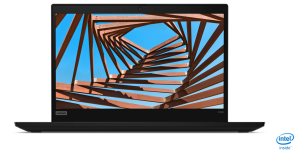# Lenovo ThinkPad X390 Laptop 33.8 cm (13.3") Full HD Intel® Core™ i7 i7-8665U 8 GB DDR4-SDRAM 256 GB SSD Wi-Fi 5 (802.11ac) Windows 10 Pro Black

Brand : Lenovo   **Product family:** ThinkPad   **Product code:** 20Q1SCDR00

Product name : X390

- Windows 10 Pro 64-bit
- Intel Core i7-8665U (8MB Cache, 1.9GHz)
- 33.8 cm (13.3") Full HD 1920 x 1080
- 8GB (2400MHz) DDR4-SDRAM & 256GB SSD

Intel Core i7-8665U (8MB Cache, 1.9GHz), 8GB DDR4-SDRAM, 256GB SSD, 33.8 cm (13.3") Full HD 1920 x 1080, Intel UHD Graphics, WLAN, Webcam, Windows 10 Pro 64-bit
Lenovo ThinkPad X390. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i7, Processor model: i7-8665U, Processor frequency: 1.9 GHz. Display diagonal: 33.8 cm (13.3"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Internal memory: 8 GB, Internal memory type: DDR4-SDRAM. Total storage capacity: 256 GB, Storage media: SSD. On-board graphics card model: Intel® UHD Graphics 620. Operating system installed: Windows 10 Pro. Product colour: Black

Design

Product type *	Laptop
Product colour *	Black
Form factor *	Clamshell
Market positioning	Business

Display

Display diagonal *	33.8 cm (13.3")
Display resolution *	1920 x 1080 pixels
Touchscreen *	✘
HD type	Full HD
LED backlight	✔
Native aspect ratio	16:9
Display brightness	300 cd/m²
Contrast ratio (typical)	800:1

Processor

Processor manufacturer *	Intel
Processor generation	8th gen Intel® Core™ i7
Processor family *	Intel® Core™ i7
Processor model *	i7-8665U
Processor frequency *	1.9 GHz
Processor boost frequency	4.8 GHz
Processor threads	8
System bus rate	4 GT/s
Processor cores	4
Processor cache	8 MB
Processor cache type	Smart Cache
Processor socket	BGA 1528
Processor lithography	14 nm
Processor operating modes	64-bit
Processor codename	Whiskey Lake
Thermal Design Power (TDP)	15 W
Configurable TDP-up frequency	2.1 GHz
Configurable TDP-up	25 W
Configurable TDP-down	10 W
Configurable TDP-down frequency	0.8 GHz
Tjunction	100 °C
Maximum number of PCI Express lanes	16

Network

Bluetooth	✔
Bluetooth version	5.0

Ports & interfaces

USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2
USB 3.2 Gen 1 (3.1 Gen 1) Type-C ports quantity *	1
USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1
HDMI ports quantity *	1
HDMI version	1.4b
Headphone outputs	1
Microphone in	✘
Combo headphone/mic port	✔
Docking connector	✔
Charging port type	USB Type-C
USB Type-C DisplayPort Alternate Mode	✔
USB Sleep-and-Charge	✔

Keyboard

Pointing device	ThinkPad UltraNav
Numeric keypad *	✘
Spill-resistant keyboard	✔

Software

Operating system architecture	64-bit
Operating system installed *	Windows 10 Pro

Processor special features

Intel® My WiFi Technology (Intel® MWT)	✔
Intel® Smart Response Technology	✔
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Hyper Threading Technology (Intel® HT Technology)	✔
Intel® Turbo Boost Technology	2.0
Enhanced Intel SpeedStep Technology	✔

Processor

PCI Express slots version	3.0
PCI Express configurations	1x4, 2x2, 1x2+2x1, 4x1

Memory

Internal memory *	8 GB
Internal memory type	DDR4-SDRAM
Memory clock speed	2400 MHz
Memory form factor	On-board
Maximum internal memory *	8 GB

Storage

Total storage capacity *	256 GB
Storage media *	SSD
Total SSDs capacity	256 GB
Number of SSDs installed	1
SSD capacity	256 GB
SSD interface	PCI Express
SSD form factor	M.2
Optical drive type *	✘
Card reader integrated	✔
Compatible memory cards	MicroSD (TransFlash)

Graphics

Discrete graphics card model *	Not available
On-board graphics card *	✔
Discrete graphics card *	✘
On-board graphics card model *	Intel® UHD Graphics 620
On-board graphics card base frequency	300 MHz
On-board graphics card dynamic frequency (max)	1150 MHz
Maximum on-board graphics card memory	32 GB
On-board graphics card DirectX version	12.0
On-board graphics card OpenGL version	4.5
On-board graphics card ID	0x3EA0

Audio

Audio chip	Realtek ALC3287
Audio system	Dolby Audio Premium
Number of built-in speakers	2
Speaker power	1 W
Built-in microphone	✔
Number of microphones	2

Camera

Front camera	✔
Front camera HD type	HD
Privacy camera	✔
Privacy type	Privacy shutter

Network

Top Wi-Fi standard *	Wi-Fi 5 (802.11ac)
Wi-Fi standards	802.11a, 802.11b, 802.11g, Wi-Fi 4 (802.11n), Wi-Fi 5 (802.11ac)
Antenna type	2x2
WLAN controller model	Intel Dual Band Wireless-AC 9560
Ethernet LAN	✘

Processor special features

Intel® Clear Video HD Technology (Intel® CVT HD)	✔
Intel Clear Video Technology	✔
Intel® Quick Sync Video Technology	✔
Intel Flex Memory Access	✔
Intel® AES New Instructions (Intel® AES-NI)	✔
Intel Trusted Execution Technology	✔
Intel VT-x with Extended Page Tables (EPT)	✔
Intel® Secure Key	✔
Intel TSX-NI	✔
Intel Stable Image Platform Program (SIPP)	✔
Intel® OS Guard	✔
Intel Software Guard Extensions (Intel SGX)	✔
Intel 64	✔
Execute Disable Bit	✔
Idle States	✔
Thermal Monitoring Technologies	✔
Processor package size	46x24 mm
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0
CPU configuration (max)	1
Embedded options available	✘
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Intel Virtualization Technology (VT-x)	✔
Processor ARK ID	193563

Battery

Battery technology	Lithium Polymer (LiPo)
Battery capacity *	48 Wh
Battery life (max)	17.6 h
Fast charging	✔

Security

Cable lock slot	✔
Cable lock slot type	Kensington
Trusted Platform Module (TPM)	✔
Password protection	✔
Password protection type	HDD, Power on, Supervisor

Certificates

Certification	MIL-STD-810G

Sustainability

Sustainability certificates	RoHS, TCO, EPEAT Gold, ENERGY STAR

Weight & dimensions

Width	312 mm
Depth	217 mm
Height	16.5 mm