

# 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 ExpressCard Media reader Ports	Optional: Smart card reader One slot (ExpressCard/34) 4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card 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											
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)							Camera (optional) Audio support	HD720p resolution, low light sensitive, fixed focus HD Audio, Realtek® ALC3268 codec / stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack						
Chipset	Mobile Intel CM236 Chipset (Intel GL82CM236 PCH)							Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, numeric keypad, optional LED backlight 3-button TrackPoint® pointing device and 3-button crystal silk surface multi-touch touchpad						
Memory	64GB max <sup>7</sup> / 2133MHz DDR4, ECC or non-ECC (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets							Security Security chip ThinkEngine	Power-on password, hard disk password, supervisor password, security keyhole Discrete TPM 1.2 TCG Certified and Firmware TPM 2.0 integrated in chipset Delivers improved thermal and power efficiency, up to 30 day standby, faster resume time, enhanced security, as well as anti-tampering measures						
Display	Some: 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 Some: 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							vPro (optional) Fingerprint reader Color calibration	Intel vPro Technology Touch style fingerprint reader on the keyboard bezel Optional: Pantone® color calibrator by X-Rite® color calibration sensor in palm rest						
Multi-touch (opt) Pen (optional)	Capacitive-type multi-touch, supports 10-finger gesture, 270 nits ThinkPad Pen Pro, active pen for multi-touch display							Battery Max battery life <sup>10</sup> (MobileMark® 2014)	Li-Ion 8-cell (96Wh) <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
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Max battery life	8.5 hr	10.8 hr													
Storage	Up to 4 drives (two M.2 SSD and two HDD, one of which is in the optical bay) • HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Shock Mounted Hard Drive, Active Protection System™ • 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)							AC adapter	170W or 230W slim tip AC adapter						
Optical (optional)	DVD burner, 9.5mm high, fixed, tray-in							Preload	Some: Genuine Windows® 7 Professional 64 Some: Windows 7 Professional 64 preinstalled through downgrade rights in Windows 10 Pro 64 • 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) For ISV certifications, please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>						
Ethernet	Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville) vPro model: Intel Ethernet Connection I219-LM (Jacksonville)							Limited warranty <sup>12</sup>	One of the following, configurable by model: • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service <sup>24</sup> • 3-year/1-yr battery limited onsite service, OID (Onsite International Delivery)						
WLAN <sup>4</sup> Bluetooth™	11ac+BT, Intel Dual Band Wireless-AC 8260, 2x2, M.2 card Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter							Mil-Spec test	MIL-STD-810G military certification						
WWAN (optional)	Wireless WAN, Sierra Wireless EM7455, Qualcomm® 4G LTE-Advanced/DC-HSPA+/HSPA+/HSPA/UMTS/GNSS, M.2 card							Environment	EPEAT™ Gold (US only); ENERGY STAR® 6.1; GREENGUARD®; RoHS-compliant						
SIM card	Micro-SIM card slot														
Dimensions <sup>3</sup>	WxDxH: 16.38" x 10.85" x 1.18-1.35"; 416mm x 275.5mm x 29.9-34.2mm WxDxH(Touch): 16.38" x 10.85" x 1.20-1.37"; 416mm x 275.5mm x 30.6-34.9mm														
Weight <sup>2</sup>	Non-touch model: starting at 7.3 lb (3.3kg); Multi-touch model: starting at 8.1 lb (3.7kg)														
Case material	Display cover: Glass-Fiber + PPS; Bottom: Magnesium/Aluminum														