ThinkPad P15 Gen 1 20ST000XGE

Product
ThinkPad P15 Gen 1

Region
WE

Country/Region
Germany

Machine Type
20ST

TopSeller
TopSeller

Processor
Intel Core i7-10750H (6C / 12T, 2.6 / 5.0GHz, 12MB)

Graphics
NVIDIA Quadro RTX 3000 6GB GDDR6

Chipset
Intel WM490

Memory
2x 16GB SO-DIMM DDR4-3200 Non-ECC

Storage
512GB SSD M.2 2280 PCIe NVMe Opal2

Display
15.6" FHD (1920x1080) IPS 500nits Anti-glare, 72% Gamut, Dolby Vision, HDR

Touchscreen
None

Media Reader
SD Reader

Ethernet
100/1000M

Optical
None

WLAN + Bluetooth
Intel AX201 11ax, 2x2 + BT5.1

WWAN
WWAN Upgradable

SIM Card
None

Smart Card Reader
Smart Card Reader

Monitor Cable
None

Case Material
Top: GFRP 50% (PPS695 + GF 50%) Bottom: PPS + GF

Bundled Accessories
None

Camera
720p + IR with ThinkShutter

Microphone
2x, Array

Color
Black

Keyboard
Backlit, German

Fingerprint Reader
Touch Style, Match-on-Chip

NFC
None

TPM
Discrete TPM 2.0

Battery
Integrated 94Wh

Power Adapter
230W Slim Tip

System Management
None

Operating System
Windows 10 Pro 64, German

Bundled Software
None

Base Warranty
3-year, Depot

Bundled Service
None

EAN / UPC / JAN
0195042858037

End of Support
2027-02-21

Announce Date
2020-07-21

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.

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ThinkPad P15 Gen 1 Platform Specifications

Processor

Supports one 10th Xeon W, Core i9, i7, or i5 processor as following:

Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics
Xeon W-10885M	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i9-10980HK	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics

Chipset

Intel WM490 Chipset

Memory Type

SO-DIMM. DDR4-3200 for non-ECC, DDR4-2933 for ECC. Operates at DDR4-2933. 8GB/16GB/32GB available for both ECC and non-ECC

Memory Sockets

4 DIMM sockets

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

Max Memory

128GB

Graphics

Support one of the following discrete graphics:
- NVIDIA Quadro T1000, 4GB GDDR6 memory
- NVIDIA Quadro T2000, 4GB GDDR6 memory
- NVIDIA Quadro RTX 3000, 6GB GDDR6 memory
- NVIDIA Quadro RTX 4000 with Max-Q Design, 8GB GDDR6 memory
- NVIDIA Quadro RTX 5000 with Max-Q Design, 16GB GDDR6 memory

Display

Size	Resolution	Type	Surface	Touch	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
15.6"	FHD (1920x1080)	WVA	Anti-glare	-	300 nits	16:9	700:1	72% NTSC	160°
15.6"	FHD (1920x1080) Dolby Vision, HDR 400	WVA	Anti-glare	-	500 nits	16:9	1200:1	72% NTSC	160°
15.6"	UHD (3840x2160) Dolby Vision, HDR 400	WVA	Anti-glare	-	600 nits	16:9	1400:1	100% Adobe	178°
15.6"	UHD (3840x2160) Dolby Vision, HDR 400	OLED	Anti-reflection / Anti-smudge	multi-touch	SDR 400nit, HDR 500nit (peak)	16:9	100000:1	100% DCI-P3	170°

Color Calibration

Factory Color Calibration on UHD panels

Touchscreen

Touch enable on selected UHD OLED models, supports 10-finger gesture

Pen

Optional Lenovo Pen Pro

Storage

Up to two M.2 2280 SSD, PCIe NVMe, 256GB / 512GB / 1TB / 2TB each

RAID

RAID 0 / 1 support

Optical

None

Ethernet

One onboard GbE port via integrated gigabit ethernet, Intel i219LM for vPro models or i219V for non-vPro models

NFC

None

WLAN + Bluetooth

Optional Intel Wi-Fi 6 AX201 on most models, Wi-Fi 2x2 802.11ax + Bluetooth 5.1. Bluetooth 5.1 requires the latest version of Windows 10 (version 2004 or above)

WWAN

One of the following, configurable by model:
- No WWAN card and non upgradable
- Integrated Mobile Broadband Upgradable, No WWAN Card, WWAN Antenna Only
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card

Note: WWAN cannot be supported on UHD WVA models

SIM card

Optional Nano-SIM card slot

Dimensions

Width: 375.4 mm (14.78 in). Depth: 252.3 mm (9.93 in).
Thickness for non-touch models: 24.5 ~ 31.45 mm (0.96 ~ 1.24 in)
Thickness for touch models: 25.25 ~ 32.2mm (0.99 ~ 1.27 in)

Weight

Starting at 2.74 kg (6.05 lb, FHD)

Case color

Black

Case material

Display cover: GFRP 50% (PPS695 + GF 50%).
Bottom: PPS + GF

Media reader

SD card reader

Standard Ports

1x USB-C (USB 3.2 Gen 1, PD, DP), 2x Thunderbolt (USB-C form, Thunderbolt 3, USB 3.2 Gen 2, PD, DP), 2x USB-A 3.2 Gen 1 (one Always-on), 1x HDMI 2.0, 1x headphone / microphone combo jack, 1x SD card reader,
1x security keyhole, 1x RJ-45

Optional Ports

One optional smart card reader on right, one optional Nano-SIM card slot on left

Monitor support

Up to 5 displays with 4 external monitors plus system LCD screen. External monitors supported via 1x USB-C, 2x Thunderbolt, and 1x HDMI.
USB-C and HDMI support up to 4K@60Hz.
With Thunderbolt, one supports up to 5K@60Hz and one supports up to 4K@60Hz

Monitor cable

Optional HDMI to VGA, USB-C to DP, or USB-C to VGA adapters

Bundled Accy

None

Camera

Supports one optional camera as following:
- HD720p camera with ThinkShutter camera privacy, fixed focus
- Hybrid IR camera with ThinkShutter camera privacy, fixed focus

Audio chip

Realtek ALC3286 codec

Speaker

Stereo speakers, Dolby Atmos sound system

Microphone

Optional dual array far-field microphone

Keyboard

6-row, spill-resistant, LED backlight, numeric keypad, multimedia Fn keys with Unified Communications controls.

UltraNav

3-button TrackPoint pointing device and 2-button Mylar surface multi-touch touchpad

Password

Power-on password, hard disk password, supervisor password

Security chip

Discrete TPM 2.0, TCG Certified, may be disabled in some regions

System mgmt

Optional Intel vPro Technology supported on vPro enable models

Security locks

Security keyhole for optional Kensington lock

Smart card reader

Optional

Fingerprint reader

Touch style match on chip fingerprint reader on the palm rest

Battery

Integrated Li-Polymer 94Wh battery. Supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max battery life

MobileMark 2014: 16.4 hr.
MobileMark 2018: 10.3 hr
** Battery life varies significantly with hardware configurations, settings, usage, & other factors*

Power Adapter

One of the following:
- 230W slim AC adapter
- 170W slim AC adapter

Operating system

Supports one optional preloaded operating system as following:
- Windows 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Ubuntu Linux LTS
- Fedora Linux

Base Warranty

Optional warranty plans as following:
- 1-year depot repair service
- 3-year depot repair service
- 1-year + 2-year depot repair service
- 1-year limited onsite service
- 3-year limited onsite service
- 1-year + 2-year limited onsite service
- 1-year depot with 2-year system board repair service

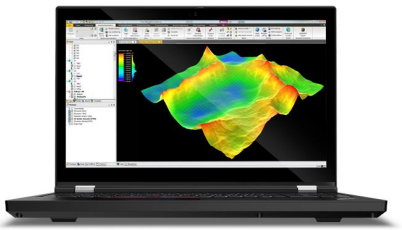
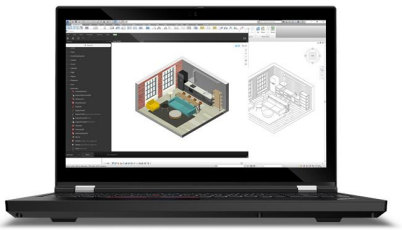
Mil-Spec test

MIL-STD-810G military testing

Environment

EPEAT Gold. ENERGY STAR 8.0. RoHS-compliant

ISV certifications

Please visit www.thinkworkstations.com/isv-certifications/

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