

ThinkPad L590 Platform Specifications

Product Specifications Reference (PSREF)

Processor	Intel® Celeron® Processor or 8th Generation Intel Core™ i3 / i5 / i7 Processor										Dimensions	WxDxH: 14.82" x 10.02" x 0.90"; 376.5mm x 254.5mm x 22.95mm	
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	Weight	Starting at 4.48 lb / 2.0 kg			
	Cel 4305U	2	2	2.2 GHz	-	2MB	DDR4-2133	Intel UHD Graphics 610	Case color	Black			
	i3-8145U	2	4	2.1 GHz	3.9 GHz	4MB	DDR4-2400	Intel UHD Graphics 620	Case material	PC/ABS plastic			
	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB			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 (with the function of Power Delivery and DisplayPort), 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> <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			
	i5-8365U	4	8	1.6 GHz	4.1 GHz	6MB							
i7-8565U	4	8	1.8 GHz	4.6 GHz	8MB								
i7-8665U	4	8	1.9 GHz	4.8 GHz	8MB								
Graphics	Intel UHD Graphics 610 or 620 in processor only or Intel UHD Graphics 620 in processor and AMD Radeon 535, 2GB GDDR5 memory (discrete models are NOT available in EMEA); supports external digital monitor via HDMI or USB Type-C; supports three independent displays; Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@24Hz (HDMI)										Monitor cable (optional)	None	
Chipset	Intel SoC (System on Chip) platform										Camera (optional)	One of the following, configurable by model:	
Memory	64GB max / 2400MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets <i>* Installed memory is actually 2666MHz but run at 2133MHz or 2400MHz due to Intel limitation</i>										Audio support	• 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® Advanced Audio / dual array microphone, headphone / microphone combo jack	
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight		
	15.6"	HD (1366x768)	TN	Anti-glare	220 nits	16:9	500:1	45%	90°	UltraNav™	TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad		
	15.6"	FHD (1920x1080)	IPS	Anti-glare	250 nits	16:9	800:1	45%	170°				
Multi-touch	None										Security	Power-on password, hard disk password, supervisor password, security keyhole	
Storage	• HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ • SSD / SATA 6.0Gb/s, 2.5" wide, 7mm high • M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4 • M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2 <i>* Installed M.2 2280 SSD is PCIe 3x4 but run at PCIe 3x2 due to M.2 SSD adapter limitation</i>										Security chip	Discrete TPM 2.0, TCG Certified	
											System Mgt (opt)	Intel vPro Technology	
											Fingerprint reader	<i>Optional:</i> Touch style fingerprint reader on the palm rest	
Optane™ memory	<i>Optional:</i> Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2										NFC (optional)	Near Field Communication	
Optical	None										Battery	Integrated Li-ion 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter	
Ethernet	Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville) vPro model: Intel Ethernet Connection I219-LM (Jacksonville)										Max battery life	MobileMark® 2014: 12 hr <i>* Battery life varies significantly with settings, usage, & other factors</i>	
											AC adapter	45W, 65W, or 65W slim USB-C AC adapter	
WLAN + Bluetooth™ (optional)	One of the following, configurable by model: • Realtek® RTL8822BE, Wi-Fi 2x2 802.11ac + Bluetooth 4.2, M.2 card (NOT available in EMEA) • Intel Wireless-AC 9260, Wi-Fi 2x2 802.11ac + Bluetooth 5.0 • Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.0										Operating system	<i>Optional:</i> Windows® 10 Home 64 or Windows 10 Pro 64	
WWAN (optional)	One of the following, configurable by model: • Wireless WAN upgradable (special bid only in EMEA) • 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>										Limited warranty	One of the following, configurable by model: • 1-year depot repair service • 3-year/1-yr battery depot repair service	
											Mil-Spec test	MIL-STD-810G military testing	
											Environment	EPEAT™ Silver; ENERGY STAR® 7.1; RoHS-compliant	
SIM card	None												

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

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