

ThinkPad T590 20N4001TUS

Product

ThinkPad T590

Region

NA

Country/Region

USA

Machine Type

20N4

TopSeller

TopSeller

Processor

Intel Core i7-8565U (4C / 8T, 1.8 / 4.6GHz, 8MB)

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

512GB 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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PSREF <https://psref.lenovo.com>

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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 <i>Black</i> <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	<i>Optional:</i> Smart card reader	
Chipset	Intel SoC (System on Chip) platform								Media reader	MicroSD card reader	
Memory	48GB max / 2400MHz DDR4, dual-channel capable, 8GB or 16GB memory soldered to systemboard, one DDR4 SO-DIMM socket <i>* Installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation</i>								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), 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>	
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	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 (NOT available in EMEA) <i>USB-C to DP:</i> Lenovo USB-C to DisplayPort Adapter (NOT available in EMEA)
	15.6"	FHD (1920x1080)	IPS	Anti-glare	250 nits	16:9	700:1	45%	170°	Bundled Accy	None
	15.6"	UHD (3840x2160) HDR, Dolby Vision™	IPS	Anti-glare	500 nits	16:9	1200:1	100% Adobe	170°	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
Multi-touch (opt)	On-cell touch, supports 10-finger gesture (FHD only)								Audio support	HD Audio, Realtek® ALC3287 codec / stereo speakers, 2W x 2, Dolby® Audio™ Premium / dual array far-field microphone, headphone / microphone combo jack	
Storage	• M.2 2280 SSD / SATA 6.0Gb/s • M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4 • M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2 • Intel Optane™ Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4								Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight	
Optical	None								UltraNav™	TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad	
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)								Security	Power-on password, hard disk password, supervisor password, security keyhole	
WLAN (optional)	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0								Security chip	Discrete TPM 2.0, TCG Certified	
Bluetooth™	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter								System Mgt (opt)	Intel vPro Technology	
WWAN (optional)	<i>One of the following, configurable by model:</i> • Wireless WAN upgradable • Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card (EMEA only) • 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>								Fingerprint reader	<i>Optional:</i> Touch style match on chip fingerprint reader on the palm rest	
SIM card	Nano-SIM card slot, optional Verizon LTE (US) SIM card								NFC (optional)	Near Field Communication	
									Battery	Integrated Li-ion 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W USB Type-C AC adapter	
									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, & other factors</i>	
									AC adapter	45W or 65W USB Type-C AC adapter	
									Operating system	<i>Optional:</i> Windows® 10 Home 64 or Windows 10 Pro 64	
									Limited warranty	<i>One of the following, configurable by model:</i> • 1-year depot repair service • 1-year depot with 2-year planar 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™ Silver; ENERGY STAR® 7.1; RoHS-compliant	

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

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