

# ThinkPad T590 20N4001NUS

**Product**

ThinkPad T590

**Region**

NA

**Country/Region**

USA

**Machine Type**

20N4

**TopSeller**

TopSeller

**Processor**

Intel Core i5-8265U (4C / 8T, 1.6 / 3.9GHz, 6MB)

**Graphics**

Integrated Intel UHD Graphics 620

**Chipset**

Intel SoC Platform

**Memory**

8GB Soldered DDR4-2400

**Display**

15.6" FHD (1920x1080) IPS 250nits Anti-glare

**Multi-touch**

None

**Storage**

256GB SSD M.2 2280 PCIe NVMe Opal2

**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 with ThinkShutter

**Keyboard**

Backlit, English

**Fingerprint Reader**

Touch Style, Match-on-Chip

**NFC**

None

**TPM**

Discrete TPM 2.0

**Battery**

Integrated 57Wh

**Power Adapter**

65W USB-C

**System Management**

None

**Operating System**

Windows 10 Pro 64, English

**Bundled Software**

None

**Base Warranty**

3-year, Depot

**Bundled Service**

None

**End of Support**

2025-04-19

**Announce Date**

2019-03-19

**Recommended Services****Best**

3Y Lenovo Protect (Premier Support + Keep Your Drive + Accidental Damage Protection + Sealed Battery) (5PS0N73216)

**Better**

3Y Lenovo Support (Premier Support + Keep Your Drive + Sealed Battery) (5PS0N73159)

**Good**

3Y Premier Support Upgrade from 3Y Depot/CCI (5WS0T36152)

**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.

**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 T590 Platform Specifications

Product Specifications Reference (PSREF)



Processor	8th Generation Intel® Core™ i5 / i7 Processor									Dimensions Weight Case color Case material	<i>WxDxH:</i> 14.40" x 9.76" x 0.75"; 365.8mm x 248mm x 19.1mm <i>FHD model:</i> 3.87 lb / 1.75 kg; <i>UHD model:</i> 3.86 lb / 1.75 kg Black <i>Display cover:</i> PPS / 50% GF; <i>Bottom:</i> PA / 50% GF
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics			
	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB	DDR4-2400	Intel UHD Graphics 620			
	i5-8365U			1.6 GHz	4.1 GHz	6MB					
	i7-8565U			1.8 GHz	4.6 GHz	8MB					
i7-8665U	1.9 GHz			4.8 GHz	8MB						
Graphics	Intel UHD Graphics 620 in processor only or Intel UHD Graphics 620 in processor and NVIDIA® GeForce® MX250, 2GB GDDR5 memory; supports external digital monitor via HDMI or Thunderbolt; supports three independent displays; Max resolution: 4096x2304@60Hz (Thunderbolt); 4096x2160@24Hz (HDMI)									Smart card reader Media reader Ports	<i>Optional:</i> Smart card reader MicroSD card reader 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), one USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP), HDMI 1.4b, Ethernet (RJ-45), nano-SIM card slot (WWAN models), headphone / microphone combo jack, optional smart card reader, microSD card reader, side docking connector, security keyhole <i>* Depending on many factors, actual data transfer speed may be lower than theoretical speed</i>
Chipset Memory	Intel SoC (System on Chip) platform 48GB max / 2400MHz DDR4, dual-channel capable, 8GB or 16GB memory soldered to systemboard, one DDR4 SO-DIMM socket * Installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation									Monitor cable (optional) Bundled Accy	<i>HDMI to VGA:</i> Lenovo HDMI to VGA Monitor Adapter <i>USB-C to VGA:</i> Lenovo USB-C to VGA Adapter (NOT available in EMEA) <i>USB-C to DP:</i> Lenovo USB-C to DisplayPort Adapter (NOT available in EMEA) None
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Camera (optional) Audio support	<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 HD Audio, Realtek® ALC3287 codec / stereo speakers, 2W x 2, Dolby® Audio™ Premium / dual array far-field microphone, headphone / microphone combo jack
	15.6"	FHD (1920x1080)	IPS	Anti-glare	250 nits	16:9	700:1	45%	170°		
	15.6"	UHD (3840x2160) HDR, Dolby Vision™	IPS	Anti-glare	500 nits	16:9	1200:1	100% Adobe	170°		
Multi-touch (opt)	On-cell touch, supports 10-finger gesture (FHD only)									Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad
Storage	<ul style="list-style-type: none"> <li>M.2 2280 SSD / SATA 6.0Gb/s</li> <li>M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4</li> <li>M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2</li> <li>Intel Optane™ Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4</li> </ul>									Security Security chip System Mgt (opt) Fingerprint reader NFC (optional)	Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 2.0, TCG Certified Intel vPro Technology <i>Optional:</i> Touch style match on chip fingerprint reader on the palm rest Near Field Communication
Optical	None									Battery	Integrated Li-ion 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)									Max battery life	<i>MobileMark® 2014:</i> 14.98 hr (9.5 hr for UHD model with discrete graphics) <i>* Battery life varies significantly with settings, usage, &amp; other factors</i>
WLAN (optional) Bluetooth™	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0 Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter									AC adapter	45W or 65W USB Type-C AC adapter
WWAN (optional)	<i>One of the following, configurable by model:</i> <ul style="list-style-type: none"> <li>Wireless WAN upgradable</li> <li>Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card (EMEA only)</li> <li>Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card</li> </ul> <i>* For non-WWAN model, it means the model is NOT WWAN upgradable</i>									Operating system	<i>Optional:</i> Windows® 10 Home 64 or Windows 10 Pro 64
SIM card	Nano-SIM card slot, optional Verizon LTE (US) SIM card									Limited warranty	<i>One of the following, configurable by model:</i> <ul style="list-style-type: none"> <li>1-year depot repair service</li> <li>1-year depot with 2-year system board repair service</li> <li>3-year/1-yr battery depot repair service</li> <li>3-year/1-yr battery limited onsite service</li> </ul>
										Mil-Spec test	MIL-STD-810G military testing
										Environment	EPEAT™ Silver; ENERGY STAR® 7.1; RoHS-compliant

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

Lenovo  
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