

# ThinkPad X1 Carbon (5<sup>th</sup> Gen) Platform Specifications

Product Specifications Reference (PSREF)

Processor	6th Generation Intel® Core™ i5 / i7 Processor								Smart card reader None
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	
	i5-6200U	2	4	2.3 GHz	2.8 GHz	3MB	LPDDR3-1866	Intel HD Graphics 520	
	i5-6300U			2.4 GHz	3.0 GHz	3MB			
	i7-6500U			2.5 GHz	3.1 GHz	4MB			
	i7-6600U			2.6 GHz	3.4 GHz	4MB			
	or 7th Generation Intel Core i5 / i7 Processor								
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	
	i5-7200U	2	4	2.5 GHz	3.1 GHz	3MB	LPDDR3-1866	Intel HD Graphics 620	
	i5-7300U			2.6 GHz	3.5 GHz	3MB			
	i7-7500U			2.7 GHz	3.5 GHz	4MB			
	i7-7600U			2.8 GHz	3.9 GHz	4MB			
Graphics	Intel HD Graphics 520 or 620 in processor; supports external digital monitor via HDMI or USB Type-C; supports three independent displays; Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@24Hz (HDMI)								
Chipset	Intel SoC (System on Chip) platform								
Memory	8GB or 16GB / 1866MHz LPDDR3 / soldered to systemboard, no sockets								
Display	<i>Some:</i> 14.0" (355mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 170° viewing angle <i>Some:</i> 14.0" (355mm) WQHD (2560x1440), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 170° viewing angle								
Multi-touch	None								
Storage	<i>Some:</i> M.2 SSD / SATA 6.0Gb/s (e.g. xxxG SSD) <i>Some:</i> M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxG SSD PCIe NVMe)								
Optical	None								
Ethernet	Native Intel Ethernet Connection I219-V ( <i>Non-vPro</i> ) or I219-LM ( <i>vPro</i> ) via optional ThinkPad Ethernet Extension Cable								
WLAN	<i>One of the following, configurable by model (WiGig can coexist with WWAN):</i> <ul style="list-style-type: none"> <li>Intel Dual Band Wireless-AC 8260, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card</li> <li>Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card</li> <li>Intel Tri-Band Wireless-AC 18265, WiGig 802.11ad + Wi-Fi 2x2 802.11ac + BT4.1, M.2 card</li> </ul>								
Bluetooth™	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter * Intel 8265ac / 18265ac card support BT4.2 but is limited to BT4.1 by Windows OS								
WWAN (optional)	<i>One of the following, configurable by model (WWAN can coexist with WiGig):</i> <ul style="list-style-type: none"> <li>Wireless WAN upgradable</li> <li>Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455), M.2 card</li> </ul>								
SIM card (opt)	Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card								
Dimensions	WxDxH: 12.74" x 8.55" x 0.63"; 323.5mm x 217.1mm x 15.95mm								
Weight	from 2.49 lb / 1.13 kg								
Case color	Black or Silver (silver is not available in EMEA)								
Case material	<i>Display cover:</i> CFRP/GFRP hybrid; <i>Bottom:</i> magnesium alloy hybrid								
Media reader	MicroSD card reader, supports UHS-II microSD card								
Ports	Two USB 3.1 Gen 1 / USB 3.0 (one Always On), two USB 3.1 Type-C Gen 2 / Thunderbolt 3 / DisplayPort 1.2a / Power Delivery 2.0, HDMI 1.4b, Ethernet extension connector								
WiGig dock (opt)	ThinkPad WiGig dock								
Monitor cable (optional)	<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								
Camera (optional)	720p: HD720p resolution, fixed focus IR & 720p: IR camera and HD720p camera								
Audio support	HD Audio, Conexant® CX11871 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack								
Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight								
UltraNav™	TrackPoint® pointing device and buttonless Glass surface multi-touch touchpad								
Security	Power-on password, hard disk password, supervisor password, security keyhole								
Security chip	<i>Win7 model:</i> discrete TPM 1.2, TCG Certified <i>Win10 model:</i> discrete TPM 2.0, TCG Certified								
vPro (optional)	Intel vPro Technology								
Fingerprint reader	Touch style match on chip fingerprint reader on the palm rest								
NFC (optional)	Near Field Communication								
Battery	Integrated Li-Polymer 3-cell (57Wh) RapidCharge battery								
Max battery life	MobileMark® 2014: 15.5 hr								
AC adapter	45W or 65W USB Type-C AC adapter								
RapidCharge	AC adapter			45W USB-C		65W USB-C			
	Charge to 80%			Not support		1.0 hr			
	Charge to 100%			Not support		2.5 hr			
Preload	Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64 Windows 10 Pro 64 • Lenovo Solution Center • Lenovo PowerEngage • ThinkVantage Product Recovery • ThinkVantage System Update • Adobe® Reader® • Microsoft® Office preloaded; purchase a product key to activate • McAfee® LiveSafe™ (30-day trial)								
Limited warranty	<i>One of the following, configurable by model:</i> <ul style="list-style-type: none"> <li>1-year depot repair service</li> <li>3-year/1-yr battery depot repair service</li> <li>3-year/1-yr battery limited onsite service</li> </ul>								
Mil-Spec test	MIL-STD-810G military certification								
Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; RoHS-compliant								