



Lenovo® ThinkPad L520



Lenovo ThinkPad L520



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ThinkPad® L520 7859 (TopSeller) - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB [®] rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue- tooth	Bat- tery cells	Preload	
7859-52G	i5-2410M	4GBx1	15.6" HD	720p	320G 5400	Intel 1000	WWAN upg	Finger	Blue	6	Pro 64	
7859-53G	i3-2310M	2GBx1	15.6" HD	720p	320G 5400	Intel 1000	WWAN upg	Finger	Blue	6	Pro 64	
7859-4MG	i5-2410M	2GBx1	15.6" HD+	720p	320G 5400	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64	
7859-5BG	i5-2520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	9	Pro 64	
7859-5AG	i5-2410M	4GBx1	15.6" HD+	720p	320G 5400	Intel 6205	WWAN upg	Finger	Blue	6	Pro 64	
7859-5SG	i5-2430M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Finger	Blue	6	Pro 64	
7859-5TG	i5-2430M	4GBx1	15.6" HD	720p	500G 7200	Intel 1000	WWAN upg	Finger	Blue	6	Pro 64	
7859-5UG	i3-2350M	4GBx1	15.6" HD	720p	500G 7200	Intel 1000	WWAN upg	Finger	Blue	6	Pro 64	
7859-6BG	i5-2450M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Finger	Blue	6	Pro 64	
7859-6CG	i5-2450M	4GBx1	15.6" HD	720p	500G 7200	Intel 1000	WWAN upg	Finger	Blue	6	Pro 64	
7859-6KG	i3-2350M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	Finger	Blue	6	Pro 64	
7859-6LG	i5-2450M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	Pro 64	
	• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program											

	Small and medium business (SMB) model(s), part of the WE TopSeller Program Microsoft® Office 2010 Product Key Ready (O10PKR)	
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2430M processor (dual-core, 2.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i5-2450M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™]!
mSATA™ SSD Widescreen display	None Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	-
Integrated graphics	HD720p resolution, wider view angle, low light sensitive, fixed focus Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via optional cable); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via optional cable)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr	
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card PCIe WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2	
PCIe WWAN Carrier Modem	Wireless WAN upgradable None None	
Bluetooth™ Ethernet Intel AMT	Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None	
Audio support Security Security chip	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant	

Preloaded operating system²⁰
- Genuine Windows® 7 Professional 64

Ready to install applications¹⁴ (only some listed)

- Rescue and Recovery[™]
 Access Connections[™]
- Fingerprint Software (fingerprint models)
- · Password Manager (fingerprint models)
- ThinkVantage System UpdateThinkVantage Power Manager
- ThinkVantage Toolbox
- Lenovo SimpleTap

Preloaded applications¹⁴ (only some listed)

- Norton™ Internet Security 2011 (30 days of virus definitions) Adobe® Reader® Skype™ for Windows

- Windows Live[™] Essentials
- · Microsoft Office 2010 preloaded; purchase product key to activate Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition
- (DVD±RW)
- Corel DVD MovieFactory® Lenovo Edition (DVD±RW)

Supports ThinkVantage® technologies

65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²

See footnotes for more detailed information

Fingerprint reader UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM

Limited warranty¹² 1-year - depot repair service / service upgrades²² available

ThinkPad® L520 7859 (TopSeller) - DOS - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB [®] rpm	PCle Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue- tooth	Bat- tery cells	Preload
7859-54G	i3-2310M	2GBx1	15.6" HD	720p	320G 5400	Intel 1000	WWAN upg	Finger	Blue	6	DOS-Lic.
7859-5VG	i3-2350M	4GBx1	15.6" HD	720p	500G 7200	Intel 1000	WWAN upg	Finger	Blue	6	DOS-Lic.

• Small and medium business (SMB) model(s), part of the WE TopSeller™ Program

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology	Preloaded operating system ²⁰ - DOS-Lic.		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets			
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™			
mSATA™ SSD	None			
Widescreen display Camera	15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus			
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via optional cable); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via optional cable)			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr			
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)			
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable			
Modem Bluetooth™ Ethernet Intel AMT	None Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None			
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 /	Supports ThinkVantage® technologies		
Security Security chip	volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM	65-watt AC adapter RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	during the warranty period ¹²		

See footnotes for more detailed information WE model(s) announced March 1 or October 4, 2011 WE model(s) withdrawn effective December 2012

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(G-RUB4-2) February 2013

ThinkPad® L520 5016 - withdrawn

Type-model	Processor	Memory	Wide- screen display Camera		Disk SATA GB [®] rpm	PCle Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue- tooth	tery	Bat- Workhorse tery (W) cells Global (G) Preloa	
5016-5QG	i5-2540M	2GBx1	15.6" HD	720p	320G 5400	Intel 1000	WWAN upg	Finger	Blue	6		Pro 64
5016-5RG	i5-2540M	2GBx1	15.6" HD		250G 5400	TP 11b/g/n		Finger	Blue	6		Pro 64
5016-5TG	i5-2520M	2GBx1	15.6" HD		250G 5400	TP 11b/g/n		•		6		Pro 64
5016-33G	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	6	W G	Pro 64

- A depot repair service 3-year limited warranty
 Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	some listed) ■ Rescue and Recovery™ ■ Access Connections™
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	Fingerprint Software (fingerprint models) Password Manager (fingerprint models)
mSATA™ SSD	None	ThinkVantage System Update
Widescreen display Camera	15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: HD720p resolution, wider view angle, low light sensitive, fixed focus	ThinkVantage Power Manager ThinkVantage Toolbox Lenovo SimpleTap
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via optional cable); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via optional cable)	Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None	Microsoft Office 2010 preloaded; purchase product key to activate Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr	(DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Some: Wireless WAN upgradable None	
Bluetooth™ Ethernet	Rone: Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection	Supports ThinkVantage® technologies
Intel AMT Audio support Security Security chip Fingerprint reader	None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹7 24 hour x 7 day¹8 toll-free support
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	during the warranty period ¹²

See footnotes for more detailed information WE model(s) announced February 22, 2011 WE model(s) withdrawn effective December 2012

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ThinkPad® L520 5017 (Onsite) - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB [®] rpm	PCle Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue- tooth	tery	Vorkhorse Global (C GMP (P	a) Pre-
5017-4JG	i7-2620M	4GBx1	15.6" HD+	720p	320G 7200	Intel 6205 ²⁸	WWAN upg		Finger	Blue	6		Pro 64
5017-4LG	i5-2520M	4GBx1	15.6" HD+	720p	320G 5400	Intel 6205	Ericsson	selectable	Finger	Blue	6		Pro 64
5017-4MG	i5-2520M	2GBx1	15.6" HD	720p	320G 5400	Intel 1000	WWAN upg		Finger	Blue	6		Pro 64
5017-33G	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg		Finger	Blue	6	WGP	Pro 64

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
 Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64
	Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology	Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Fingerprint Software (fingerprint models)
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	Password Manager (fingerprint models) ThinkVantage System Update ThinkVantage Power Manager
mSATA™ SSD	None	ThinkVantage Toolbox
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	Lenovo SimpleTap Preloaded applications¹⁴ (only some listed) Norton™ Internet Security 2011
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	(30 days of virus definitions)
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via optional cable); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via optional cable)	Adobe® Reader® Skype™ for Windows Windows Live™ Essentials Microsoft Office 2010 preloaded; purchase product key to activate Core® WinDVD® (DVD±RW) Cost Burn North Leave Edition
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None	Corel Burn.Now™ Lenovo Edition (DVD±RW) Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr	
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® F5521gw Mobile Broadband Module, PCle Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS	
Carrier Modem Bluetooth™ Ethernet	Some: User selectable, contract required with service provider None Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection	
Intel AMT Audio support	None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 /	Supports ThinkVantage® technologies
Security Security chip	volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant **UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available	International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²