

# ThinkPad E590 Platform Specifications

Product Specifications Reference (PSREF)

Processor	8th Generation Intel® Core™ i3 / i5 / i7 Processor									Dimensions Weight Case color Case material	WxDxH: 14.53" x 9.94" x 0.78"; 369mm x 252.5mm x 19.9mm Starting at 4.68 lb / 2.12 kg Black or silver Display cover: Aluminum; Bottom: PC/ABS plastic
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics			
	i3-8145U	2	4	2.1 GHz	3.9 GHz	4MB	DDR4-2400	Intel UHD Graphics 620			
	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB					
i7-8565U	1.8 GHz			4.6 GHz	8MB						
Graphics	Intel UHD Graphics 620 in processor only or Intel UHD Graphics 620 in processor and AMD Radeon RX 550X Graphics, 2GB GDDR5 memory; supports external digital monitor via HDMI or USB Type-C; supports dual independent display; Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@24Hz (HDMI)									Smart card reader	None
Chipset	Intel SoC (System on Chip) platform									Media reader	MicroSD card reader
Memory	32GB max / 2400MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets * Installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation									Ports	One USB 2.0, two USB 3.1 Gen 1 (one Always On), one USB 3.1 Type-C Gen 2 (with the function of Power Delivery and DisplayPort), HDMI 1.4b, Ethernet (RJ-45), headphone / microphone combo jack, microSD card reader, security keyhole * Depending on many factors, actual data transfer speed may be lower than theoretical speed
Display	Size / Resolution		Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Viewing Angle	Multi-touch	Monitor cable	None
	15.6" HD (1366x768)		TN	Anti-glare	220 nits	16:9	400:1	90°	Non-touch	Bundled Accy	None
	15.6" FHD (1920x1080)		IPS	Anti-glare	250 nits	16:9	600:1	170°	Non-touch	Camera	HD720p camera, fixed focus
Multi-touch	None									Audio support	HD Audio, Synaptic® CX11880 codec / stereo speakers, 2W x 2, Dolby® Advanced Audio / dual array microphone, headphone / microphone combo jack
Storage	Up to two drives (one M.2 SSD and one HDD) • HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ • M.2 2280 SSD / SATA 6.0Gb/s • M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2 • M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4 * Installed M.2 2280 SSD is PCIe 3x4 but run at PCIe 3x2 due to M.2 SSD adapter limitation									Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight
Optane™ memory	Optional: Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2									UltraNav™	TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad
Optical	None									Security	Power-on password, hard disk password, supervisor password, security keyhole
Ethernet	Gigabit Ethernet Connection, Realtek R8111GUS									Security chip	Firmware TPM 2.0 integrated in chipset or discrete TPM 2.0 TCG Certified (may be disabled in some region)
WLAN + Bluetooth™	One of the following, configurable by model: • Realtek® RTL8822BE, Wi-Fi 2x2 802.11ac + Bluetooth 4.2, M.2 card • Intel Wireless-AC 9260, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card									System Mgt	None
WWAN	None									Fingerprint reader	Optional: Touch style fingerprint reader on the palm rest
SIM card	None									NFC	None
										Battery	Integrated Li-ion 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
										Max battery life	MobileMark® 2014: 11 hr * Battery life varies significantly with settings, usage, & other factors
										AC adapter	45W or 65W USB-C AC adapter
										Operating system	Optional: Windows® 10 Home 64 or Windows 10 Pro 64
										Limited warranty	One of the following, configurable by model: • 1-year mail-in repair service • 1-year depot repair service • 1-year 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.

Lenovo  
February 2020