ThinkPad E590 Platform Specifications

Processor	8th Generation Intel® Core™ i3 / i5 / i7 Processor						
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types
	i3-8145U	2	4	2.1 GHz	3.9 GHz	4MB	
	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB	DDR4-2400
	i7-8565U			1.8 GHz	4.6 GHz	8MB	

(Processor Graphics: Intel UHD Graphics 620)

Graphics	Intel UHD Graphics 620 in processor only or Intel UHD Graphics 620 in processor and AMD Radeon RX 550X Graphics, 2GB DDR5 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)
Chipset	Intel SoC (System on Chip) platform
Memory	32GB max / 2400MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets

Display	Size / Resolution	Surface	Type	Brightness	Aspect Ratio	Contrast Ratio	Viewing Angle	Multi-touch
	15.6" HD (1366x768)	Anti-glare	TN	220 nits	16:9	400:1	90°	Non-touch
	15.6" FHD (1920x1080)	Anti-glare	IPS	250 nits	16:9	600:1	170°	Non-touch

Multi-touch	None
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 SSD / SATA 6.0Gb/s • M.2 SSD / PCIe NVMe, PCIe 3.0 x 2 • 16GB Intel Optane™ memory, PCIe NVMe, PCIe 3.0 x 2
Optical	None
Ethernet	Gigabit Ethernet Connection, Realtek R8111GUS
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
WWAN	None

Dimensions	*WxDxH:*	14.53" x 9.94" x 0.78"; 369mm x 252.5mm x 19.9mm
Weight	Starting at 4.68 lb / 2.12g	
Case color	Black or silver	
Case material	*Display cover:* Aluminum; *Bottom:* PC/ABS plastic	
Smart card reader	None	
Media reader	MicroSD card reader	
Ports	Two USB 3.1 Gen 1 (one Always On), one USB 3.1 Type-C Gen 2, one USB 2.0, 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*	
Camera	HD720p camera, fixed focus	
Audio support	HD Audio, Conexant® CX11880 codec / stereo speakers, 2W x 2, Dolby® Advanced Audio / dual array microphone, headphone / microphone combo jack	
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight	
UltraNav™	TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	*Integrated model:* discrete TPM 2.0, TCG Certified *Discrete model:* firmware TPM 2.0 integrated in chipset	
vPro	None	
Fingerprint reader	*Optional:* Touch style fingerprint reader on the palm rest	
NFC	None	
Battery	Integrated Li-ion 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W USB Type-C AC adapter	
Max battery life	*MobileMark® 2014:* 11 hr ** Battery life varies significantly with settings, usage, & other factors*	
AC adapter	45W or 65W USB Type-C AC adapter	
Preload *(optional)*	Windows® 10 Home 64 or Windows 10 Pro 64	
Limited warranty	1-year depot repair service	
Mil-Spec test	MIL-STD-810G military certification	
Environment	ENERGY STAR® 7.0; RoHS-compliant	

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