## ThinkPad X1 Carbon (6th Gen) Platform Specifications

**Product Specifications Reference (PSREF)**

### 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>i5-7300U</td>
<td>2</td>
<td>4</td>
<td>2.6 GHz</td>
<td>3.5 GHz</td>
<td>3MB</td>
<td>LPDDR3-1866</td>
<td>Intel HD Graphics 620</td>
</tr>
</tbody>
</table>

**or 8th Generation Intel Core i5 / i7 Processor**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>i5-8250U</td>
<td>4</td>
<td>8</td>
<td>1.6 GHz</td>
<td>3.4 GHz</td>
<td>6MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics 620</td>
</tr>
<tr>
<td>i5-8350U</td>
<td>4</td>
<td>8</td>
<td>1.7 GHz</td>
<td>3.6 GHz</td>
<td>6MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics 620</td>
</tr>
<tr>
<td>i7-8550U</td>
<td>4</td>
<td>8</td>
<td>1.8 GHz</td>
<td>4.0 GHz</td>
<td>8MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics 620</td>
</tr>
<tr>
<td>i7-8650U</td>
<td>4</td>
<td>8</td>
<td>1.9 GHz</td>
<td>4.2 GHz</td>
<td>8MB</td>
<td>LPDDR3-2133</td>
<td>Intel UHD Graphics 620</td>
</tr>
</tbody>
</table>

### Graphics

- Intel HD Graphics 620 or Intel UHD Graphics 620 in processor; supports external digital monitor via HDMI or USB Type-C; supports three independent displays; Max resolution: 5120x2880 @ 60Hz (USB Type-C); 4096x2160 @ 30Hz (HDMI)

### Chipset

- Intel SoC (System on Chip) platform

### Memory

- 8GB or 16GB / 2133MHz LPDDR3 / soldered to system board, no sockets
- *System clocks down for processors with lower memory controller*

### Display

- One of the following, configurable by model:
  - 14.0" (355mm) FHD: 1920x1080, anti-glare, LED backlight, WVA, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 170° viewing angle
  - 14.0" (355mm) QWXGA: 2560x1440, anti-glare, LED backlight, WVA, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 170° viewing angle
  - 14.0" (355mm) HDR WQHD: 2560x1440 with Dolby Vision™, glossy, WVA, LED backlight, 500 nits, 16:9 aspect ratio, 1500:1 contrast ratio, 100% gamut, 170° viewing angle

### Multi-touch (opt)

- On-cell touch, supports 10-finger gesture (FHD only)

### Storage

- One of the following, configurable by model:
  - M.2 SSD / SATA 6.0Gb/s (e.g. xxxGB SSD M.2)
  - M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxGB SSD M.2 PCIe NVMe) None

### 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

- One of the following, configurable by model:
  - Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + Bluetooth 4.1, M.2 card
  - Intel Wireless-AC 9260, Wi-Fi 2x2 802.11ac+ Bluetooth 5.0, M.2 card (special bid only)
  - Intel 8265ac card supports BT4.2 but is limited to BT4.1 by Windows OS

### WWAN (optional)

- Integrated Mobile Broadband 4G LTE-A, Intel XMM™ 7360 (Fibocom L850-GL), M.2 card
- *For non-WWAN model, it means the model is NOT WWAN upgradable*

### SIM card (opt)

- Nano-SIM card slot, optional Verizon LTE (US) SIM card

### Chipset

- **WxDxH:** 12.74" x 8.55" x 0.63"; 323.5mm x 217.1mm x 15.95mm
- **Weight:** Starting at 2.49 lb / 1.13 kg
- **Case color:** Black or Silver (silver case is NOT available in EMEA)
- **Case material:** Display cover: CFRP/GFRP hybrid; Bottom: magnesium alloy / PPS hybrid
- **Smart card reader:** None
- **Media reader:** MicroSD card reader, supports UHS-II
- **Ports:** Two USB 3.1 Gen 1 (one Always On), two USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the option of Power Delivery and DisplayPort), HDMI 1.4b, Ethernet extension connector, nano-SIM card slot (WWAN models), headphone / microphone combo jack, microSD card reader, side donging connector, security keyhole
- **Monitor cable (optional):** 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
- **Bundled Accy:** Optional: ThinkPad Ethernet Extension Adapter Gen 2

### Camera

- **Camera (optional):** One of the following, configurable by model:
  - HD720p camera with ThinkShutter camera privacy, fixed focus
  - IR camera and HD720p camera, fixed focus
- **Audio support:** HD Audio, Realtek ALC3286 codec / stereo speakers, 1W x 2, Dolby Audio™ Premium / dual array microphone, headphone / microphone combo jack, Dolby Atmos™ via headphones
- **Keyboard:** 6-row, spill-resistant, multimedia Fn keys, LED backlight
- **TrackPoint™ pointing device and buttonless glass surface multi-touch touchpad**

### Security

- **Security chip:** Power-on password, hard disk password, supervisor password, security keyhole
- **Security chip (vPro (optional):** Discrete TPM 2.0, TCG Certified (may be disabled in some region)
- **Intel vPro Technology**
- **Fingerprint reader:** Touch style match on chip fingerprint reader on the palm rest, anti-spoofing technology

### NFC (optional):** Near Field Communication

### Battery

- **Integrated Li-ion 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter**
- **Max battery life:** MobileMark® 2014: 19.3 hr
- **AC adapter:**
  - 45W USB-C AC adapter
  - 45W Low Halogen USB-C AC adapter
  - 65W USB-C AC adapter
  - 65W Low Halogen USB-C AC adapter

### Operating system

- **Operating system:** Optional: Windows® 10 Home 64 or Windows 10 Pro 64

### Limited warranty

<table>
<thead>
<tr>
<th>One of the following, configurable by model:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-year depot repair service</td>
</tr>
<tr>
<td>1-year depot with 2-year system board repair service</td>
</tr>
<tr>
<td>1-year/3-yr battery depot repair service</td>
</tr>
<tr>
<td>1-year + 2-year depot repair service</td>
</tr>
<tr>
<td>1-year + 2-year limited onsite service</td>
</tr>
<tr>
<td>3-year/1-yr battery depot repair service</td>
</tr>
<tr>
<td>3-year/1-yr battery limited onsite service</td>
</tr>
<tr>
<td>3-year battery limited onsite service</td>
</tr>
</tbody>
</table>

### Mil-Spec test

- MIL-STD-810G military testing

### Environment

- EPEAT® Gold (US only); ENERGY STAR® 6.1; RoHS-compliant

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Note: The specifications above may not be available in all regions and might change by regions.

Lenovo

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