

## Technical Specifications: Lenovo ThinkPad P16v Gen 2 Laptop

This model is designed for professionals who need high performance in a portable form factor, making it an excellent modern alternative to the desktop configuration you listed.

- **(a) CPU:** Intel® Core™ Ultra 7 155H Processor (16 Cores, 22 Threads, 24 MB Cache, up to 4.80 GHz).
  - *Note: This is a latest-generation mobile processor featuring advanced AI capabilities and efficiency, providing a significant performance leap over the 8-year-old desktop i7-7700.*
- **(b) Chipset:** Integrated directly into the Intel® processor SoC (System on Chip).
- **(c) Motherboard:** Proprietary Lenovo motherboard designed for the ThinkPad P16v Gen 2 chassis.
- **(d) Slots:** 2x M.2 PCIe® Gen4 NVMe slots for SSDs, 1x M.2 slot for the WLAN card.
  - *Note: Laptops use compact M.2 slots for storage and wireless cards, not the full-height PCIe expansion slots found in desktops.*
- **(e) Memory:** 16 GB DDR5 5600MHz RAM. System is expandable up to 96 GB via two SODIMM slots.
- **(f) Monitor:** 16-inch WUXGA (1920 x 1200) IPS, anti-glare, 300 nits, low blue light, integrated display.
- **(g) Graphics Card:** NVIDIA® RTX™ 500 Ada Generation Laptop GPU with 4 GB GDDR6 dedicated memory.
  - *Note: This is a modern, ISV-certified professional GPU designed for stability and performance in demanding applications, far surpassing the capabilities of the AMD R7 450.*
- **(h) Storage:** 1 TB PCIe® Gen4 Performance NVMe M.2 SSD.
  - *Note: This NVMe SSD provides exceptionally fast boot times and data access compared to a traditional 3.5-inch mechanical hard drive.*
- **(i) Keyboard:** Integrated ThinkPad spill-resistant, backlit keyboard with a numeric keypad and the iconic TrackPoint® nub.
- **(j) Mouse:** Integrated 3-button TrackPoint® pointing device and a large Mylar® touchpad.
- **(k) DVD Writer:** Not included. An external USB DVD writer can be used if needed.
  - *Note: Most modern professional laptops omit internal optical drives to enhance portability and cooling.*

- **(l) Ports:** 2x Thunderbolt™ 4 (USB-C), 2x USB 3.2 Gen 1 Type-A, 1x HDMI 2.1, 1x RJ-45 Ethernet port, 1x Headphone/microphone combo jack, 1x SD Express 7.0 Card Reader.
  - *Note: This provides a comprehensive selection of modern high-speed ports. Legacy interfaces like PS/2 are no longer included on laptops.*
- **(m) Networking:** Integrated Gigabit Ethernet (10/100/1000) and Intel® Wi-Fi 6E AX211 with Bluetooth® 5.3.
- **(n) Operating System:** Windows 11 Pro 64-bit (preinstalled with downgrade rights for Windows 10 Pro).
- **(o) Security:** Discrete Trusted Platform Module (dTPM) 2.0, fingerprint reader, ThinkShutter webcam privacy cover, Kensington Nano Security Slot™, and self-healing BIOS.
- **(p) Power Supply:** 170W Slim AC Adapter.
- **(q) Cabinet:** Durable laptop chassis built with a mix of high-strength composite materials.
- **(r) Industry Standard Compliance:** EPEAT® Gold registered in India, ENERGY STAR® 8.0 certified, and TCO Certified 9.0.