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Informacije o proizvodu (EN)

LENOVO laptop ThinkPad L16 Gen 1 16/512GB Win 11 Pro (21L3002RCX)

Lenovo

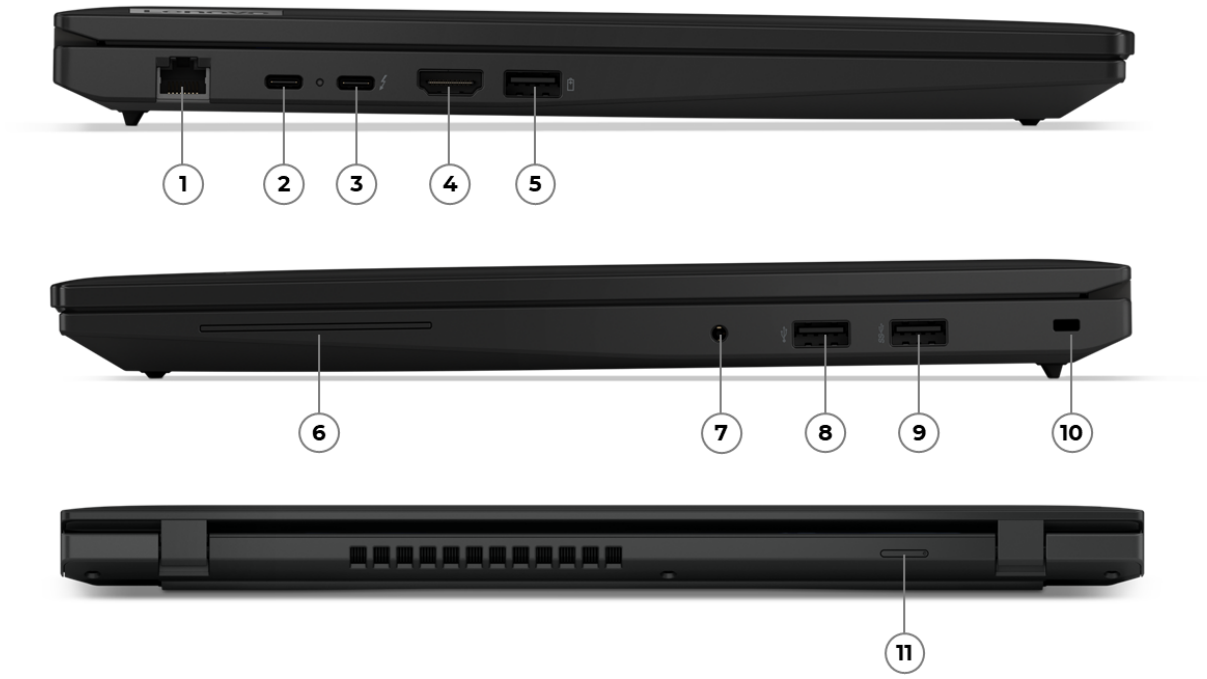


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Posetite nas i uživajte u ekskluzivnom iskustvu pametne kupovine klikom na link:

https://tehnoteka.rs/p/lenovo-laptop-thinkpad-l16-gen-1-16512gb-win-11-pro-21l3002rcx-akcija-cena/

OVERVIEW



1. Ethernet (RJ-45)	7. Headphone / microphone combo jack (3.5mm)
2. USB-C (USB 20Gbps), with USB PD 3.0 & DP 1.4	8. USB-A (Hi-Speed USB)
3. Thunderbolt 4	9. USB-A (USB 5Gbps)
4. HDMI	10. Kensington Nano Security Slot
5. USB-A (USB 5Gbps), Always On	11. Nano-SIM card slot (WWAN model) *
6. Smart card reader *	

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® U or H Series Core Ultra 5 / 7 Processor (Series 1)

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	NPU
Core Ultra 5 125H	14 (4 P-core + 8 E-core + 2 LPE-core)	18	P-core 1.2GHz / E-core 700MHz / LPE-core 700MHz	P-core 4.5GHz / E-core 3.6GHz / LPE-core 2.5GHz	18MB	Intel® Arc™ Graphics[1]	Intel® AI Boost
Core Ultra 5 125U	12 (2 P-core + 8 E-core + 2 LPE-core)	14	P-core 1.3GHz / E-core 800MHz / LPE-core 700MHz	P-core 4.3GHz / E-core 3.6GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost
Core Ultra 5 135H	14 (4 P-core + 8 E-core + 2 LPE-core)	18	P-core 1.7GHz / E-core 1.2GHz / LPE-core 700MHz	P-core 4.6GHz / E-core 3.6GHz / LPE-core 2.5GHz	18MB	Intel® Arc™ Graphics	Intel® AI Boost
Core Ultra 5 135U	12 (2 P-core + 8 E-core + 2 LPE-core)	14	P-core 1.6GHz / E-core 1.1GHz / LPE-core 700MHz	P-core 4.4GHz / E-core 3.6GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost
Core Ultra 7 155H	16 (6 P-core + 8 E-core + 2 LPE-core)	22	P-core 1.4GHz / E-core 900MHz / LPE-core 700MHz	P-core 4.8GHz / E-core 3.8GHz / LPE-core 2.5GHz	24MB	Intel® Arc™ Graphics[2]	Intel® AI Boost
Core Ultra 7 155U	12 (2 P-core + 8 E-core + 2 LPE-core)	14	P-core 1.7GHz / E-core 1.2GHz / LPE-core 700MHz	P-core 4.8GHz / E-core 3.8GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost
Core Ultra 7 165U	12 (2 P-core + 8 E-core + 2 LPE-core)	14	P-core 1.7GHz / E-core 1.2GHz / LPE-core 700MHz	P-core 4.9GHz / E-core 3.8GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost

Notes:

[1], [2] Intel® Arc™ Graphics only available on select H-series Intel® Core™ Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

AI (Artificial Intelligence)

AI PC Category

AI PC

NPU

Integrated Intel® AI Boost, up to 11 TOPS

Operating System

Operating System**

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Windows® 11 IoT Enterprise LTSC 2024[1]
- Windows® 11 DG Windows® 10 Pro 64[2]
- Windows® 10 IoT Enterprise LTSC 2021[3]
- Ubuntu Linux[4]
- Linux[5]
- No preload operating system

Notes:

[1] Windows® 11 IoT Enterprise LTSC 2024 is for special bid only.
[2] Windows® 11 DG Windows® 10 Pro 64 is for special bid only.
[3] Windows® 10 IoT Enterprise LTSC 2021 is for special bid only.

[4], [5] Some features may not be supported on the system with Linux preload, including but not limited to Intel® RST RAID, MIPI computer vision camera, WWAN, Human Presence Detection, etc.

Graphics

Graphics**

Graphics	Type	Memory	TGP	Key Features
Intel® Arc™ Graphics[1]	Integrated	Shared	Share CPU TDP	DirectX® 12.2
Intel® Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1

Notes:

[1] Intel® Arc™ Graphics only available on select H-series Intel® Core™ Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)
• HDMI® supports up to 4K@60Hz
• USB-C® supports up to 5K@120Hz
• Thunderbolt™ supports up to 8K@60Hz

Chipset

Chipset

Intel® SoC (System on Chip) platform

Memory

Max Memory[1]

Up to 64GB DDR5-5600

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-5600

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.

Storage

Storage Support[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® 4.0 x4 slot

Storage Type**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4	256GB / 512GB / 1TB	Opal 2.0
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4 Performance	2TB	Opal 2.0

Notes:

[1] The storage capacity supported is based on the test results with current Lenovo® storage offerings.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Senary SN6147 codec

Speakers

Stereo speakers, 2W x2, Dolby Audio™

Microphone

Dual-microphone array, far-field, Dolby Voice®

Camera**

- 5.0MP + IR discrete, with privacy shutter, fixed focus, temporal noise reduction
- HD 720p, with privacy shutter, fixed focus

Battery

Battery**[1]

- Integrated Li-Polymer 46.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Battery Life[2]

Configuration 1 (max battery life)
MobileMark® 25: up to 13.68 hr with 722 performance score @250nits
JEITA-BAT 3.0 (Video/Idle): up to 12.56 hr / 24.65 hr @200nits
Local video playback: up to 25.2 hr @150nits

Alternate configuration 2
MobileMark® 25: up to 13.3 hr with 791 performance score @250nits
JEITA-BAT 3.0 (Video/Idle): up to 12.39 hr / 27.4 hr @200nits
Local video playback: up to 22.91 hr @150nits

Alternate configuration 3
MobileMark® 25: up to 9.05 hr with 792 performance score @250nits
JEITA-BAT 3.0 (Video/Idle): up to 6.23 hr / 13 hr @200nits
Local video playback: up to 12.81 hr @150nits

Notes:

[1] Rapid charge is only guaranteed when the computer is turned off or in standby mode or in hibernation mode. When the computer is powered on, the Charge Time will vary depending on system power consumption and AC adapter power.
[2] Configuration 1 (max battery life): WUXGA (non-touch), Intel® Core™ Ultra 5 125U, 8GB DDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 2: WUXGA (non-touch), Intel® Core™ Ultra 5 125H, 8GB DDR5, Win 11, 57Wh battery, best power efficiency power mode
Alternate configuration 3: WUXGA (non-touch), Intel® Core™ Ultra 5 125H, 8GB+8GB DDR5, Win 11, 46.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using MobileMark® 25, JEITA 3.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode with 150nits brightness and default volume level), or Google Power Load Test (PLT) battery-life benchmark tests.
Actual battery life will vary depending on many factors such as product configuration, software, wireless functionality, power management settings, and screen brightness.
The maximum capacity of the battery will decrease with time, ambient temperature and use.
Refer to Microsoft® link for more information about the Windows® Performance power slider.

Power Adapter

Power Adapter**[1]

- 45W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C® (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter[2]

Notes:

[1] AC adapter offerings depend on the country.
[2] No power adapter is for special bid only.

DESIGN

Display

Display**

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Refresh Rate	Viewing Angle (L/R/U/D)	Key Features
16″	WUXGA (1920x1200)	None	IPS[1]	300nits	Anti-glare	16:10	1000:1	45% NTSC	60Hz	89° / 89° / 89° / 89°	-
16″	WUXGA (1920x1200)	Multi-touch	IPS[2]	300nits	Anti-glare	16:10	1500:1	45% NTSC	60Hz	89° / 89° / 89° / 89°	Eyesafe® Certified 2.0
16″	WUXGA (1920x1200)	None	IPS[3]	400nits	Anti-glare	16:10	1500:1	100% sRGB	60Hz	89° / 89° / 89° / 89°	Low power, Eyesafe® Certified 2.0

Touchscreen

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

Notes:

[1], [2], [3] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

Input Device

Pen

No support

Keyboard

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

Keyboard Backlight

- LED backlight
- Non-backlight

UltraNav™

TrackPoint® pointing device, double-tap to open the TrackPoint® Quick Menu
Mylar® surface multi-touch touchpad, 67.6 x 115 mm (2.66 x 4.53 inches)

Mechanical

Dimensions (WxDxH)[1]

357.2 x 253.4 x 20.78 mm (14.06 x 9.98 x 0.82 inches)

Weight[2]

Starting at 1.77 kg (3.90 lbs)

Case Color

Black

Case Material

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

Notes:

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

CONNECTIVITY

Network

Ethernet**

- Gigabit Ethernet, Intel® Ethernet Connection I219-LM (vPro® models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel® Ethernet Connection I219-V (non-vPro® models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®**[1]

- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3[2]
- Intel® Wi-Fi® 7 BE200, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.3 (Bluetooth® 5.4 hardware ready)[3]

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM061K-GL, 4G LTE CAT6, M.2 Card, with embedded eSIM functionality
- No support

SIM Card

No physical SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

[1] Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.
[2] Wi-Fi® 6E 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® 5.3 operation requires Windows® 11. For more information please visit General Bluetooth® Support Information on Microsoft®.
[3] Wi-Fi® 7 is only enabled on Windows® 11 and operates as Wi-Fi® 6 with Windows® 10.
6GHz Wi-Fi® 7 operation is subject to the regulation rules in each country.
Bluetooth® 5.3 operation requires Windows® 11. For more information please visit General Bluetooth® Support Information on Microsoft®.

Ports[1]

Standard Ports

- 1x USB-A (Hi-Speed USB / USB 2.0)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), one Always On
- 1x USB-C® (USB 20Gbps / USB 3.2 Gen 2x2), with USB PD 3.0 and DisplayPort™ 1.4
- 1x USB-C® (Thunderbolt™ 4 / USB4® 40Gbps), with USB PD 3.0 and DisplayPort™ 2.1
- 1x HDMI® 2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)

Optional Ports***

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

Notes:

[1] The transfer speed of the ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

Docking

Docking

Various docking solutions supported via Thunderbolt™ or USB-C®.
For more compatible docking solutions, please visit Docking for ThinkPad® L16 Gen 1 (Intel®)

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

Physical Locks

Kensington® Nano Security Slot™, 2.5 x 6 mm

Smart Card Reader

- Smart card reader, supports ISO 7816 and EMV
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader integrated in power button, match-on-chip
- No fingerprint reader

BIOS Security

- NVMe® password
- Power-on password
- Supervisor password
- System management password
- Certificate-based BIOS athentication
- FIDO (Fast Identity Online) authentication
- Self-healing BIOS
- More BIOS security features, please visit BIOS Simulator[1]

Other Security

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

Notes:

[1] The BIOS simulator is just for reference. Default settings and some options may vary depending on the hardware, operating system and BIOS version.

MANAGEABILITY

System Management

System Management**

- Intel® vPro® Enterprise[1]
- Intel® vPro® Essentials[2]
- Non-vPro®

Notes:

[1], [2] Intel® vPro® offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**

- 1-year courier or carry-in service
- 1-year courier or carry-in with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) courier or carry-in service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

Bundled Accessories*[1]

- Lenovo® HDMI® to VGA Monitor Adapter
- Lenovo® USB-C® to DisplayPort™ Adapter

- Lenovo® USB-C® to VGA Adapter
- None

Notes:

[1] For more compatible accessory solutions, please visit Accessories for ThinkPad® L16 Gen 1 (Intel®).

OPERATING REQUIREMENTS

Operating Environment

Temperature[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without packaging: 5°C (41°F) to 43°C (109°F)

Relative Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

[1] When you charge the battery, its temperature must be no lower than 10°C (50°F).

ENVIRONMENTAL

Sustainability

Material[1]

50% recycled aluminium on top cover
60% PCC recycled on keyboard frame
50% PCC recycled on PC/ABS bottom cover
30% PCC recycled on PC/CF bottom cover
85% PCC recycled plastic used in key caps (backlight)
70% PCC recycled plastic used in key caps (non-backlight)
90% PCC recycled plastic used in speaker enclosure
90% PCC recycled plastic used in the battery pack enclosure
90% PCC recycled plastic used in slim 65W adapters
Low-temperature solder
FSC Certified Plastic Free Packaging

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.

CERTIFICATIONS

Green Certifications[1]

Green Certifications[2]

- ENERGY STAR® 8.0
- EPEAT™ Gold Registered[3]
- ErP Lot 6/26
- RoHS compliant
- TCO Certified 9.0

Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration. For ESG & regulatory compliance documents, please visit https://compliance.lenovo.com.
[2] EPEAT™ registration and ENERGY STAR® certification are optional and only available on the models with preloaded OS. Please visit epeat.net and energystar.gov for more information.

[3] EPEAT™ is registered where applicable, please visit epeat.net for registration status by country.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe® Certified 2.0
- (Optional) TÜV Rheinland® Low Blue Light (Hardware Solution)

- Feature with ** means that only one option listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
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Za najnovije informacije o ceni, dostupnim akcijama i tehničkim karakteristikama proizvoda koji se pominje u ovom dokumentu, molimo posetite našu stranicu klikom na sledeći link:

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