## ThinkPad X1 Extreme Platform Specifications

Processor	8th Generation In	tel® Core	e™ i5 / i7 Pr	ocessor					er Optional: Smart card reader									
		# of Threads	Base Frequency		Cache	Memory Types	Processor Graphics	Ports	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card Two USB 3.1 Gen 1 (one Always On), two USB Type-C / Thunderbolt 3, HDMI 2.0, Ethernet extension connector, headphone / microphone combo jack, optional smart card reader, 4-in-1 reader (MMC, SD, SDHC, SDXC), security keyhole HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter USB-C to DP: Lenovo USB-C to DisplayPort Adapter									
	i5-8300H i5-8400H 4	8	2.3 GHz 2.5 GHz	GHz 4.2 GHz 8MI	8MB	DDB4-2400	Intel UHD Graphics 630											
	i7-8750H i7-8850H 6	12	2.2 GHz 2.6 GHz	4.1 GHz 4.3 GHz	9MB	DD114 2400		(optional)										
Graphics	Intel UHD Graphics 630 in processor and NVIDIA® GeForce® GTX 1050 Ti, 4GB GDDR5 memory; supports external digital monitor via HDMI or Thunderbolt™; supports four independent displays; Max resolution: 5120X2880@30Hz (Thunderbolt); 4096x2160@60Hz (HDMI)							Camera (optional	<ul> <li>I) One of the following, configurable by model:</li> <li>HD720p camera with ThinkShutter camera privacy, fixed focus</li> <li>IR camera and HD720p camera, fixed focus</li> <li>HD Audio, Realtek® ALC3286 codec, stereo speakers, 2W x 2, Dolby® Audio™ Premium, headphone / microphone combo jack, Dolby Atmos® headphone, dual array microphone</li> </ul>									
Chipset Memory	Mobile Intel CM246 Chipset 64GB max / 2400MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets * Installed DIMMs are actually 2666MHz but run at 2400MHz due to Intel limitation							Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint® pointing device and buttonless glass surface multi-touch touchpad									
Display	Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 170° viewing angle  Some: 15.6" (396mm) HDR 4K (3840x2160) with Dolby Vision™, anti-glare, LED backlight, IPS, 400 nits, 16:9 aspect ratio, 1200:1 contrast ratio, 100% gamut, 170° viewing angle, multi-touch, anti-reflection (AR)							Security Security chip vPro (optional) Fingerprint reade Color calibration NFC	Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 2.0, TCG Certified Intel vPro Technology or Touch style match on chip fingerprint reader on the keyboard bezel None None									
Multi-touch (opt) Pen	Capacitive-type multi-touch, supports 10-finger gesture (4K only) Supports pen accessory, please see the accessory compatibility for details						) ` ′	Battery Max battery life	egrated Li-Ion 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr) screte mode: 9.5 hr; Hybrid mode: 14.9 hr									
Storage	<ul> <li>Up to 2 drives (two M.2 SSD)</li> <li>M.2 SSD / SATA 6.0Gb/s (e.g. xxxGB SSD M.2)</li> <li>M.2 SSD / PCle NVMe, PCle 3.0 x 4, 32Gb/s (e.g. xxxGB SSD M.2 PCle NVMe)</li> <li>None</li> </ul>						M 0 DOL NIMA )	(MobileMark® 2014) * Battery life varies significantly with settings, usage, & other factors AC adapter 135W slim tip AC adapter										
Optical							M.2 PCIe NVMe)	Preload	Windows® 10 Home 64 or Windows 10 Pro 64  One of the following, configurable by model:									
Ethernet	Native Intel Ethernet Connection I219-V ( <i>Non-vPro</i> ) or I219-LM ( <i>vPro</i> )) via optional ThinkPad Ethernet Extension Cable						(vPro))	Limited warranty	1-year depot repair service     3-year/1-yr battery depot repair service									
WLAN Bluetooth™	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter							Mil-Spec test	3-year/1-yr battery limited onsite service  MIL-STD-810G military certification									
WWAN SIM card								Environment	EPEAT™ Gold; ENERGY STAR® 6.1; RoHS-compliant									
Dimensions	WxDxH (non-touch): 14.24" x 9.67" x 0.72"; 361.8mm x 245.7mm x 18.4mm WxDxH (multi-ouch): 14.24" x 9.67" x 0.74": 361.8mm x 245.7mm x 18.7mm																	
Weight	Non-touch model: starting at 3.76 lb (1.7 kg); Multi-touch model: starting at 4.06 lb (1.8 kg)																	
Case color Case material	Black Display cover: CFRP/GFRP hybrid; Bottom: Aluminum alloy																	
Note: The specific	ations above may no	ot be ava	ilable in all	regions.					Note: The specifications above may not be available in all regions.									

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