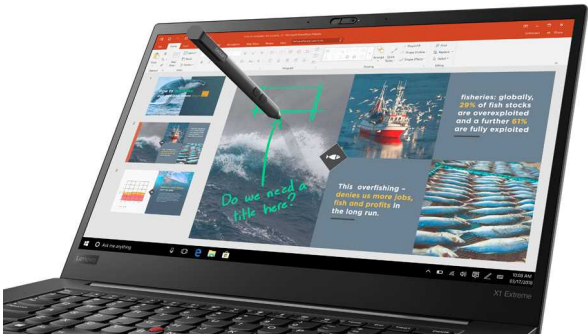




ThinkPad X1 Extreme Platform Specifications

Product Specifications Reference (PSREF)

Processor	8th Generation Intel® Core™ i5 / i7 Processor								Smart card reader Media reader Ports	Optional: Smart card reader SD Card reader (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
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics		
	i5-8300H	4	8	2.3 GHz	4.0 GHz	8MB	DDR4-2400	Intel UHD Graphics 630		
	i5-8400H			2.5 GHz	4.2 GHz					
	i7-8750H	6	12	2.2 GHz	4.1 GHz	9MB				
i7-8850H	2.6 GHz			4.3 GHz						
Graphics	Intel UHD Graphics 630 in processor and NVIDIA® GeForce® GTX 1050 Ti Max-Q, 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)	One of the following, configurable by model: • HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera, fixed focus
Chipset	Mobile Intel CM246 Chipset								Audio support	HD Audio, Realtek® ALC3286 codec, stereo speakers, 2W x 2, Dolby® Audio™ Premium, headphone / microphone combo jack, Dolby Atmos® headphone, dual array microphone
Memory	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	6-row, spill-resistant, multimedia Fn keys, LED backlight
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)								UltraNav™	TrackPoint® pointing device and buttonless glass surface multi-touch touchpad
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (4K only)								Security	Power-on password, hard disk password, supervisor password, security keyhole
Pen	Supports pen accessory, please see the accessory compatibility for details								Security chip vPro (optional)	Discrete TPM 2.0, TCG Certified Intel vPro Technology
Storage	Up to 2 drives (two M.2 SSD) • M.2 SSD / SATA 6.0Gb/s (e.g. xxxGB SSD M.2) • M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxGB SSD M.2 PCIe NVMe)								Fingerprint reader	Touch style match on chip fingerprint reader on the keyboard bezel
RAID (optional)	RAID 0/1 support								Color calibration	None
Optical	None								NFC	None
Ethernet	Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro)) via optional ThinkPad Ethernet Extension Cable								Battery	Integrated Li-Ion 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
WLAN	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card								Max battery life	Discrete mode: 9.5 hr; Hybrid mode: 14.9 hr
Bluetooth™	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter								(MobileMark® 2014)	* Battery life varies significantly with settings, usage, & other factors
WWAN	None								AC adapter	135W slim tip AC adapter
SIM card	None								Preload	Windows® 10 Home 64 or Windows 10 Pro 64
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								Limited warranty	One of the following, configurable by model: • 1-year depot repair service • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service
Weight	Non-touch model: starting at 3.76 lb (1.7 kg); Multi-touch model: starting at 4.06 lb (1.8 kg)								Mil-Spec test	MIL-STD-810G military certification
Case color	Black								Environment	EPEAT™ Gold; ENERGY STAR® 6.1; RoHS-compliant
Case material	Display cover: CFRP/GFRP hybrid; Bottom: Aluminum alloy									

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

Lenovo
September 2018

Model	Region	Processor	vPro	Graphics	Chipset	Memory	Display(Size, Resolution, Type)	Multi-touch	Storage(HDD/SSD)	RAID	Optical	WLAN + Bluetooth	WWAN	SIM Card	Smart Card Reader	Monitor Cable	Adapter	Camera	Key-board	Finger-print Reader	NFC	TPM	Battery (internal)	Power Adapter	OS	Warranty	Ann Date (m/y)
20MF000EUS	US	i5-8400H	vPro	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" HDR 4K (3840x2160) IPS AR	10-point Multi-touch	512GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000FUS	US	i7-8750H	No	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" FHD (1920x1080) IPS	None	512GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000GUS	US	i7-8750H	No	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" HDR 4K (3840x2160) IPS AR	10-point Multi-touch	512GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000HUS	US	i5-8400H	vPro	GTX 1050 Ti 4GB	Intel CM246	8GBx1 non-ECC	15.6" FHD (1920x1080) IPS	None	256GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000JUS	US	i7-8750H	No	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" FHD (1920x1080) IPS	None	256GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000KUS	US	i5-8400H	vPro	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" FHD (1920x1080) IPS	None	512GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000LUS	US	i7-8750H	No	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" FHD (1920x1080) IPS	None	512GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000MUS	US	i7-8850H	vPro	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" HDR 4K (3840x2160) IPS AR	10-point Multi-touch	512GB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000NUS	US	i7-8850H	vPro	GTX 1050 Ti 4GB	Intel CM246	16GBx1 non-ECC	15.6" FHD (1920x1080) IPS	None	1TB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000PUS	US	i7-8750H	No	GTX 1050 Ti 4GB	Intel CM246	16GBx2 non-ECC	15.6" HDR 4K (3840x2160) IPS AR	10-point Multi-touch	1TB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18
20MF000QUS	US	i7-8850H	vPro	GTX 1050 Ti 4GB	Intel CM246	16GBx2 non-ECC	15.6" HDR 4K (3840x2160) IPS AR	10-point Multi-touch	1TB SSD M.2 PCIe NVMe Opal2	No	None	Intel 9560 ac, 2x2 + BT5.0	None	None	None	None	None	IR &720p	Backlit	Finger-print Reader	None	dTPM 2.0	80Wh	135W Slim Tip	Win10 Pro 64	3-year, Depot	08/18