









Lenovo ThinkPad T520



ThinkPad triple external monitor configuration using NVIDIA's Optimus technology



Lenovo ThinkPad T520

## ThinkPad® T520 4240 (TopSeller) - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB <sup>8</sup> rpm	PCle Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue- tooth	Bat- tery cells	Intel AMT	Intel vPro	Preload
4240-5CG	i5-2430M	4GBx1	15.6" HD	720p	500G 7200	Intel 1000	WWAN upg	None	Finger	Blue	6	None	No	Pro 64
4240-6BG	i5-2450M	4GBx1	15.6" HD	720p	500G 7200	Intel 1000	WWAN upg	None	Finger	Blue	6	None	No	Pro 64

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program
   A depot repair service 3-year limited warranty
   Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Premiere performance; two spindles Intel® Core™ i5-2430M processor (dual-core, 2.40GHz, 3MB Cache),	Preloaded operating system <sup>20</sup> - Genuine Windows® 7
	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	Professional 64  Ready to install applications <sup>14</sup> (only
Memory	8GB max <sup>7</sup> / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	some listed)  ■ Rescue and Recovery <sup>™</sup> ■ Access Connections <sup>™</sup>
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive	Fingerprint Software (fingerprint models)     Password Manager (fingerprint models)     ThinkVantage System Update
mSATA™ SSD	None	ThinkVantage Power Manager     ThinkVantage Toolbox
Widescreen display Camera	15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut HD720p resolution, wider view angle, low light sensitive, fixed focus	Lenovo SimpleTap     Preloaded applications <sup>14</sup> (only some
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)	listed)  • Norton™ Internet Security 2011 (30 days of virus definitions)  • Adobe® Reader®  • Skype™ for Windows  • Windows Live™ Essentials  • Microsoft Office 2010 preloaded;
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	purchase product key to activate  • Corel® WinDVD® (DVD±RW)  • Corel Burn.Now™ Lenovo Edition (DVD±RW)
Dimensions (WxDxH) <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	HD & HD+:  FHD:  14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm 6-cell: starting at 5.54 lb (2.51kg); 9-cell: starting at 5.89 lb (2.67kg)  Display cover: Bottom: Glass-fiber reinforced plastic without paint Lithium Ion 6-cell or 9-cell, support optional Slice battery as 2nd battery at bottom 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus slice battery: up to 25.6 hr	Čorel DVD MovieFactory® Lenovo Edition (DVD±RW)
Ports PCle Mini Card	4-in-1 reader (MMC, SD, SDHC, SDXC) Integrated model: Four USB 2.0 (one powered), Optimus model: Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Two PCI Express Mini Card slots	
WLAN <sup>4</sup> WWAN Modem	11b/g/n, PCle Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None	
Bluetooth™	Bluetooth 3.0 wireless, LED indicator	Supports ThinkVantage® technologies
Ethernet Intel AMT Audio support	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating
Security Security chip Fingerprint reader	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, Power On Authentication, supports the security chip	ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support
Limited warranty <sup>12</sup>	<b>3-years</b> /1-yr battery - depot repair service / service upgrades <sup>22</sup> available	during the warranty period <sup>12</sup>

See footnotes for more detailed information WE model(s) announced October 4, 2011 or January 17, 2012 WE model(s) withdrawn effective December 2012

## ThinkPad® T520 4240 (Optimus) - TopSeller - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB <sup>®</sup> rpm	PCIe Mini Card WLAN V	PCle Mini Card VWAN/mSAT	TA Carrier	Modem	Smart Card Reader		Blue-			Preload
4240-5BG	i5-2430M	4GBx1	15.6" HD+	720p	500G 7200	Intel 1000	Ericsson	selectable	None		Finger	Blue	6	No	Pro 64
4240-6AG	i5-2450M	4GBx1	15.6" HD+	720p	500G 7200	Intel 1000	Ericsson	selectable	None	Smart	Finger	Blue	6	No	Pro 64

- Small and medium business (SMB) model(s), part of the WE TopSeller™ Program
   A depot repair service 3-year limited warranty
   Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Premiere performance; two spindles 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	Preloaded operating system <sup>20</sup> - Genuine Windows <sup>®</sup> 7 Professional 64 Ready to install applications <sup>14</sup> (only some listed)
Memory	8GB max <sup>7</sup> / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Rescue and Recovery™     Access Connections™
Optical Ultrabay SATA disk mSATA™ SSD	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive None	<ul> <li>Fingerprint Software (fingerprint models)</li> <li>Password Manager (fingerprint models)</li> <li>ThinkVantage System Update</li> <li>ThinkVantage Power Manager</li> </ul>
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut HD720p resolution, wider view angle, low light sensitive, fixed focus	<ul> <li>ThinkVantage Toolbox</li> <li>Lenovo SimpleTap</li> <li>Preloaded applications<sup>14</sup> (only some</li> </ul>
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M, PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via optional cable); supports three independent displays; Maximum external resolution: 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 85Hz; 1920x1200 @ 60Hz (single-link DVI-D via optional cable)	Iisted)  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)
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Corel Burn.Now™ Lenovo Edition (DVD±RW)     Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Dimensions (WxDxH) <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	HD & HD+: 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm 6-cell: starting at 5.67 lb (2.57kg); 9-cell: starting at 6.02 lb (2.73kg) Display cover: Carbon-fiber / Glass-fiber hybrid; Glass-fiber reinforced plastic without paint Lithium lon 6-cell or 9-cell, support optional Slice battery as 2nd battery at bottom 6-cell (57Whr): up to 7.6 hr; 9-cell (94Whr): up to 12.6 hr; 9-cell plus slice battery: up to 25.3 hr	
	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Integrated model: Four USB 2.0 (one powered), Optimus model: Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card WLAN <sup>4</sup> WWAN Carrier	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN, Ericsson® F5521gw Mobile Broadband Module, PCIe Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS User selectable, contract required with service provider	
Modem Bluetooth™	None Bluetooth 3.0 wireless, LED indicator	Supports ThinkVantage® technologies
Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array 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, Power On Authentication, supports the security chip	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹7 24 hour x 7 day¹8 toll-free support
Limited warranty"	3-years/1-yr battery - depot repair service / service upgrades <sup>22</sup> available	during the warranty period <sup>12</sup>

See footnotes for more detailed information

WE model(s) announced October 4, 2011 or January 17, 2012 WE model(s) withdrawn effective December 2012

© Lenovo

(G-KN3-7) February 2013

### ThinkPad® T520 4241 - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB <sup>®</sup> rpm	PCle Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue- tooth	Bat- tery cells	Intel vPro	Preload
4241-48G	i5-2520M	2GBx2	15.6" HD	None	320G 7200	Intel 1000	WWAN upg	Modem	None	Blue	6	None	Pro 64

#### • Microsoft® Office 2010 Product Key Ready (O10PKR)

	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 <sup>20</sup> - Genuine Windows <sup>®</sup> 7 Professional 64
Memory	8GB max <sup>7</sup> / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications <sup>14</sup> (only some listed)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive	<ul> <li>Rescue and Recovery™</li> <li>Access Connections™</li> <li>Fingerprint Software (fingerprint models)</li> <li>Password Manager (fingerprint</li> </ul>
mSATA™ SSD Widescreen	None 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight,	models)  ThinkVantage System Update
display Camera	220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut None	<ul><li>ThinkVantage Power Manager</li><li>ThinkVantage Toolbox</li><li>Lenovo SimpleTap</li></ul>
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
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Windows Live™ Essentials     Microsoft Office 2010 preloaded; purchase product key to activate     Corel® WinDVD® (DVD±RW)
Dimensions (WxDxH) <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	HD & HD+:       14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm         FHD:       14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm         6-cell: starting at 5.54 lb (2.51kg); 9-cell: starting at 5.89 lb (2.67kg)         Display cover:       Carbon-fiber / Glass-fiber hybrid;         Bottom:       Glass-fiber reinforced plastic without paint         Lithium Ion 6-cell or 9-cell, support optional Slice battery as 2nd battery at bottom	Corel Burn.Now™ Lenovo Édition (DVD±RW)     Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Battery - life <sup>10</sup> Chipset	6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus slice battery: up to 25.6 hr Mobile Intel QM67 Express Chipset	
ExpressCard Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Integrated model: Four USB 2.0 (one powered), Optimus model: Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card WLAN <sup>4</sup> WWAN	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable	
Carrier Modem	None 56K V.92 <sup>6</sup> modem	Supports ThinkVantage® technologies
Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array 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	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹7 24 hour x 7 day¹8 toll-free support
Limited warranty <sup>12</sup>	1-year - depot repair service / service upgrades <sup>22</sup> available	during the warranty period12

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

© Lenovo (G-KN3-1) February 2013

### ThinkPad® T520 4242 - withdrawn

			Wide- screen	Disk SATA	PCle Mini Card	PCle Mini Card			Smart Card	Finger print	Bat- tery	Intel	Glob (G)	
Type-model	Processor	Memory	display	GB <sup>8</sup> rpm	WLAN	WWAN/mSATA	Carrier	Modem	Reader	reader	cells	vPro (		(P) load
4242-5AG	i5-2520M	4GBx1	15.6" HD+	320G 7200	Intel 6205 <sup>28</sup>	Ericsson	selectable	Modem	Smart	Finger	6	vPro		Pro 64
4242-4WG	i5-2520M	4GBx1	15.6" HD	500G 7200	Intel 6205	WWAN upg		Modem		Finger	6	vPro	G	Pro 64
4242-3MG	i5-2520M	2GBx1	15.6" HD	320G 7200	Intel 6205	WWAN upg		Modem		•	6	vPro		Pro 64
4242-29G	i5-2520M	2GBx2	15.6" HD	320G 7200	Intel 6205	WWAN upg					6	vPro	G	Pro 64
4242-5ZG	i5-2520M	4GBx1	15.6" HD	160G SSD	Intel 6205	WWAN upg				Finger	6	vPro	G	Pro 64

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

	, , ,	
Positioning Processor	Premiere 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 <sup>20</sup> - Genuine Windows <sup>®</sup> 7 Professional 64
Memory	8GB max <sup>7</sup> / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications <sup>14</sup> (only some listed)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive	<ul> <li>Rescue and Recovery™</li> <li>Access Connections™</li> <li>Fingerprint Software (fingerprint models)</li> <li>Password Manager (fingerprint</li> </ul>
mSATA™ SSD	None	models)
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut  Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut	<ul> <li>ThinkVantage System Update</li> <li>ThinkVantage Power Manager</li> <li>ThinkVantage Toolbox</li> <li>Lenovo SimpleTap</li> </ul>
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	Preloaded applications <sup>14</sup> (only some
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)	Iisted)  • Norton™ Internet Security 2011 (30 days of virus definitions)  • Adobe® Reader®  • Skype™ for Windows  • Windows Live™ Essentials  • Microsoft Office 2010 preloaded;
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	purchase product key to activate Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition (DVD±RW)
Dimensions (WxDxH)³ Weight² Case material Battery - type	HD & HD+: 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm 6-cell: starting at 5.54 lb (2.51kg); 9-cell: starting at 5.89 lb (2.67kg)  Display cover: Glass-fiber / Glass-fiber hybrid;  Bottom: Glass-fiber / Glass-fiber hybrid; 9-cell: starting at 5.89 lb (2.67kg)  Carbon-fiber / Glass-fiber hybrid; 9-cell: starting at 5.89 lb (2.67kg)	Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Battery - life <sup>10</sup>	Lithium Ion 6-cell or 9-cell, support optional Slice battery as 2nd battery at bottom 6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus slice battery: up to 25.6 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset  One slot (ExpressCard/34) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Integrated model: Four USB 2.0 (one powered), Optimus model: Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card WLAN <sup>4</sup> WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® F5521gw Mobile Broadband Module, PCIe Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS	
Carrier Modem Bluetooth™	Some: User selectable, contract required with service provider Some: 56K V.926 modem Bluetooth 3.0 wireless, LED indicator	Supports ThinkVantage® technologies
Ethernet Intel AMT Audio support Security Security chip	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array 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	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant
	Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip  3-years/1-yr battery - depot repair service / service upgrades <sup>22</sup> available	International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>
Limited warranty	o-years/1-yr battery - depot repair service / service upgrades available	during the wallanty period

## ThinkPad® T520 4242 (Optimus) - withdrawn

Type-model	Processor	Memory	Wide- screen display	Camera	Disk SATA GB <sup>®</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue- tooth		Intel	Globa (G) GMP (	P) load
4242-4VG	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 <sup>28</sup>	WWAN upg	Modem	Finger	Blue	9	vPro	G	Pro 64
4242-27G	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G	Pro 64
4242-28G	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue	9	vPro	G	Pro 64
4242-5UG	i7-2640M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	vPro	G	Pro 64

- Depot repair service 3-year limited warranty
   Microsoft® Office 2010 Product Key Ready (010PKR)

Positioning Processor	Premiere 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 <sup>20</sup> - Genuine Windows® 7 Professional 64  Ready to install applications <sup>14</sup> (only
	Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology	some listed)  ■ Rescue and Recovery <sup>™</sup>
Memory	8GB max <sup>7</sup> / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Access Connections <sup>™</sup> Fingerprint Software (fingerprint models)
Optical Ultrabay SATA disk mSATA™ SSD	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive None	Password Manager (fingerprint models)     ThinkVantage System Update     ThinkVantage Power Manager     ThinkVantage Toolbox     Lenovo SimpleTap
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut	Preloaded applications¹⁴ (only some listed)  Norton™ Internet Security 2011 (30 days of virus definitions)
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	Adobe® Reader®
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M, PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via optional cable); supports three independent displays; Maximum external resolution: 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 85Hz; 1920x1200 @ 60Hz (single-link DVI-D via optional cable)	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)
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions (WxDxH) <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	HD & HD+:       14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm         FHD:       14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm         6-cell: starting at 5.67 lb (2.57kg); 9-cell: starting at 6.02 lb (2.73kg)         Display cover:       Carbon-fiber / Glass-fiber hybrid;         Bottom:       Glass-fiber reinforced plastic without paint         Lithium lone 6-cell or 9-cell support options! Slice hostony as 2nd battery at bottom.	
Battery - life <sup>10</sup>	Lithium Ion 6-cell or 9-cell, support optional Slice battery as 2nd battery at bottom 6-cell (57Whr): up to 7.6 hr; 9-cell (94Whr): up to 12.6 hr; 9-cell plus slice battery: up to 25.3 hr	
Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Integrated model: Four USB 2.0 (one powered), Optimus model: Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card WLAN <sup>4</sup> WWAN Carrier	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None	
Modem Bluetooth™	Some: 56K V.926 modem Some: Bluetooth 3.0 wireless. LED indicator	Supports ThinkVantage® technologies
Ethernet Intel AMT Audio support	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating
	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, Power On Authentication, supports the security chip	ENERGY STAR® 5.Ö-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support
Limited warranty <sup>12</sup>	3-years/1-yr battery - depot repair service / service upgrades <sup>22</sup> available	during the warranty period <sup>12</sup>

# ThinkPad® T520 4243 (Onsite) - withdrawn

			Wide-		Disk	PCle	PCle			Smart	Finger	Bat- Pow	er G	alobal	(G)
Type-model F	rocessor	Memory	screen display (	Camera	SATA GB <sup>®</sup> rpm	Mini Card WLAN W	Mini Card /WAN/mSA	ΓA Carrier	Modem	Card		tery Adap	ter Intel	GMP	
	5-2520M		15.6" HD	720p		Intel 6205 <sup>28</sup>			Modem		Finger	6 65V	/ vPro		Pro 64
4243-3WG is			15.6" FHD		320G 7200		upg		Modem	Smart	_				Pro 64
4243-3RG is			15.6" HD		250G 5400			selectable				6 65V		0.0	Pro 64
4243-4WG is			15.6" HD				upg		Modem		Finger		/ vPro		Pro 64
4243-29G is			15.6" HD		320G 7200 500G 7200		upg	aalaatabla			Einger	6 65V 6 90V		GP	Pro 64
4243-53G is							upg	Selectable				6 65V		G P	Pro 64
+2+0 02G	•	Some me	odels are pa	rt of th	e Global Mod luct Key Rea	dels Plus pro	gram with	limited ons	site service	e²⁴ <i>3-y€</i>	_			a i	11004
Positioning Processor	Inte DDF Inte DDF Inte	I <sup>®</sup> Core™ R3 memo I Core i5 R3 memo I Core i7	ry controller -2540M pro ry controller -2640M pro	cessor cessor cessor cessor	odles sor (dual-co 1333MHz), l r (dual-core, 1333MHz), l r (dual-core, 1333MHz), l	ntel Turbo B 2.60GHz, 3 ntel Turbo B 2.80GHz, 4	oost 2.0 (3 <b>MB Cache</b> oost 2.0 (3 <b>MB Cache</b>	.20GHz), H' . <b>)</b> , .30GHz), H' . <b>)</b> ,	T technolo	ogy	- Genui Profes <b>Ready t</b> some lis	ed operane Windo sional 64 o install ted) e and Re	ows® 7 l applica	tions	
Memory	8GE	3 max7 / F	PC3-10600 1	1333MF	Hz DDR3, no pin SO-DIMN	n-parity,	0081 2.0 (3	.50GHZ), H	T technolo	уду		s Connectoring Sof		ingerp	orint
Optical					nhanced, re							ord Man	ager (fir	ngerpr	rint
Uİtrabay	One	bay for r	removable d	evices,	Ultrabay Slii	m-compatible	e, 12.7mm	high, bottor	n access		model	s)	•		
SATA disk mSATA™ SSI	Son All:	ne: HDD remo	/ SATA 3.00	àb/s. 2.	/ SATA 3.0G 5" wide, 7mr supports the	n or 9.5mm l	hiah. Active	Protection	System™ d Drive		<ul><li>Think\</li><li>Think\</li></ul>	/antage S /antage I /antage	Pówer M Toolbox		
Widescreen			' (396mm) <b>F</b>	ID (136	6x768) colo	r. anti-glare	I FD hack	liaht.				ed appli	•	<sup>14</sup> (onl	lv some
display	Son Son	220 r ne: <b>15.6</b> ' 220 r ne: <b>15.6</b> ' 270 r	nits, 16:9 ás <sub> </sub> ' (396mm) <b>F</b> nits, 16:9 as <sub> </sub> ' (396mm) <b>F</b> nits, 16:9 as <sub> </sub>	pect rat ID+ (16 pect rat HD (19 pect rat	tio, 500:1 cor 600x900) col tio, 500:1 cor 920x1080) co tio, 500:1 cor	ntrast ratio, 6 or, anti-glare ntrast ratio, 6 olor, anti-gla ntrast ratio, 9	0% Gamui e, LED bac 0% Gamui re, LED ba 5% Gamui	t klight, t acklight, t			<ul><li>Nortor</li><li>(30 da</li><li>Adobe</li><li>Skype</li></ul>	n™ Intern ys of viru ® Reade ™ for Wir	et Secu Is defini r® ndows	rity 20 tions)	011
Camera Graphics			20p resolution		er view angle	e, low light se	ensitive, fix	ed focus			Windo     Micros	ws Live™ oft Office	⁴ Essen 2010 r	tials reloa	ded.
Kaula and	exte digit sup <i>Max</i> 204	rnal anal al monito ports dua aimum ex 8x1536 (	og monitor s or support vi il independe ternal resolu VGA)@75H:	support a Displant displant displant ation: 2 z; 1920	t via VGA DE ayPort (supp lay; 2560x1600 ([ x1200@60H	orts single-li DisplayPort)@ z (single-link	nk DVI-D v	optional ca	,		<ul><li>Corel</li><li>Corel</li><li>(DVD±</li><li>Corel</li></ul>	ase produ WinDVE Burn.Nov :RW) DVD Mov n (DVD±F	)® (DVD v™ Lend vieFacto	±RW) ovo Ed	dition
Keyboard TrackPoint® Touchpad ThinkLight™	Trac Ultra Illun	kPoint®p aNav™, w ninates th	ointing deviously oide touchpa	ce, "Pre id belov	ton, spill-res ess-to-Select w keyboard, ove visibility	," Internet So Tap Zones, s	croll Bar¹³, crolling re	magnifying		h					
Dimensions		& HD+:			x 1.25-1.40										
(WxDxH) <sup>3</sup> Weight <sup>2</sup>	FHI 6-ce				ˈ x 1.29-1.44ˈ ŋ); <i>9-cell:</i> staı				omm						
Case materia		olay cove	r: Carbor	i-fiber /	Glass-fiber	nybrid;									
D-H		om:			inforced plas										
Battery - type Battery - life <sup>10</sup>					ort optional : ell (94Whr): ı					5.6 hr					
Chipset ExpressCard Smart Card F Multicard Rea Ports	One Read Son ader 4-in Inte Opt exte	e slot (Exp ne: Smai -1 reader grated m imus mod ernal mon	(MMC, SD, odel: Four Udel: Three hitor (VGA D	4) er SDHC: JSB 2.0 USB 2 B-15, D		ered), one Us ethernet (RJ	-45),	ATA combo	port,						
PCIe Mini Ca WLAN <sup>4</sup>	Son Son	<i>ne:</i> 11a/k <i>ne:</i> 11a/k	o/g/n, PCIe I	Half Mir Half Mir	ni Card, Intel ni Card, Intel										
WWAN	Son	ne: Wirel ne: Wirel	less WAN up less WAN, E	ogradat ricsson	ole <sup>®</sup> F5521gw I HSPA+, GPS	Mobile Broad			ini Card,						
Carrier		ne: User	selectable,	contrac	t required wi		ovider								
Modem Bluetooth™	Son	<i>ne:</i> 56K	V.92 <sup>6</sup> moden ) wireless, L	D izdi	icator										
Ethernet	Inte	182579LI	M Gigabit Ne	etwork	Connection	(Lewisville).	PHY, PCle	x1			0	Th: 131			-1
Intel AMT	Inte	Active M	/lanagement	Techno	ology (iAMT)	,			- /		Support	ThinkVa	ıntage®	techn	lologies
Audio suppor	voľu	me up, d	own, mute b	uttons	exant 20672 / dual array i	nic, mic mut	e buṫton, c	ombo audio	/mic jack		ThinkPa	or 90-wat d Roll Ca	ge (one		
Security Security chip Fingerprint re	Trus	ted Platfo ne: UPE	orm Module K Fingerprin	, TCG 1 It reade	assword, su I.2-complian er on palm re	t st, swipe ser	nsor, LED i	, ,	e		EPEĂT™	esium fra Gold raf STAR®	ting	nplian	t
	. 10				n, supports t						RoHS-co	mpliant			
Limited warra	pub	lic and na	ational holida	ays. Ca	onsite servi lls received a e upgrades a	after 3 pm wi	5 pm, Mon Il require a	- Fri covera n addtional	ige exclud next busir	ing ness	24 hour	onal War x 7 day <sup>18</sup> the warr	toll-free	supp	

# ThinkPad® T520 4243 (Optimus) - Onsite - withdrawn

Type-model Pro	ocessor M	lemory	Wide- screen display	Disk SATA GB <sup>®</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Modem	Finger print reader	Blue-	Bat- Powe tery Adapte cells (watt)	er Intel		Pre-
4243-4VG i5-2	2520M 4	GBx1	15.6" HD	500G 7200	Intel 6205 <sup>28</sup>	WWAN upg		Modem	Finger	Blue	<b>9</b> 90W	vPro	GΡ	Pro 64
4243-28G i5-2			15.6" HD+	500G 7200	Intel 6205	WWAN upg				Blue	<b>9</b> 90W			
4243-27G i5-2			15.6" HD	320G 7200	Intel 6205	WWAN upg				D.				Pro 64
4243-3UG i7-2		_		500G 7200			selectable		Ü		<b>9</b> 135W			Pro 64
				t of the Globa Product Key		s program witi PKR)	h limited or	nsite serv	ice <sup>24</sup> 3-y	ear limit	ed warran	ty		
Positioning Processor	Intel® C	Coŕe™ i	ormance; two 5-2520M pro controller (u	ocessor (dua	I <b>l-core, 2.500</b> Iz), Intel Turb	GHz, 3MB Cac o Boost 2.0 (3	<b>:he)</b> , .20GHz), H	IT techno	logy	<ul> <li>Genu</li> </ul>	ded opera ine Windo ssional 64	ting s ws® 7	ystem	20
	DDR3 r Intel Co	memory ore i7-2	/ controller (t 2 <b>720QM pro</b>	up to 1333MH <b>cessor (quac</b>	lz), İntel Turb I-core, 2.200	z, 3MB Cache o Boost 2.0 (3 GHz, 6MB Cac o Boost 2.0 (3	́30GHz), ⊦ : <b>he)</b> ,			some lis	to install a sted) ue and Re	••		<sup>14</sup> (only
Memory	8GB m	ax <sup>7</sup> / PC	C3-10600 13	33MHz DDR3 204-pin SO-D	B, non-parity,	,	.000112), 1	11 10011110	logy		ss Connec rprint Soft			orint
Optical				bay Enhanced							word Mana	ıger (fi	ingerpr	rint
Uİtrabay SATA disk	One ba Some: Some: All:	y for rei Solid S HDD /	movable dev State Drive (S SATA 3.0Gb	icés, Ultrabay SSD) / SATA 3 /s, 2.5" wide,	v Slim-compa 3.0Gb/s, 2.5" 7mm or 9.5n	tible, 12.7mm wide, 7mm hig nm high, Active disk, Shock M	gh e Protection	System™		<ul><li>Think</li><li>Think</li></ul>	Vántage S Vantage F Vantage T	ower l	Manag	
mSATA™ SSD	None										vo Simple⊺ · · ·	•		
Widescreen display	_	220 nit	is, 16:9 áspe (396mm) <b>HD</b>	ct ratio, 500:1 + (1600x900)	contrast rati color, anti-ç	are, LED back o, 60% Gamu glare, LED bac o, 60% Gamu	t klight,			<ul><li>listed)</li><li>Norto</li></ul>	led applic on™ Interne ays of viru	et Sec	urity 20	011
		<b>15.6</b> " (270 nit	(396mm) <b>FH</b> ts, 16:9 aspe	<b>D (1920x108</b> ct ratio, 500:1	<b>0) color</b> , anti contrast rati	-glare, LED ba o, 95% Gamu	acklight, t			<ul><li>Adob</li><li>Skype</li></ul>	e® Reader e™ for Win	® dows	,	
Camera			· · · · · · · · · · · · · · · · · · ·			ve, fixed focus					ows Live™ soft Office			ded:
Graphics	Intel HI NVIDIA externa	<b>D Grap</b> NVS™ Il analog	hics 3000 in 4200M, PCI g monitor su	processor, a Express® x10 pport via VGA	nd 6, <b>1GB</b> mem 1 DB-15 conn	ector and				<ul><li>purch</li><li>Corel</li><li>Corel</li></ul>	ase produ WinDVD Burn.Now ±RW)	ct key (DVE	to acti D±RW)	vate
	support <i>Maxim</i> u	ts three um exte	independen ernal resolution	t displays; on: 2560x160	00 (DisplayPo	le-link DVI-D v ort)@60Hz; -link DVI-D via	·			<ul> <li>Corel</li> </ul>	DVD Mov on (DVD±R		ory® Le	enovo
Keyboard TrackPoint® Touchpad ThinkLight™	TrackPo UltraNa	oint® poi av™, wid	inting device de touchpad	, "Press-to-Se	elect," Interne ard, Tap Zone	ultimedia Fn ke et Scroll Bar <sup>13</sup> , es, scrolling re ant conditions	magnifying		ch					
Dimensions (WxDxH) <sup>3</sup> Weight <sup>2</sup>	HD & F FHD: 6-cell: s		14.68" x at 5.67 lb (2.	9.65" x 1.29- .57kg); <i>9-cell:</i>	1.44"; 372.8r starting at 6.	nm x 245.1mn nm x 245.1mn .02 lb (2.73kg)	n x 32.8-36							
Case material  Battery - type	Display Bottom Lithium	:	Glass-fil	fiber / Glass-foer reinforced	plastic witho	out paint tery as 2nd ba	ttery at bot	tom						
Battery - life <sup>10</sup>	6-cell (	57Whr).	up to 7.6 hr	; 9-cell (94Wl		6 hr; <i>9-cell plu</i>			25.3 hr					
Chipset ExpressCard	One slo		essCard/34)	ss Chipset										
Smart Card Read Multicard Read		eader (	MMC SD S	DHC SDXC)										
Ports	Integra Optimu externa	ted mode s mode Il monito	del: Four US el: Three U or (VGA DB-	B 2.0 (one po	owered), one ort), ethernet		ATA combo	port,						
PCIe Mini Card	Two PC	I Expre	ess Mini Card	d slots		,	000= =							
WLAN <sup>4</sup>	Some:	11a/b/g	g/n, PCIe Ha g/n, PCIe Ha	ılf Mini Card, I ılf Mini Card I	ntel Centrino	Advanced-N Ultimate-N 63	6205, 2x2							
WWAN	Some:	Wirele	ss WAN upg ss WAN, Eric	radable	gw Mobile Br	oadband Mod	•	lini Card,						
Carrier		User s	electable, co	ntract require		e provider								
Modem Bluetooth™			92 <sup>6</sup> modem oth 3.0 wirele	ess, LED indi	cator									
Ethernet	Intel 82	579LM	Gigabit Netv	work Connect	ion (Lewisvill	e), PHY, PCIe	x1		-	Sunnar	ts ThinkVa	ntago	techn	ologica
Intel AMT Audio support	Intel Ac	tive Ma	nagement Te	echnology (iA	MT) 672 codoo /	stereo speake	re 1 watt v	2/						
radio support	voľume	up, dov	wn, mute but	tons / dual ar	ray mic, mic i	mute buṫton, c	ombo audio	o/mic jack			or 135-wa ad Roll Ca			
Security obje	Power-	on pass	sword, hard o	disk password	, supervisor	password, sec				magn	esium frar	ne)	o pieci	C
Security chip Fingerprint read	der <i>Some:</i>	<b>UPEK</b>	Fingerprint r	CG 1.2-comp eader on palr	n rest, swipe	sensor, LED i	ndicator,			<b>EPEAT</b>	M Gold rati Y STAR® :	ng	molian	t
		Power	On Authenti	cation, suppo	rts the securi	ty chip				RoHS-c	ompliant		•	
Limited warrant	public a	and nati	onal holidays	ited onsite ses. Calls receive ervice upgrad	red after 3 pn	m - 5 pm, Mon n will require a	- Fri cover n addtiona	age exclu I next bus	ding iness	24 hour	ional Warr x 7 day <sup>18</sup> g the warra	toll-fre	e supp	ort
See footnotes for	r more deta	iled info	rmation										(0	Lenovo

# ThinkPad® T520 4243 (Optimus) - Onsite (October 2011) - withdrawn

Type-model F	Processor	Memory	Wide- screen display	Disk SATA GB <sup>®</sup> rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Modem	print	tery	- Power Adapter s (watt)			ilobal (G) MP (P)	Pre-	
4243-5UG i7			15.6" HD+	500G 7200	Intel 6205 <sup>28</sup>			Modem			` '		vPro	. ,		
4243-5HG i7				500G 7200	Intel 6300 <sup>28</sup>		selectable				135W				Pro 64	
4243-5GG i7	-2670QM	4GBx1	15.6" FHD	160G SSD	Intel 6300	Ericsson	selectable		Finger	9	135W			ı	Pro 64	
				rt of the Glob 0 Product Ke		us program wi 0PKR)	th limited or	nsite serv	ice <sup>24</sup>	ear l	limited w	arrant	y			
Positioning Processor	cessor Intel® Core™ i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-2670QM processor (quad-core, 2.20GHz, 6MB Cache),											Preloaded operating system <sup>20</sup> - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only				
Memory	8GB r	DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology 8GB max <sup>7</sup> / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										some listed)  • Rescue and Recovery™  • Access Connections™				
Optical				•							ccess Co ingerprin			aerpr	rint	
Ultrabay SATA disk	One b Some Some	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™								models)  • Password Manager (fingerprint models)						
mSATA™ SSD	All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive									<ul><li>ThinkVantage System Update</li><li>ThinkVantage Power Manager</li></ul>						
Widescreen						i-glare, LED ba					hinkVant enovo Si					
display	Some					atio, 60% Gam nti-glare, LED b					loaded a	•	•	(only	some	
Camera	HD72					atio, 95% Game itive, fixed focu				• N	ed) Iorton™ I	nterne	t Secur	tv 20	11	
Graphics	NVIDI	A® Optin	nus™ techno	ology, auto-sw	itch betwee	n discrete and		raphics,		(3	30 days o	f virus	definiti			
				n processor, a I Express® x1		morv.				• S	kvpe™ fo	r Wind	dows			
	extern	nal analo	g monitor su	upport via VG.	A DB-15 cor		via ontional	cable):		• V\	Vindows licrosoft	_ive™ Office	Essenti 2010 pr	ais eload	led;	
	suppo	rts three	e independe	nt displays; `			νια ορτιστιαι	cable),			urchase orel® Wii				ate	
				<i>ion:</i> 2560x16 1920x1200@		Port)@60Hz; le-link DVI-D vi	a optional ca	able)		• C	orel Buri	n.Now			ition	
Keyboard TrackPoint® Touchpad ThinkLight™	Trackf UltraN	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions								(DVD±RW)     Corel DVD MovieFactory® Lenovo Edition (DVD±RW)						
Dimensions	HD &		14.68"	x 9.65" x 1.25	-1.40"; 372.8	8mm x 245.1m	m x 31.8-35									
(WxDxH) <sup>3</sup> Weight <sup>2</sup>	FHD: 6-cell:	starting				8mm x 245.1m 6.02 lb (2.73kg		.6mm								
Case material	Displa Bottoi	ay cover: m:		-fiber / Glass- iber reinforce												
Battery - type Battery - life <sup>10</sup>			cell or 9-cell	, support option	onal Slice ba	attery as 2nd b 2.6 hr; <i>9-cell pl</i>			25 3 hr							
Chipset			M67 Expre	,	711). up to 12	o m, <i>9-cen p</i> n	is since batte	ery. up to	23.3 111							
ExpressCard Smart Card R		lot (Expr	ressCard/34	)												
Multicard Rea Ports	der 4-in-1			SDHC, SDXC SB 2.0 (one p												
1 0113	Optim	nus mode	el: Three U	JSB 2.0 (one	powered), o	ne USB 2.0/eS	ATA combo	port,								
				-15, DisplayP 4-pin connect		ot (HJ-45), 000 standard)										
PCIe Mini Car WLAN <sup>4</sup>			ess Mini Car g/n, PCIe H		Intel Centrin	no® Advanced-l	N 6205, 2x2									
WWAN	Some	: Wirele	ss WAN upo	gradable		no Ultimate-N 6										
	Some	Wirele GPRS	ess wan, Eri 5/WCDMA/H	csson® F552° SPA/HSPA+,	igw Mobile E GPS	Broadband Mo	dule, PCIe N	lini Card,								
Carrier Modem			selectable, c .926 modem	ontract require	ed with servi	ice provider										
Bluetooth™ Ethernet	Blueto	oth 3.0	wireless, LE		tion (Lowiev	illa) DUV DOL	2 v 1		-							
Intel AMT	Some	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1  Some: Intel Active Management Technology (iAMT)  High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 /						Supports ThinkVantage® technologies					logies			
Audio support						/ stereo speak c mute button,					watt or 10 nkPad Ro					
Security Security chip	Power	r-on pass	sword, hard		d, superviso	r password, se				m	nagnesiu	n fran	ne)	PIOOE		
Fingerprint rea	ader UPEK	Fingerp	orint reader of	on palm rest,	swipe senso	r, LED indicato	r,			ENE	EAT™ Go ERGY S	TAR® 5	ig 5.0-com	oliant		
Limited warra				supports the		am - 5 pm, Mo	n - Fri cover	age exclu	dina	Rol	HS-comp	liant				
	public	and nat r service	ional holiday e dispatch / s	service upgra	ved after 3 p	m will require	an addtiona	I next bus	iness	24 ł	nour x 7 ouring the	day18 t	oll-free	suppo od <sup>12</sup>	ort Lenovo	