## ThinkPad X1 Carbon (5th 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>Processor Graphics</th>
<th>Memory Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>i5-6200U</td>
<td>2</td>
<td>4</td>
<td>2.3 GHz</td>
<td>2.8 GHz</td>
<td>3MB</td>
<td>Intel HD Graphics 520</td>
<td>LPDDR3-1866</td>
</tr>
<tr>
<td>i5-6300U</td>
<td>2</td>
<td>4</td>
<td>2.4 GHz</td>
<td>3.0 GHz</td>
<td>3MB</td>
<td>Intel HD Graphics 520</td>
<td>LPDDR3-1866</td>
</tr>
<tr>
<td>i7-6500U</td>
<td>2</td>
<td>4</td>
<td>2.5 GHz</td>
<td>3.1 GHz</td>
<td>4MB</td>
<td>Intel HD Graphics 620</td>
<td>LPDDR3-1866</td>
</tr>
<tr>
<td>i7-6600U</td>
<td>2</td>
<td>4</td>
<td>2.6 GHz</td>
<td>3.4 GHz</td>
<td>4MB</td>
<td>Intel HD Graphics 620</td>
<td>LPDDR3-1866</td>
</tr>
</tbody>
</table>

**6th Generation Intel® Core™ i5 / i7 Processor (EMEA has only i5-6300U and i7-6600U)**

**7th Generation Intel Core i5 / i7 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>Processor Graphics</th>
<th>Memory Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>i5-7200U</td>
<td>2</td>
<td>4</td>
<td>2.5 GHz</td>
<td>3.1 GHz</td>
<td>3MB</td>
<td>Intel HD Graphics 520</td>
<td>LPDDR3-1866</td>
</tr>
<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>Intel HD Graphics 520</td>
<td>LPDDR3-1866</td>
</tr>
<tr>
<td>i7-7500U</td>
<td>2</td>
<td>4</td>
<td>2.7 GHz</td>
<td>3.5 GHz</td>
<td>3MB</td>
<td>Intel HD Graphics 520</td>
<td>LPDDR3-1866</td>
</tr>
<tr>
<td>i7-7600U</td>
<td>2</td>
<td>4</td>
<td>2.8 GHz</td>
<td>3.9 GHz</td>
<td>4MB</td>
<td>Intel HD Graphics 520</td>
<td>LPDDR3-1866</td>
</tr>
</tbody>
</table>

### Graphics

- Intel HD Graphics 520 or 620 in processor;
- Supports external digital monitor via HDMI or USB Type-C;
- Supports three independent displays;
- Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@24Hz (HDMI)

### Chipset

**Intel SoC (System on Chip) platform**

8GB or 16GB / 1866MHz LPDDR3 / soldered to systemboard, no sockets

### Display

- **Some:** 14.0" (355mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 170° viewing angle
- **Some:** 14.0" (355mm) QHD (2560x1440), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 170° viewing angle

### Multi-touch

- None

### 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)

### Optical

None

### Ethernet

- Native Intel Ethernet Connection I219-9 (Non-vPro) or I219-LM (vPro) via bundled or optional ThinkPad Ethernet Extension Cable

### WLAN

- One of the following, configurable by model (WiGiG can coexist with WWAN):
  - Intel Dual Band Wireless-AC 8260, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card
  - Intel Dual Band Wireless-Ac 8265, Wi-Fi 2x2 802.11ac + BT4.1, M.2 card
  - Intel Tri-Band Wireless-Ac 18265, WiGiG 802.11ad + Wi-Fi 2x2 802.11ac + BT4.1, M.2 card
  - Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter
  - * Intel 8265ac / 18265ac card support BT4.2 but is limited to BT4.1 by Windows OS

### Bluetooth

**Enabled**

### WWAN (optional)

- Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455)

### SIM card (optional)

- Micro-SIM card slot, opt Verizon LTE (US) or Lenovo® Connect (EMEA) SIM card

### Dimensions

- **Width x Depth x Height:** 12.74" x 8.55" x 0.63"; 323.5mm x 217.1mm x 15.95mm
- Starting at 2.49 lb / 1.13 kg

### Case color

- Black or Silver (Silver is NOT available in EMEA)

### Case material

- **Display cover:** CFRP/GFRP hybrid
- **Bottom:** magnesium alloy hybrid

### Media reader

MicroSD card reader, supports UHS-II microSD card

### Ports

- Two USB 3.1 Gen 1 (USB 3.0, one Always On), two USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of Power Delivery and DisplayPort), HDMI 1.4b, Ethernet extension connector
  - * Depending on many factors, actual data transfer speed may be lower than theoretical speed

### WiGig dock (optional)

- **ThinkPad WiGig dock**
  - **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 Cable

### Camera (optional)

- 720p HD720p resolution, fixed focus
- * IR & 720p: IR camera and HD720p camera

### Audio support

- HD Audio, Conexant® CX11871 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack

### Security

- Power-on password, hard disk password, supervisor password, security keyhole
- Discrete TPM 2.0, TCG Certified
- Intel vPro Technology

### Security chip

vPro (optional)

### Finger print reader (optional)

- Touch style match on chip fingerprint reader on the palm rest
- Near Field Communication

### Battery

- Integrated Li-Polymer 3-cell (57Wh) RapidCharge battery
- MobileMark® 2014: 15.5 hr
  - *Battery life varies significantly with settings, usage, & other factors

### Max battery life

- **AC adapter**
  - RapidCharge
  - 45W USB-C
  - 65W USB-C
  - Charge to 80%: Not support 1.0 hr
  - Charge to 100%: Not support 2.5 hr

### Operating system

- One of the following, configurable by model:
  - Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64
  - Windows 10 Home 64
  - Windows 10 Pro 64

### Limited warranty

- One of the following, configurable by model:
  - 1-year depot repair service
  - 3-year/1yr battery depot repair service
  - 3-year/1yr battery limited onsite service

### Mil-Spec test

- MIL-STD-810G military testing

### Environment

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

---

*Lenovo*

April 2019