

ThinkPad T590 **20N4002WGE**

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Product
ThinkPad T590

Region
WE

Country
Germany

Machine Type
20N4

TopSeller
TopSeller

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

Graphics
Integrated Intel UHD Graphics 620

Chipset
Intel SoC Platform

Memory
8GB Soldered + 8GB DIMM DDR4-2400

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

Multi-touch
None

Storage
512GB SSD M.2 2280 PCIe NVMe Opal2

Optane Memory
None

Optical
None

WLAN + Bluetooth
Intel 9560 11ac, 2x2 + BT5.0

WWAN
Fibocom L830-EB

SIM Card
None

Smart Card Reader
Smart Card Reader

Monitor Cable
None

Bundled Accessories
None

Color
Black

Camera
720p + IR

Keyboard
Backlit

Fingerprint Reader
Fingerprint Reader

NFC
None

TPM
Discrete TPM 2.0

Battery
Integrated 57Wh

Power Adapter
65W USB-C

System Management
None

Operating System
Windows 10 Pro 64

Bundled Software
None

Warranty
3-year, Depot

Upsell Service Bundles
None

End of Support
2025-07-04

Announce Date
2019-06-04

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.

<https://www.lenovo.com/hk/en/battery-info>



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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 <i>USB-C to DP:</i> Lenovo USB-C to DisplayPort Adapter None	
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Camera (optional) Audio support Keyboard UltraNav™	<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) Dolby Vision™ HDR	IPS	Anti-glare	500 nits	16:9	1200:1	100% Adobe	170°		
Multi-touch (opt)	On-cell touch, supports 10-finger gesture (FHD only)								Security Security chip System Mgt (opt) Fingerprint reader NFC (optional)	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad 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	
Storage	<ul style="list-style-type: none"> 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 								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>	
Optane™ memory Optical	<i>Optional:</i> Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2 None								AC adapter	45W or 65W USB Type-C AC adapter	
Ethernet	<i>Non-vPro model:</i> Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model:</i> Intel Ethernet Connection I219-LM (Jacksonville)								Preload	Windows® 10 Home 64 or Windows 10 Pro 64	
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								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	
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 * For non-WWAN model, it means the model is NOT WWAN upgradable								Mil-Spec test	MIL-STD-810G military testing	
SIM card	Nano-SIM card slot, optional Verizon LTE (US) SIM card								Environment	EPEAT™ Bronze; ENERGY STAR® 7.0; RoHS-compliant	

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

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