ThinkPad S431 Platform Specifications

Positioning	*Sophisticated design with quality, durability and reliability for SMB customers; one spindles*
Processor	**Intel® Core™ i3-3217U processor (2 cores, 1.80GHz, 3MB Cache)**, **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), HT technology **Intel Core i3-3227U processor (2 cores, 1.90GHz, 3MB Cache)**, **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), HT technology **Intel Core i5-3337U processor (2 cores, 1.80GHz, 3MB cache)**, **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.70GHz), HT technology **Intel Core i5-3437U processor (2 cores, 1.90GHz, 3MB cache)**, **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology **Intel Core i7-3687U processor (2 cores, 2.10GHz, 4MB cache)**, **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology
Memory	8GB max[7] / PC3-12800 1600MHz DDR3L, non-parity, one 204-pin SO-DIMM socket
Optical	None
SATA disk	*Some:* Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high *Some:* Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable, Active Protection System™
M.2 SSD	*Some:* M.2 Solid State Drive (SSD), via M.2 Card slot
Widescreen display	*Some:* **14.0"** (355mm) **HD (1366x768) color**, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio *Some:* **14.0"** (355mm) **HD+ (1600x900) color**, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio *Some:* **14.0"** (355mm) **HD+ (1600x900) color**, anti-glare, 10-point touch screen LED backlight, 220 nits, 16:9 aspect ratio
Camera	HD720p resolution, low light sensitive, fixed focus, LED indicator
Graphics	**Intel HD Graphics 4000** in processor, or **AMD Radeon™ HD 8670M Graphics**, **1GB** memory external digital monitor support via HDMI™ (supporting HDCP to output protected content); *Max external resolution:* 1920x1200 (HDMI)@60Hz
Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar[13]
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch
ThinkLight™	None
Dimensions[3]	14.0W" (WxDxH): 13.11" x 8.86" x 0.81"; 332.8mm x 224.8mm x 20.3mm
Weight[2]	*4-cell:* from 3.92 lb (1.78kg)
Case color	Black or silver (top); black bottom
Case material	Sand Blast Aluminum
Battery - type[37]	Li-Polymer 4-cell (46Whr)
Battery - life[10]	*MobileMark 2007:* *Windows 7:* up to 9.1 hr *MobileMark 2012:* *Windows 8:* up to 5.9 hr
Chipset	**Mobile Intel HM76 Express Chipset**
ExpressCard	None
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)
Ports	One USB 3.0, one USB 3.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (HDMI), ethernet (RJ-45)
PCIe Mini Card	One PCI Express Mini Card slot
PCIe WLAN[4]	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2
M.2 Card	One M.2 Card slot for support of WWAN card or SSD
M.2 WWAN	None
Bluetooth™	Bluetooth 4.0 wireless, integrated in selected WLAN PCIe Half Mini Card
Ethernet	Realtek® RTL8111F Gigabit Network Connection
Audio support	High Definition (HD) Audio, Conexant 20671 codec / stereo speakers, 1.5 watt x 2 / Dolby® Home Theater® v4 / dual array microphone, combo audio/mic jack
Security	Power-on password, hard disk password, supervisor password, security keyhole
Security chip	Trusted Platform Module, TCG 1.2-compliant
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor
Limited warranty[12]	**1-year** - depot repair service / service upgrades[22] available

Preloaded operating system[20]
- *Some:* Windows® 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit
- *Some:* Windows 8 Pro 64-bit

Preloaded applications (only some listed)
- **Windows 7 models**
- Access Connections™
- ThinkVantage Power Manager
- ThinkVantage Tools
- Adobe® Reader®

- **Windows 8 models**
- Lenovo Support
- Lenovo Companion
- Lenovo Cloud Storage

- **All models**
- ThinkVantage System Update
- Norton™ Internet Security (30 days of virus definitions)
- Skype™
- Microsoft Office preloaded; purchase a product key to activate

Supports ThinkVantage® technologies

65-watt AC adapter
ENERGY STAR® compliant
RoHS-compliant
International Warranty Service[17]
24 hour x 7 day[18] toll-free support during the warranty period[12]

See footnotes for more detailed information