## ThinkPad X1 Carbon Gen 8 Platform Specifications

### Processor
<table>
<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>5-10210U</td>
<td>4</td>
<td>8</td>
<td>1.6 GHz</td>
<td>4.2 GHz</td>
<td>8MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>5-10310U</td>
<td>4</td>
<td>8</td>
<td>1.7 GHz</td>
<td>4.4 GHz</td>
<td>8MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>7-10510U</td>
<td>4</td>
<td>8</td>
<td>1.8 GHz</td>
<td>4.9 GHz</td>
<td>8MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>7-10610U</td>
<td>4</td>
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<td>1.8 GHz</td>
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<td>Intel UHD Graphics</td>
</tr>
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</table>

### 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
- 8GB or 16GB / 2133MHz LPDDR3 / soldered to systemboard, no sockets

### Display
- Size: 14.0" WQHD (2560x1440)  WVA Anti-glare - 300 nits 16:9 1000:1 72% 170°
- 14.0" FHD (1920x1080)  WVA Anti-glare - 400 nits 16:9 800:1 72% 170°
- 14.0" FHD (1920x1080)  WVA Anti-glare - 400 nits 16:9 72% 170°
- 14.0" WQHD (2560x1440)  WVA Anti-glare - 400 nits 16:9 1000:1 72% 170°
- 14.0" HDR (3840x2160)  WVA Glossy - 500 nits 16:9 72% 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
- M.2 2280, PCIe NVMe 3.0 x 4

### Optical
- Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro)

### Ethernet
- Via optional ThinkPad Ethernet Extension Adapter Gen 2

### WLAN + Bluetooth
- Wi-Fi 6 AX201, Wi-Fi 2x2 802.11ax + Bluetooth 5.1

### WWAN (optional)
- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM05CCEFC, M.2 card
- 4G LTE-A, Fibocom L850-GL, M.2 card
- WCDMA, TD-SCDMA, GSM

### SIM card (opt)
- Gemalto eSIM
- Nano-SIM card, Lenovo Connect 4 months, 4G LTE

### Ports
- Two 3.5mm headphone / microphone combo jack, side docking connector, security keyhole
- Ethernet extension connector, nano-SIM card slot (WWAN models), support for Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

### Smart card reader
- None

### Media reader
- None

### Operating system
- Windows 10 Home 64
- Windows 10 Pro 64

### Battery
- Integrated Li-Polymer 51Wh battery
- Battery life varies significantly with hardware configurations, settings, usage, & other factors

### Security chip
- Firmware TPM 2.0 integrated in chipset
- Discrete TPM 2.0 TCG Certified

### System Mgt (opt)
- Intel vPro Technology
- Fingerprint reader

### Security
- Power-on password, hard disk password, supervisor password, security keyhole

### 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

### Monitor cable
- Optional: Lenovo HDMI to VGA Monitor Adapter

### Bundled Accy
- TrackPoint® pointing device and buttonless glass surface multi-touch touchpad

### Cases & colors
- Bottom: magnesium alloy
- Top: Black paint or black weave

### Weight
- Starting at 2.4 lb / 1.09 kg

### 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

### Environmental
- 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.

Lenovo
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