



Product Specifications Reference Lenovo® ThinkPad® Tablets/Convertibles 2014 to present - withdrawn

July 2014 - Version 457



ThinkPad 8

Contents

Summary of Changes	1
ThinkPad 8	2
ThinkPad 8 (20BN) - TopSeller.....	3
ThinkPad 8 (20BQ)	4
ThinkPad Twist S230u	5
ThinkPad Twist S230u (20C4) - Ultrabook	6
ThinkPad Twist S230u (3347) - TopSeller (Ultrabook)	7
ThinkPad Twist S230u (3347) - TopSeller (Ultrabook) - II	8
ThinkPad Twist S230u (3347) - TopSeller	9
ThinkPad Twist S230u Accessories	10

Summary of Changes

This section describes the withdrawn products which are added in this edition and in previous editions.

July 30, 2014 - Version 457

► **Withdrawn product(s)**

ThinkPad Twist S230u are withdrawn and added in the book



Lenovo® ThinkPad 8



Lenovo ThinkPad 8



Lenovo ThinkPad 8



Lenovo ThinkPad 8



Lenovo ThinkPad 8



Lenovo ThinkPad 8

ThinkPad 8 (20BN) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	Camera Front/Rear (MP)	Bluetooth Keyboard w/ Stand	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Blue-tooth	Preload	Ann Date (mm/yy)
20BN000VUS	Atom Z3770	2GB	8.3" WUXGA	128G	2.0/8.0	None	11a/b/g/n ²⁸	None	None	None	BT	Win8.1 32	01/14
20BN000UUS	Atom Z3770	2GB	8.3" WUXGA	64G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 32	01/14
20BN001RUS	Atom Z3770	2GB	8.3" WUXGA	128G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 Pro32	01/14
20BN002DUS	Atom Z3770	2GB	8.3" WUXGA	64G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 Pro32	01/14

Positioning	<i>Touchscreen tablet for on-the-go business</i>	Preloaded operating system²⁰ - <i>Some:</i> Windows® 8.1 32-bit - <i>Some:</i> Windows 8.1 Pro 32-bit Preloaded applications¹⁴ (only some listed) • Lenovo Support • Lenovo Companion • Norton™ Internet Security (30 days of virus definitions) • ThinkVantage System Update • AccuWeather • Evernote® • Nitro PDF • Amazon Kindle
Processor	Intel® Atom™ Processor Z3770 (4 cores, 2.40GHz, 2MB cache), LPDDR3 memory controller (1067MHz)	
Memory	2GB / 1067MHz LPDDR3, mobile DDR / soldered to systemboard, no sockets	
Storage	64GB or 128GB / eMMC (embedded Multi Media Card) flash memory on board	
Storage extension	One microSD Card slot, supports up to 64GB	
Graphics	Intel HD graphics in Intel Atom SoC, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant	
Display	8.3" (210.8mm) WUXGA (1920x1200) TFT color , smudgeless display with infinity AGC Dragontrail™ Glass, LED backlight, 370 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, WideView (160° viewing), MultiTouch screen supports 10-finger gesture	
Tablet pen	None	
Camera	<i>Front camera:</i> 2.0-megapixel, fixed focus <i>Rear camera:</i> 8.0-megapixel, auto focus, flash LED	
Video capture	1080p video capture	
Audio support	Realtek® ALC5672 codec / stereo speakers, 0.5 watt x 2 / dual array digital microphone, combo audio/microphone jack	
Media capable	Audio formats: MP3, AAC, AAC+, AC3, PCM, WMA, WAV, AVI Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Motion-JPG	
Control buttons	Windows button, Power button, volume control button, reset switch	
Light sensor	Ambient Light Sensor, ISL29023	
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, AK8963C	
Gyroscope	InvenSense MPU6050	
Platform	Intel Atom Z3770 SoC (System on Chip) platform	
Ports	One micro-USB 3.0, one micro-HDMI, headphone/microphone combo jack	
WLAN ⁴	11a/b/g/n ²⁸ wireless, ThinkPad 11a/b/g/n, 1x1, WiFi + Bluetooth combo chip	
WWAN	None	
Carrier	None	
GNSS	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in WiFi + Bluetooth combo chip	
NFC	None	
Dimensions ³	8.83" x 5.20" x 0.35"; 224.3mm x 132.0mm x 8.8mm	
Weight ²	<i>WiFi only:</i> from 0.95 lb (0.43kg)	
Case color	Black	
Case material	ALuminium top cover, Edge Profile Rubber	
Battery - type	Lithium Polymer, 20.5Whr	
Battery - life ¹⁰	up to 17 days (standby); up to 8.0 hr (web browsing with flash)	
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available	10-watt AC adapter (via micro-USB) GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For Lenovo service ²² upgrade options, please go to S-Tablet sheet

See footnotes for more detailed information
US model(s) announced January 28, 2014

© Lenovo
(BSI1-1) January 2014

ThinkPad 8 (20BQ)

Type-model	Processor	Memory	Widescreen display	Storage	Camera Front/Rear (MP)	Bluetooth Keyboard w/ Stand	WLAN 802.11	PCIe Mini Card WWAN	Carrier	NFC	Blue-tooth	Preload	Global (mm/yy)	Ann Date
20BQ000KUS	Atom Z3770	2GB	8.3" WUXGA	64G	2.0/8.0	None	11a/b/g/n ²⁸	None	None	None	BT	Win8.1 32	G	01/14
20BQ000LUS	Atom Z3770	2GB	8.3" WUXGA	128G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 32	G	01/14
20BQ0012US	Atom Z3770	2GB	8.3" WUXGA	128G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 Pro32	G	01/14
20BQ0015US	Atom Z3770	2GB	8.3" WUXGA	64G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 Pro32	G	01/14
20BQ001GUS	Atom Z3795	4GB	8.3" WUXGA	128G	2.0/8.0	None	11a/b/g/n	None	None	None	BT	Win8.1 Pro64	G	06/14

Positioning	<i>Touchscreen tablet for on-the-go business</i>	Preloaded operating system²⁰ - Some: Windows® 8.1 32-bit - Some: Windows 8.1 Pro 32-bit - Some: Windows 8.1 Pro 64-bit Preloaded applications¹⁴ (only some listed) • Lenovo Support • Lenovo Companion • Norton™ Internet Security (30 days of virus definitions) • ThinkVantage System Update • AccuWeather • Evernote® • Nitro PDF • Amazon Kindle
Processor	Intel® Atom™ Processor Z3770 (4 cores, 2.40GHz, 2MB cache) , LPDDR3 memory controller (1067MHz), support 32-bit OS Intel Atom Processor Z3795 (4 cores, 2.40GHz, 2MB cache) , LPDDR3 memory controller (1067MHz), support 64-bit OS	
Memory	2GB / 1067MHz LPDDR3, mobile DDR / soldered to systemboard, no sockets	
Storage	64GB or 128GB / eMMC (embedded Multi Media Card) flash memory on board	
Storage extension	One microSD Card slot, supports up to 64GB	
Graphics	Intel HD graphics in Intel Atom SoC, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant	
Display	8.3" (210.8mm) WUXGA (1920x1200) TFT color , smudgeless display with infinity AGC Dragontrail™ Glass, LED backlight, 370 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, WideView (160° viewing), MultiTouch screen supports 10-finger gesture	
Tablet pen	None	
Camera	<i>Front camera:</i> 2.0-megapixel, fixed focus <i>Rear camera:</i> 8.0-megapixel, auto focus, flash LED	
Video capture	1080p video capture	
Audio support	Realtek® ALC5672 codec / stereo speakers, 0.5 watt x 2 / dual array digital microphone, combo audio/microphone jack	
Media capable	Audio formats: MP3, AAC, AAC+, AC3, PCM, WMA, WAV, AVI Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Motion-JPG	
Control buttons	Windows button, Power button, volume control button, reset switch	
Light sensor	Ambient Light Sensor, ISL29023	
G-sensor/ eCompass	3D accelerometer and 3D magnetometer module, AK8963C	
Gyroscope	InvenSense MPU6050	
Platform	Intel Atom Z3770 SoC (System on Chip) platform	
Ports	One micro-USB 3.0, one micro-HDMI, headphone/microphone combo jack	
WLAN ⁴	11a/b/g/n ²⁸ wireless, ThinkPad 11a/b/g/n, 1x1, WiFi + Bluetooth combo chip	
WWAN	None	
Carrier	None	
GNSS	None	
Bluetooth™	Bluetooth 4.0 wireless, integrated in WiFi + Bluetooth combo chip	
NFC	None	
Dimensions ³	8.83" x 5.20" x 0.35"; 224.3mm x 132.0mm x 8.8mm	10-watt AC adapter (via micro-USB) GREENGUARD® certified RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Weight ²	<i>WiFi only:</i> from 0.95 lb (0.43kg)	
Case color	Black	
Case material	ALuminium top cover, Edge Profile Rubber	
Battery - type	Lithium Polymer, 20.5Whr	For Lenovo service ²² upgrade options, please go to S-Tablet sheet
Battery - life ¹⁰	up to 17 days (standby); up to 8.0 hr (web browsing with flash)	
Limited Warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

ThinkPad Twist S230u (20C4) - Ultrabook

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	SIM card	Top color	Blue-tooth	Battery cells	Preload	Ann date (mm/yy)
20C4-29U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230 ²⁸	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-28U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-27U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-26U	i7-3667U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-25U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-24U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	06/13
20C4-23U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	06/13
20C4-22U	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	06/13

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>										
Processor	Intel® Core™ i5-3427U processor (2 cores, 1.80GHz, 3MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3667U processor (2 cores, 2.0GHz, 4MB cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets										
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, Active Protection System™ All: removable, upgradable										
mSATA™ SSD	Some: 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot										
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color, smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge Bottom buttons: volume up / down and Windows buttons Side buttons: power and auto rotation buttons										
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; Maximum external resolution: 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz										
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device										
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch										
Light sensor	Ambient light sensor										
ThinkLight™	None										
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm										
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)										
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS										
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication										
Extended Battery	None										
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Smart Card Read	None										
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)										
PCIe Mini Card	Two PCI Express Mini Card slots										
PCIe WLAN ⁴	Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2										
PCIe WWAN	None										
SIM card	None										
Modem	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card										
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1										
Intel AMT	None										
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / 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	None										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										
	Preloaded operating system ²⁰ - Windows 8 Pro 64-bit Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™ 										
	Supports ThinkVantage® technologies										
	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²										
	For Lenovo ²² service upgrade options, please go to S-EDGE sheet										

See footnotes for more detailed information
 US model(s) announced June 4, 2013

© Lenovo
 (TANR1-4) July 2013

ThinkPad Twist S230u (3347) - TopSeller (Ultrabook)

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	PCIe Mini Card SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-2YU	i3-3217U	4GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n ²⁸	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2RU	i7-3517U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	10/12
3347-2QU	i5-3317U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	10/12
3347-2NU	i3-3217U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2HU	i5-3317U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12
3347-2GU	i7-3517U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	10/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 1-year limited warranty**

Positioning	<i>Convertible tablet ultrabook™; one spindle</i>										Preloaded operating system ²⁰
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 i5-3317U processor (2 cores, 1.70GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.60GHz), HT technology Intel Core i7-3517U processor (2 cores, 1.90GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.00GHz), HT technology										- Windows® 8 Pro 64-bit
Memory	2GB, 4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets										Preloaded applications ¹⁴ (only some listed)
Optical	None										<ul style="list-style-type: none"> • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable										
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot										
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color, smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons										
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort)@60Hz; 1920x1200 (Mini HDMI)@60Hz										
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device										
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch										
Light sensor	Ambient light sensor										
ThinkLight™	None										
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm										
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)										
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS);					<i>Bottom:</i> Magnesium + PPS					
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication										
Extended Battery	None										
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Smart Card Read	None										
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)										
PCIe Mini Card	Two PCI Express Mini Card slots										
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
PCIe WWAN	None										
SIM card	None										
Modem	None										Supports ThinkVantage® technologies
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card										65-watt AC Adapter
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1										EPEAT™ Gold rating
Intel AMT	None										ENERGY STAR® 5.0-compliant
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / dual array microphone, combo audio/mic jack										GREENGUARD® certified
Security	Power-on password, hard disk password, supervisor password, security keyhole										ROHS-compliant
Security chip	Trusted Platform Module, TCG 1.2-compliant										International Warranty Service ¹⁷
Fingerprint reader	None										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										For Lenovo ²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
US model(s) announced October 23, 2012

© Lenovo
(TANR1-1) October 2012

ThinkPad Twist S230u (3347) - TopSeller (Ultrabook) - II

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Battery cells	Preload	Ann date (mm/yy)
3347-7EU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n ²⁸	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-7DU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-7CU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	Intel 2230	None	None	Black	BT	8	Win8 Pro64	02/13
3347-7BU	i5-3427U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-78U	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	Intel 2230	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-77U	i7-3537U	8GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-76U	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	128G SSD	TP 11a/b/g/n	None	None	Black	BT	8	Win8 Pro64	02/13
3347-6WU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-6VU	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	02/13
3347-6UU	i5-3337U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-6LU	i7-3537U	8GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	02/13
3347-8NU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	07/13
3347-8MU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 64	07/13
3347-8LU	i3-3227U	4GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	24GB	None	Black	BT	8	Win8 Pro64	07/13
Positioning Processor	<p><i>Convertible tablet ultrabook™; one spindle</i> 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 i5-3427U processor (2 cores, 1.80GHz, 3MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (2.80GHz), HT technology Intel Core i7-3537U processor (2 cores, 2.00GHz, 4MB Cache), Intel HD Graphics 4000, DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology</p>												
Memory	4GB or 8GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets												
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 6.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable												
mSATA™ SSD	<i>Some:</i> 24GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot												
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons												
Multi-touch Camera	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus												
Graphics	Intel HD Graphics 4000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort)@60Hz; 1920x1200 (Mini HDMI)@60Hz												
Keyboard TrackPoint®	6-row, 83-key, spill-resistant, multimedia Fn keys												
Touchpad	TrackPoint pointing device												
Light sensor	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch												
ThinkLight™	Ambient light sensor												
Dimensions ³	8-cell: 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm												
Weight ²	8-cell: from 3.50 lb (1.60kg)												
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS												
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication												
Extended Battery	None												
Battery - life ¹⁰	8-cell (42.4Whr): up to 6.0 hr												
Chipset	Mobile Intel HM77 Express Chipset												
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)												
ExpressCard	None												
Smart Card Read	None												
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
PCIe WLAN ⁴	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 2230, Wi-Fi + Bluetooth combo adapter, 2x2												
PCIe WWAN	None												
SIM card	None												
Modem	None												
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card												
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1												
Intel AMT	None												
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / 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	None												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

Preloaded operating system²⁰
 - *Some:* Windows 8 64-bit
 - *Some:* Windows 8 Pro 64-bit

Preloaded applications¹⁴ (only some listed)
 • Lenovo Support
 • Lenovo Companion
 • Lenovo Cloud Storage
 • Password Manager
 • Fingerprint Software (fingerprint models)
 • ThinkVantage System Update
 • Norton™ Internet Security (30 days of virus definitions)
 • Microsoft Office preloaded; purchase a product key to activate
 • Skype™

Supports ThinkVantage® technologies

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

For Lenovo²² service upgrade options, please go to S-EDGE sheet

See footnotes for more detailed information
 US model(s) announced February 5, February 19, or July 16, 2013

ThinkPad Twist S230u (3347) - TopSeller

Product Specifications Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	SIM card	Top color	Blue-tooth	Bat-tery cells	Preload	Ann date (mm/yy)
3347-2PU	i3-2365M	2GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n ²⁸	16GB	None	Black	BT	8	Win8 Pro64	10/12
3347-79U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 Pro64	02/13
3347-84U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	500G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 Pro64	05/13
3347-83U	i3-2375M	2GB	12.5" HD <i>Multi</i>	720p	320G 7200	TP 11a/b/g/n	16GB	None	Black	BT	8	Win8 64	05/13

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 1-year limited warranty**

Positioning	<i>Convertible tablet; one spindle</i>										
Processor	Intel® Core™ i3-2365M processor (2 cores, 1.40GHz, 3MB Cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2375M processor (2 cores, 1.50GHz, 3MB Cache), Intel HD Graphics 3000, DDR3 memory controller (up to 1333MHz), HT technology										
Memory	2GB / PC3-10600 1333MHz DDR3 / soldered to systemboard, no SO-DIMM sockets										
Optical	None										
SATA disk	Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™, removable, upgradable										
mSATA™ SSD	16GB mSATA Solid State Drive (SSD), via PCIe Mini Card slot										
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color , smudgeless and anti-reflective display with Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, rotate and swivel hinge <i>Bottom buttons:</i> volume up / down and Windows buttons <i>Side buttons:</i> power and auto rotation buttons										
Multi-touch	Projected Capacitive Touch (PCT) technology, supports 5-point multi-touch										
Camera	HD720p resolution, wide view angle, low light sensitive, face tracking, fixed focus										
Graphics	Intel HD Graphics 3000 in processor, supports external digital monitor via Mini HDMI and Mini DisplayPort; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (Mini DisplayPort) @60Hz; 1920x1200 (Mini HDMI) @60Hz										
Keyboard	6-row, 83-key, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint pointing device										
Touchpad	UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch										
Light sensor	Ambient light sensor										
ThinkLight™	None										
Dimensions ³	<i>8-cell:</i> 12.32" x 9.29" x 0.79"; 313mm x 236mm x 20mm										
Weight ²	<i>8-cell:</i> from 3.50 lb (1.60kg)										
Case material	<i>Display cover:</i> Magnesium + Polyphenylene sulfide (PPS); <i>Bottom:</i> Magnesium + PPS										
Battery - type	Integrated Li-Polymer 8-cell, HW Authentication										
Extended Battery	None										
Battery - life ¹⁰	<i>8-cell (42.4Whr):</i> up to 6.0 hr										
Chipset	Mobile Intel HM77 Express Chipset										
Multicard Reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Smart Card Read	None										
Ports	Two USB 3.0, external monitor (mini-HDMI, mini-DisplayPort), ethernet (RJ-45)										
PCIe Mini Card	Two PCI Express Mini Card slots										
PCIe WLAN ⁴	11a/b/g/n, PCIe Half Mini Card, ThinkPad 11a/b/g/n, Wi-Fi + Bluetooth combo adapter, 2x2										
PCIe WWAN	None										
SIM card	None										
Modem	None										
Bluetooth™	Bluetooth 4.0 wireless, integrated in WLAN PCIe Half Mini Card										
Ethernet	Gigabit Network Connection Realtek® RTL8111F, PHY, PCIe x1										
Intel AMT	None										
Audio support	High Definition (HD) Audio, Realtek ALC3202 codec / stereo speakers, 2 watt x 2, Dolby® Home Theater® v4 certified / volume up, down, mute buttons / 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	None										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										
	Preloaded operating system²⁰ - <i>Some:</i> Windows® 8 64-bit - <i>Some:</i> Windows 8 Pro 64-bit Preloaded applications¹⁴ (only some listed) • Lenovo Support • Lenovo Companion • Lenovo Cloud Storage • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • Norton™ Internet Security (30 days of virus definitions) • Microsoft Office preloaded; purchase a product key to activate • Skype™										
	Supports ThinkVantage® technologies										
	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²										
	For Lenovo ²² service upgrade options, please go to S-EDGE sheet										

See footnotes for more detailed information
 US model(s) announced October 23, 2012; February 19 or May 21, 2013

© Lenovo
 (TANR1-2) June 2013

ThinkPad Twist S230u Accessories

Product Specifications Reference (PSREF)

Memory

None

Storage and removable storage

ThinkPad 16GB mSATA Solid State Cache Drive	0B47309	ann	12/11/12
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12

ThinkPad Expansion

None

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
Lenovo Mini Speakers M220	55Y2033	ann	01/07/10

Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
----------------------	---------	-----	----------

Power adapters

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05

More information at www.lenovopowertips.com

Carrying Cases

<i>Up to 13.3" widescreen models:</i>			
ThinkPad Ultraportable Case	41U5062	ann	05/13/08

Up to 15.6" widescreen models:

Lenovo Performance BackPack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision LT2323p Wide 23" (VGA, DP, DVI-D) ⁶⁹	3024HB1	ann	09/13/11
Lenovo LS2023 Wide 20" (VGA, DVI)	3778HB2	ann	08/02/11
Lenovo LS1922 Wide 18.5" (VGA)	2580AF1	ann	08/02/11
Lenovo LS2223 Wide 21.5" (VGA, DVI)	3783HB2	ann	08/02/11
Lenovo LS2323 Wide 23" (VGA, DVI)	3794HB1	ann	08/02/11

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo Mini DisplayPort to VGA Adapter	0A36536	ann	05/17/11
Lenovo Mini DisplayPort to SL-DVI-D Adapter	0B47090	ann	06/12/12
Lenovo Mini DisplayPort to DisplayPort Cable	0B47091	ann	07/24/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems