

# ThinkPad P53 Platform Specifications

Product Specifications Reference (PSREF)

Processor	9th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® E Processor									Dimensions	<i>WxDxH (non-touch):</i> 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm <i>WxDxH (multi-touch):</i> 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm								
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics											
	i5-9400H	4	8	2.5 GHz	4.3 GHz	8MB	DDR4-2666	Intel UHD Graphics 630											
	i7-9750H	6	12	2.6 GHz	4.5 GHz	12MB													
	i7-9850H	6	12	2.6 GHz	4.6 GHz	12MB													
	i9-9880H	8	16	2.3 GHz	4.8 GHz	16MB													
	E-2276M	6	12	2.8 GHz	4.7 GHz	12MB		Intel UHD Graphics P630											
Graphics	Intel UHD Graphics 630 or P630 in processor and NVIDIA® Quadro® T1000 (4GB GDDR5), T2000 (4GB GDDR5), RTX 3000 (6GB GDDR6, VR ready), RTX 4000 (8GB GDDR6, VR ready), or RTX 5000 (16GB GDDR6, VR ready); supports external digital monitor via HDMI or Thunderbolt™; Up to 5 displays with 4 external monitors plus system LCD screen. Max resolution: 5K@60Hz (Thunderbolt); 4K@60Hz (USB-C or HDMI)									Weight	<i>Non-touch model:</i> starting at 5.51 lb / 2.5 kg; <i>Multi-touch model:</i> starting at 6.4 lb / 2.9 kg								
Chipset	Mobile Intel CM246 Chipset									Case color	Black								
Memory	128GB max / 2666MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets									Case material	<i>Display cover:</i> Glass-Fiber Reinforced Plastic; <i>Bottom:</i> Magnesium/Aluminum								
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Smart card reader	<i>Optional:</i> Smart card reader								
	15.6"	FHD (1920x1080)	WVA	Anti-glare	300 nits	16:9	700:1	72%	160°	ExpressCard	None								
	15.6"	FHD (1920x1080) Dolby Vision™ HDR	WVA	Anti-glare	500 nits	16:9	1200:1	72%	160°	Media reader	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card								
	15.6"	UHD (3840x2160) Dolby Vision HDR	WVA	Anti-glare	500 nits	16:9	1200:1	100%	170°	Ports	Two USB 3.1 Gen 1 (one Always On), one USB 3.1 Type-C Gen 1 (with the function of Power Delivery and DisplayPort), two USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP), 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 <i>* Power Delivery only supports power-out for charging peripherals</i> <i>* USB-C Dock is not supported in right-side USB-C port</i> <i>* Depending on many factors, actual data transfer speed may be lower than theoretical speed</i>								
	15.6"	UHD (3840x2160) Dolby Vision HDR, Multi-touch	OLED	Anti-reflection / Anti-smudge	SDR 400nit, HDR 500nit (peak)	16:9	100000:1	100% DCI-P3	170°	Monitor cable (optional)	<i>HDMI to VGA:</i> Lenovo HDMI to VGA Monitor Adapter <i>USB-C to VGA:</i> Lenovo USB-C to VGA Adapter <i>USB-C to DP:</i> Lenovo USB-C to DisplayPort Adapter								
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (UHD only), anti-reflection (AR), anti-smudge (AS) coating									Bundled Accy	None								
Pen (optional)	Lenovo Pen Pro (special bid only)									Camera (optional)	<i>One of the following, configurable by model:</i> • HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus								
Storage	Up to 3 drives (3x M.2 SSD or 1x HDD + 2x M.2 SSD), supports single sided M.2 2280 drives only • HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ • M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4 <i>* HDD is only available for T1000 and T2000 graphics model</i>									Audio support	HD Audio, Synaptic® CX11880 codec / stereo speakers, 2W x 2 / optional dual array far-field microphone, headphone / microphone combo jack, Dolby Atmos® sound system								
Optane™ memory	<i>Optional:</i> Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2									Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, LED backlight								
RAID (optional)	RAID 0/1/5 support									UltraNav™	3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad								
Optical	None									Security	Power-on password, hard disk password, supervisor password, security keyhole								
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)									Security chip	Discrete TPM 2.0, TCG Certified								
WLAN (optional)	Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.1									vPro (optional)	Intel vPro Technology								
Bluetooth™ (opt)	Bluetooth 5.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter									Fingerprint reader	Touch style match on chip fingerprint reader on the palm rest								
WWAN (optional)	<i>One of the following, configurable by model:</i> • Wireless WAN upgradable (special bid only in EMEA) • Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card <i>* For non-WWAN model, it means the model is NOT WWAN upgradable</i>									Color calibration	<i>Optional:</i> X-Rite Pantone factory color calibration (UHD model only)								
SIM card (opt)	Nano-SIM card slot, optional Verizon LTE (US) SIM card									NFC (optional)	Near Field Communication								
										Battery	Integrated Li-Polymer 90Wh battery, supports Rapid Charge (charge up to 80% in 1hr)								
										Max battery life (MobileMark® 2014)	<i>Discrete mode:</i> 8 hr; <i>Hybrid mode:</i> 13 hr <i>* Battery life varies significantly with hardware configurations, settings, usage, &amp; other factors</i>								
										AC adapter	170W or 230W slim tip AC adapter								
										Operating system	<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 testing								
										Environment	EPEAT™ Gold; ENERGY STAR® 8.0; RoHS-compliant								

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

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