

# ThinkPad X1 Carbon (7<sup>th</sup> Gen) Platform Specifications

Product Specifications Reference (PSREF)

Processor	8th Generation Intel® Core™ i5 / i7 Processor									Dimensions	WxDxH (Privacy Guard): 12.72" x 8.54" x 0.61"; 323mm x 217mm x 15.4mm WxDxH (other model): 12.72" x 8.54" x 0.59"; 323mm x 217mm x 14.95mm Privacy Guard model: starting at 2.66 lb / 1.21 kg; Other model: starting at 2.4 lb / 1.09 kg	
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics		Weight		
	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB	LPDDR3-2133	Intel UHD Graphics		Case color	Black paint or black weave	
	i5-8365U			1.6 GHz	4.1 GHz	6MB				Case material	Display cover: Carbon Fiber; Bottom: magnesium alloy	
	i7-8565U			1.8 GHz	4.6 GHz	8MB						
i7-8665U	1.9 GHz			4.8 GHz	8MB							
or 10th Generation Intel Core i5 / i7 Processor (NOT available in EMEA)												
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics		Smart card reader	None	
	i5-10210U	4	8	1.6 GHz	4.2 GHz	6MB	LPDDR3-2133	Intel UHD Graphics		Media reader	None	
	i7-10510U			1.8 GHz	4.9 GHz	8MB				Ports	Two USB 3.1 Gen 1 (one Always On), two USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of Power Delivery and DisplayPort), HDMI 1.4b, Ethernet extension connector, nano-SIM card slot (WWAN models), headphone / microphone combo jack, side docking connector, security keyhole * Depending on many factors, actual data transfer speed may be lower than theoretical speed Optional: Lenovo HDMI to VGA Monitor Adapter Optional: ThinkPad Ethernet Extension Adapter Gen 2	
	i7-10710U	6	12	1.1 GHz	4.7 GHz	12MB			Monitor cable	Optional: ThinkPad Ethernet Extension Adapter Gen 2		
Graphics	Intel UHD Graphics in processor; supports external digital monitor via HDMI or USB Type-C / Thunderbolt; supports three independent displays; Max resolution: 5K@60Hz (Thunderbolt); 4K@24Hz (HDMI)											
Chipset	Intel SoC (System on Chip) platform											
Memory	8GB or 16GB / 2133MHz LPDDR3 / soldered to systemboard, no sockets											
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Camera (optional)	One of the following, configurable by model: <ul style="list-style-type: none"><li>• HD720p camera with ThinkShutter camera privacy, fixed focus</li><li>• IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus</li></ul>	
	14.0"	FHD (1920x1080) Multi-touch	IPS	Anti-reflection Anti-smudge	300 nits	16:9	700:1	72%	170°	Audio support	HD Audio, Realtek® ALC3286 codec / Dolby® Atmos™ speaker system, 2W x 2, 0.8W x 2 / four 360° far-field microphones, headphone / microphone combo jack	
	14.0"	FHD (1920x1080) Low Power	IPS	Anti-glare	400 nits	16:9	800:1	72%	170°	Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight	
	14.0"	FHD (1920x1080) ThinkPad Privacy Guard	IPS	Anti-glare	400 nits	16:9	1000:1	72%	170°	UltraNav™	TrackPoint® pointing device and buttonless glass surface multi-touch touchpad	
	14.0"	WQHD (2560x1440)	IPS	Anti-glare	300 nits	16:9	700:1	72%	170°	Security	Power-on password, hard disk password, supervisor password, security keyhole	
	14.0"	UHD (3840x2160) HDR 400, Dolby Vision™	IPS	Glossy	500 nits	16:9	1400:1	90%	170°	Security chip	<ul style="list-style-type: none"><li>• Firmware TPM 2.0 integrated in chipset</li><li>• Discrete TPM 2.0 TCG Certified</li><li>• Discrete TPM 2.0 with L3 Security Support (special bid only)</li></ul> * May be disabled in some region	
										System Mgt (opt)	Intel vPro Technology	
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (FHD only), anti-reflection (AR) / anti-smudge (AS) coating											
	Storage											
	One of the following, configurable by model: <ul style="list-style-type: none"><li>• M.2 2280 SSD / SATA 6.0Gb/s</li><li>• M.2 2280 SSD / PCIe NVMe 3.0 x 4</li><li>• Intel Optane Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4</li></ul>											
Optical	None											
Ethernet	Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro) via optional ThinkPad Ethernet Extension Adapter Gen 2											
WLAN + Bluetooth™	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth™ 5.1 * BT5.1 is supported on Windows 10 version 2004 or above (limited to BT5.0 on earlier version)											
WWAN (optional)	<ul style="list-style-type: none"><li>• Wireless WAN upgradable (special bid only)</li><li>• Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card</li><li>• Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card</li></ul> * For non-WWAN model, it means the model is NOT WWAN upgradable											
SIM card (opt)	<ul style="list-style-type: none"><li>• Verizon LTE (US) SIM card</li><li>• Gemalto eSIM</li></ul>											
										Mil-Spec test	MIL-STD-810G military testing	
										Environment	EPEAT™ Gold; ENERGY STAR® 8.0; TCO Certified; RoHS-compliant	

Note: The specifications above may not be available in all regions and might change by regions.

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