## ThinkPad X1 Extreme (2nd Gen) 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>i5-9300H</td>
<td>4</td>
<td>8</td>
<td>2.4 GHz</td>
<td>4.1 GHz</td>
<td>8MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>i5-9400H</td>
<td>4</td>
<td>8</td>
<td>2.5 GHz</td>
<td>4.3 GHz</td>
<td>8MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>i7-9750H</td>
<td>6</td>
<td>12</td>
<td>2.6 GHz</td>
<td>4.5 GHz</td>
<td>12MB</td>
<td>DDR4-2666</td>
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<tr>
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<td>Intel UHD Graphics 630</td>
</tr>
<tr>
<td>i9-9880H</td>
<td>8</td>
<td>8</td>
<td>2.3 GHz</td>
<td>4.8 GHz</td>
<td>16MB</td>
<td>DDR4-2666</td>
<td>Intel UHD Graphics 630</td>
</tr>
</tbody>
</table>

### Graphics

- Intel UHD Graphics 630 in processor and NVIDIA® GeForce® GTX 1650 Max-Q, 4GB GDDR5 memory; supports external digital monitor via HDMI or Thunderbolt™
- Supports four independent displays; Max resolution: 5K@60Hz (Thunderbolt); 4K@60Hz (HDMI)

### Chipset

- Mobile Intel CM246 Chipset
- 64GB max / 2666MHz DDR4, dual-channel capable, two DDR4 SO-DIMM sockets

### Display

<table>
<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>15.6&quot;</td>
<td>FHD (1920x1080)</td>
<td>WVA</td>
<td>Anti-glare</td>
<td>300 nits</td>
<td>16:9</td>
<td>700:1</td>
<td>72% NTSC</td>
<td>170°</td>
</tr>
<tr>
<td>15.6&quot;</td>
<td>FHD (1920x1080)</td>
<td>Dolby Vision™ HDR</td>
<td>Anti-glare</td>
<td>500 nits</td>
<td>16:9</td>
<td>1200:1</td>
<td>72% NTSC</td>
<td>170°</td>
</tr>
<tr>
<td>15.6&quot;</td>
<td>UHD (3840x2160)</td>
<td>Dolby Vision HDR</td>
<td>Anti-glare</td>
<td>500 nits</td>
<td>16:9</td>
<td>1200:1</td>
<td>100% Adobe</td>
<td>170°</td>
</tr>
<tr>
<td>15.6&quot;</td>
<td>UHD (3840x2160)</td>
<td>OLED</td>
<td>Anti-reflection Anti-smudge</td>
<td>SDR 400nit</td>
<td>HDR 900nit (peak)</td>
<td>16:9</td>
<td>1000000:1</td>
<td>100% DCI-P3</td>
</tr>
</tbody>
</table>

### Multi-touch (opt)

- Capacitive-type multi-touch, supports 10-finger gesture (UHD OLED only), anti-reflection (AR), anti-smudge (AS) coating
- Lenovo Pen Pro (special bid only)

### Storage

- Up to two M.2 SSD
- RAID (optional)
- Optional: RAID 0/1 support

### Optical

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

### WLAN (optional)

- Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.0

### WWAN (optional)

- Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter

### SIM card

- None

### Audio

- HD Audio, Synaptics™ CX11880 codec; supports stereo speakers, 2W x 2, Dolby® Audio™ Premium; or optional dual 360° far-field microphone, headphone / microphone combo jack, Dolby Atmos® sound system

### Security

- Power-on password, hard disk password, supervisor password, security keyhole
- Security chip: Firmware TPM 2.0 integrated in chipset or discrete TPM 2.0 TCG Certified (may be disabled in some region)

### System Mgmt (opt)

- Intel vPro Technology

### Operating system

- Optional: Windows® 10 Home 64 or Windows 10 Pro 64

### Battery

- Integrated Li-Polymer 80Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

### AC adapter

- MobileMark® 2014: 14 hr
- 135W slim tip AC adapter

### Limited warranty

- 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-year battery depot repair service
- 3-year/1-year battery limited onsite service

### Mil-Spec test

- MIL-STD-810G military testing

### Environment

- EPEAT™ Gold; ENERGY STAR® 7.1; TCO Certified; RoHS-compliant

### Note

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