ThinkPad P51s Platform Specifications

Processor

6th Generation Intel® Core™ i7 Processor

Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics
i7-6500U	2	4	2.5 GHz	3.1 GHz	4MB	DDR4-2133	Intel HD Graphics 520
i7-6600U			2.6 GHz	3.4 GHz	4MB		

or 7th Generation Intel Core i5 / i7 Processor

Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics
i5-7300U	2	4	2.6 GHz	3.5 GHz	3MB	DDR4-2133	Intel HD Graphics 620
i7-7500U			2.7 GHz	3.5 GHz	4MB		
i7-7600U			2.8 GHz	3.9 GHz	4MB		

Graphics

Intel HD Graphics 520 or 620 in processor and
NVIDIA Quadro® M520M, 2GB 2.5GHz GDDR5 memory;
supports external digital monitor via HDMI or USB Type-C;
supports three independent displays;
Max resolution: 4096x2304@60Hz (USB Type-C); 3840x2160@30Hz (HDMI)

Chipset

Intel SoC (System on Chip) platform

Memory

32GB max / 2400MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets
* System clocks down for processors with lower memory controller

Display

Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 250 nits, 16:9 aspect ratio, 700:1 contrast ratio, 170° viewing angle
Some: 15.6" (396mm) 4K (3840x2160), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 72% gamut, 170° viewing angle

Multi-touch *(opt)*

On-cell touch, supports 10-finger gesture (FHD only)

Storage

System has one HDD slot or one M.2 2280 slot exclusively for storage
Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™
Some: SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high (e.g. xxxGB SSD)
Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 2, 16Gb/s
Some: 128GB M.2 SSD / SATA 6.0Gb/s, in WWAN slot as 2nd Storage, mutually exclusive with WWAN and WiGig

Optical

None

Ethernet

Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville)
vPro model: Intel Ethernet Connection I219-LM (Jacksonville)

WLAN

One of the following, configurable by model (WiGig can coexist with WWAN):
- Realtek® RTL8822BE, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card
- Intel Dual Band Wireless-AC 8260, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card
- Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card
- Intel Tri-Band Wireless-AC 18265, WiGig 802.11ad + Wi-Fi 2x2 802.11ac + BT4.1, M.2 card

Bluetooth™

Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter
** Intel 8265ac / 18265ac card support BT4.2 but is limited to BT4.1 by Windows OS*

WWAN *(optional)*

One of the following, configurable by model (WWAN can coexist with WiGig):
- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455), M.2 card
- Integrated Mobile Broadband 4G LTE, Intel XMM™ 7160 (Fibocom L831-EAU), M.2 card (EMEA only)

SIM card *(opt)*

Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card

Dimensions

WxDxH: 14.40" x 9.95" x 0.79-0.80"; 365.8mm x 252.8mm x 19.95-20.2mm

Weight

Models	*4 + 3-cell*	*6-cell*	*4 + 6-cell*
Non-touch model	4.39 lb / 1.99 kg	4.80 lb / 2.18 kg	4.80 lb / 2.18 kg
Multi-touch model	4.44 lb / 2.01 kg	4.85 lb / 2.20 kg	4.85 lb / 2.20 kg

Case color

Black

Case material

Display cover: Glass-Fiber Reinforced Plastic (PPS);
Bottom: Glass-Fiber Reinforced Plastic

Smart card reader

Optional: Smart card reader

Media reader

4-in-1 reader (MMC, SD, SDHC, SDXC), supports SD 3.0, UHS-I

Ports

Three USB 3.1 Gen 1 / USB 3.0 (one Always On),
USB 3.1 Type-C Gen 2 / Thunderbolt 3, HDMI 1.4b, Ethernet (RJ-45),
Dock connector

WiGig dock *(opt)*

ThinkPad WiGig dock

Monitor cable *(optional)*

HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter
USB-C to VGA: Lenovo USB-C to VGA Adapter

Camera *(optional)*

720p: HD720p resolution, fixed focus
IR & 720p: IR camera and HD720p camera (mutually exclusive with WiGig)

Audio support

HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack

Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight

UltraNav™

TrackPoint® pointing device and buttonless 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

Optional: Touch style match on chip fingerprint reader on the palm rest

NFC *(optional)*

Near Field Communication

Internal battery

Optional: Integrated Li-Polymer 4-cell *(32Wh)*

External battery

Li-Polymer 3-cell *(24Wh)* or Li-Ion 6-cell *(48Wh or 72Wh)*

Max battery life (*MobileMark® 2014*)

Models	*4 + 3-cell*	*6-cell 48Wh*	*6-cell 72Wh*	*4 + 6-cell 48Wh*	*4 + 6-cell 72Wh*
Max battery life	13.8 hr	12.5 hr	18.5 hr	20.0 hr	26.8 hr

AC adapter

65W AC adapter (slim tip), 65W USB Type-C AC adapter

Preload

Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64
- Lenovo Solution Center
- Lenovo PowerEngage
- ThinkVantage Product Recovery
- ThinkVantage System Update
- Adobe® Reader®
- Microsoft® Office preloaded; purchase a product key to activate
- McAfee® LiveSafe™ (30-day trial)

Some: Windows 10 Home 64
Some: Windows 10 Pro 64
- Lenovo Companion
- Lenovo Setting
- Microsoft Office preloaded; purchase a product key to activate

Limited warranty

One of the following, configurable by model:
- 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

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Model	20HB000T++
Product	ThinkPad P51s
Region	EMEA
Machine Type	20HB
TopSeller	TopSeller
Processor	Core i7-7600U (2C, 2.8 / 3.9GHz, 4MB)
vPro	vPro
Graphics	NVIDIA Quadro M520M 2GB
Memory	16GBx1
Display	15.6" FHD (1920x1080) IPS
Multi-touch	None
Storage	512GB SSD PCIe NVMe Opal2
Optical	None
WLAN + Bluetooth	Intel 8265 ac, 2x2 + BT4.1
WWAN	WWAN Upgradable
SIM Card	None
Smart Card Reader	Smart Card Reader
Dock	None
Monitor Cable	None
Camera	720p
Keyboard	Backlit
Fingerprint Reader	Fingerprint Reader
NFC	None
TPM	dTPM 2.0
Battery	4-cell (32Wh) + 6-cell (72Wh)
Power Adapter	65W
Operating System	Windows 10 Pro 64
Warranty	3-year, Onsite
Global	No
Ann Date (mm/yy)	03/17






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