

# ThinkPad P52 20M90010US

**Product**  
ThinkPad P52

**Region**  
NA

**Country**  
USA

**Machine Type**  
20M9

**TopSeller**  
TopSeller

**Processor**  
Xeon E-2176M (6C / 12T, 2.7 / 4.4GHz, 12MB)

**Graphics**  
NVIDIA Quadro P2000 4GB GDDR5

**Chipset**  
Intel CM246

**Memory**  
1x 16GB DIMM DDR4-2400 ECC

**Display**  
15.6" FHD (1920x1080) IPS

**Multi-touch**  
None

**Storage**  
512GB SSD M.2 2280 PCIe NVMe Opal2

**Optane Memory**  
None

**RAID**  
No

**Optical**  
None

**WLAN + Bluetooth**  
Intel 9560 11ac, 2x2 + BT5.0

**WWAN**  
None

**SIM Card**  
None

**Smart Card Reader**  
None

**Monitor Cable**  
None

**Bundled Accessories**  
None

**Color**  
Black

**Camera**  
720p

**Keyboard**  
Backlit

**Pen**  
None

**Fingerprint Reader**  
Fingerprint Reader

**NFC**  
None

**TPM**  
Discrete TPM 2.0

**Battery**  
Swappable 90Wh

**Power Adapter**  
170W Slim Tip

**System Management**  
Intel vPro

**Operating System**  
Windows 10 Pro 64 for Workstations

**Bundled Software**  
None

**Warranty**  
3-year, Depot

**End of Support**  
2024-07-19

**Announce Date**  
2018-06-19

## Notes:

Battery life is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features, power management settings, battery age and conditioning, and other customer preferences.  
<https://www.lenovo.com/hk/en/battery-info>

## 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>



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# ThinkPad P52 Platform Specifications

Product Specifications Reference (PSREF)



Processor	8th Generation Intel® Core™ i7 Processor or Intel Xeon® E Processor								Dimensions <i>WxDxH:</i> 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm <i>WxDxH(Touch):</i> 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm <i>Non-touch model:</i> starting at 5.4 lb (2.45kg); <i>Multi-touch model:</i> starting at 6.4 lb (2.9kg)
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	
	i7-8750H	6	12	2.2 GHz	4.1 GHz	9MB	DDR4-2400	Intel UHD Graphics 630	
	i7-8850H			2.6 GHz	4.3 GHz	9MB			
	i9-8950HK			2.9 GHz	4.8 GHz	12MB		Intel UHD Graphics P630	
E-2176M	2.7 GHz			4.4 GHz	12MB				
Graphics	Intel UHD Graphics 630 or P630 in processor and NVIDIA Quadro® P1000 (4GB memory), P2000 (4GB memory), or P3200 (6GB memory, VR ready); supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt™; supports four independent displays; Max resolution: 3840X2160@60Hz (DisplayPort via Mini DisplayPort cable); 5120X2880@30Hz (Thunderbolt); 4096x2160@60Hz (HDMI)								
Chipset	Mobile Intel CM246 Chipset								
Memory	128GB non-ECC or 64GB ECC max / 2400MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets * Installed DIMMs are actually 2666MHz but run at 2400MHz due to Intel limitation * 128GB non-ECC memory for special bid only								
Display	<i>Some:</i> 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 160° viewing angle <i>Some:</i> 15.6" (396mm) 4K (3840x2160), anti-glare, LED backlight, IPS, 400 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 100% gamut, 170° viewing angle, multi-touch								
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (4K only)								
Pen	Supports pen accessory, please see the accessory compatibility for details								
Storage	<i>Up to 3 drives (two M.2 SSD and one HDD)</i> <i>Some:</i> HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>Some:</i> M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s								
Optane™ memory	<i>Optional:</i> Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2								
RAID (optional)	RAID 0/1 support								
Optical	None								
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)								
WLAN	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card								
Bluetooth™	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter								
WWAN (optional)	Integrated Mobile Broadband 4G LTE-A, Intel XMM™ 7360 (Fibocom L850-GL), M.2 card								
SIM card (opt)	Nano-SIM card slot, optional Verizon LTE (US) SIM card								
ExpressCard	<i>Optional:</i> Smart card reader								
Media reader	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card								
Ports	Three USB 3.1 Gen 1 (one Always On), two USB Type-C / Thunderbolt 3 (with the function of Power Delivery and DP), Mini DisplayPort 1.4, HDMI 2.0, Ethernet (RJ-45), nano-SIM card slot (WWAN models), headphone / microphone combo jack, optional smart card reader, 4-in-1 reader (MMC, SD, SDHC, SDXC), security keyhole * Power Delivery only supports power-out for charging peripherals * Depending on many factors, actual data transfer speed may be lower than theoretical speed								
Camera (optional)	<i>One of the following, configurable by model:</i> • HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera, fixed focus								
Audio support	HD Audio, Realtek® ALC3286 codec / stereo speakers, 2W x 2, Dolby® Audio™ Premium / dual array microphone, headphone / microphone combo jack, Dolby Atmos® headphone								
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, LED backlight								
UltraNav™	3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad								
Security	Power-on password, hard disk password, supervisor password, security keyhole								
Security chip	Discrete TPM 2.0, TCG Certified								
vPro (optional)	Intel vPro Technology								
Fingerprint reader	Touch style match on chip fingerprint reader on the palm rest								
Color calibration	None								
NFC (optional)	Near Field Communication								
Battery	Li-ion 90Wh battery								
Max battery life	<i>Discrete mode:</i> 6.1 hr; <i>Hybrid mode:</i> 8.9 hr ( <i>MobileMark® 2014</i> ) * Battery life varies significantly with settings, usage, & other factors								
AC adapter	170W slim tip AC adapter								
Preload	<i>One of the following, configurable by model:</i> • Windows® 10 Home 64 • Windows 10 Pro 64 • Windows 10 Pro 64 for Workstations								
Limited warranty	<i>One of the following, configurable by model:</i> • 1-year depot repair service • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service								
Mil-Spec test	MIL-STD-810G military certification								
Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant								

Note: The specifications above may not be available in all regions.

Lenovo  
April 2019

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