

# ThinkPad X1 Extreme (2nd Gen) 20QV0008US

**Product**  
ThinkPad X1 Extreme (2nd Gen)

**Region**  
NA

**Country**  
USA

**Machine Type**  
20QV

**TopSeller**  
TopSeller

**Processor**  
Core i7-9850H (6C / 12T, 2.6 / 4.6GHz, 12MB)

**Graphics**  
NVIDIA GeForce GTX 1650 Max-Q 4GB GDDR5

**Chipset**  
Intel CM246

**Memory**  
2x 16GB DIMM DDR4-2666

**Display**  
15.6" HDR 400 FHD (1920x1080) IPS 500nits Anti-glare

**Multi-touch**  
None

**Storage**  
512GB SSD M.2 2280 PCIe NVMe Opal2

**RAID**  
No

**Optical**  
None

**WLAN + Bluetooth**  
Intel AX200 11ax, 2x2 + BT5.1

**WWAN**  
None

**SIM Card**  
None

**Smart Card Reader**  
None

**Monitor Cable**  
None

**Bundled Accessories**  
None

**Color**  
Black Paint

**Camera**  
720p + IR

**Keyboard**  
Backlit

**Pen**  
None

**Fingerprint Reader**  
Fingerprint Reader

**NFC**  
None

**Color Calibrator**  
None

**TPM**  
Discrete TPM 2.0

**Battery**  
Integrated 80Wh

**Power Adapter**  
135W Slim Tip

**System Management**  
Intel vPro

**Operating System**  
Windows 10 Pro 64

**Bundled Software**  
None

**Warranty**  
3-year, Depot

**Upsell Service Bundles**  
None

**End of Support**  
2025-08-16

**Announce Date**  
2019-07-16

#### Notes:

Battery life is an estimated maximum. Actual battery life may vary based on many factors, including screen brightness, active applications, features, power management settings, battery age and conditioning, and other customer preferences.

#### California Electronic Waste Recycling Fee

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to:

<https://www.calrecycle.ca.gov/Electronics/Consumer>



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# ThinkPad X1 Extreme (2nd Gen) Platform Specifications

Product Specifications Reference (PSREF)



Processor	9th Generation Intel® Core™ i5 / i7 / i9 Processor									Dimensions	<i>WxDxH (non-touch):</i> 14.24" x 9.67" x 0.72"; 361.8mm x 245.7mm x 18.4mm		
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	<i>WxDxH (multi-touch):</i> 14.24" x 9.67" x 0.74"; 361.8mm x 245.7mm x 18.7mm				
Graphics	i5-9300H	4	8	2.4 GHz	4.1 GHz	8MB	DDR4-2666	Intel UHD Graphics 630	<i>Non-touch model:</i> starting at 3.75 lb (1.7 kg);				
	i5-9400H	4	8	2.5 GHz	4.3 GHz	8MB			<i>Multi-touch model:</i> starting at 4.0 lb (1.81 kg)				
	i7-9750H	6	12	2.6 GHz	4.5 GHz	12MB			Black paint (FHD model) or black weave (UHD model)				
	i7-9850H	6	12	2.6 GHz	4.6 GHz	12MB			<i>Display cover:</i> CFRP/GFRP hybrid;				
	i9-9880H	8	16	2.3 GHz	4.8 GHz	16MB			<i>Bottom:</i> Aluminum alloy				
Chipset	Mobile Intel CM246 Chipset									Smart card reader	<i>Optional:</i> Smart card reader		
Memory	64GB max / 2666MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets									Media reader	SD Card reader (SD, SDHC, SDXC), supports UHS-II SD card		
Display	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	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 2.0, Ethernet extension connector, headphone / microphone combo jack, optional smart card reader, SD card reader, security keyhole, slim tip AC adapter		
	15.6"	FHD (1920x1080)	IPS	Anti-glare	300 nits	16:9	700:1	72% NTSC	170°	Monitor cable (optional)	* <i>Power Delivery only supports power-out for charging peripherals</i> * <i>Depending on many factors, actual data transfer speed may be lower than theoretical speed</i>		
	15.6"	FHD (1920x1080) HDR 400, Dolby Vision™	IPS	Anti-glare	500 nits	16:9	1200:1	72% NTSC	170°	Monitor cable (optional)	<i>HDMI to VGA:</i> Lenovo HDMI to VGA Monitor Adapter		
	15.6"	UHD (3840x2160) HDR 400, Dolby Vision	IPS	Anti-glare	500 nits	16:9	1200:1	100% Adobe	170°	Monitor cable (optional)	<i>USB-C to VGA:</i> Lenovo USB-C to VGA Adapter		
	15.6"	UHD (3840x2160) HDR 500 True Black, Dolby Vision, Multi-touch	OLED	AR, AS	SDR 400nit HDR 500nit (Peak)	16:9	100000:1	100% DCI-P3	170°	Monitor cable (optional)	<i>USB-C to DP:</i> Lenovo USB-C to DisplayPort Adapter		
Bundled Accy										Camera (optional)	<i>One of the following, configurable by model:</i> • HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus		
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (UHD OLED only), anti-reflection (AR), anti-smudge (AS) coating									Audio support	HD Audio, Synaptic® CX11880 codec / stereo speakers, 2W x 2, Dolby® Audio™ Premium / dual 360° far-field microphone, headphone / microphone combo jack, Dolby Atmos® sound system		
Pen	Supports pen accessory, please see the accessory compatibility for details									Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight		
Storage	Up to two M.2 SSD M.2 2280 SSD / PCIe NVMe 3.0 x 4									UltraNav™	TrackPoint® pointing device and buttonless glass surface multi-touch touchpad		
RAID (optional)	RAID 0/1 support									Security	Power-on password, hard disk password, supervisor password, security keyhole		
Optical	None									Security chip	Discrete TPM 2.0, TCG Certified		
Ethernet	Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro) via bundled or optional ThinkPad Ethernet Extension Cable									System Mgt (opt)	Intel vPro Technology		
WLAN	Intel Wireless-AX 22260, Wi-Fi 2x2 802.11ax + Bluetooth 5.1									Fingerprint reader	Touch style match on chip fingerprint reader on the keyboard bezel		
Bluetooth™	Bluetooth 5.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter									Color calibration	<i>Optional:</i> X-Rite Pantone factory color calibration (UHD model only)		
WWAN	None									NFC	None		
SIM card	None									Battery	Integrated Li-ion 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr)		
										Max battery life	<i>MobileMark® 2014:</i> 14 hr * <i>Battery life varies significantly with settings, usage, &amp; other factors</i>		
										AC adapter	135W slim tip AC adapter		
										Preload	Windows® 10 Home 64 or Windows 10 Pro 64		
										Limited warranty	<i>One of the following, configurable by model:</i> • 1-year depot repair service • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service		
										Mil-Spec test	MIL-STD-810G military testing		
										Environment	EPEAT™ Silver; ENERGY STAR® 7.1; RoHS-compliant		

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

Lenovo  
July 2019

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