

# ThinkPad X390 Platform Specifications

Product Specifications Reference (PSREF)

<b>Processor</b>	8th Generation Intel® Core™ i3 / i5 / i7 Processor <table border="1"> <thead> <tr> <th>Processor Number</th> <th># of Cores</th> <th># of Threads</th> <th>Base Frequency</th> <th>Max Turbo Frequency</th> <th>Cache</th> <th>Memory Types</th> <th>Processor Graphics</th> </tr> </thead> <tbody> <tr> <td>i3-8145U</td> <td>2</td> <td>4</td> <td>2.1 GHz</td> <td>3.9 GHz</td> <td>4MB</td> <td rowspan="5">DDR4-2400</td> <td rowspan="5">Intel UHD Graphics 620</td> </tr> <tr> <td>i5-8265U</td> <td rowspan="4">4</td> <td rowspan="4">8</td> <td>1.6 GHz</td> <td>3.9 GHz</td> <td>6MB</td> </tr> <tr> <td>i5-8365U</td> <td>1.6 GHz</td> <td>4.1 GHz</td> <td>6MB</td> </tr> <tr> <td>i7-8565U</td> <td>1.8 GHz</td> <td>4.6 GHz</td> <td>8MB</td> </tr> <tr> <td>i7-8665U</td> <td>1.9 GHz</td> <td>4.8 GHz</td> <td>8MB</td> </tr> </tbody> </table>	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	i3-8145U	2	4	2.1 GHz	3.9 GHz	4MB	DDR4-2400	Intel UHD Graphics 620	i5-8265U	4	8	1.6 GHz	3.9 GHz	6MB	i5-8365U	1.6 GHz	4.1 GHz	6MB	i7-8565U	1.8 GHz	4.6 GHz	8MB	i7-8665U	1.9 GHz	4.8 GHz	8MB	<b>Dimensions</b>	<table border="1"> <thead> <tr> <th>Models</th> <th>FHD Non-touch</th> <th colspan="2">HD / FHD Multi-touch</th> </tr> </thead> <tbody> <tr> <td>Carbon Fiber</td> <td>311.9mm x 217.0mm x 16.5mm 12.28" x 8.54" x 0.65"</td> <td colspan="2">-</td> </tr> <tr> <td>PPS</td> <td>312.0mm x 217.2mm x 16.9mm 12.28" x 8.55" x 0.67"</td> <td colspan="2">312mm x 217.2mm x 16.9mm 12.28" x 8.55" x 0.67"</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Models</th> <th>FHD Non-touch</th> <th>HD</th> <th>FHD Multi-touch</th> </tr> </thead> <tbody> <tr> <td>Carbon Fiber</td> <td>2.70 lb / 1.22 kg</td> <td>-</td> <td>-</td> </tr> <tr> <td>PPS</td> <td>2.85 lb / 1.29 kg</td> <td>2.93 lb / 1.33 kg</td> <td>2.84 lb / 1.28 kg</td> </tr> </tbody> </table>	Models	FHD Non-touch	HD / FHD Multi-touch		Carbon Fiber	311.9mm x 217.0mm x 16.5mm 12.28" x 8.54" x 0.65"	-		PPS	312.0mm x 217.2mm x 16.9mm 12.28" x 8.55" x 0.67"	312mm x 217.2mm x 16.9mm 12.28" x 8.55" x 0.67"		Models	FHD Non-touch	HD	FHD Multi-touch	Carbon Fiber	2.70 lb / 1.22 kg	-	-	PPS	2.85 lb / 1.29 kg	2.93 lb / 1.33 kg	2.84 lb / 1.28 kg
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<b>Graphics</b>	Intel UHD Graphics 620 in processor; supports external digital monitor via HDMI or USB Type-C; supports three independent displays; Max resolution: 4096x2304@60Hz (Thunderbolt); 4096x2160@24Hz (HDMI)	<b>Weight</b>	Case color: Black Case material: <i>Display cover:</i> Carbon Fiber (FHD non-touch only) or PPS; <i>Bottom:</i> Magnesium/Aluminum																																																										
<b>Chipset</b> <b>Memory</b>	Intel SoC (System on Chip) platform 8GB, 16GB or 32GB / 2400MHz DDR4 / soldered to systemboard, no sockets * Installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation	<b>Smart card reader</b> <b>Media reader</b> <b>Ports</b>	Optional: Smart card reader MicroSD card reader, in the combo slot with nano-SIM card Two USB 3.1 Gen 1 (one Always On), one USB 3.1 Type-C Gen 1 (with the function of Power Delivery and DisplayPort), one USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP), HDMI 1.4b, Ethernet extension connector, combo slot of nano-SIM card (WWAN models) and microSD card reader, headphone / microphone combo jack, optional smart card reader, side docking connector, security keyhole * Depending on many factors, actual data transfer speed may be lower than theoretical speed																																																										
<b>Display</b>	<table border="1"> <thead> <tr> <th>Size</th> <th>Resolution</th> <th>Type</th> <th>Surface</th> <th>Brightness</th> <th>Aspect Ratio</th> <th>Contrast Ratio</th> <th>Color Gamut</th> <th>Viewing Angle</th> </tr> </thead> <tbody> <tr> <td>13.3"</td> <td>HD (1366x768)</td> <td>TN</td> <td>Anti-glare</td> <td>250 nits</td> <td>16:9</td> <td>500:1</td> <td>45%</td> <td>90°</td> </tr> <tr> <td>13.3"</td> <td>FHD (1920x1080)</td> <td>IPS</td> <td>Anti-glare</td> <td>300 nits</td> <td>16:9</td> <td>800:1 (non-touch) 700:1 (multi-touch)</td> <td>72%</td> <td>170°</td> </tr> <tr> <td>13.3"</td> <td>FHD (1920x1080) ThinkPad Privacy Guard</td> <td>IPS</td> <td>Anti-glare</td> <td>400 nits</td> <td>16:9</td> <td>1000:1</td> <td>72%</td> <td>178°</td> </tr> </tbody> </table>	Size	Resolution	Type	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	13.3"	HD (1366x768)	TN	Anti-glare	250 nits	16:9	500:1	45%	90°	13.3"	FHD (1920x1080)	IPS	Anti-glare	300 nits	16:9	800:1 (non-touch) 700:1 (multi-touch)	72%	170°	13.3"	FHD (1920x1080) ThinkPad Privacy Guard	IPS	Anti-glare	400 nits	16:9	1000:1	72%	178°	<b>Monitor cable (optional)</b>	HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter USB-C to VGA: Lenovo USB-C to VGA Adapter USB-C to DP: Lenovo USB-C to DisplayPort Adapter Optional: ThinkPad Ethernet Extension Adapter Gen 2																						
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<b>Multi-touch (opt)</b>	On-cell touch, supports 10-finger gesture (FHD only)	<b>Camera (optional)</b>	One of the following, configurable by model: <ul style="list-style-type: none"> <li>HD720p camera with ThinkShutter camera privacy, fixed focus</li> <li>IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus</li> </ul>																																																										
<b>Storage</b>	<ul style="list-style-type: none"> <li>M.2 2280 SSD / SATA 6.0Gb/s</li> <li>M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4</li> <li>M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2</li> </ul>	<b>Audio support</b>	HD Audio, Realtek® ALC3287 codec / stereo speakers, 1W x 2, Dolby® Audio™ Premium / dual array far-field microphone, headphone / microphone combo jack																																																										
<b>Optane™ memory</b> <b>Optical</b>	Optional: Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2 None	<b>Keyboard</b> <b>UltraNav™</b>	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad																																																										
<b>Ethernet</b>	Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro) via bundled or optional ThinkPad Ethernet Extension Adapter Gen 2	<b>Security</b> <b>Security chip</b> <b>System Mgt (opt)</b> <b>Fingerprint reader</b> <b>NFC (optional)</b>	Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 2.0, TCG Certified Intel vPro Technology Optional: Touch style match on chip fingerprint reader on the palm rest Near Field Communication																																																										
<b>WLAN (optional)</b>	One of the following, configurable by model: <ul style="list-style-type: none"> <li>Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0</li> <li>Intel Wireless-AX 22260, Wi-Fi 2x2 802.11ax + Bluetooth 5.0</li> </ul>	<b>Battery</b>	Integrated Li-ion 48Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W USB Type-C AC adapter																																																										
<b>Bluetooth™</b>	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter	<b>Max battery life</b> <b>AC adapter</b>	MobileMark® 2014: 17.6 hr * Battery life varies significantly with settings, usage, & other factors 45W or 65W USB Type-C AC adapter																																																										
<b>WWAN (optional)</b>	One of the following, configurable by model: <ul style="list-style-type: none"> <li>Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card (EMEA only)</li> <li>Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card</li> </ul> * For non-WWAN model, it means the model is NOT WWAN upgradable	<b>Preload</b> <b>Limited warranty</b>	Windows® 10 Home 64 or Windows 10 Pro 64 One of the following, configurable by model: <ul style="list-style-type: none"> <li>1-year depot repair service</li> <li>3-year/1-yr battery depot repair service</li> <li>3-year/1-yr battery limited onsite service</li> </ul>																																																										
<b>Mil-Spec test</b>	MIL-STD-810G military testing	<b>Environment</b>	EPEAT™ Bronze; ENERGY STAR® 7.0; RoHS-compliant																																																										

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

Lenovo  
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