ThinkPad E590 Platform Specifications

Product Specifications Reference (PSREF)

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	DDR4-2400
	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB	
	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
* Installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation

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 2280 SSD / SATA 6.0Gb/s
• M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 2
• M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2

Optane™ memory *Optional:* 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
SIM card None

Dimensions *WxDxH:* 14.53" x 9.94" x 0.78"; 369mm x 252.5mm x 19.9mm
Weight Starting at 4.68 lb / 2.12 kg
Case color Black or silver
Case material *Display cover:* Aluminum;
  Bottom: PC/ABS plastic

Smart card reader None
Media reader MicroSD card reader
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

Monitor cable None
Bundled Accy None

Camera HD720p camera, fixed focus
Audio support HD Audio, Synaptic® 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

System Mgt 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

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

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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