

PSREF

Product Specifications Reference

ThinkPad Laptops

The ThinkPad logo is displayed in white, featuring a red dot above the letter 'i'.

Version 575
April 7, 2021

The Lenovo logo is shown in white text on a blue rectangular background, oriented vertically.

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

April 7, 2021 - Version 575

Additions in this update

► New product(s)

ThinkPad T14s Gen 2 (Intel)

ThinkPad X13 Gen 2 (Intel)

► Spec updated

ThinkPad T14s Gen 1 (Intel)

ThinkPad T14 Gen 2 (Intel)

ThinkPad T15 Gen 2 (Intel)

ThinkPad X1 Fold

ThinkPad X1 Fold

ThinkPad L14 Gen 1 (AMD)

ThinkPad L14 Gen 1 (Intel)

ThinkPad L14 Gen 2 (Intel)

ThinkPad L15 Gen 1 (Intel)

ThinkPad C13 Yoga Gen 1 Chromebook

ThinkPad 11e (5th Gen)

ThinkPad Yoga 11e (5th Gen)

Withdrawals in this update

► Withdrawn product(s)

ThinkPad P1 (2nd Gen)

ThinkPad P43s

ThinkPad P53

ThinkPad P53s

ThinkPad P73

PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 7th Generation Intel Core™ m / i5 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron N4100	4	4	1.1GHz	2.4GHz	4MB	DDR4-2400	Intel UHD Graphics 600
Celeron N4120	4	4	1.1GHz	2.6GHz	4MB	DDR4-2400	Intel UHD Graphics 600
Pentium Silver N5000	4	4	1.1GHz	2.7GHz	4MB	DDR4-2400	Intel UHD Graphics 605
Pentium Silver N5030	4	4	1.1GHz	3.1GHz	4MB	DDR4-2400	Intel UHD Graphics 605
Core m3-7Y30	2	4	1.0GHz	2.6GHz	4MB	LPDDR3-1866	Intel HD Graphics 615
Core i5-7Y54	2	4	1.2GHz	3.2GHz	4MB	LPDDR3-1866	Intel HD Graphics 615

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics 600	Integrated	Shared	DirectX® 12
Intel UHD Graphics 605	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via HDMI® (up to 4096x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2400
- LPDDR3-1866

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

- One drive, up to 256GB M.2 2242 SSD
- 64GB eMMC on systemboard

ThinkPad 11e (5th Gen)

- 128GB eMMC on systemboard

Notes:

- System has one M.2 2242 SSD or one eMMC on systemboard exclusively

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
Flash Memory	eMMC	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Single microphone

Camera

720p, fixed focus

Battery

Battery

Integrated Li-Polymer 42Wh battery

Max Battery Life

MobileMark® 2014: 13.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 45W slim tip AC adapter
- 65W USB-C AC adapter
- 65W slim tip AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
11.6"	HD (1366x768)	Multi-touch	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
11.6"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	400:1 or 500:1	45% NTSC	90°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- IPS display is not available in EMEA

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Notes:

- NOT available in EMEA

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

Not support

Touchpad

Buttonless Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

300 x 210 x 21.9 mm (11.81 x 8.27 x 0.86 inches)

Weight

1.36 kg (2.99 lbs)

Case Color

Black

Case Material

PC + ABS + GF (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x HDMI 1.4b

- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x power connector
- 2x USB 3.1 Gen 1
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 3-year (1-yr battery) depot service

CERTIFICATIONS

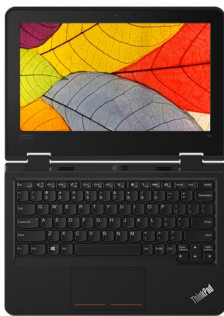
Green Certifications

RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th Generation Intel® Core™ m / i5 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core m3-8100Y	2	4	1.1GHz	3.4GHz	4MB	LPDDR3-1866	Intel UHD Graphics 615
Core i5-8200Y	2	4	1.3GHz	3.9GHz	4MB	LPDDR3-1866	Intel UHD Graphics 615

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics 615	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR3-1866

Notes:

- Installed memory is actually 2133MHz, but may run at 1866MHz depending on the memory support capability of processor

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 256GB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Advanced Audio

Microphone

Single microphone

Camera

- Front 720p, fixed focus
- Front 720p, fixed focus; and rear 5.0-megapixel, auto focus

Battery**Battery**

Integrated Li-Polymer 46Wh battery

Max Battery Life

MobileMark® 2014: 15.69 hr

MobileMark 2018: 11.05 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
11.6"	HD (1366x768)	Multi-touch	IPS	250 nits	Glossy	16:9	800:1	45% NTSC	170°	Corning® Gorilla® Glass

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device**Pen**

- ThinkPad® Pen Pro, batteries required, on-board garaged
- Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

Not support

Touchpad

Buttonless Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

293x 207 x 19.9 mm (11.54 x 8.15 x 0.78 inches)

Weight

1.41 kg (3.1 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

No Ethernet

Notes:

- support MAC pass through

WLAN + Bluetooth™

- Intel Dual Band Wireless-AC 8265, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 Card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x microSD card reader
- 1x headphone / microphone combo jack (3.5mm)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4
- 2x USB 3.2 Gen 1

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Celeron®, Intel Pentium®, or 7th Generation Intel Core™ m / i5 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron N4100	4	4	1.1GHz	2.4GHz	4MB	DDR4-2400	Intel UHD Graphics 600
Celeron N4120	4	4	1.1GHz	2.6GHz	4MB	DDR4-2400	Intel UHD Graphics 600
Pentium Silver N5000	4	4	1.1GHz	2.7GHz	4MB	DDR4-2400	Intel UHD Graphics 605
Pentium Silver N5030	4	4	1.1GHz	3.1GHz	4MB	DDR4-2400	Intel UHD Graphics 605
Core m3-7Y30	2	4	1.0GHz	2.6GHz	4MB	LPDDR3-1866	Intel HD Graphics 615
Core i5-7Y54	2	4	1.2GHz	3.2GHz	4MB	LPDDR3-1866	Intel HD Graphics 615

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics 600	Integrated	Shared	DirectX® 12
Intel UHD Graphics 605	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via HDMI® (up to 4096x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2400
- LPDDR3-1866

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

- One drive, up to 256GB M.2 2242 SSD
- 64GB eMMC on systemboard

ThinkPad Yoga 11e (5th Gen)

- 128GB eMMC on systemboard

Notes:

- System has one M.2 2242 SSD or one eMMC on systemboard exclusively

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
Flash Memory	eMMC	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Single microphone

Camera

- Front 720p, fixed focus
- Front 720p, fixed focus; and rear 5.0-megapixel, auto focus

Battery

Battery

Integrated Li-Polymer 42Wh battery

Max Battery Life

MobileMark® 2014: 12 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 45W slim tip AC adapter
- 65W USB-C AC adapter
- 65W slim tip AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
11.6"	HD (1366x768)	Multi-touch	IPS	250 nits	Glossy	16:9	800:1	45% NTSC	170°	Corning® Gorilla® Glass

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad® Pen Pro, batteries required, on-board garaged
- No pen (with a pen garage ready, pen needs to be purchased separately)
- Not support

Keyboard

6-row, multimedia Fn keys

Keyboard Backlight

Not support

Touchpad

Buttonless Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

300 x 210 x 22.5 mm (11.81 x 8.27 x 0.89 inches)

Weight

1.54 kg (3.4 lbs)

Case Color

Black

Case Material

PC + ABS + GF (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 2x USB 3.1 Gen 1
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x power connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 3-year (1-yr battery) depot service

CERTIFICATIONS

Green Certifications

RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Athlon™ or AMD Ryzen™ 3 / 5 / 7 processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Athlon Gold 3150C	2	4	2.4GHz	3.3GHz	1MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Graphics
AMD Ryzen 3 3250C	2	4	2.6GHz	3.5GHz	1MB L2 / 4MB L3	DDR4-2400	AMD Radeon Graphics
AMD Ryzen 5 3500C	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Graphics
AMD Ryzen 7 3700C	4	8	2.3GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Graphics

Operating System

- Google Chrome OS
- Google Chrome OS (with Chrome Enterprise Upgrade)

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

- Ryzen 5 / Ryzen 7 model: supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 3840x2160@60Hz) or USB-C (up to 3840x2160@60Hz)
- Athlon / Ryzen 3 model: supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@30Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 3200MHz but run at 2400MHz due to processor limitation

Memory Slots

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel capable (8GB or 16GB model)

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

- One drive, up to 128GB M.2 2242 SSD

ThinkPad C13 Yoga Gen 1 Chromebook

- One drive, up to 256GB M.2 2280 SSD
- 32GB eMMC 5.1 on systemboard
- 64GB eMMC 5.1 on systemboard

Notes:

- System has one M.2 2242 SSD, one M.2 2280 SSD or one eMMC on systemboard exclusively

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
Flash Memory	eMMC	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® 5682I-CGT codec

Speakers

Stereo speakers, 2W x2

Microphone

- Dual array microphone, far-field
- dual array far-field microphone and a single microphone (models with rear camera)

Camera

- Front 720p, with privacy shutter, fixed focus
- Front 720p, with privacy shutter, fixed focus; and rear 5.0-megapixel, auto focus

Battery

Battery

Integrated Li-Polymer 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

Google power load test: 12.5 hr

JEITA 2.0: 12.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark® 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features

13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	1400:1	72% NTSC	170°	-
13.3"	UHD (3840x2160)	Multi-touch	OLED	400 nits	Anti-reflection, Anti-smudge	16:9	100000:1	100% DCI-P3	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device**Pen**

- Lenovo USI Pen, on-board garaged and rechargeable
- No pen (pen needs to be purchased separately)

Keyboard

Chrome keyboard, 6-row, spill-resistant

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

307 x 212.1 x 15.5-17.9 mm (12.09 x 8.35 x 0.61-0.70 inches)

Weight

1.497 kg (3.3 lbs)

Case Color

Abyss blue

Case Material

Aluminium (top), aluminium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

No Ethernet

WLAN + Bluetooth™

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.0, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Intel WiFi 6 card supports BT5.2 but is limited to BT5.0 by Chrome OS

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

Google Security Chip H1

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

Not support

Other Security

ThinkShutter camera cover

MANAGEABILITY

System Management

None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test



MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics

Notes:

- i7-10710U is NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
AMD Radeon™ 625	Discrete	2GB GDDR5	DirectX 12
AMD Radeon RX 640	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Memory Slots

One DDR4 SO-DIMM slot

Max Memory

Up to 16GB DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x 2.5" HDD + 1x M.2 2280 SSD or 1x 2.5" HDD + 1x M.2 2242 SSD

- 2.5" HDD up to 2TB
- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB
- Optional Intel Optane™ Memory or Optane Memory Integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Advanced Audio

Microphone

Dual array microphone

Camera

- 720p, fixed focus
- 720p, with ThinkShutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	400:1	-	90°	-
14.0"	FHD	None	IPS	250 nits	Anti-	16:9	700:1	-	170°	-

(1920x1080)				glare					
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Aluminium (top), PC + ABS (bottom) models	325 x 232 x 18.9 mm (12.8 x 9.13 x 0.74 inches)
Aluminium (top), aluminium (bottom) models	325 x 232 x 17.9 mm (12.8 x 9.13 x 0.7 inches)
PC + ABS (top), PC + ABS (bottom) models	325 x 232 x 20.5 mm (12.8 x 9.13 x 0.81 inches)

Weight

Models	Weight
Aluminium (Top), PC + ABS (Bottom) models	1.69 kg (3.73 lbs)
PC + ABS (Top), PC + ABS (Bottom) models	1.77 kg (3.9 lbs)
Aluminium (Top), Aluminium (Bottom) models	1.73 kg (3.81 lbs)

Case Color

- Black
- Silver

Case Material

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x USB 2.0
- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

Other Security

- ThinkShutter camera cover
- None

SERVICE**Warranty****Base Warranty**

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS**Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO

- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 4300U	4	4	2.7GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 4500U	6	6	2.3GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4600U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4700U	8	8	2.0GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4800U	8	16	1.8GHz	4.2GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

- Ryzen 5 4600U, Ryzen 5 PRO 4650U and Ryzen 7 4800U are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 20GB (4GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x M.2 2242 SSD + 1x M.2 2280 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

No card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, HARMAN-branded

Microphone

Dual array microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 13 hr

MobileMark 2018: 10.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	400:1	-	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	-	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Aluminium (top), PC + ABS (bottom) models	324 x 220 x 18.9 mm (12.76 x 8.66 x 0.74 inches)
PC + ABS (top), PC + ABS (bottom) models	324 x 220 x 20.5 mm (12.76 x 8.66 x 0.81 inches)
Aluminium (top), aluminium (bottom) models	324 x 220 x 17.9 mm (12.76 x 8.66 x 0.7 inches)

Weight

Models	Weight
Aluminium (Top), PC + ABS (Bottom) models	1.59 kg (3.51 lbs)
PC + ABS (Top), PC + ABS (Bottom) models	1.69 kg (3.73 lbs)
Aluminium (Top), Aluminium (Bottom) models	1.64 kg (3.62 lbs)

Case Color

Black

Case Material

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Realtek RTL8822CE is NOT available in EMEA
Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE**Warranty****Base Warranty**

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS**Green Certifications**

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed



AMD



AMD



AMD



AMD



AMD



AMD

ThinkPad E14 Gen 2 (Intel)

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12
NVIDIA® GeForce® MX350	Discrete	2GB GDDR5	DirectX 12
NVIDIA GeForce MX450	Discrete	2GB GDDR5	DirectX 12

Notes:

- The integrated graphics of i5 / i7 models is Intel Iris Xe Graphics but function as Intel UHD graphics due to single channel memory limitation

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@30Hz) or Thunderbolt™ (up to 5120x3200@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One DDR4 SO-DIMM slot

Max Memory

Up to 32GB DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x M.2 2242 SSD + 1x M.2 2280 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
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ThinkPad E14 Gen 2 (Intel)

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- M.2 2280 slot supports PCIe 4.0 x 4

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, HARMAN-branded

Microphone

Dual array microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 11.9 hr

MobileMark 2018: 8.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD	None	IPS	300 nits	Anti-	16:9	1200:1	100%	170°	-

(1920x1080)				glare			sRGB		
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- Displays with 300nits brightness (multi-touch and non-touch) are NOT available in EMEA

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Aluminium (top), PC + ABS (bottom) models	324 x 220 x 18.9 mm (12.76 x 8.66 x 0.74 inches)
PC + ABS (top), PC + ABS (bottom) models	324 x 220 x 19.9 mm (12.76 x 8.66 x 0.78 inches)
Aluminium (top), aluminium (bottom) models	324 x 220 x 17.9 mm (12.76 x 8.66 x 0.7 inches)

Weight

Models	Weight
Aluminium (Top), PC + ABS (Bottom) models	1.59 kg (3.51 lbs)
PC + ABS (Top), PC + ABS (Bottom) models	1.69 kg (3.73 lbs)
Aluminium (Top), Aluminium (Bottom) models	1.64 kg (3.62 lbs)

Case Color

- Black
- Mineral metallic

Case Material

- Aluminium (top), aluminium (bottom)
- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111H-CG

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0

- ErP Lot 3
- TCO
- RoHS compliant

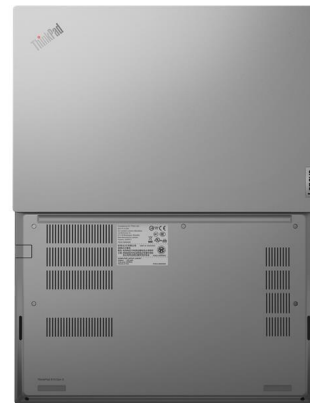
Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Low Blue Light certified



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics

Notes:

- i7-10710U is NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
AMD Radeon™ 625	Discrete	2GB GDDR5	DirectX 12
AMD Radeon RX 640	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Memory Slots

One DDR4 SO-DIMM slot

Max Memory

Up to 16GB DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x 2.5" HDD + 1x M.2 2280 SSD or 1x 2.5" HDD + 1x M.2 2242 SSD

- 2.5" HDD up to 2TB
- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB
- Optional Intel Optane™ Memory or Optane Memory Integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Advanced Audio

Microphone

Dual array microphone

Camera

- 720p, fixed focus
- 720p, with ThinkShutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.2 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	-	170°	-
15.6"	FHD	None	TN	220 nits	Anti-	16:9	400:1	-	90°	-

	(1920x1080)				glare				
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

368 x 245 x 18.9 mm (14.49 x 9.65 x 0.74 inches)

Weight

1.9 kg (4.19 lbs)

Case Color

- Black
- Silver

Case Material

Aluminium (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 2.0
- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)

- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

Other Security

- ThinkShutter camera cover
- None

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 4300U	4	4	2.7GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 4500U	6	6	2.3GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4600U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4700U	8	8	2.0GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 4800U	8	16	1.8GHz	4.2GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Notes:

- Ryzen 5 4600U, Ryzen 5 PRO 4650U and Ryzen 7 4800U are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 20GB (4GB soldered + 16GB SO-DIMM) DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x M.2 2242 SSD + 1x M.2 2280 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

No card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, HARMAN-branded

Microphone

Dual array microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.7 hr

MobileMark 2018: 10.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	-	170°	-
15.6"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	400:1	-	90°	-

ThinkPad E15 Gen 2 (AMD)

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

365 x 240 x 18.9 mm (14.37 x 9.45 x 0.74 inches)

Weight

1.7 kg (3.75 lbs)

Case Color

Black

Case Material

Aluminium (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.0, M.2 card
- Wi-Fi 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Realtek RTL8822CE is NOT available in EMEA
WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)

- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12
NVIDIA® GeForce® MX350	Discrete	2GB GDDR5	DirectX 12
NVIDIA GeForce MX450	Discrete	2GB GDDR5	DirectX 12

Notes:

- The integrated graphics of i5 / i7 models is Intel Iris Xe Graphics but function as Intel UHD graphics due to single channel memory limitation

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@30Hz) or Thunderbolt™ (up to 5120x3200@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One DDR4 SO-DIMM slot

Max Memory

Up to 32GB DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x M.2 2242 SSD + 1x M.2 2280 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security

ThinkPad E15 Gen 2 (Intel)

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- M.2 2280 slot supports PCIe 4.0 x 4

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™, HARMAN-branded

Microphone

Dual array microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 10.8 hr

MobileMark 2018: 8.2 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	-
15.6"	FHD (1920x1080)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
15.6"	FHD	Multi-	IPS	300 nits	Anti-	16:9	800:1	45%	170°	-

	(1920x1080)	touch			glare			NTSC		
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- Displays with 300nits brightness (multi-touch and non-touch) are NOT available in EMEA

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

365 x 240 x 18.9 mm (14.37 x 9.45 x 0.74 inches)

Weight

1.7 kg (3.75 lbs)

Case Color

- Black
- Mineral metallic

Case Material

Aluminium (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111H-CG

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 2.0
- 1x USB 3.2 Gen 1 (Always On)

ThinkPad E15 Gen 2 (Intel)

- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 1.4b
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- No base warranty

ACCESSORIES

Bundled Accessories

ThinkPad® Integrated Earbuds

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

TÜV Low Blue Light certified



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 3200U	2	4	2.6GHz	3.5GHz	1MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 3 Graphics
AMD Ryzen 5 3500U	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 8 Graphics
AMD Ryzen 7 3700U	4	8	2.3GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon RX Vega 10 Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Vega 3 Graphics	Integrated	Shared	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	DirectX 12
AMD Radeon RX Vega 10 Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 32GB DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x 2.5" HDD + 1x M.2 2242/2280 SSD

- 2.5" HDD up to 2TB
- M.2 2280 SSD up to 512GB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 1.5W x2, Dolby® Advanced Audio

Microphone

Dual array microphone

Camera

720p, fixed focus

Battery**Battery**

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 11 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	-	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	600:1	-	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Aluminium (top), PC + ABS (bottom) models	329 x 242 x 19.9 mm (12.96 x 9.53 x 0.78 inches)
PC + ABS (top), PC + ABS (bottom) models	329 x 242 x 21.9 mm (12.96 x 9.53 x 0.83 inches)

Weight

1.75 kg (3.87 lbs)

Case Color

Black

Case Material

- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 2.0
- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4b
- 1x microSD card reader

- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 3200U	2	4	2.6GHz	3.5GHz	1MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 3 Graphics
AMD Ryzen 5 3500U	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 8 Graphics
AMD Ryzen 7 3700U	4	8	2.3GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon RX Vega 10 Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Vega 3 Graphics	Integrated	Shared	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	DirectX 12
AMD Radeon RX Vega 10 Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via HDMI® (up to 3840x2160@30Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 32GB DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x 2.5" HDD + 1x M.2 2242/2280 SSD

- 2.5" HDD up to 2TB
- M.2 2280 SSD up to 512GB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Advanced Audio

Microphone

Dual array microphone

Camera

720p, fixed focus

Battery**Battery**

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 10.3 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	600:1	-	170°	-
15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	-	90°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys, numeric keypad

Keyboard Backlight

Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

369 x 252 x 19.9 mm (14.53 x 9.92 x 0.78 inches)

Weight

2.1 kg (4.63 lbs)

Case Color

Black

Case Material

Aluminium (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek® RTL8111GUS

WLAN + Bluetooth™

- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 2.0
- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

SERVICE

Warranty

Base Warranty

- 1-year mail-in service
- 1-year depot service
- 1-year limited onsite service

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 10th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 5205U	2	2	1.9GHz	-	2MB	DDR4-2400	Intel UHD Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@30Hz) or USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2400
- DDR4-2666

Memory Slots

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel capable (8GB or 16GB model)

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14.1 hr

JEITA 2.0: 14.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	500:1	-	90°	-
13.3"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	-	170°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	-	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

1.38 kg (3.04 lbs)

Case Color

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad® Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1

- 1x USB 3.1 Gen 1 (Always On)
- 2x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY**System Management**

- Intel vPro Technology, DASH
- None

SERVICE**Warranty****Base Warranty**

- 1-year depot service
- 1-year limited onsite service

- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 11th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 6305	2	2	1.8GHz	-	4MB	DDR4-3200	Intel UHD Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 3840x2160@60Hz), USB-C (up to 5120x2160@60Hz) or Thunderbolt™ (up to 5120x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel capable (8GB or 16GB model)

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.25 hr

MobileMark 2018: 8.91 hr

JEITA 2.0: 11.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

1.39 kg (3.06 lbs)

Case Color

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad® Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.2)

- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service

- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@30Hz) or USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Memory Slots

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel capable (8GB or 16GB model)

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera

- Front 720p, with ThinkShutter, fixed focus
- Front IR & 720p, with ThinkShutter, fixed focus
- Front 720p, with ThinkShutter, fixed focus; and rear 5.0-megapixel, auto focus
- Front IR & 720p, with ThinkShutter, fixed focus; and rear 5.0-megapixel, auto focus

Notes:

- Rear camera is only selectable for models with fingerprint reader

Sensor

Sensors

Accelerometer (G) sensor

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.23 hr

JEITA 2.0: 13.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
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13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:9	800:1	72% NTSC	170°	-
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch, could reduce the brightness by up to 10%

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device**Pen**

- ThinkPad® Pen Pro, on-board garaged and rechargeable
- No pen (pen needs to be purchased separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

1.43 kg (3.15 lbs)

Case Color

- Black
- Silver

Case Material

Magnesium-aluminium (top), GFRP (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 2x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY**System Management**

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 3840x2160@60Hz), USB-C (up to 5120x2160@60Hz) or Thunderbolt™ (up to 5120x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

- Memory soldered to systemboard, no slots (4GB model)
- Memory soldered to systemboard, no slots, dual-channel capable (8GB or 16GB model)

Max Memory

- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security

ThinkPad L13 Yoga Gen 2 (Intel)

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera

- Front 720p, with privacy shutter, fixed focus
- Front 720p, with privacy shutter, fixed focus; and rear 5.0-megapixel, auto focus
- Front IR & 720p, with privacy shutter, fixed focus
- Front IR & 720p, with privacy shutter, fixed focus; and rear 5.0-megapixel, auto focus

Notes:

- Rear camera is selectable for fingerprint reader model only

Sensor

Sensors

Accelerometer (G) sensor

Battery

Battery

Integrated Li-Polymer 46Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 10.36 hr

MobileMark 2018: 8.36 hr

JEITA 2.0: 10.3 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
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13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:9	800:1	72% NTSC	170°	-
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad® Pen Pro, on-board garaged and rechargeable
- No pen (pen needs to be purchased separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

311.5 x 219 x 17.6 mm (12.26 x 8.62 x 0.69 inches)

Weight

1.44 kg (3.17 lbs)

Case Color

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2 or Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

ThinkPad L13 Yoga Gen 2 (Intel)

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 4300U	4	4	2.7GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 3 PRO 4450U	4	8	2.5GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4500U	6	6	2.3GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security

ThinkPad L14 Gen 1 (AMD)

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14.36 hr

MobileMark 2018: 10.7 hr

JEITA 2.0: 15.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-	16:9	400:1	45%	90°	-

					glare			NTSC		
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- FHD Low Power display is NOT available in EMEA

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

331 x 235 x 20.4 mm (13.03 x 9.25 x 0.80 inches)

Weight

1.61 kg (3.56 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models)
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models)

WLAN + Bluetooth™

- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

ThinkPad L14 Gen 1 (AMD)

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-host
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

Intel® Pentium® or 10th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium Gold 6405U	2	4	2.4GHz	-	2MB	DDR4-2400	Intel UHD Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics

Notes:

- i7-10610U is NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
AMD Radeon™ 625	Discrete	2GB GDDR5	DirectX 12

Notes:

- Discrete graphics is NOT available in EMEA

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2400
- DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2400MHz or 2666MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

- Up to 64GB DDR4-2400
- Up to 64GB DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more

ThinkPad L14 Gen 1 (Intel)

memory as the technology develops.

Storage

Storage Support

- SSD mode: one drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD
 - M.2 2280 SSD up to 1TB
 - M.2 2242 SSD up to 512GB
 - Optional Intel Optane™ Memory integrated with SSD, M.2
- HDD mode: up to two drives, 1x 2.5" HDD + 1x M.2 2242 SSD
 - 2.5" HDD up to 2TB
 - M.2 2242 SSD up to 512GB

Notes:

- System has one HDD slot or one M.2 2280 slot exclusively for storage

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Notes:

- HDD is NOT available in EMEA

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

ThinkPad L14 Gen 1 (Intel)

Max Battery Life

MobileMark® 2014: 12.3 hr
MobileMark 2018: 7.95 hr
JEITA 2.0: 12 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

Notes:

- 45W USB-C AC adapter is NOT available in EMEA

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- FHD Low Power display is NOT available in EMEA

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Aluminium models	331 x 235 x 19.1 mm (13.03 x 9.25 x 0.75 inches)

ThinkPad L14 Gen 1 (Intel)

PC + ABS models	331 x 235 x 20.4 mm (13.03 x 9.25 x 0.80 inches)
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Weight

Models	Weight
PC + ABS models	1.61 kg (3.56 lbs)
Aluminium models	1.73 kg (3.83 lbs)

Case Color

Black

Case Material

PC + ABS or Aluminium (top), PC + ABS (bottom)

Notes:

- Aluminum top cover is NOT available in EMEA

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- Touch style fingerprint reader on palm rest, match-on-host
- No fingerprint reader

Notes:

- Match-on-chip fingerprint reader is for special bid only

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

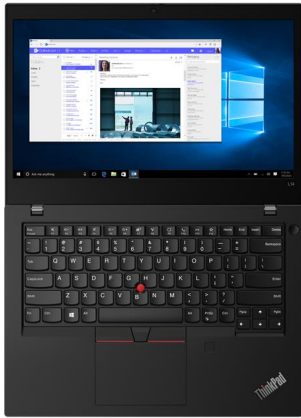
Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Pentium® or 11th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Pentium Gold 7505	2	4	2.0GHz	3.5GHz	4MB	DDR4-3200	Intel UHD Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12
NVIDIA® GeForce® MX450	Discrete	2GB GDDR5	DirectX 12

Notes:

- Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual channel memory. On the system with Intel Core i5 or i7 processor and single channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics
- NVIDIA GeForce MX450 is NOT available in EMEA

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@60Hz), USB-C (up to 5120x3200@60Hz) or Thunderbolt™ (up to 5120x3200@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

ThinkPad L14 Gen 2 (Intel)

- SSD mode: one drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD
 - M.2 2280 SSD up to 1TB
 - M.2 2242 SSD up to 128GB
- HDD mode: up to two drives, 1x 2.5" HDD + 1x M.2 2242 SSD
 - 2.5" HDD up to 2TB
 - M.2 2242 SSD up to 512GB

Notes:

- System has one HDD slot or one M.2 2280 slot exclusively for storage

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- HDD, 256GB and 512GB M.2 2242 SSD are NOT available in EMEA

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2018: 7.92 hr

JEITA 2.0: 11.815 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018,

ThinkPad L14 Gen 2 (Intel)

and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

Notes:

- 45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Aluminium models	331 x 235 x 19.1 mm (13.03 x 9.25 x 0.75 inches)
PC + ABS models	331 x 235 x 20.4 mm (13.03 x 9.25 x 0.80 inches)

Weight

Models	Weight
Aluminium models	1.74 kg (3.84 lbs)
PC + ABS models	1.59 kg (3.49 lbs)

Case Color

Black

ThinkPad L14 Gen 2 (Intel)

Case Material

- Aluminium (top), PC + ABS (bottom)
- PC + ABS (top), PC + ABS (bottom)

Notes:

- Aluminium top cover is NOT available in EMEA

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

ThinkPad L14 Gen 2 (Intel)

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

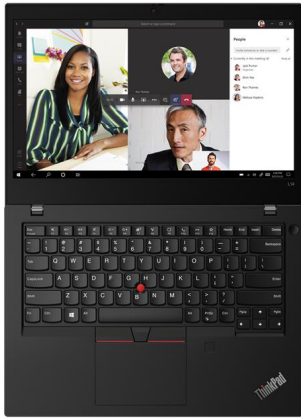
MIL-STD-810H military test passed



intel



intel



intel



intel



intel



intel

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 4300U	4	4	2.7GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 3 PRO 4450U	4	8	2.5GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 4500U	6	6	2.3GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz) or USB-C (up to 3840x2160@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for speical bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Notes:

- Camera not configured is for speical bid only

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 13.78 hr

MobileMark 2018: 10.43 hr

JEITA 2.0: 15.7 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features

15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

366.5 x 250 x 21 mm (14.43 x 9.84 x 0.83 inches)

Weight

1.98 kg (4.37 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111HN (non-DASH models)
- Gigabit Ethernet, Realtek RTL8111EPV (DASH models)

WLAN + Bluetooth™

- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-host
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 10th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 5205U	2	2	1.9GHz	-	2MB	DDR4-2400	Intel UHD Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics

Notes:

- i7-10610U is NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
AMD Radeon™ 625	Discrete	2GB GDDR5	DirectX 12

Notes:

- Discrete graphics is NOT available in EMEA

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2400
- DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2400MHz or 2666MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

- Up to 64GB DDR4-2400
- Up to 64GB DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more

ThinkPad L15 Gen 1 (Intel)

memory as the technology develops.

Storage

Storage Support

- SSD mode: one drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD
 - M.2 2280 SSD up to 1TB
 - M.2 2242 SSD up to 512GB
 - Optional Intel Optane™ Memory integrated with SSD, M.2
- HDD mode: up to two drives, 1x 2.5" HDD + 1x M.2 2242 SSD
 - 2.5" HDD up to 2TB
 - M.2 2242 SSD up to 512GB

Notes:

- System has one HDD slot or one M.2 2280 slot exclusively for storage

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Notes:

- HDD is NOT available in EMEA

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

ThinkPad L15 Gen 1 (Intel)

Max Battery Life

MobileMark® 2014: 11.6 hr
MobileMark 2018: 8.56 hr
JEITA 2.0: 10.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

Notes:

- 45W USB-C AC adapter is NOT available in EMEA

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

366.5 x 250 x 21 mm (14.43 x 9.84 x 0.83 inches)

Weight

1.98 kg (4.37 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- Touch style fingerprint reader on palm rest, match-on-host
- No fingerprint reader

Notes:

- Match-on-chip fingerprint reader is for special bid only

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 11th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 6305	2	2	1.8GHz	-	4MB	DDR4-3200	Intel UHD Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	DDR4-3200	Intel UHD Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Notes:

- Intel Celeron processor is NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12
NVIDIA® GeForce® MX450	Discrete	2GB GDDR5	DirectX 12

Notes:

- Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual channel memory. On the system with Intel Core i5 or i7 processor and single channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics
NVIDIA GeForce MX450 is NOT available in EMEA

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@60Hz), USB-C (up to 5120x3200@60Hz) or Thunderbolt™ (up to 5120x3200@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

- SSD mode: one drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD
 - M.2 2280 SSD up to 1TB
 - M.2 2242 SSD up to 128GB
- HDD mode: up to two drives, 1x 2.5" HDD + 1x M.2 2242 SSD
 - 2.5" HDD up to 2TB
 - M.2 2242 SSD up to 512GB

Notes:

- System has one HDD slot or one M.2 2280 slot exclusively for storage

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System)
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- HDD is NOT available in EMEA

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2018: 7.53 hr

JEITA 2.0: 11.255 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

Notes:

- 45W USB-C AC adapter and 65W USB-C slim AC adapter are NOT available in EMEA

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

366.5 x 250 x 21 mm (14.43 x 9.84 x 0.83 inches)

Weight

1.98 kg (4.37 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

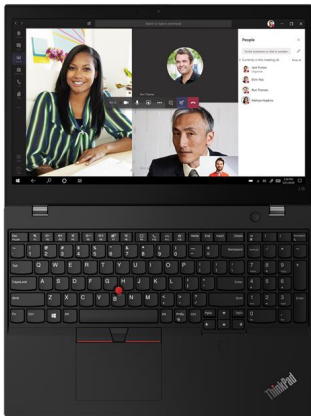
MIL-STD-810H military test passed



intel



intel



intel



intel



intel



intel

PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 8th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 4305U	2	2	2.2GHz	-	2MB	DDR4-2133	Intel UHD Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@30Hz) or USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2133
- DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2133MHz or 2400MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

- Up to 32GB DDR4-2133
- Up to 32GB DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 256GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera

720p, fixed focus

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14.61 hr

JEITA 2.0: 15.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

321.8 x 224.2 x 18.8 mm (12.67 x 8.83 x 0.74 inches)

Weight

1.46 kg (3.22 lbs)

Case Color

- Black
- Silver

Case Material

Aluminium (top), GFRP (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad® Ethernet Extension Cable or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Cable or Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)

- 2x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Monitor Cable

- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to HDMI Adapter with Power Pass-through
- Lenovo USB-C to VGA Adapter
- Lenovo USB-C to VGA Adapter with Power Pass-through
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Cable
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@30Hz) or USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 32GB DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 256GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-

M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone

Camera

- Front 720p, fixed focus
- Front IR & 720p, fixed focus
- Front 720p, fixed focus; and rear 5.0-megapixel, auto focus
- Front IR & 720p, fixed focus; and rear 5.0-megapixel, auto focus

Notes:

- Front IR & 720p camera is only available for black models
- Rear camera is mutually exclusive with fingerprint reader

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.17 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection	16:9	800:1	72% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch, could reduce the brightness by up to 10%

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad® Pen Pro, on-board garaged and rechargeable
- No pen (pen needs to be purchased separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

321.8 x 224.2 x 18.8 mm (12.67 x 8.83 x 0.74 inches)

Weight

1.56 kg (3.44 lbs)

Case Color

- Black
- Silver

Case Material

Magnesium-aluminium (top), GFRP (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Cable or Lenovo USB-C to Ethernet Adapter
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Cable or Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 2x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Monitor Cable

- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to HDMI Adapter with Power Pass-through
- Lenovo USB-C to VGA Adapter
- Lenovo USB-C to VGA Adapter with Power Pass-through
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest
- No fingerprint reader

Notes:

- Fingerprint reader is mutually exclusive with rear camera

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

(Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to USB-C Cable 2m
- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- ThinkPad Ethernet Extension Cable
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 8th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 4305U	2	2	2.2GHz	-	2MB	DDR4-2133	Intel UHD Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
AMD Radeon™ 535	Discrete	2GB GDDR5	DirectX 12

Notes:

- Discrete graphics is NOT available in EMEA

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2133
- DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2133MHz or 2400MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

- Up to 64GB DDR4-2400
- Up to 64GB DDR4-2133

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x 2.5" HDD/SSD + 1x M.2 2242 SSD or 1x M.2 2242/2280 SSD + 1x M.2 2242 SSD

- 2.5" HDD up to 2TB
- 2.5" SSD up to 256GB
- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 256GB
- Optional Intel Optane™ Memory, M.2

Notes:

- System has one HDD slot or one M.2 2280 slot exclusively for storage

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
2.5" SATA SSD	SATA 6Gb/s	-	Opal2
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

Notes:

- Installed M.2 2280 SSD is PCIe 3x4 but run at PCIe 3x2 due to M.2 SSD adapter limitation

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Advanced Audio

Microphone

- Dual array microphone
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

335 x 235 x 22.5 mm (13.19 x 9.25 x 0.89 inches)

Weight

1.69 kg (3.72 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Realtek RTL8822BE is NOT available in EMEA
Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- In EMEA, WWAN upgradable is for special bid only
Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Celeron® or 8th Generation Intel Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Celeron 4305U	2	2	2.2GHz	-	2MB	DDR4-2133	Intel UHD Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
AMD Radeon™ 535	Discrete	2GB GDDR5	DirectX 12

Notes:

- Discrete graphics is NOT available in EMEA

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

- DDR4-2133
- DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2133MHz or 2400MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

- Up to 64GB DDR4-2400
- Up to 64GB DDR4-2133

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 1x 2.5" HDD/SSD + 1x M.2 2242 SSD or 1x M.2 2242/2280 SSD + 1x M.2 2242 SSD

- 2.5" HDD up to 2TB
- 2.5" SSD up to 256GB
- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 256GB
- Optional Intel Optane™ Memory, M.2

Notes:

- System has one HDD slot or one M.2 2280 slot exclusively for storage

Storage Type

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	APS (Active Protection System™)
2.5" SATA HDD	SATA 6Gb/s	7.2K	APS (Active Protection System)
2.5" SATA SSD	SATA 6Gb/s	-	Opal2
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

Notes:

- Installed M.2 2280 SSD is PCIe 3x4 but run at PCIe 3x2 due to M.2 SSD adapter limitation

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Advanced Audio

Microphone

- Dual array microphone
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12 hr

JEITA 2.0: 13.6 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen

brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

376.5 x 254.5 x 22.95 mm (14.82 x 10.02 x 0.90 inches)

Weight

2.03 kg (4.48 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Realtek RTL8822BE is NOT available in EMEA
Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- In EMEA, WWAN upgradable is for special bid only
Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

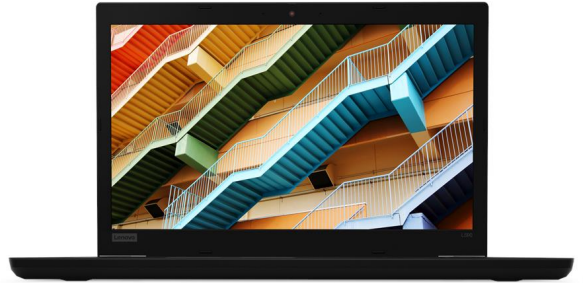
Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® W Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Fedora Linux
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® Quadro® T1000 Max-Q	Discrete	4GB GDDR6	DirectX 12
NVIDIA Quadro T2000 Max-Q	Discrete	4GB GDDR6	DirectX 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel WM490 chipset

Memory

Memory Type

- DDR4-2933 ECC
- DDR4-2933 non-ECC

Notes:

- Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

Memory Slots

Two DDR4 DIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory

Up to 64GB

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB each

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe	-	Opal2
M.2 2280 SSD	PCIe NVMe	-	-

Removable Storage**Optical**

None

Card Reader

SD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, Dolby® Atmos® sound system

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery**Battery**

Integrated Li-Polymer 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 135W AC adapter

Max Battery Life

MobileMark® 2014: 15.9 hr

MobileMark 2018: 12 hr

JEITA 2.0: 17.1 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 135W slim tip AC adapter (2-pin)
- 135W slim tip AC adapter (3-pin)
- 170W slim tip AC adapter (2-pin)
- 170W slim tip AC adapter (3-pin)

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect	Contrast	Color	Viewing	Key
------	------------	-------	------	------------	---------	--------	----------	-------	---------	-----

						Ratio	Ratio	Gamut	Angle	Features
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nit, HDR 540nit (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision™, HDR
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Dolby Vision, HDR
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	178°	Dolby Vision, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Pen**

- Lenovo Pen Pro (for UHD OLED models)
- None

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and 2-button glass surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Non-touch models	361.8 x 245.7 x 18.4 mm (14.24 x 9.67 x 0.72 inches)
Touch models	361.8 x 245.7 x 18.7 mm (14.24 x 9.67 x 0.74 inches)

Weight

Models	Weight
Non-touch models	1.7 kg (3.75 lbs)
Touch models	1.8 kg (3.97 lbs)

Case Color

Black

Case Material

- Carbon Fiber (Black) + PC + PPS Hybrid (top), Aluminum + PC + ABS (bottom)
- Carbon Fiber (Woven pattern) + PC + PPS Hybrid (top), Aluminum + PC + ABS (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Lenovo USB-C to Ethernet Adapter
- No Ethernet

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

WWAN

- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 2.0
- 1x SD card reader
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover

- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

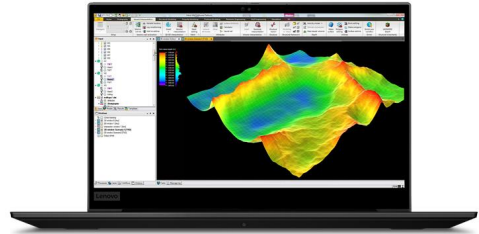
Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

Ryzen™ 7 PRO 4750U Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 3840x2160@60Hz), or two Thunderbolt™ (up to 5120x2880@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200 non-ECC (8GB / 16GB / 32GB for DIMM socket, 8GB /16GB for soldered DIMM)

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 48GB (16GB soldered + 32GB SO-DIMM)
- Up to 40GB (8GB soldered + 32GB SO-DIMM)

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 1TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Notes:

- M.2 2242 is special bid only

Removable Storage

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, near-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 13.25 hr.

MobileMark 2018: 10.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter (2-pin)
- 45W USB-C AC adapter (3-pin)
- 65W USB-C slim AC adapter (3-pin)
- 65W USB-C slim AC adapter (2-pin)
- 65W USB-C AC adapter (2-pin)
- 65W USB-C AC adapter (3-pin)

DESIGN®**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch on selected FHD models, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
HD / FHD non-touch models	1.55 kg (3.41 lbs)
FHD Low Power / Privacy Guard models	1.46 kg (3.22 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111EPV

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

AMD Pro Manageability

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

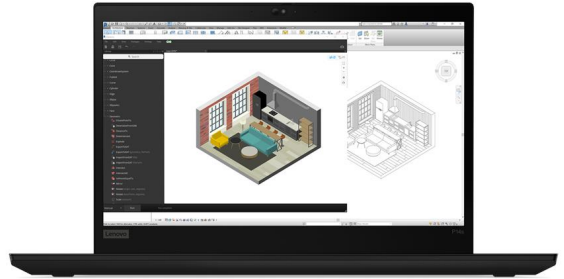
Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
NVIDIA® Quadro® P520	Discrete	2GB GDDR5	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666 Non-ECC

Notes:

- Installed memory is actually DDR4-3200 but may run at DDR4-2666 due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 48GB (16GB soldered + 32GB SO-DIMM)
- Up to 40GB (8GB soldered + 32GB SO-DIMM)

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Security

M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane™ Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Notes:

- M.2 2242 is special bid only

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, near-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 15.1 hr

MobileMark 2018: 10.96 hr

JEITA 2.0: 15.1 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 65W USB-C slim AC adapter (3-pin)
- 65W USB-C slim AC adapter (2-pin)
- 65W USB-C AC adapter (2-pin)
- 65W USB-C AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	UHD (3840x2160)	None	IPS	500 nits	Glossy	16:9	1500:1	100% Adobe®	170°	Dolby Vision™, HDR 400

14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch on selected FHD models, supports 10-point touch
- Non-touch

Input Device

Pen

Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD models	1.55 kg (3.43 lbs)
UHD models	1.49 kg (3.28 lbs)
FHD Privacy Guard models	1.61 kg (3.56 lbs)
FHD Low Power models	1.49 kg (3.28 lbs)
FHD touch models	1.55 kg (3.41 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- Not Support

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password

- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

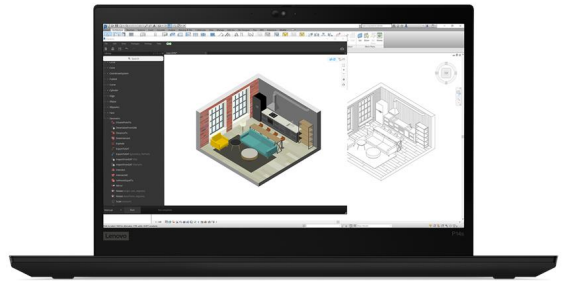
Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12
NVIDIA® Quadro® T500	Discrete	4GB GDDR6	DirectX 12

Notes:

- Intel Iris Xe Graphics requires dual channel memory. On models with single channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200 non-ECC

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM)
- Up to 48GB (16GB soldered + 32GB SO-DIMM)

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

RAID

ThinkPad P14s Gen 2 (Intel)

Not support

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0	-	256GB/512GB/1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0	-	2TB	Opal2

Notes:

- System comes with one M.2 SSD slot that supports PCIe 3.0

Removable Storage

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field

Camera

- 720p, with privacy shutter, fixed focus
- Front IR & 720p, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

Battery life data is still under tuning and pending availability

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark® 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 65W USB-C slim AC adapter (3-pin)
- 65W USB-C slim AC adapter (2-pin)
- 65W USB-C AC adapter (2-pin)
- 65W USB-C AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	DC dimming
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	DC dimming
14.0"	UHD	None	IPS	500 nits	Anti-	16:9	1500:1	100%	170°	Dolby Vision™, HDR

	(3840x2160)				glare			DCI-P3		400, DC dimming, X-Rite FCC
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard, DC dimming
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

X-Rite Pantone factory color calibration (UHD display)

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Pen

Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Aluminium models	329.4 x 227.5 x 17.9 mm (12.97 x 8.96 x 0.70 inches)
PC + ABS models	329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
PC + ABS models	1.469 kg (3.24 lbs)
Aluminium models	1.502 kg (3.31 lbs)

Case Color

- Black
- Storm grey

Case Material

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PC + ABS (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

ThinkPad P14s Gen 2 (Intel)

Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Integrated Mobile Broadband 4G LTE, Quectel EM160R, MIMO 4x4, M.2 card, with embedded eSIM functionality
- Not Support

SIM Card

- eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector
- 2x Thunderbolt 4 / USB4™ 40Gbps / USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified Notebooks 8
- RoHS compliant

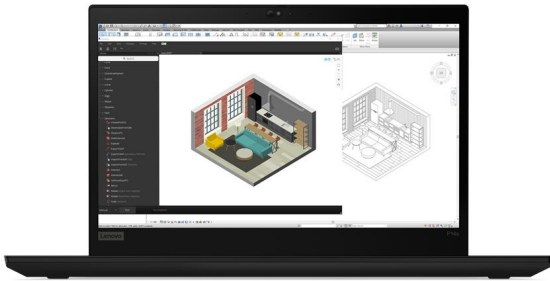
Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® W Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10980HK	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Xeon W-10885M	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Fedora Linux
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
NVIDIA® Quadro® RTX 3000	Discrete	6GB GDDR6	DirectX® 12
NVIDIA Quadro RTX 4000 Max-Q	Discrete	8GB GDDR6	DirectX 12
NVIDIA Quadro RTX 5000 Max-Q	Discrete	16GB GDDR6	DirectX 12
NVIDIA Quadro T1000	Discrete	4GB GDDR6	DirectX 12
NVIDIA Quadro T2000	Discrete	4GB GDDR6	DirectX 12

Monitor Support

Supports up to 5 independent displays via native display and 4 external monitors; supports external monitors via HDMI® (up to 4K@60Hz), USB-C (up to 4K@60Hz) or Thunderbolt™ (one supports up to 5K@60Hz and the other supports up to 4K@60Hz)

Chipset

Intel WM490 chipset

Memory

Memory Type

- DDR4-2933 ECC
- DDR4-2933 non-ECC

Notes:

- Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory

Up to 128GB

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage**Storage Support**

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB each

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage**Optical**

None

Card Reader

SD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, Dolby® Atmos® sound system

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery**Battery**

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max Battery Life

MobileMark® 2014: 16.4 hr

MobileMark 2018: 10.3 hr

JEITA 2.0: 17.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 170W slim tip AC adapter (2-pin)
- 170W slim tip AC adapter (3-pin)
- 230W slim tip AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	72% NTSC	160°	Dolby Vision™, HDR
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	160°	-
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nit, HDR 500nit (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	178°	Dolby Vision, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Pen

- Lenovo Pen Pro (for UHD OLED models)
- None

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and 2-button Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Touch models	375.4 x 252.3 x 25.25-32.2 mm (14.24 x 9.67 x 0.99-1.27 inches)
Non-touch models	375.4 x 252.3 x 24.5-31.45 mm (0.96-1.24 inches)

Weight

2.74 kg (6.05 lbs)

Case Color

Black

Case Material

PPS695 + GF 50% (top), PPS + GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password

- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Government Edition 64 (for special bids models)
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
NVIDIA® Quadro® P520	Discrete	2GB GDDR5	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666 Non-ECC

Notes:

- Installed memory is actually DDR4-3200 but may run at DDR4-2666 due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 48GB (16GB soldered + 32GB SO-DIMM)
- Up to 40GB (8GB soldered + 32GB SO-DIMM)

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane™ Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Notes:

- M.2 2242 is special bid only

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, near-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 16.5 hr

MobileMark 2018: 10.48 hr

JEITA 2.0: 16.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 65W USB-C slim AC adapter (3-pin)
- 65W USB-C slim AC adapter (2-pin)
- 65W USB-C AC adapter (2-pin)
- 65W USB-C AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD	None	IPS	250 nits	Anti-	16:9	800:1	45% NTSC	170°	-

	(1920x1080)				glare					
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch on selected FHD models, supports 10-point touch
- Non-touch

Input Device**Pen**

Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

1.75 kg (3.86 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Red Hat Enterprise Linux (certified only)
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12
NVIDIA® Quadro® T500	Discrete	4GB GDDR6	DirectX 12

Notes:

- Intel Iris Xe Graphics requires dual channel memory. On models with single channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics.

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200 non-ECC

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 48GB (16GB soldered + 32GB SO-DIMM)
- Up to 40GB (8GB soldered + 32GB SO-DIMM)

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

RAID

ThinkPad P15s Gen 2

Not support

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0	-	256GB/512GB/1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0	-	2TB	Opal2

Notes:

- System comes with one M.2 SSD slot that supports PCIe 3.0

Removable Storage

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

Battery life data is still under tuning and pending availability

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark® 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 65W USB-C slim AC adapter (3-pin)
- 65W USB-C slim AC adapter (2-pin)
- 65W USB-C AC adapter (2-pin)
- 65W USB-C AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe®	170°	Dolby Vision™, HDR 400

									RGB		
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Pen**

Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

Models	Weight
Aluminium models	1.783 kg (3.93 lbs)
PC + ABS models	1.75 kg (3.86 lbs)

Case Color

- Black
- Storm grey

Case Material

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PC + ABS (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- None

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Integrated Mobile Broadband 4G LTE, Quectel EM160R, MIMO 4x4, M.2 card, with embedded eSIM functionality
- Not Support

SIM Card

- eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4™ 40Gbps / USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified Notebooks 8
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor or Intel Xeon® W Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10300H	4	8	2.5GHz	4.5GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® Quadro® P620	Discrete	4GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel WM490 chipset

Memory

Memory Type

- DDR4-2933 ECC
- DDR4-2933 non-ECC

Notes:

- Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory

Up to 64GB

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB each

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, Dolby® Audio™

Microphone

- Dual array microphone, near-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 10 hr

MobileMark 2018: 7.2 hr

JEITA 2.0: 11 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 135W slim tip AC adapter (2-pin)
- 135W slim tip AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	FHD	Multi-	IPS	300 nits	Anti-	16:9	800:1	45% NTSC	170°	-

	(1920x1080)	touch			glare					
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Pen**

Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

3-button TrackPoint® pointing device and 2-button Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

366.5 x 250 x 24.2 mm (14.43 x 9.84 x 0.95 inches)

Weight

2.07 kg (4.57 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, MIMO 2x2, M.2 card
- Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® W Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-3200	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10980HK	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Xeon W-10885M	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
NVIDIA® Quadro® RTX 3000	Discrete	6GB GDDR6	DirectX® 12
NVIDIA Quadro RTX 4000 Max-Q	Discrete	8GB GDDR6	DirectX 12
NVIDIA Quadro RTX 5000 Max-Q	Discrete	16GB GDDR6	DirectX 12
NVIDIA Quadro T1000	Discrete	4GB GDDR6	DirectX 12
NVIDIA Quadro T2000	Discrete	4GB GDDR6	DirectX 12

Monitor Support

Supports up to 5 independent displays via native display and 4 external monitors; supports external monitors via HDMI® (up to 4K@60Hz), USB-C (up to 4K@60Hz) or Thunderbolt™ (one supports up to 5K@60Hz and the other supports up to 4K@60Hz)

Chipset

Intel WM490 chipset

Memory

Memory Type

- DDR4-2933 ECC
- DDR4-2933 non-ECC

Notes:

- Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory

Up to 128GB

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage**Storage Support**

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB each

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage**Optical**

None

Card Reader

SD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, Dolby® Atmos® sound system

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery**Battery**

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max Battery Life

MobileMark® 2014: 14.6 hr

MobileMark 2018: 9.75 hr

JEITA 2.0: 16.6 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 170W slim tip AC adapter (2-pin)
- 170W slim tip AC adapter (3-pin)
- 230W slim tip AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
17.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	160°	-
17.3"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe®	178°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

Non-touch

Input Device

Pen

Not support

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and 2-button Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

415.44 x 280.81 x 25.11-33.25 mm (16.36 x 11.06 x 0.99-1.31 inches)

Weight

3.5 kg (7.7 lbs)

Case Color

Black

Case Material

PPS695 + GF 50% (top), PPS + GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

SIM Card

No SIM card

Ports**Standard Ports**

- 3x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

(Optional) IR camera for Windows Hello

MANAGEABILITY**System Management**

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 4450U	4	8	2.5GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or USB-C (up to 5K@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 32GB (16GB soldered + 16GB SO-DIMM) DDR4-3200
- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-

M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
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Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14 hr

MobileMark 2018: 11.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD	Multi-	IPS	500 nits	Anti-	16:9	1000:1	72%	170°	ThinkPad®

(1920x1080)	touch		glare		NTSC	Privacy Guard
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power / Privacy Guard models	1.46 kg (3.22 lbs)
HD / FHD touch / FHD non-touch models	1.55 kg (3.41 lbs)

Case Color

Black

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111EPV

WLAN + Bluetooth™

Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

DASH

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

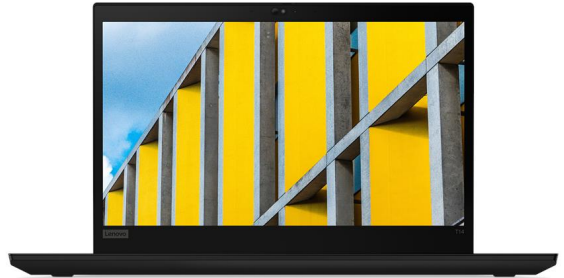
Other Certifications

Mil-Spec Test

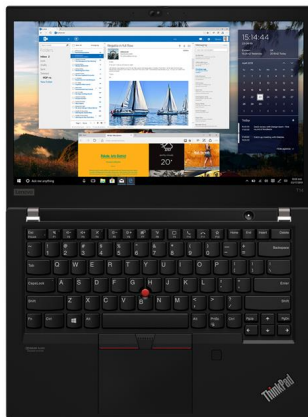
MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX330	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2666
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 128GB

ThinkPad T14 Gen 1 (Intel)

- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 16.5 hr

MobileMark 2018: 11.45 hr

JEITA 2.0: 17.05 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-

14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Glossy	16:9	1500:1	100%	178°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
UHD models	1.49 kg (3.28 lbs)
FHD Privacy Guard models	1.61 kg (3.56 lbs)
FHD non-touch models	1.55 kg (3.41 lbs)
FHD Low Power models	1.49 kg (3.28 lbs)
FHD touch models	1.55 kg (3.41 lbs)
HD models	1.53 kg (3.37 lbs)

Case Color

Black

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

ThinkPad T14 Gen 1 (Intel)

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

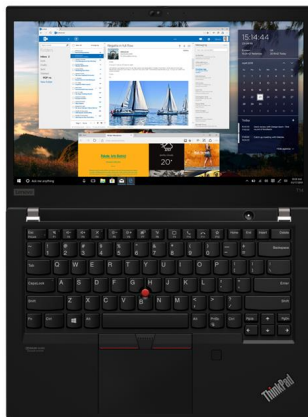
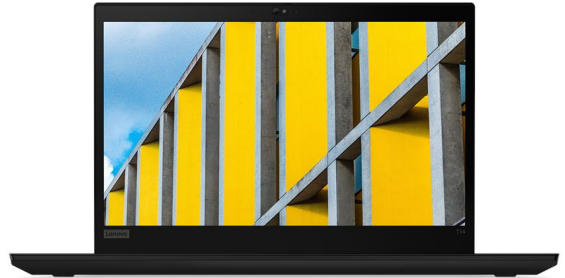
Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX450	Discrete	2GB GDDR6	DirectX 12

Notes:

- Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual channel memory. On the system with Intel Core i5 or i7 processor and single channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

ThinkPad T14 Gen 2 (Intel)

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 128GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2

Notes:

- The SSD with PCI 4.0 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2018: 10.7 hr

JEITA 2.0: 14.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

Notes:

- 45W USB-C AC adapter is only available for the models with integrated graphics
In EMEA only 65W USB-C AC adapter is available

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe® RGB	178°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Aluminium models	329.4 x 227.5 x 17.9 mm (12.97 x 8.96 x 0.70 inches)
PPS models	329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD non-touch model with PPS top cover	1.53 kg (3.37 lb)
FHD non-touch model with aluminium top cover	1.502 kg (3.31 lb)
FHD touch model with PPS top cover	1.53 kg (3.37 lb)
FHD touch model with aluminium top cover	1.502 kg (3.31 lb)

FHD low power model with PPS top cover	1.47 kg (3.23 lbs)
FHD Privacy Guard model with PPS top cover	1.58 kg (3.49 lbs)
FHD Privacy Guard model with aluminium top cover	1.55 kg (3.42 lbs)
UHD model with PPS top cover	1.47 kg (3.24 lbs)

Case Color

- Black
- Storm grey

Notes:

- Storm grey case is NOT available in EMEA

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Notes:

- Anti-microbial surface treatment is NOT available for aluminium models

Case Material

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Integrated Mobile Broadband 4G LTE, Quectel EM160R, MIMO 4x4, M.2 card, with embedded eSIM functionality
- Not Support

Notes:

- WWAN is NOT available for aluminium models

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Notes:

- NFC is NOT available for aluminium models, and is mutually exclusive with FIPS 201 fingerprint reader and RFID reader

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)

ThinkPad T14 Gen 2 (Intel)

- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x RFID reader
- 1x Nano-SIM card slot (WWAN models)

Notes:

- RFID reader is ONLY available with FIPS 201 fingerprint reader and anti-microbial covers, and NOT available on Aluminium models
- Smart card reader is NOT available with FIPS 201 fingerprint reader and anti-microbial covers

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- FIPS 201 fingerprint reader on palm rest
- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

Notes:

- Match-on-card fingerprint reader is mutually exclusive with RFID reader
- FIPS 201 fingerprint reader is ONLY available for the models with anti-microbial black covers, and is mutually exclusive with NFC
- No fingerprint reader is ONLY available for black models

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

- No base warranty is for special bid only

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

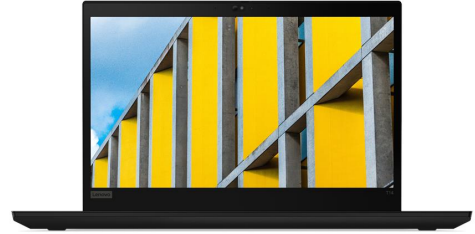
Other Certifications

Mil-Spec Test

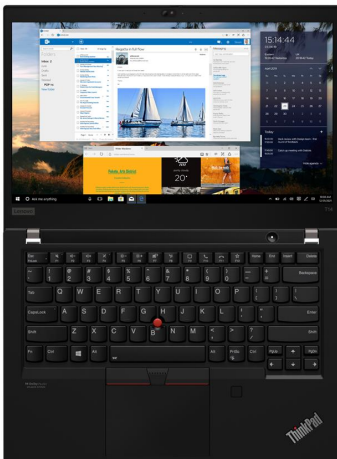
Work in progress



intel



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intel

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX330	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2666
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 128GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-

M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 16.5 hr

MobileMark 2018: 10.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Privacy Guard models	1.61 kg (3.56 lbs)
FHD non-touch models	1.55 kg (3.41 lbs)
FHD touch models	1.55 kg (3.41 lbs)

Case Color

Black

Surface Treatment

ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Others

RFID reader supporting RFID / NFC

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

NFC support via RFID reader

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x RFID reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

FIPS 201 fingerprint reader on palm rest

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

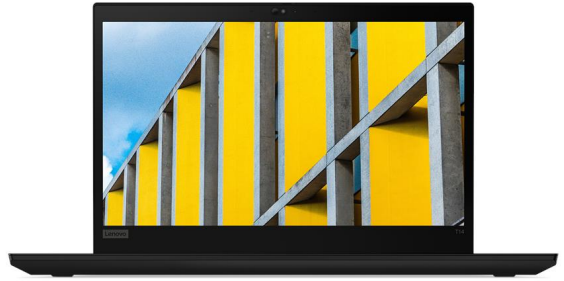
Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or USB-C (up to 5K@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 15.9 hr

MobileMark 2018: 13.6 hr

JEITA 2.0: 17.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
FHD touch / FHD non-touch / FHD Privacy Guard models	329.0 x 226.15 x 16.7 mm (12.95 x 8.90 x 0.66 inches)
FHD Low Power models	328.8 x 225.8 x 16.1 mm (12.94 x 8.89 x 0.63 inches)

Weight

Models	Weight
FHD touch / FHD non-touch models	1.35 kg (2.98 lbs)
FHD Low Power / FHD Privacy Guard models	1.27 kg (2.81 lbs)

Case Color

Black

Case Material

CFRP hybrid (top), Magnesium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111EPV, RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Realtek RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM

- No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

DASH

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

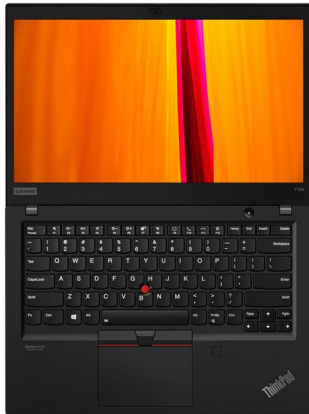
MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 512GB

ThinkPad T14s Gen 1 (Intel)

- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 21 hr

MobileMark 2018: 14.28 hr

JEITA 2.0: 23.1 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

ThinkPad T14s Gen 1 (Intel)

14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Glossy	16:9	1500:1	100% DCI-P3	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Black with FHD Low Power / UHD models	328.8 x 225.8 x 16.1 mm (12.94 x 8.89 x 0.63 inches)
Black with FHD touch / FHD non-touch / FHD Privacy Guard models	329.0 x 226.15 x 16.7 mm (12.95 x 8.90 x 0.66 inches)
Silver models	329.15 x 226.45 x 17.2 mm (12.96 x 8.92 x 0.68 inches)

Weight

Models	Weight
Silver models	1.49 kg (3.29 lbs)
Black with FHD Low Power / UHD models	1.27 kg (2.81 lbs)
Black with FHD touch / FHD non-touch / FHD Privacy Guard models	1.35 kg (2.98 lbs)

Case Color

- Black
- Silver

Case Material

CFRP hybrid or aluminium (top), magnesium (bottom)

Notes:

- CFRP Hybrid top cover for black models; Aluminum top cover for silver models

CONNECTIVITY

Network

Onboard Ethernet

ThinkPad T14s Gen 1 (Intel)

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2

M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2
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Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus
- IR & 1080p, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2018: 14.5 hr

JEITA 2.0: 23.6 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power

14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	800:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1500:1	100% Adobe® RGB	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Black with FHD Low Power / UHD models	327.5 x 224 x 16.14 mm (12.89 x 8.82 x 0.64 inches)
Black with FHD touch / FHD non-touch / FHD Privacy Guard models	327.5 x 224.4 x 16.81 mm (12.89 x 8.83 x 0.66 inches)
Storm grey models	327.5 x 225.3 x 16.81 mm (12.89 x 8.87 x 0.66 inches)

Weight

Models	Weight
Black with FHD Low Power / UHD models	1.28 kg (2.83 lbs)
Storm grey with FHD Low Power / UHD models	1.62 kg (3.32 lbs)
Storm grey with FHD touch / FHD non-touch / FHD Privacy Guard models	1.57 kg (3.46 lbs)
Black with FHD touch / FHD non-touch / FHD Privacy Guard models	1.36 kg (2.99 lbs)

Case Color

- Storm grey
- Villi black

Case Material

CFRP hybrid or aluminium (top), aluminium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

ThinkPad T14s Gen 2 (Intel)

- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
- 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password

ThinkPad T14s Gen 2 (Intel)

- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

Work in progress

Other Certifications

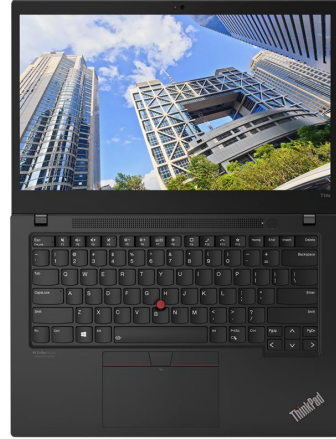
(Optional) Intel Evo Platform

Notes:

- Intel EVO™™ is only available for the models with FHD Low Power, FHD Privacy Guard, or UHD display



intel



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intel

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX330	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2666
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 128GB

- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 15.26 hr

MobileMark 2018: 10.81 hr

JEITA 2.0: 14.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-

15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

Models	Weight
UHD models	1.74 kg (3.84 lbs)
FHD non-touch models	1.81 kg (3.99 lbs)
FHD touch models	1.81 kg (3.99 lbs)

Case Color

Black

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

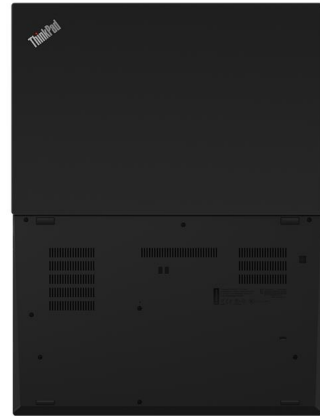
Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	DDR4-3200	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	DDR4-3200	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	DDR4-3200	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX450	Discrete	2GB GDDR6	DirectX 12

Notes:

- Intel Iris Xe Graphics capability requires system to be configured with Intel Core i5 or i7 processor and dual channel memory. On the system with Intel Core i5 or i7 processor and single channel memory, Intel Iris Xe Graphics will function as Intel UHD graphics

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 128GB

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2

Notes:

- The SSD with PCI 4.0 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2018: 12 hr

JEITA 2.0: 16.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

Notes:

- In EMEA only 65W USB-C AC adapter is available

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

Models	Weight
FHD non-touch model with PPS top cover	1.82 kg (4.02 lb)
FHD non-touch model with aluminium top cover	1.79 kg (3.96 lb)
FHD touch model with PPS top cover	1.84 kg (4.07 lb)
FHD touch model with aluminium top cover	1.81 kg (3.999 lb)
UHD model with PPS top cover	1.75 kg (3.86 lbs)

Case Color

- Black
- Storm grey

Notes:

- Storm grey case is NOT available in EMEA

Surface Treatment

- ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)
- Not anti-microbial surface treatment

Case Material

- Aluminium (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PC + ABS (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Integrated Mobile Broadband 4G LTE, Quectel EM160R, MIMO 4x4, M.2 card, with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty**Base Warranty**

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

- No base warranty is for special bid only

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications**Mil-Spec Test**

Work in progress



intel



intel



intel



intel



intel



intel

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® W Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10980HK	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Xeon W-10885M	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Fedora Linux
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

Graphics

Graphics	Type	Memory	Key Features
NVIDIA® GeForce® RTX™ 2070 SUPER Max-Q	Discrete	8GB GDDR6	VR ready, DirectX® 12
NVIDIA GeForce RTX 2080 SUPER Max-Q	Discrete	8GB GDDR6	VR ready, DirectX 12

Monitor Support

Supports up to 5 independent displays via native display and 4 external monitors; supports external monitors via HDMI® (up to 4K@60Hz), USB-C (up to 4K@60Hz) or Thunderbolt™ (one supports up to 5K@60Hz and the other supports up to 4K@60Hz)

Chipset

Intel WM490 chipset

Memory

Memory Type

- DDR4-2933 ECC
- DDR4-2933 non-ECC

Notes:

- Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory

Up to 128GB

Notes:

ThinkPad T15g Gen 1

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB each

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, Dolby® Atmos® sound system

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max Battery Life

MobileMark® 2014: 16.4 hr

MobileMark 2018: 10.3 hr

JEITA 2.0: 17.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 170W slim tip AC adapter (2-pin)
- 170W slim tip AC adapter (3-pin)
- 230W slim tip AC adapter (3-pin)

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	72% NTSC	160°	Dolby Vision™, HDR
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	160°	-
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nit, HDR 500nit (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	178°	Dolby Vision, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

X-Rite Pantone factory color calibration (UHD display)

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Pen**

- Lenovo Pen Pro (for UHD OLED models)
- None

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and 2-button Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Touch models	375.4 x 252.3 x 25.25-32.2 mm (14.24 x 9.67 x 0.99-1.27 inches)
Non-touch models	375.4 x 252.3 x 24.5-31.45 mm (14.24 x 9.67 x 0.96-1.24 inches)

Weight

2.74 kg (6.05 lbs)

Case Color

Black

Case Material

PPS695 + GF 50% (top), PPS + GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- No WLAN and Bluetooth
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- Not Support

NFC

Not support

Ports**Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year depot service
- 3-year limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10300H	4	8	2.5GHz	4.5GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-3200	Intel UHD Graphics

Notes:

- i7-10875H is NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® GTX 1050	Discrete	3GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel WM490 chipset

Memory

Memory Type

DDR4-2933

Notes:

- Installed memory is actually 3200MHz but run at 2933MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-2933

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB

- RAID 0/1 support

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 12.1 hr

MobileMark 2018: 7.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

135W slim tip AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	170°	-
15.6"	UHD	None	IPS	600 nits	Anti-	16:9	1400:1	100%	178°	Dolby Vision™,

(3840x2160)				glare			Adobe® RGB		HDR 400
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

366.5 x 250 x 22.7 mm (14.43 x 9.84 x 0.89 inches)

Weight

2.07 kg (4.57 lbs)

Case Color

Black

Case Material

PC + ABS (top), PC + ABS (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th / 10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics

Notes:

- 10th Generation Intel Core Processors are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro in S mode
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX250	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2400
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 256GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Notes:

- M.2 2280 SATA SSD is NOT available in EMEA

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 16.11 hr

JEITA 2.0: 17.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter

- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	WQHD (2560x1440)	None	IPS	500 nits	Glossy	16:9	1500:1	100% Adobe® RGB	170°	Dolby Vision™, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power / WQHD models	1.46 kg (3.22 lbs)
FHD Privacy Guard models	1.61 kg (3.56 lbs)
HD models	1.53 kg (3.37 lbs)
FHD touch / FHD non-touch models	1.55 kg (3.41 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 is for 10th gen processor only
Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- Not Support

Notes:

- In EMEA, WWAN upgradable is for special bid only
Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX250	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2400
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 256GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 16.11 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD	None	IPS	400 nits	Anti-	16:9	1000:1	72%	170°	ThinkPad®

(1920x1080)				glare			NTSC		Privacy Guard
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Privacy Guard models	1.61 kg (3.56 lbs)
FHD touch / FHD non-touch models	1.55 kg (3.41 lbs)

Case Color

Black

Surface Treatment

ISO 22196 compliant anti-microbial surface treatment (not including keyboard, display, and display bezel)

Case Material

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Others

RFID reader supporting RFID / NFC

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1
- No WLAN and Bluetooth

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- WWAN upgradable is for special bid only
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

NFC support via RFID reader

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x RFID reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to HDMI Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

FIPS 201 fingerprint reader on palm rest

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

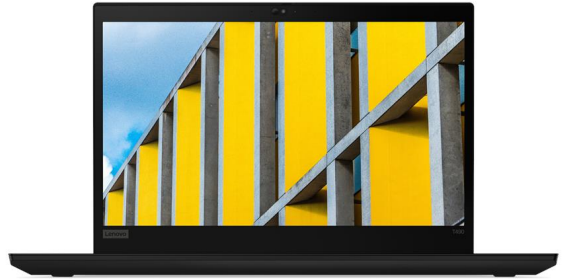
Green Certifications

- EPEAT™ Silver
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 32GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 128GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 20 hr

JEITA 2.0: 23.95 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD	None	IPS	250 nits	Anti-	16:9	700:1	45% NTSC	170°	-

	(1920x1080)				glare					
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	WQHD (2560x1440)	None	IPS	500 nits	Glossy	16:9	1500:1	100% Adobe® RGB	170°	Dolby Vision™, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Black with FHD Low Power / WQHD models	328.8 x 225.8 x 16.1 mm (12.94 x 8.89 x 0.63 inches)
Black with FHD touch / FHD non-touch / FHD Privacy Guard models	329.0 x 226.15 x 16.7 mm (12.95 x 8.90 x 0.66 inches)
Silver models	329.15 x 226.45 x 17.2 mm (12.96 x 8.92 x 0.68 inches)

Weight

Models	Weight
Silver models	1.49 kg (3.29 lbs)
Black with FHD Low Power / WQHD models	1.27 kg (2.81 lbs)
Black with FHD touch / FHD non-touch / FHD Privacy Guard models	1.35 kg (2.98 lbs)

Case Color

- Black
- Silver

Case Material

CFRP hybrid or aluminium (top), magnesium (bottom)

Notes:

- CFRP Hybrid top cover for black models; Aluminum top cover for silver models

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 3300U	4	4	2.1GHz	3.5GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 6 Graphics
AMD Ryzen 5 PRO 3500U	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 8 Graphics
AMD Ryzen 7 PRO 3700U	4	8	2.3GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 10 Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Vega 6 Graphics	Integrated	Shared	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	DirectX 12
AMD Radeon Vega 10 Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4096x2160@60Hz) or USB-C (up to 4096x2304@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 32GB (16GB soldered + 16GB SO-DIMM) DDR4-2400
- Up to 24GB (8GB soldered + 16GB SO-DIMM) DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB

- M.2 2242 SSD up to 128GB
- Optional Intel® Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage**Optical**

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery**Battery**

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 13.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-	16:9	400:1	45%	90°	-

					glare			NTSC		
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

Weight

Models	Weight
FHD Low Power models	1.54 kg (3.39 lbs)
HD / FHD touch / FHD non-touch models	1.57 kg (3.46 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111EPV

WLAN + Bluetooth™

- Realtek RTL8822BE, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1 (Always On)
- 1x USB 3.1 Gen 2
- 2x USB-C 3.1 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

DASH

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 5 PRO 3500U	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 8 Graphics
AMD Ryzen 7 PRO 3700U	4	8	2.3GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 10 Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Vega 8 Graphics	Integrated	Shared	DirectX® 12
AMD Radeon Vega 10 Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 1TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 16.4 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale

of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
FHD touch / FHD non-touch / FHD Privacy Guard models	329.0 x 226.15 x 16.7 mm (12.95 x 8.90 x 0.66 inches)
FHD Low Power models	328.8 x 225.8 x 16.1 mm (12.94 x 8.89 x 0.63 inches)

Weight

Models	Weight
FHD Privacy Guard models	1.31 kg (2.89 lbs)
FHD Low Power models	1.25 kg (2.76 lbs)
FHD touch / FHD non-touch models	1.33 kg (2.93 lbs)

Case Color

Black

Case Material

CFRP Hybrid (top), Magnesium-aluminium (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Gigabit Ethernet, Realtek RTL8111EPV, RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel® Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1 (Always On)
- 1x USB 3.1 Gen 2
- 2x USB-C 3.1 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

DASH

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

8th generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® MX250	Discrete	2GB GDDR5	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Max Memory

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2400
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2400

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 128GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14.98 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.
- 9.5 hr for UHD model with discrete graphics

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-

15.6"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
15.6"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1200:1	100% Adobe® RGB	170°	Dolby Vision™, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys, numeric keypad

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

365.8 x 248 x 19.1 mm (14.40 x 9.76 x 0.75 inches)

Weight

Models	Weight
UHD models	1.74 kg (3.84 lbs)
FHD non-touch models	1.81 kg (3.99 lbs)
FHD touch models	1.81 kg (3.99 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1
- No WLAN and Bluetooth

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- In EMEA, WWAN upgradable is for special bid only
Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

- Near Field Communication
- Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

Notes:

- Lenovo USB-C to VGA Adapter and Lenovo USB-C to DisplayPort Adapter are NOT available in EMEA

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password

- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 4450U	4	8	2.5GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-3200	AMD Radeon™ Graphics
AMD Ryzen 5 PRO 4650U	6	12	2.1GHz	4.0GHz	3MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 4750U	8	16	1.7GHz	4.1GHz	4MB L2 / 8MB L3	DDR4-3200	AMD Radeon Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or USB-C (up to 5K@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-3200

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 512GB

Storage Type

Disk Type	Interface	RPM	Security
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M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 12.8 hr

MobileMark 2018: 10.35 hr

JEITA 2.0: 13.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	300:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	72% NTSC	170°	-

13.3"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

311.9 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)

Weight

Models	Weight
HD / FHD non-touch / FHD Privacy Guard models	1.29 kg (2.85 lbs)
FHD touch models	1.28 kg (2.84 lbs)

Case Color

Black

Case Material

PPS / GF (top), Magnesium-aluminium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111EPV, RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY**System Management**

DASH

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

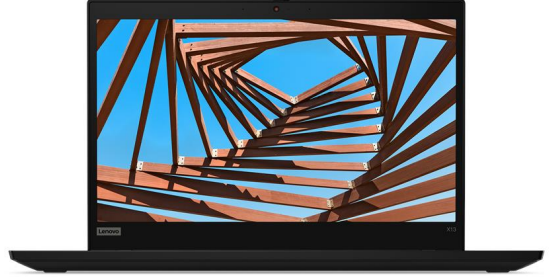
Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-10110U	2	4	2.1GHz	4.1GHz	4MB	DDR4-2666	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB

- M.2 2242 SSD up to 512GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery**Battery**

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 15.9 hr

MobileMark 2018: 10.45 hr

JEITA 2.0: 16 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD	None	TN	250 nits	Anti-	16:9	300:1	45%	170°	-

	(1366x768)				glare			NTSC		
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
FHD non-touch models with carbon fiber case	311.9 x 217.0 x 16.5 mm (12.28 x 8.54 x 0.65 inches)
FHD non-touch models with PPS case	312.0 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)
HD / FHD touch / FHD Privacy Guard models with PPS case	311.9 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)

Weight

Models	Weight
FHD non-touch models with Carbon Fiber case	1.22 kg (2.70 lbs)
FHD non-touch models with PPS case	1.29 kg (2.85 lbs)
FHD touch / FHD Privacy Guard models with PPS case	1.28 kg (2.84 lbs)
HD models with PPS case	1.33 kg (2.93 lbs)

Case Color

Black

Case Material

Carbon Fiber or PPS (top), Magnesium-aluminium (bottom)

Notes:

- Carbon Fiber top cover is for FHD non-touch models only

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

ThinkPad X13 Gen 1 (Intel)

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM05-CE, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

ThinkPad X13 Gen 1 (Intel)

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

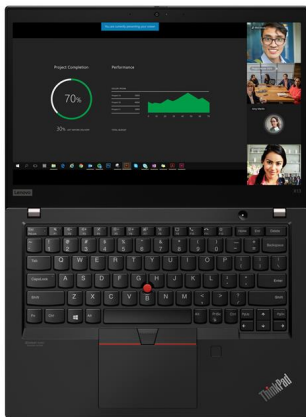
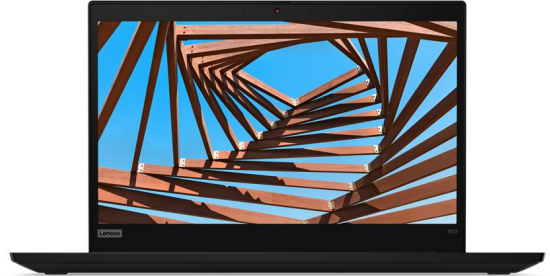
Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i3 / i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	LPDDR4x-3733	Intel UHD Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12

Notes:

- Intel Iris Xe Graphics is not available for Intel Core i3 models

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266

Notes:

- Installed memory is actually 4266MHz, but may run at 3733MHz depending on the memory support capability of processor

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more

ThinkPad X13 Gen 2 (Intel)

memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 1080p, with privacy shutter, fixed focus
- No camera

Battery

Battery

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2018: 15.5 hr

JEITA 2.0: 24 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features

13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low power, low blue light

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Aluminium (top), aluminium (bottom) models	305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)
PPS (top), aluminium (bottom) models	305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 inches)
Carbon fiber (top), aluminium (bottom) models	305.8 x 217.39 x 18.97 mm (12.04 x 8.56 x 0.75 inches)

Weight

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	1.38 kg (3.04 lbs)

Case Color

- Storm grey
- Villi black

Case Material

Carbon Fiber, PPS or aluminium (top), aluminium (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

Work in progress

Other Certifications

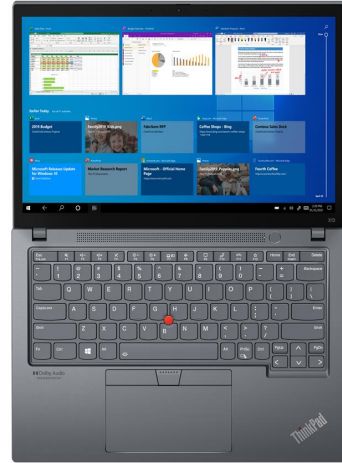
(Optional) Intel Evo Platform

Notes:

- Intel EVO™™ is NOT available for the models with i3 processor, 41Wh battery, or 128GB storage



intel



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PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2666

Notes:

- Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 2TB
- M.2 2242 SSD up to 512GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

MicroSD card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

Dual array microphone, far-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Sensor**Sensors**

- Gyroscope sensor
- Accelerometer (G) sensor
- Proximity sensor (WWAN model)

Battery**Battery**

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 18.2 hr

MobileMark 2018: 12.05 hr

JEITA 2.0: 16.2 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
------	------------	-------	------	------------	---------	--------------	----------------	-------------	---------------	--------------

ThinkPad X13 Yoga Gen 1

13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:9	800:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-reflection, Anti-smudge	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	FHD (1920x1080)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:9	1500:1	72% NTSC	170°	Low power
13.3"	UHD (3840x2160)	Multi-touch	OLED	400 nits	Anti-reflection, Anti-smudge	16:9	100000:1	100% DCI-P3	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch, could reduce the brightness by up to 10%

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

- ThinkPad Pen Pro, on-board garaged and rechargeable
- No pen (pen needs to be purchased separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

310.4 x 219 x 15.95 mm (12.22 x 8.62 x 0.63 inches)

Weight

1.25 kg (2.76 lbs)

Case Color

Black

Case Material

Carbon fiber hybrid PA + 55% GF (top), Carbon fiber hybrid PA + 55% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password

- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th Generation Intel® Core™ i3 / i5 / i7 or 10th Generation Intel Core i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-8145U	2	4	2.1GHz	3.9GHz	4MB	DDR4-2400	Intel UHD Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics

Notes:

- 10th Generation Intel Core Processors are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 32GB soldered memory, not upgradable
- 4GB soldered memory, not upgradable
- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more

memory as the technology develops.

- 32GB memory is NOT available for models with 10th Gen processor

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 128GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 17.6 hr

JEITA 2.0: 19 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter

- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	500:1	45% NTSC	90°	-
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
FHD non-touch models with carbon fiber case	311.9 x 217.0 x 16.5 mm (12.28 x 8.54 x 0.65 inches)
FHD non-touch models with PPS case	312.0 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)
HD / FHD touch / FHD Privacy Guard models with PPS case	311.9 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)

Weight

Models	Weight
FHD non-touch models with Carbon Fiber case	1.22 kg (2.70 lbs)
FHD non-touch models with PPS case	1.29 kg (2.85 lbs)
FHD touch / FHD Privacy Guard models with PPS case	1.28 kg (2.84 lbs)
HD models with PPS case	1.33 kg (2.93 lbs)

Case Color

Black

Case Material

Carbon Fiber or PPS (top), Magnesium-aluminium (bottom)

Notes:

- Carbon Fiber top cover is for FHD non-touch models only

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- In EMEA, WWAN upgradable is for special bid only
Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter

- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

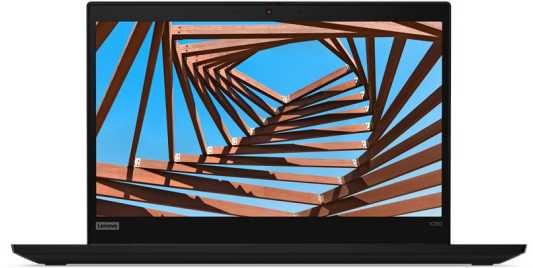
Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

8th generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB
- M.2 2242 SSD up to 128GB
- Optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
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M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™ Premium

Microphone

Dual array microphone, far-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Sensor

Sensors

- Gyroscope sensor
- Accelerometer (G) sensor
- Proximity sensor (WWAN model)

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection, Anti-smudge	16:9	800:1	72% NTSC	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch, could reduce the brightness by up to 10%

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device**Pen**

ThinkPad® Pen Pro, on-board garaged and rechargeable

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

310.4 x 219 x 15.95 mm (12.22 x 8.62 x 0.63 inches)

Weight

1.29 kg (2.85 lbs)

Case Color

- Black
- Silver

Notes:

- Silver case is NOT available in EMEA

Case Material

Carbon fiber hybrid PA + 50% GF (top), Carbon fiber hybrid PA + 50% GF (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- Fibocom L830-EB is only available in EMEA
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

Notes:

- Verizon LTE is for special bid only

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- 3-year (3-yr battery) depot service
- 3-year (3-yr battery) limited onsite service
- 1-year (3-yr battery) depot service

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 3300U	4	4	2.1GHz	3.5GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon™ Vega 6 Graphics
AMD Ryzen 5 PRO 3500U	4	8	2.1GHz	3.7GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 8 Graphics
AMD Ryzen 7 PRO 3700U	4	8	2.3GHz	4.0GHz	2MB L2 / 4MB L3	DDR4-2400	AMD Radeon Vega 10 Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Vega 6 Graphics	Integrated	Shared	DirectX® 12
AMD Radeon Vega 8 Graphics	Integrated	Shared	DirectX 12
AMD Radeon Vega 10 Graphics	Integrated	Shared	DirectX 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz)

Chipset

AMD SoC (System on Chip) platform

Memory

Memory Type

DDR4-2400

Notes:

- Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, 1x M.2 2280 SSD or 1x M.2 2242 SSD

- M.2 2280 SSD up to 1TB

- M.2 2242 SSD up to 128GB
- Optional Intel® Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x2	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage**Optical**

None

Card Reader

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™ Premium

Microphone

- Dual array microphone, far-field
- No microphone

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Battery**Battery**

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 14.5 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	HD (1366x768)	None	TN	250 nits	Anti-glare	16:9	300:1	45% NTSC	90°	-
13.3"	FHD	Multi-	IPS	300 nits	Anti-	16:9	700:1	72%	170°	-

	(1920x1080)	touch			glare			NTSC		
13.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	72% NTSC	170°	-
13.3"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	178°	ThinkPad® Privacy Guard

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

- LED backlight
- Not support

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

311.9 x 217.2 x 16.9 mm (12.28 x 8.55 x 0.67 inches)

Weight

Models	Weight
FHD Privacy Guard models	1.37 kg (3.01 lbs)
FHD non-touch models	1.28 kg (2.82 lbs)
HD / FHD touch models	1.32kg (2.91lbs)

Case Color

Black

Case Material

PPS / GF (top), Magnesium-aluminium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Gigabit Ethernet, Realtek RTL8111EPV, RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

Not support

Ports**Standard Ports**

- 1x USB 3.1 Gen 1 (Always On)
- 1x USB 3.1 Gen 2
- 2x USB-C 3.1 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Smart card reader
- 1x microSD card slot (WLAN model)
- 1x Nano-SIM + microSD card slot (WWAN model)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

DASH

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

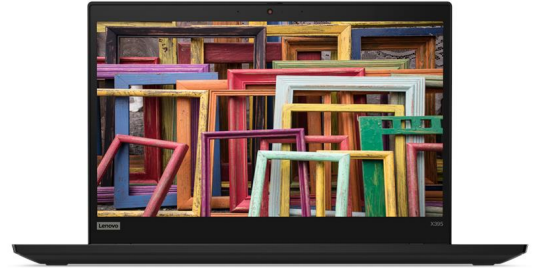
Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



AMD



AMD



AMD



AMD



AMD



AMD

PERFORMANCE

Processor

Processor Family

8th / 10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	LPDDR3-2133	Intel UHD Graphics

Notes:

- 10th Generation Intel Core Processors are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4K@24Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR3-2133

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage**Optical**

None

Card Reader

No card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 18.3 hr

JEITA 2.0: 18.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-reflection Anti-smudge	16:9	700:1	72% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

ThinkPad X1 Carbon (7th Gen)

14.0"	WQHD (2560x1440)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
14.0"	UHD (3840x2160)	None	IPS	500 nits	Glossy	16:9	1400:1	90%	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
FHD Privacy Guard models	323 x 217 x 15.4 mm (12.72 x 8.54 x 0.61 inches)
Non-Privacy Guard models	323 x 217 x 14.95 mm (12.72 x 8.54 x 0.59 inches)

Weight

Models	Weight
FHD Privacy Guard models	1.21 kg (2.66 lbs)
Non-Privacy Guard models	1.09 kg (2.4 lbs)

Case Color

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Wireless WAN upgradable

ThinkPad X1 Carbon (7th Gen)

- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- WWAN upgradable is for special bid only
For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 2x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0 with L3 Security Support
- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Notes:

- Discrete TPM 2.0 with L3 Security Support is for special bid only

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4K@24Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR3-2133

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, USI 4551-513711-00 codec

Speakers

Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Battery

Battery

Integrated Li-Polymer 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 19.5 hr

MobileMark 2018: 13.8 hr

JEITA 2.0: 19.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	400 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	WQHD (2560x1440)	None	IPS	300 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	-
14.0"	UHD (3840x2160)	None	IPS	500 nits	Glossy	16:9	1500:1	90% DCI-P3	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- WQHD is not available in EMEA

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
FHD Privacy Guard models	323 x 217 x 15.4 mm (12.72 x 8.54 x 0.61 inches)
Non-Privacy Guard models	323 x 217 x 14.95 mm (12.72 x 8.54 x 0.59 inches)

Weight

Models	Weight
FHD Privacy Guard models	1.21 kg (2.66 lbs)
Non-Privacy Guard models	1.09 kg (2.4 lbs)

Case Color

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM05-CE, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano SIM card, Lenovo Connect 4 months, 4G LTE
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

Other Certifications

Athena certified



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266

Memory Slots

Memory soldered to systemboard, no slots, 8-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Security

M.2 2280 SSD	PCIe NVMe, PCIe x4	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 21.3 hr

MobileMark 2018: 16.7 hr

JEITA 2.0: 26.0 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD+ (1920x1200)	None	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	FHD+ (1920x1200)	Multi-touch	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	FHD+ (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, ThinkPad® Privacy Guard
14.0"	UHD+ (3840x2400)	None	IPS	500 nits	Glossy	16:10	1500:1	100% DCI-P3	170°	Low blue light

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

315 x 221.6 x 14.9 mm (12.4 x 8.72 x 0.59 inches)

Weight

1.133 kg (2.49 lbs)

Case Color

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Ethernet support via optional Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)

- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Nano-SIM card slot (WWAN models)
- None

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

- No base warranty is for special bid only

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

Work in progress

Other Certifications

- (Optional) Intel Evo Platform
- (Optional) TÜV Low Blue Light certified



intel



intel



intel



intel



intel



intel

PERFORMANCE

Processor

Processor Family

9th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-9300H	4	8	2.4GHz	4.1GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-9400H	4	8	2.5GHz	4.3GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i7-9750H	6	12	2.6GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-9850H	6	12	2.6GHz	4.6GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i9-9880H	8	16	2.3GHz	4.8GHz	16MB	DDR4-2666	Intel UHD Graphics 630

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics 630	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® GTX 1650 Max-Q	Discrete	4GB GDDR5	DirectX 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel CM246 chipset

Memory

Memory Type

DDR4-2666

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-2666

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB
- RAID 0/1 support

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security

ThinkPad X1 Extreme (2nd Gen)

M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Synaptic® CX11880 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

- Dual array microphone, 360° far-field
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 14 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

135W slim tip AC adapter

Notes:

- 170W for i9-10885H model only

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-

15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	72% NTSC	170°	Dolby Vision™, HDR
15.6"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1200:1	100% Adobe® RGB	170°	Dolby Vision, HDR
15.6"	UHD (3840x2160)	Multi- touch	OLED	SDR 400nit, HDR 500nit (peak)	Anti- reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Input Device**Pen**

- Lenovo Pen Pro (for multi-touch display)
- No pen (pen needs to be purchased separately)
- Not support (non-touch display doesn't support pen input)

Notes:

- Bundled Lenovo Pen Pro is only available for special bid models

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Non-touch models	361.8 x 245.7 x 18.4 mm (14.24 x 9.67 x 0.72 inches)
Touch models	361.8 x 245.7 x 18.7 mm (14.24 x 9.67 x 0.74 inches)

Weight

Models	Weight
Non-touch models	1.7 kg (3.75 lbs)
Touch models	1.8 kg (3.97 lbs)

Case Color

- Black, paint
- Black, weave

Case Material

CFRP + GFRP hybrid (top), Aluminium alloy (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad® Ethernet Extension Cable
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Cable

WLAN + Bluetooth™

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2, M.2 card
- No WLAN and Bluetooth

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

Not Support

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 2x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x power connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed
- Power Delivery only supports power-out for charging peripherals

Optional Ports

1x Smart card reader

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on keyboard bezel, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Cable
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce® GTX 1650 Ti Max-Q	Discrete	4GB GDDR6	DirectX 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via HDMI® (up to 4K@60Hz) or Thunderbolt™ (up to 5K@60Hz for hybrid model / 4K@60Hz for integrated model)

Chipset

Intel WM490 chipset

Memory

Memory Type

DDR4-2933

Notes:

- Installed memory is actually 3200MHz but run at 2933MHz due to processor limitation

Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

Max Memory

Up to 64GB DDR4-2933

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB
- RAID 0/1 support

RAID

RAID 0/1 support

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

Removable Storage

Optical

None

Card Reader

SD card reader, supports UHS-II SD card

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®, 3-magnet

Microphone

- Dual array microphone
- No microphone

Notes:

- Microphone not configured is for special bid only

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- No camera

Notes:

- Camera not configured is for special bid only

Battery

Battery

Integrated Li-Polymer 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2014: 15.6 hr

MobileMark 2018: 11.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 135W slim tip AC adapter
- 170W slim tip AC adapter

Notes:

- 170W for i9-10885H models only

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect	Contrast	Color	Viewing	Key
------	------------	-------	------	------------	---------	--------	----------	-------	---------	-----

						Ratio	Ratio	Gamut	Angle	Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	170°	-
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Dolby Vision™, HDR
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nit, HDR 500nit (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	178°	Dolby Vision, HDR

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- No color calibration

Touchscreen

- Capacitive-type multi-touch, supports 10-point touch
- Non-touch

Input Device

Pen

- Lenovo Pen Pro
- No pen (pen needs to be purchased separately)
- Not support (non-touch display doesn't support pen input)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Non-touch models	361.8 x 245.7 x18.4 mm (14.24 x 9.67 x 0.72 inches)
Touch models	361.8 x 245.7 x18.7 mm (14.24 x 9.67 x 0.74 inches)

Weight

Models	Weight
Non-touch models	1.7 kg (3.75 lbs)
Touch models	1.81 kg (4.0 lbs)

Case Color

- Black, paint
- Black, weave

Case Material

CFRP + GFRP hybrid (top), Aluminium alloy (bottom)

CONNECTIVITY

Network

Onboard Ethernet

Ethernet support via optional Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

No SIM card

NFC

Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.4 for discrete graphics / DisplayPort 1.2 for integrated graphics)
- 1x HDMI 2.0
- 1x SD card reader
- 1x headphone / microphone combo jack (3.5mm)
- 1x power connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on keyboard bezel, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

Intel® Core™ Processor with Intel Hybrid Technology

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-L16G7	5	5	1.4GHz	3.0GHz	4MB	LPDDR4x 4266 POP Memory	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via USB-C (up to 3840x2160@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266, PoP (Package on Package) memory

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

8GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

ThinkPad X1 Fold Gen 1

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 1W x2, Dolby® Atmos®

Microphone

Four array microphones

Camera

IR & 5.0-megapixel, fixed focus

Sensor

Sensors

- Gyroscope sensor
- Accelerometer (G) sensor
- Proximity sensor (WWAN model)

Battery

Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2018: 8.5 hr

Video Playback: 10.6 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C slim AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	QXGA (2048x1536)	Multi-touch	Folding OLED	300 nits	Anti-fingerprint (AF)	4:3	5000:1	95% DCI-P3	170°	-

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

On-cell touch, supports 10-point touch

Input Device

Pen

- Lenovo Mod Pen
- Lenovo Pen Pro
- No pen (pen needs to be purchased separately)

Keyboard

Lenovo Fold Mini Keyboard, Bluetooth™ pairing, with a pen loop (left side), magnetically attachable to X1 Fold (the side without camera), wireless charging when closed inside folded device or charging via micro USB cable

Keyboard Backlight

Not support

Touchpad

- Glass surface touchpad on Lenovo Fold Mini Keyboard, 2-finger scrolling support
- No touchpad

Mechanical**Dimensions (WxDxH)**

Folded: 158 x 235.6 x 27.8 mm (6.22 x 9.28 x 1.09 inches)

Unfolded: 299 x 235.6 x 11.3 mm (11.77 x 9.28 x 0.44 inches)

Weight

0.999 kg (2.2 lbs)

Case Color

Black

Case Material

Magnesium alloy + authentic leather (top), Magnesium alloy + authentic leather (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Ethernet support via optional Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth

Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

No SIM card

NFC

Not support

Ports**Standard Ports**

2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.2)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

SECURITY & PRIVACY**Security****Security Chip**

- Discrete TPM 2.0, TCG certified

- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Smart Card Reader

No smart card reader

Fingerprint Reader

No fingerprint reader

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

MANAGEABILITY

System Management

None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 3-year (1-yr battery) depot service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo Powered USB-C Travel Hub
- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

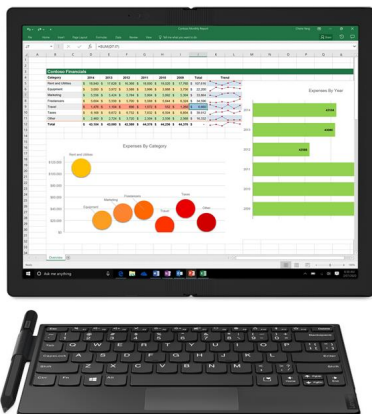
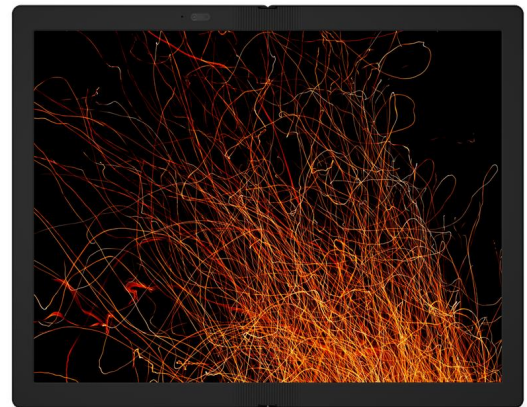
Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

Athena certified



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1130G7	4	8	1.8GHz	4.0GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1140G7	4	8	1.8GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1160G7	4	8	2.1GHz	4.4GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1180G7	4	8	2.2GHz	4.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via Thunderbolt™ (5120x3200@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
- 8GB memory is NOT available in EMEA

Storage

Storage Support

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 woofers and 1W x2 tweeters, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

IR & 720p, with privacy shutter, fixed focus

Battery**Battery**

Integrated Li-Polymer 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Max Battery Life

MobileMark® 2018: 13.6 hr

JEITA 2.0: 22.87 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C slim AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.0"	2K (2160x1350)	Multi-touch	IPS	450 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	Low power
13.0"	2K (2160x1350)	None	IPS	450 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

- Capacitive-type on-cell multi-touch, supports 10-point touch
- Non-touch

Input Device**Keyboard**

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

Models	Dimensions
Non-touch models	292.8x 207.7 x 13.87-16.7 mm (11.53 x 8.18 x 0.55-0.66 inches)
Touch models	292.9x 207.8 x 14.27-17.2 mm (11.53 x 8.18 x 0.56-0.68 inches)

Weight

Models	Weight
Touch with Wi-Fi models	969 g (2.14 lbs)
Non-touch with WWAN models	939 g (2.07lbs)
Non-touch with Wi-Fi models	907 g (1.99 lbs)
Touch with WWAN models	1001 g (2.21 lbs)

Case Color

- Black, paint
- Black, weave

Case Material

Carbon fiber (top), magnesium alloy (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Ethernet support via optional Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports**Standard Ports**

- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Firmware Resiliency 2.0

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C Port Replicator
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

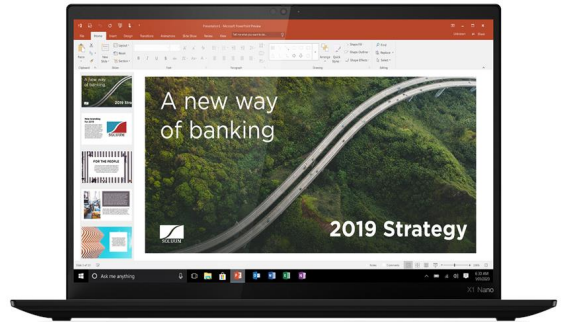
Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Intel Evo Platform



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1130G7	4	8	1.8GHz	4.0GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1140G7	4	8	1.8GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1160G7	4	8	2.1GHz	4.4GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1180G7	4	8	2.2GHz	4.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via Thunderbolt™ (5120x3200@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266, PoP (Package on Package) memory

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.
- 8GB memory is NOT available in EMEA

Storage

Storage Support

One drive, up to 1TB M.2 2242 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media**Audio Chip**

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, 2W x2, Dolby® Atmos®

Microphone

Four array microphones

Camera

IR & 720p, with privacy shutter, fixed focus

Sensor**Sensors**

- Gyroscope sensor
- Accelerometer (G) sensor
- Proximity sensor (WWAN model)
- ToF sensor

Battery**Battery**

Integrated Li-Polymer 44.5Wh battery

Max Battery Life

MobileMark® 2018: 11.7 hr

JEITA 2.0: 16.8 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

65W USB-C slim AC adapter

DESIGN**Display****Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.5"	QHD (2256x1504)	Multi-touch	IPS	450 nits	Anti-reflection, Anti-smudge	3:2	1200:1	72% NTSC	170°	Dolby Vision™

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

- Lenovo Precision Pen, magnetically attached to the system
- No pen (pen needs to be purchased separately)

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

297.5 x 232.7 x 11.5 mm (11.71 x 9.16 x 0.45 inches)

Weight

Models	Weight
WLAN models	1.15 kg (2.54 lbs)
WWAN models	1.18 kg (2.60 lbs)

Case Color

Titanium

Case Material

Titanium + carbon fiber (top), magnesium-aluminium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Ethernet support via optional Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
- Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

SIM Card

- Gemalto eSIM
- No SIM card

NFC

Not support

Ports**Standard Ports**

- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

- 1x Nano-SIM card slot (WWAN models)

- None

Monitor Cable

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on the top right of keyboard bezel with Prometheus slim type sensor, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- IR camera for Windows Hello
- Human Presence Detection

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- Lenovo USB-C Port Replicator

- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

(Optional) Intel Evo Platform



intel



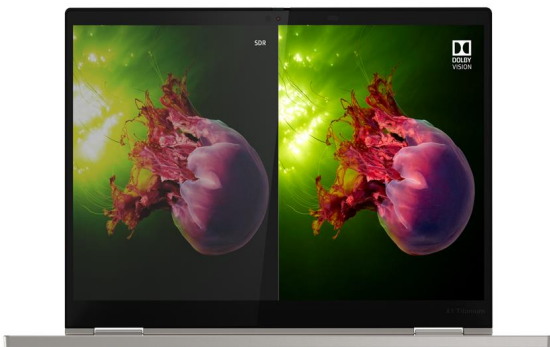
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PERFORMANCE

Processor

Processor Family

8th / 10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	LPDDR3-2133	Intel UHD Graphics

Notes:

- 10th Generation Intel Core Processors are NOT available in EMEA

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4K@24Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR3-2133

Memory Slots

Memory soldered to systemboard, no slots

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3286 codec

Speakers

Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Sensor

Sensors

- Ambient light sensor (ALS)
- eCompass
- Gyroscope sensor
- Accelerometer (G) sensor
- Proximity sensor

Battery

Battery

Integrated Li-Polymer 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 18.1 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD	Multi-	IPS	400 nits	Anti-reflection	16:9	800:1	72%	170°	Low power

ThinkPad X1 Yoga (4th Gen)

	(1920x1080)	touch			Anti-smudge			NTSC		
14.0"	FHD (1920x1080)	Multi-touch	IPS	400 nits	Anti-reflection Anti-smudge	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	WQHD (2560x1440)	Multi-touch	IPS	300 nits	Anti-reflection Anti-smudge	16:9	800:1	72% NTSC	170°	-
14.0"	UHD (3840x2160)	Multi-touch	IPS	500 nits	Anti-reflection Anti-smudge	16:9	1400:1	90%	170°	Dolby Vision™, HDR 400

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type multi-touch, supports 10-point touch, could reduce the brightness by up to 10%

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

ThinkPad Pen Pro, on-board garaged and rechargeable

Keyboard

6-row, spill-resistant, multimedia Fn keys

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Privacy Guard models	323 x 218 x 15.95 mm (12.71 x 8.58 x 0.63 inches)
Non-Privacy Guard models	323 x 218 x 15.5 mm (12.71 x 8.58 x 0.61 inches)

Weight

Models	Weight
Non-Privacy Guard models	1.36 kg (2.99 lbs)
Privacy Guard models	1.47 kg (3.24 lbs)

Case Color

Iron grey

Case Material

Aluminium (top), Magnesium (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

ThinkPad X1 Yoga (4th Gen)

Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1

Notes:

- BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)

WWAN

- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano-SIM Card, Verizon LTE (US)
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 2x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed



PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	LPDDR3-2133	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	LPDDR3-2133	Intel UHD Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4K@24Hz) or Thunderbolt™ (up to 5K@60Hz)

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR3-2133

Memory Slots

Memory soldered to systemboard, no slots, dual-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Removable Storage

Optical

ThinkPad X1 Yoga Gen 5

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, USI 4551-513711-00 codec

Speakers

Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus

Sensor

Sensors

- Ambient light sensor (ALS)
- eCompass
- Gyroscope sensor
- Accelerometer (G) sensor
- Proximity sensor

Battery

Battery

Integrated Li-Polymer 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 19.3 hr

MobileMark 2018: 13.0 hr

JEITA 2.0: 19.3 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	Multi-touch	IPS	400 nits	Anti-reflection Anti-smudge	16:9	700:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-reflection Anti-smudge	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	WQHD (2560x1440)	Multi-touch	IPS	300 nits	Anti-reflection Anti-smudge	16:9	1000:1	72% NTSC	170°	-
14.0"	UHD	Multi-	IPS	500 nits	Anti-reflection	16:9	1500:1	90%	170°	Dolby

(3840x2160)	touch		Anti-smudge		DCI-P3		Vision™, HDR 400
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Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>
- WQHD is not available in EMEA

Touchscreen

Capacitive-type multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device

Pen

ThinkPad Pen Pro, on-board garaged and rechargeable

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Privacy Guard models	323 x 218 x 15.95 mm (12.71 x 8.58 x 0.63 inches)
Non-Privacy Guard models	323 x 218 x 15.5 mm (12.71 x 8.58 x 0.61 inches)

Weight

Models	Weight
Non-Privacy Guard models	1.36 kg (2.99 lbs)
Privacy Guard models	1.47 kg (3.24 lbs)

Case Color

Iron grey

Case Material

Aluminium (top), Magnesium (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel Wi-Fi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card
- Not Support

Notes:

- For non-WWAN model, it means the model is NOT WWAN upgradable

SIM Card

- Gemalto eSIM
- Nano SIM card, Lenovo Connect 4 months, 4G LTE
- No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

Other Certifications

Athena certified



PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 Processor

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics	Type	Memory	Key Features
Intel Iris Xe Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

- Refresh rates >60hz also supported, however max resolution will be limited

Chipset

Intel SoC (System on Chip) platform

Memory

Memory Type

LPDDR4x-4266

Memory Slots

Memory soldered to systemboard, no slots, 8-channel capable

Max Memory

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

- The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

Storage

Storage Support

One drive, up to 2TB M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	Opal2

M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	Opal2
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Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

Microphone

Four array microphones, 360° far-field

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, with privacy shutter, fixed focus

Sensor

Sensors

- Accelerometer (G) sensor
- Proximity sensor

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life

MobileMark® 2014: 21.0 hr

MobileMark 2018: 16.1 hr

JEITA 2.0: 23.9 hr

Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

- 45W USB-C AC adapter
- 65W USB-C slim AC adapter
- 65W USB-C AC adapter

DESIGN

Display

Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD+ (1920x1200)	Multi-touch	IPS	400 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, low blue light
14.0"	FHD+ (1920x1200)	Multi-touch	IPS	400 nits	Anti-reflection, Anti-smudge	16:10	1000:1	100% sRGB	170°	Low power, low blue light

14.0"	FHD+ (1920x1200)	Multi-touch	IPS	500 nits	Anti-glare	16:10	1000:1	100% sRGB	170°	Low power, ThinkPad® Privacy Guard
14.0"	UHD+ (3840x2400)	Multi-touch	IPS	500 nits	Anti-reflection, Anti-smudge	16:10	1500:1	100% DCI-P3	170°	Low blue light

Notes:

- California Electronic Waste Recycling Fee
In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

Touchscreen

Capacitive-type on-cell multi-touch, supports 10-point touch

Multi-mode

Laptop, tent, stand and tablet modes supported by 360° hinge

Input Device**Pen**

Lenovo Integrated Pen, on-board garaged and rechargeable

Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

Keyboard Backlight

LED backlight

UltraNav™

TrackPoint® pointing device and glass surface multi-touch touchpad

Mechanical**Dimensions (WxDxH)**

314.4 x 223 x 14.99 mm (12.38 x 8.78 x 0.59 inches)

Weight

1.399 kg (3 lbs)

Case Color

Storm grey

Case Material

Aluminium (top), aluminium (bottom)

CONNECTIVITY**Network****Onboard Ethernet**

Ethernet support via optional Lenovo USB-C to Ethernet Adapter

WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

Notes:

- Intel WiFi 6 full features might be limited by country level restrictions
Bluetooth 5.2 is supported with driver version 22.30 and later

WWAN

- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Qualcomm® Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- Not Support

SIM Card

No SIM card

NFC

- Near Field Communication
- Not support

Ports

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
- 1x HDMI 2.0
- 1x headphone / microphone combo jack (3.5mm)

Notes:

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

Optional Ports

1x Nano-SIM card slot (WWAN models)

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- No monitor cable

SECURITY & PRIVACY

Security

Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Nano Security Slot

Smart Card Reader

No smart card reader

Fingerprint Reader

Touch style fingerprint reader on power button, match-on-chip

BIOS Security

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert
- (Optional) Human Presence Detection

MANAGEABILITY

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

- No base warranty is for special bid only

ACCESSORIES

Bundled Accessories

- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO
- RoHS compliant

Other Certifications

Mil-Spec Test

Work in progress

Other Certifications

- (Optional) Intel Evo Platform
- (Optional) TÜV Low Blue Light certified



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Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.

Lenovo Services:

Carry-in or Mail-in Service: Parts and labor repair coverage where the customer is responsible for shipping (including packaging) or delivery to authorized warranty provider or repair center.

Depot or Courier Service: Parts and labor repair coverage where shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Expedited Depot: Parts and labor coverage with expedited turnaround. Shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Onsite / In-home Service: Parts and labor repair coverage where labor is provided onsite at your place of business.

If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

International Warranty Service (IWS): PC repair coverage for customers who require a critical warranty repair while travelling internationally. Visit www.lenovo.com/internationalwarranty for details. Visit www.lenovo.com/warranty for Lenovo Warranty Services terms and conditions for complete details and restrictions.

Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

Visit <http://psref.lenovo.com/> for the latest version of Product Specifications Reference.

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