Positioning	*Sophisticated design with quality, durability and reliability for SMB customers; two spindles*
Processor	**Intel® Pentium® 2030M Processor** (**2 cores, 2.50 GHz, 2MB Cache**), **Intel HD Graphics**, DDR3 memory controller (up to 1600MHz)
	Intel Core™ i3-2348M processor (2 cores, 2.30GHz, 3MB cache), **Intel HD Graphics 3000**, DDR3 memory controller (up to 1333MHz), HT technology
	Intel Core i3-3110M processor (2 cores, 2.40GHz, 3MB cache), **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), HT technology
	Intel Core i3-3120M processor (2 cores, 2.50GHz, 3MB cache), **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), HT technology
	Intel Core i3-3130M processor (2 cores, 2.60GHz, 3MB cache), **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), HT technology
	Intel Core i5-3230M processor (2 cores, 2.60GHz, 3MB cache), **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology
	Intel Core i7-3632QM processor (4 cores, 2.20GHz, 6MB cache), **Intel HD Graphics 4000**, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology
Memory	16GB max[7] / PC3-12800 1600MHz DDR3L, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets
Optical	DVD burner, 9.5mm high, fixed, not removable, tray-in
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 or 9.5mm high, removable, upgradable, Active Protection System™
M.2 SSD	None
Widescreen display	*Some:* **15.6"** (396mm) **HD (1366x768) color**, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 500:1 contrast ratio
	Some: **15.6"** (396mm) **FHD (1920x1080) color**, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio
Camera	HD720p resolution, face track, low light sensitive, fixed focus, LED indicator
Graphics	**Intel HD Graphics, Intel HD Graphics 3000, Intel HD Graphics 4000** in processor, or **NVIDIA® Optimus™ technology,** auto-switch between discrete and integrated graphics, Intel HD Graphics 4000 in processor, and **NVIDIA GeForce® 710M**, PCI Express® x 8, **1GB** memory, DirectX® 11.1, or **NVIDIA GeForce® GT740M**, PCI Express® x 8, **2GB** memory, DirectX® 11.1, NVIDIA PureVideo® HD technology, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; *Max external resolution:* 2048x1536 (VGA)@75Hz; 1920x1200 (HDMI)@60Hz
Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar[13]
Touchpad	UltraNav™, wide touchpad below keyboard, integrated five buttons, multi-touch
ThinkLight™	None
Dimensions[3]	15.6W" (WxDxH): 14.84" x 9.84" x 1.05-1.17"; 377 x 250mm x 26.6-29.6mm
Weight[2]	*6-cell:* from 5.4 lb (2.46kg)
Case color	Matte black or Matte red (top), trimmed with a thin silver band (side); black bottom
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic
Battery - type[37]	Lithium Ion 6-cell
Battery - life[10]	*6-cell (48Whr):* up to 6.2 hr
	6-cell (62Whr): up to 8.1 hr
Chipset	**Mobile Intel HM77 Express Chipset**
ExpressCard	None
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)
Ports	Two USB 3.0, one USB 2.0 (powered), OneLink Docking port (supports optional 4X10A06077) external monitor (VGA DB-15, HDMI), ethernet (RJ-45)
PCIe Mini Card	One PCI Express Half Mini Card slot
PCIe WLAN[4]	*Some:* 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1, Wi-Fi + BT combo adapter
	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, 2x2, Wi-Fi + BT combo adapter
	Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, 2x2, Wi-Fi + BT combo adapter
M.2 Card	One M.2 Card slot for support of 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, 2 watt x 2 / Dolby Advanced Audio v2 certified / Stereo digital microphone, combo audio/mic jack
Security	Power-on password, hard disk password, supervisor password, security keyhole
Security chip	None
Fingerprint reader	*Some:* UPEK Fingerprint reader on palm rest, swipe sensor
Limited warranty[12]	**1-year** - depot repair service / service upgrades[22] available

See footnotes for more detailed information

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

Preloaded applications (only some listed)
- **Windows 7 models**
- Access Connections™
- ThinkVantage Power Manager
- ThinkVantage Tools
- Lenovo SimpleTap
- 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/90-watt AC adapter
EPEAT™ Gold rating
ENERGY STAR® 6.0-compliant
RoHS-compliant
International Warranty Service[17]
24 hour x 7 day[18] toll-free support during the warranty period[12]