.2 SSD
• 2.5" HDD up to 1TB
• M.2 SSD up to 1TB each

Storage Type***

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4	-	Opal 2.0

RAID[2]

RAID 0/1 support for SSDs

Notes:

[1] The max capacity of each disk type is based on the test results with current Lenovo® storage offerings.
[2] RAID is not preset by default, user can config RAID 0/1 according to the demand.

Removable Storage

Optical

- DVD burner (DVD±RW), SATA connector, slim (9.0mm)
- None

Card Reader

- 3-in-1 card reader (SD, SDHC, SDXC)
- No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC256-NL codec

Speakers

Stereo speakers, 5W x2, Dolby Atmos®

Microphone

Dual-microphone array

Camera**

- 5.0-megapixel, IR + RGB hybrid, with ThinkShutter (physical switch on/off) and Human Presence Detection (Radar Sensor), ±20° view angle adjustable, Windows® Hello support
- 5.0-megapixel, IR + RGB hybrid, with ThinkShutter (physical switch on/off), ±20° view angle adjustable, Windows® Hello support
- 5.0-megapixel, with ThinkShutter (physical switch on/off), ±20° view angle adjustable

Power Supply

Power Supply

Power	Type	Efficiency	Key Features
230W	Fixed	92%	100V - 240V, 50-60Hz

DESIGN

Display

Display[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
27″	QHD (2560x1440)	None	IPS	350nits	Anti-glare	16:9	1000:1	99% sRGB	60Hz	89° / 89° / 89° / 89°	14ms response Time, 16.7 million color support, borderless design, TÜV Rheinland® Low Blue Light (Hardware Solution), TÜV Rheinland® Flicker Free, Eyesafe® Certified 2.0

Touchscreen

Non-touch

Notes:

[1] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

Input Device

Keyboard**

- Lenovo® Calliope Keyboard (USB connector), black
- Lenovo® Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo® Traditional Keyboard (USB connector), black
- No keyboard

Mouse**

- Lenovo® Calliope Mouse (USB connector), black
- Lenovo® Calliope Wireless Mouse (2.4GHz via USB receiver), black
- No mouse

Mechanical

Buttons

- Microphone mute button
- OSD joystick
- Power button

Form Factor

AIO (27 inches)

Dimensions (WxDxH)[1]

Models	Dimensions
Models without stand and camera	613.6 x 54.5 x 383.4 mm (24.2 x 2.1 x 15.1 inches)
Models (with UltraFlex V stand, with camera)	Lowest in flat mode: 613.6 x 364.54 x 227.11 mm (24.2 x 14.4 x 8.9 inches) Highest in vertical mode: 613.6 x 252.59 x 461.37 mm (24.2 × 9.9 × 18.2 inches)
Models (with full function monitor stand, with camera)	Lowest in vertical mode: 613.6 x 219.81 x 411.04 mm (24.2 x 8.7 x 16.2 inches) Highest in vertical mode: 613.6 x 219.81 x 521.81 mm (24.2 x 8.7 x 20.5 inches)

Packaging Dimensions (WxDxH)

764 x 235 x 545 mm (30.1 x 9.3 x 21.5 inches)

Weight[2]

11.2 kg (24.8 lbs, maximum configuration)

Packaging Weight

2.4 kg (5.28 lbs), packaging only

Case Color

Black

Bays

- 1x 2.5" disk bay
- 1x slim ODD bay

Expansion Slots

Three M.2 slots (one for WLAN, two for SSD)

EOU

Toolless cover, stand, motherboard shielding, HDD, and memory assembly / removal

Stand**

- UltraFlex V stand, supports -5° to +70° tilt, up to 70°±2° lift (up to 166.3mm lift in flat mode / up to 63mm lift in vertical mode)
- Full function monitor stand, supports -5° to +20° tilt, left & right 45° swivel, 90° pivot, up to 110mm lift
- No stand

Mounting

Supports VESA mount 100mm

Others

- (Optional) Conference Call Base, 3W x4 Harman speakers, 4 digital microphones array with AI noise suppression, Physical button for Teams, USB-C® connector
- Supports Smart Power On

Notes:

[1] The system dimensions may vary depending on configurations.

[2] The system weight is approximate and based on results in Lenovo® lab, which varies depending on the source of component, variance of the distribution of each component, and manufacturing process. It may not be the exact weight for each specific model.

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel® Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**

- Realtek® Wi-Fi® 6 RTL8852BE, 802.11ax Dual Band 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card[1]
- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, Intel® vPro® technology support, M.2 Card[2]

- No WLAN and Bluetooth®

Notes:

[1], [2] Bluetooth® 5.3 requires Windows® 11.

Ports[1]

Rear Ports

- 1x USB-C® 3.2 Gen 2 (support data transfer and 15W charging)
- 3x USB 3.2 Gen 1
- 1x HDMI® (HDMI® in 1.4 / HDMI® out 2.1 TMDS combo port)
- 1x DisplayPort™ 1.4
- 1x Ethernet (RJ-45)

Optional Rear Ports

None

Right Ports

- 1x Thunderbolt™ 4 / USB4® 40Gbps (support data transfer, 15W charging and DisplayPort™ 1.4)
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

Optional Right Ports

- 1x ThunderBolt 3[2]
- 1x card reader

Notes:

[1] The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB4® 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
USB4® 40Gbps (USB 40Gbps): 40 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s.

[2] This Thunderbolt™ 3 port is not a Thunderbolt™ host port. By connecting it to a laptop or desktop Thunderbolt™ port with the included Type-C cable, customers can share M90a Pro Gen 4 as a Thunderbolt™ monitor and share the files saved on the 2nd SSD of M90a Pro Gen 4. A Type-C cable is boundled with the models with Thunderbolt™ 3 port.

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot™, 3 x 7 mm

Chassis Intrusion Switch

- Chassis intrusion switch
- No chassis intrusion switch

Fingerprint Reader

No fingerprint reader

Other Security

- (Optional) Smart Human Presence Detection (Camera with Radar Sensor)
- ThinkShutter camera cover

BIOS Security

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse

- Individual USB port disablement
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)

MANAGEABILITY

System Management

System Management[1]

- Intel® vPro® Enterprise
- Non-vPro®

Notes:

[1] Intel® vPro® offers a superset of DASH's defined capabilities.

SERVICE

Warranty[1]

Base Warranty**

- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

[1] The warranty upgrades may be bundled with some models, please check the "Included upgrade" column in the specific model's configurations. For more service extensions, please go to https://smartfind.lenovo.com/. To learn more details of warranty policy, please access https://support.lenovo.com/warrantylookup/warrantypolicy.

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- DP to DVI dongle
- DP to Dual DP dongle
- DP to HDMI® dongle
- DP to VGA dongle
- HDMI® to DVI dongle
- HDMI® to VGA dongle
- None

OPERATING REQUIREMENTS

Operating Environment

Temperature

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

Relative Humidity

Operating: 20% to 80%

Altitude

- Operating: 0 m (0 ft) to 3048 m (10,000 ft)
- Storage: 0 m (0 ft) to 12192 m (40,000 ft)

CERTIFICATIONS

Green Certifications[1]

Green Certifications

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Gold Registered
- ErP Lot 3
- RoHS compliant
- TCO Certified 9.0
- TCO edge
- VOC Report

Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration. For ESG & regulatory compliance documents, please visit https://compliance.lenovo.com.

Other Certifications

Other Certifications

- (Optional) TÜV Rheinland® Ultra Low Noise
- Eyesafe® Certified 2.0
- TÜV Rheinland® Flicker Free
- TÜV Rheinland® Low Blue Light (Hardware Solution)
- UL Anti-dust

Mil-Spec Test

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation, Contamination by Fluids, Salt Fog)

- Feature with ** means that only one offering listed under the feature is configured on selected models.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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Lenovo







ENERGY STAR CERTIFIED
Computers

Lenovo - ThinkCentre M90a Pro Gen4 : 12JM

Specifications

ENERGY STAR Unique ID:	2631784
Brand Name:	Lenovo
Model Name:	ThinkCentre M90a Pro Gen4
Model Number:	12JM
Type:	Integrated Desktop
Notebooks, Desktops, Integrated Computers, Slate/Tablets, Two-in-one Notebooks, and Portable All-in-ones Category for TEC (Typical Energy Consumption) Criteria:	Desktop I2 or Integrated Desktop 2
Category I2: Processor Brand:	Intel
Category I2: Processor Name:	I9-13900
Category I2: Operating System Name:	Windows 11
Category I2: Physical CPU Cores (count):	24
Category I2: Base Processor Speed Per Core (GHz):	2.0
Category I2: System Memory (GB):	64
Category I2: Default Low-power Mode:	Sleep Mode
Category I2: Long Idle Power Used for Sleep Mode:	No
Category I2: Off Mode (watts):	0.8
Category I2: Sleep Mode (watts):	1.1
Category I2: Long Idle (watts):	12.4
Category I2: Short Idle (watts):	28.5
Category I2: Base TEC Allowance (kWh):	27
Category I2: Functional Adder Allowances (kWh):	141.2
Category I2: TEC of Model (kWh):	91.3
Sleep Mode Default Time Upon Shipment (min.):	25
Display Sleep Mode Default Time Upon Shipment (min.):	10
WOL (Wake on LAN) From Sleep:	Shipped Enabled Under All Conditions
Will the Speed of Any Active 1 GB/s or Higher Ethernet Network Links be Reduced to Less Than 1 GB/s When Transitioning to Sleep or Off Mode?:	Yes
WLAN Capability:	Yes

Ethernet Capability:	Yes
Bluetooth Capability:	Yes
Touch Screen:	Yes
Date Available On Market:	2023-09-28
Date Certified:	2023-08-03
Markets:	United States, Switzerland, Taiwan, Japan, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

ThinkCentre M90a Pro Gen4,12JN,; ThinkCentre M90a Pro Gen4,12JQ,; ThinkCentre M90a Pro Gen4,12JR,; ThinkCentre M90a Pro Gen4,12JS,

Captured On:
11/01/2024

ENERGY STAR CERTIFIED
Computers

DELL - P104F : Latitude 5530

Specifications

ENERGY STAR Unique ID:	2392947
Brand Name:	DELL
Model Name:	P104F
Model Number:	Latitude 5530
Type:	Notebook
Category 1: Processor Brand:	Intel
Category 1: Processor Name:	i3-1215U
Category 1: Base Processor Speed Per Core (GHz):	1.2
Category 1: Physical CPU Cores (count):	6
Category 1: System Memory (GB):	64
Category 1: Default Low-power Mode:	ALPM
Category 1: Long Idle Power Used for Sleep Mode:	Yes
Category 1: Off Mode (watts):	0.2
Category 1: Sleep Mode (watts):	1.3
Category 1: Long Idle (watts):	1.3
Category 1: Short Idle (watts):	5.6
Category 1: Base TEC Allowance (kWh):	8
Category 1: Functional Adder Allowances (kWh):	30.7
Category 1: TEC of Model (kWh):	18.6
Category 2: Processor Brand:	Intel
Category 2: Processor Name:	i7-1265U
Category 2: Base Processor Speed Per Core (GHz):	1.8
Category 2: Physical CPU Cores (count):	10
Category 2: System Memory (GB):	64.0
Category 2: Default Low-power Mode:	ALPM
Category 2: Long Idle Power Used for Sleep Mode:	Yes
Category 2: Off Mode (watts):	0.3
Category 2: Sleep Mode (watts):	1.4
Category 2: Long Idle (watts):	1.4
Category 2: Short Idle (watts):	7.5

Category 2: Base TEC Allowance (kWh):	14
Category 2: Functional Adder Allowances (kWh):	30.7
Category 2: TEC of Model (kWh):	23.1
Notebooks, Desktops, Integrated Computers, Slate/Tablets, Two-in-one Notebooks, and Portable All-in-ones Category for TEC (Typical Energy Consumption) Criteria:	2,1
Category 1: Operating System Name:	Windows 11
Category 2: Operating System Name:	Windows 11
Sleep Mode Default Time Upon Shipment (min.):	10
Display Sleep Mode Default Time Upon Shipment (min.):	10
WOL (Wake on LAN) From Sleep:	Shipped Disabled
Will the Speed of Any Active 1 GB/s or Higher Ethernet Network Links be Reduced to Less Than 1 GB/s When Transitioning to Sleep or Off Mode?:	No
Ethernet Capability:	Yes
Touch Screen:	Yes
Date Available On Market:	2022-03-24
Date Certified:	2022-02-11
Markets:	United States, Switzerland, Taiwan, Japan, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

P104F,Precision 3570,

Captured On:
11/01/2024