

ThinkPad P70 Platform Specifications

Product Specifications Reference (PSREF)

Processor	6th Generation Intel® Core™ i7 Processor or Intel Xeon® Processor E3 v5 Family	Smart card reader <i>Optional</i> : Smart card reader																													
	<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>i7-6700HQ</td> <td rowspan="4">4</td> <td rowspan="4">8</td> <td>2.6 GHz</td> <td>3.5 GHz</td> <td>6MB</td> <td rowspan="4">DDR4-2133</td> <td>Intel HD Graphics 530</td> </tr> <tr> <td>i7-6820HQ</td> <td>2.7 GHz</td> <td>3.6 GHz</td> <td>8MB</td> <td>Intel HD Graphics P530</td> </tr> <tr> <td>E3-1505M v5</td> <td>2.8 GHz</td> <td>3.7 GHz</td> <td rowspan="2">8MB</td> <td rowspan="2">Intel Iris™ Pro Graphics P580</td> </tr> <tr> <td>E3-1575M v5</td> <td>3 GHz</td> <td>3.9 GHz</td> </tr> </tbody> </table>	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	i7-6700HQ	4	8	2.6 GHz	3.5 GHz	6MB	DDR4-2133	Intel HD Graphics 530	i7-6820HQ	2.7 GHz	3.6 GHz	8MB	Intel HD Graphics P530	E3-1505M v5	2.8 GHz	3.7 GHz	8MB	Intel Iris™ Pro Graphics P580	E3-1575M v5	3 GHz	3.9 GHz	ExpressCard One slot (ExpressCard/34) Media reader 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card Ports Four USB 3.0 (one Always On), two USB Type-C / Thunderbolt 3, Mini DisplayPort, HDMI, Ethernet (RJ-45), Dock connector
Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics																								
i7-6700HQ	4	8	2.6 GHz	3.5 GHz	6MB	DDR4-2133	Intel HD Graphics 530																								
i7-6820HQ			2.7 GHz	3.6 GHz	8MB		Intel HD Graphics P530																								
E3-1505M v5			2.8 GHz	3.7 GHz	8MB		Intel Iris™ Pro Graphics P580																								
E3-1575M v5			3 GHz	3.9 GHz																											
		Camera (<i>optional</i>) HD720p resolution, low light sensitive, fixed focus Audio support HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack																													
		Keyboard 6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight UltraNav™ 3-button TrackPoint® pointing device and 3-button crystal silk surface multi-touch touchpad																													
Graphics	Intel HD Graphics 530, Intel HD Graphics P530, or Intel Iris™ Pro Graphics P580 in processor and NVIDIA Quadro® M600M (2GB memory), M3000M (4GB memory), M4000M (4GB memory), or M5000M (8GB memory); supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt™; supports five independent displays; Max resolution: 3840x2160@60Hz (DisplayPort via Mini DisplayPort cable); 3840x2160@60Hz (Thunderbolt); 3840x2160@30Hz (HDMI)	Security Power-on password, hard disk password, supervisor password, security keyhole Security chip Discrete TPM 1.2 TCG Certified and Firmware TPM 2.0 integrated in chipset ThinkEngine Delivers improved thermal and power efficiency, up to 30 day standby, faster resume time, enhanced security, as well as anti-tampering measures vPro (<i>optional</i>) Intel vPro Technology Fingerprint reader Touch style fingerprint reader on the keyboard bezel Color calibration <i>Optional</i> : Pantone® color calibrator by X-Rite® color calibration sensor in palm rest																													
Chipset	Mobile Intel CM236 Chipset (Intel GL82CM236 PCH)	Battery Li-Ion 8-cell (96Wh)																													
Memory	64GB max ⁷ / 2133MHz DDR4, ECC or non-ECC (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets	Max battery life ¹⁰ (<i>MobileMark® 2014</i>) <table border="1"> <thead> <tr> <th>Mode</th> <th>Discrete Graphics</th> <th>Hybrid Graphics</th> </tr> </thead> <tbody> <tr> <td>Max battery life</td> <td>8.5 hr</td> <td>10.8 hr</td> </tr> </tbody> </table>	Mode	Discrete Graphics	Hybrid Graphics	Max battery life	8.5 hr	10.8 hr																							
Mode	Discrete Graphics	Hybrid Graphics																													
Max battery life	8.5 hr	10.8 hr																													
Display	<i>Some</i> : 17.3" (439mm) FHD (1920x1080), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 800:1 contrast ratio, 72% gamut, 170° viewing angle <i>Some</i> : 17.3" (439mm) 4K (3840x2160), anti-glare, LED backlight, IPS, 300 nits, 16:9 aspect ratio, 800:1 contrast ratio, 90% gamut, 170° viewing angle	AC adapter 170W or 230W AC adapter																													
Multi-touch (<i>opt</i>)	Capacitive-type multi-touch, supports 10-finger gesture, 270 nits	Preload <i>Some</i> : Genuine Windows® 7 Professional 64 <i>Some</i> : Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64 <ul style="list-style-type: none"> Lenovo Solution Center Lenovo SHAREit ThinkVantage Product Recovery Rescue and Recovery™ ThinkVantage System Update Adobe® Reader® Microsoft® Office preloaded; purchase a product key to activate McAfee® LiveSafe™ (30-day trial) <ul style="list-style-type: none"> Windows 10 Pro 64 Lenovo Solution Center Lenovo SHAREit Lenovo Companion Lenovo Setting Microsoft Office preloaded; purchase a product key to activate McAfee® LiveSafe™ (30-day trial) For ISV certifications, please visit www.lenovo.com/support/ISV																													
Pen (<i>optional</i>)	ThinkPad Pen Pro, active pen for multi-touch display																														
Storage	Up to 4 drives (two M.2 SSD and two HDD, one of which is in the optical bay) <i>Some</i> : M.2 SSD / SATA 6.0Gb/s (e.g. xxxG SSD) <i>Some</i> : M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxG SSD PCIe NVMe) <i>Some</i> : HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Shock Mounted Hard Drive, Active Protection System™																														
Optical (<i>optional</i>)	DVD burner, 9.5mm high, fixed, tray-in																														
Ethernet	<i>Non-vPro model</i> : Intel Ethernet Connection I219-V (Jacksonville) <i>vPro model</i> : Intel Ethernet Connection I219-LM (Jacksonville)																														
WLAN ⁴	11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card																														
Bluetooth™	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter																														
WWAN (<i>optional</i>)	Wireless WAN, Sierra Wireless EM7455, Qualcomm® 4G LTE-Advanced/DC-HSPA+/HSPA+/HSPA/UMTS/GNSS, M.2 card	Limited warranty ¹² <i>One of the following, configurable by model</i> : <ul style="list-style-type: none"> 3-year/1-yr battery depot repair service 3-year/1-yr battery limited onsite service²⁴ 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery) 																													
SIM card	Micro-SIM card slot																														
Dimensions ³	<i>WxDxH</i> : 16.38" x 10.85" x 1.18-1.35"; 416mm x 275.5mm x 29.9-34.2mm <i>WxDxH(Touch)</i> : 16.38" x 10.85" x 1.20-1.37"; 416mm x 275.5mm x 30.6-34.9mm <i>Non-touch model</i> : from 7.3 lb (3.3kg); <i>Multi-touch model</i> : from 8.1 lb (3.7kg)																														
Weight ²		Mil-Spec test MIL-STD-810G military certification																													
Case material	<i>Display cover</i> : Glass-Fiber + PPS; <i>Bottom</i> : Magnesium/Aluminum	Environment EPEAT™ Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant																													