

ThinkPad X1 Carbon Gen 8 20U90044GE

Product

ThinkPad X1 Carbon Gen 8

Region

WE

Country/Region

Germany

Machine Type

20U9

TopSeller

TopSeller

Processor

Intel Core i7-10510U (4C / 8T, 1.8 / 4.9GHz, 8MB)

Graphics

Integrated Intel UHD Graphics

Chipset

Intel SoC Platform

Memory

16GB Soldered LPDDR3-2133

Storage

512GB SSD M.2 2280 PCIe NVMe Opal2

Display

14" FHD (1920x1080) IPS 400nits Anti-glare

Touchscreen

None

Ethernet

100/1000M via Optional Adapter

Optical

None

WLAN + Bluetooth

Intel AX201 11ax, 2x2 + BT5.0

WWAN

Fibocom L850-GL

SIM Card

None

Smart Card Reader

None

Monitor Cable

None

Case Material

Carbon Fiber (Top) + Magnesium Alloy (Bottom)

Bundled Accessories

ThinkPad Ethernet Extension Adapter Gen 2

Camera

720p + IR with ThinkShutter

Microphone

4x, 360°

Color

Black, Paint

Keyboard

Backlit, German

Fingerprint Reader

Touch Style, Match-on-Chip

NFC

NFC

TPM

Discrete TPM 2.0

Battery

Integrated 51Wh

Power Adapter

65W USB-C Slim

System Management

None

Operating System

Windows 10 Pro 64, German

Bundled Software

None

Base Warranty

3-year, Depot

Bundled Service

3Y Onsite upgrade from 3Y Depot/CCI (5WS0E97271)

EAN / UPC / JAN

0194778844451

End of Support

2026-11-28

Announce Date

2020-04-28

Recommended Services**Best**

5Y Premier Support Upgrade from 3Y Onsite (5WS0T36163)

Better

4Y Premier Support Upgrade from 3Y Onsite (5WS0T36146)

Good

3Y Premier Support Upgrade from 3Y Onsite (5WS0U26638)

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.

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ThinkPad X1 Carbon Gen 8 Platform Specifications

Product Specifications Reference (PSREF)

Processor	10th Generation Intel® Core™ i5 / i7 Processor										Dimensions <i>WxDxH (Privacy Guard model):</i> 12.72" x 8.54" x 0.61"; 323mm x 217mm x 15.4mm <i>WxDxH (other model):</i> 12.72" x 8.54" x 0.59"; 323mm x 217mm x 14.9mm <i>Privacy Guard model:</i> starting at 2.66 lb / 1.21 kg; <i>Other model:</i> starting at 2.4 lb / 1.09 kg Case color: Black paint or black weave Case material: <i>Display cover:</i> Carbon Fiber; <i>Bottom:</i> magnesium alloy
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics			
	i5-10210U	4	8	1.6 GHz	4.2 GHz	6MB	LPDDR3-2133	Intel UHD Graphics			
	i5-10310U			1.7 GHz	4.4 GHz	6MB					
	i7-10510U			1.8 GHz	4.9 GHz	8MB					
i7-10610U	1.8 GHz			4.9 GHz	8MB						
Graphics	Intel UHD Graphics in processor; supports up to 3 independent displays via native display and two external monitors; supports external monitors via HDMI (up to 4K@24Hz) or Thunderbolt (5K@60Hz)										
Chipset	Intel SoC (System on Chip) platform										
Memory	8GB or 16GB / 2133MHz LPDDR3 / soldered to systemboard, no sockets										
Display	Size	Resolution		Type	Surface	Touch	Bright-ness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle
	14.0"	FHD (1920x1080)		WVA	Anti-glare	-	400 nits	16:9	800:1	72%	170°
	14.0"	FHD (1920x1080)		WVA	Anti-glare	Multi-touch	400 nits	16:9	700:1	72%	170°
	14.0"	FHD (1920x1080) ThinkPad Privacy Guard		WVA	Anti-glare	Multi-touch	500 nits	16:9	1000:1	72%	170°
	14.0"	WQHD (2560x1440)		WVA	Anti-glare	-	300 nits	16:9	1000:1	72%	170°
	14.0"	UHD (3840x2160) HDR 400, Dolby Vision™		WVA	Glossy	-	500 nits	16:9	1500:1	90% DCI-P3	170°
Multi-touch (opt)	* WQHD is NOT available in EMEA Capacitive-type multi-touch, supports 10-finger gesture, anti-reflection (AR) / anti-smudge (AS) coating										
Storage	• M.2 2280 SSD / PCIe NVMe 3.0 x 4 • Intel Optane Memory H10 with Solid State Storage, M.2 2280, PCIe NVMe 3.0 x 4										
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 Wi-Fi 6 AX201, Wi-Fi 2x2 802.11ax + Bluetooth 5.0 * Intel AX201 card supports BT5.1 but is limited to BT5.0 by Windows OS										
WWAN (optional)	• Wireless WAN upgradable • Integrated Mobile Broadband 4G LTE, Quectel EM05CEFC, M.2 card • Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card • Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 2x2, M.2 card <i>* For non-WWAN model, it means the model is NOT WWAN upgradable</i>										
SIM card (opt)	• Gemalto eSIM • Nano-SIM card, Lenovo Connect 4 month, 4G LTE										
Media reader	Ports	Two USB 3.2 Gen 1 (one Always On), two USB 3.2 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 <i>* Depending on many factors, actual data transfer speed may be lower than theoretical speed</i> <i>Optional:</i> Lenovo HDMI to VGA Monitor Adapter <i>Optional:</i> ThinkPad Ethernet Extension Adapter Gen 2									
	Monitor cable	Bundled Accy									
	Camera (optional)	• HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus									
	Audio support	HD Audio, USI 4551-513711-00 codec / Dolby® Atmos™ speaker system, 2W x 2, 0.8 x 2 / four 360° far-field microphones, headphone / microphone combo jack									
	Keyboard	6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, 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	• Firmware TPM 2.0 integrated in chipset • Discrete TPM 2.0 TCG Certified										
System Mgt (opt)	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 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter										
Max battery life	<i>MobileMark® 2014:</i> 19.5 hr <i>MobileMark 2018:</i> 13.8 hr <i>* Battery life varies significantly with hardware configurations, settings, usage, & other factors</i>										
AC adapter	• 45W USB-C AC adapter • 65W USB-C AC adapter • 65W USB-C slim AC adapter										
Operating system	• Windows® 10 Home 64 • Windows 10 Pro 64										
Limited warranty (optional)	• 1-year depot repair service • 1-year depot with 2-year system board repair service • 1-year limited onsite service • 1-year + 2-year depot repair service • 1-year + 2-year limited onsite 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™ 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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