ThinkPad_®



Lenovo® ThinkPad X220



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Lenovo ThinkPad X220

ThinkPad® X220 (4290) - November 2011 - I - withdrawn

			14/1-J		Disk		ThinkPad		PCle		Finger Ba		obal				
Type-model Pr			Widescreen display	Camera	SATA GB ⁸ rpm	in UltraBase	Ultrabase Series 3	Mini Card WLAN	Mini Card WWAN	Carrier	print ter reader cel			Pre- load			
			12.5" HD Prem	720p	320G 7200	Optional	Opt	Intel 6205 ²⁸	WWAN upg			vPro		Pro 64			
			12.5" HD Prem 12.5" HD Prem		160G SSD 320G 7200	Optional Optional	Opt Opt	Intel 6300 ²⁸ Intel 6300	WWAN upg		Fing 9 Fing 6	vPro vPro		Pro 64 Pro 64			
4290-46G i5-	-2520M	4GBx1	12.5" HD		320G 7200	Optional	Opt	Intel 6300	WWAN upg		Fing 6	vPro	G	Pro 64			
4290-45G i7-				700-	320G 7200		Opt	Intel 6300	WWAN upg		Fing 9			Pro 64			
4290-44G i5- 4290-43G i5-			12.5" HD 12.5" HD	720p 720p	320G 7200 128G SSD	Optional Optional	Opt Opt	Intel 6205 Intel 6205	WWAN upg		Fing 6 Fing 6	vPro vPro		Pro 64 Pro 64			
			12.5" HD Prem	720p	128G SSD	Optional	Opt	Intel 6300	WWAN upg		Fing 6			Pro 64			
4290-3WG i5-				720p	320G 7200	Optional	Opt	Intel 6205	Ericsson	select	Fing 6	vPro		Pro 64			
4290-3SG i5-	-2540M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Intel 6205	Ericsson	select	Fing 6	vPro		Pro 64			
Positioning Processor	chnology chnology chnology	Preloaded operating system ²⁰ - Genuine Windows [®] 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery [™] • Access Connections [™] • Fingerprint Software (fingerprint															
Memory	8GE	3 max ⁷ / I	PC3-10600 1333	MHz DD	R3, non-pari	ty,				models Passwo models	ord Manag	ger (fin	gerpi	int			
Optical Ultrabay SATA disk	trabay Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3									ThinkVThinkVThinkVPreloade isted)	antage Sy antage Po antage To ed applica	ower Molbox	anag	er y some			
mSATA™ SSD				//			. == .			(30 day	s of virus	definit					
Widescreen display		200	" (317.5mm) HD nits, 16:9 aspect mium) 12.5 " (317	ratio, 30	0:1 contrast	ratio				 Skype^T 	[®] Reader® ^M for Wind oft Office	lows	reloa	ded:			
Camera	Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) Some: HD720p resolution, wider view angle, low light sensitive, fixed focus									purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition							
Graphics	Inte	I HD Gra	aphics 3000 in p	rocessoi	r, 'GA DB-15 cc	nnector a	nd			(DVD±	RW)						
	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)								e);		OVD Movie (DVD±R\		y® Le	enovo			
Keyboard TrackPoint® Touchpad ThinkLight™	Trac Ultra	kPoint p aNav™, k	y, ThinkVantage I ointing device, "F outtonless touchp ne keyboard to in	ress-to- ad belov	Select," Inter w keyboard, r	net Scroll nulti-touch	Bar ¹³ , ma		3								
Dimensions ³ Weight ² Case material Standard Batte External Batte	4-ce Disp ery Lith	ell: from play cove ium lon 4	Base; 4/6-cell: 2.97 lb (1.35kg); er: Magnesium - l-cell, 6-cell, or 9	<i>6-cell</i> PCABS -	: from 3.31 ll 5; <i>Bottor</i>	b (1.50kg) n: Magne	; <i>9-cell:</i> esium allo	from 3.67 lb	(1.67kg))							
Battery - life ¹⁰	4-ce	ell (28Wh	er): up to 4.1 hr; Fery (64Whr): up t	6-cell (6	62.4Whr): up ; 9-cell plus	to 9.2 hr;	9-cell (9 battery: up	<i>9.9Whr):</i> up to to 23.2 hr	o 13.8 hr;		ThinkVan						
Chipset			QM67 Express							Provide	s desktop	expar	sion	and			
Ultrabase Multicard read ExpressCard Ports	ler 4-in One i7 m othe	-1 reader slot (Ex nodel: er model:	kPad Ultrabase S r (SD, SDHC, SD pressCard/34, E: One USB 3.0, Three USB 2.0 nitor (VGA DB-15	XC, MM xpressC two USE (one po	lC) ard/54) 3 2.0 (one pov owered)	wered))			Provides desktop expansion and cable management for X220 and X220 Tablet Easily connects to the bottom of the X220 or X220 Tablet for traveling. Converts ThinkPad to a two-spir system with optional Ultrabay S							
PCIe Mini Care WLAN ⁴ WWAN	Son Son	ne: 11a/ ne: 11a/	oress Mini Card s b/g/n, PCIe Half b/g/n, PCIe Half less WAN upgrad	Mini Car Mini Car						Other fea Power l	ories in riç tures: outton (fro y key lock	nt)		vhole			
	Son	<i>ne:</i> Wire GPR	less WAN, Ėričss S/WCDMA/HSP	on® F55 A/HSPA-	+, ĞPS			, PCIe Mini C	ard	AnalogDisplay	VGÁ DB- Port (sup	15 mor	nitor _l ngle	ort			
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Non Blue Inte Inte High	etooth 3.0 I 82579L I Active M n Definition	Selectable, cont O wireless, LED in M Gigabit Netwo Management Tecloon (HD) Audio, On On what buttons	ndicator rk Conn hnology onexant	ection (Lewis (iAMT) 20672 coded	ville), PHY	/, PCIe x1			DVI-D via optional cable) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone of the complete of the complet							
	Pow Trus ader UPE Pow	er-on pa sted Platf EK Finge er On Au	own, mute buttons ssword, hard dis orm Module, TC0 rprint reader on puthentication, sup	k passw G 1.2-co palm res ports th	ord, supervis mpliant t, swipe sens e security chi	or passwo or, LED in p	rd, securi	ty keyhole									
			battery - depot re	epair ser	rvice / service	upgrades	s availabl	е		during	the warra	nty per	od ¹²				
See footnotes for	for more c	letailed in	formation										6	Lenovo			

ThinkPad® X220 (4290) - November 2011 - II - withdrawn

			Widescreen		Dis SAT		Optical in		d PCle e Mini Card	PCIe Mini Card	Finger	Blue-	Bat-	Ext	GI , Intel	obal GMI	(G) Pre-
Type-model	Processor	Memory		Camera					WLAN	Mini Card WWAN Carrier	reader	tooth	cells	cells	vPro	(P)	load
4290-2WG	i5-2540M	4GBx1	12.5" HD Prem	720p	320G	7200	DVD±RW	/ UltraB	Intel 6205 ²⁸	upg	Fing	BT	9		vPro	G	Pro 64
4290-2XG	i5-2540M	4GBx1	12.5" HD	720p	320G	7200	Optional	Opt	Intel 6205	upg			6		vPro	G	Pro 64
4290-2BG	i7-2620M	4GBx1	12.5" HD	720p	160G S	SSD	DVD±RW	UltraB	Intel 6205	Ericsson select	Fing	BT	9		vPro		Pro 64
4290-2AG	i5-2540M	4GBx1	12.5" HD	720p	320G	7200	Optional	Opt	Intel 6205	Ericsson select	Fing	BT	6	6	vPro		Pro 64
4290-29G	i5-2520M	2GBx2	12.5" HD	720p	320G	7200	Optional	Opt	Intel 6205	upg	Fing	BT	6		vPro		Pro 64
4290-28G	i5-2520M	2GBx1	12.5" HD	720p	250G 5	5400	Optional	Opt	Intel 6205	upg	_	BT	6		vPro		Pro 64
4290-27G	i7-2620M	2GBx2	12.5" HD		320G	7200	Optional	Opt	Intel 6205	upg	Fing	BT	9	6	vPro	G	Pro 64
4290-26G	i5-2520M	2GBx1	12.5" HD		250G !	5400	Optional	Opt	Intel 6205	upg	Fing	BT	6	6	vPro	G	Pro 64

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

Positioning Processor	An ultraportable for the executive on the move; one spindle 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 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	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™
Memory Optical Ultrabay SATA disk mSATA™ SSD Widescreen display	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3 None Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	 Access Connections[™] Fingerprint Software (fingerprint models) Password Manager (fingerprint models) ThinkVantage System Update ThinkVantage Power Manager ThinkVantage Toolbox Preloaded applications¹⁴ (only some listed) Norton[™] Internet Security 2011 (30 days of virus definitions) Adobe® Reader®
Camera Graphics	Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) Some: 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)	 Skype™ for Windows 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™ Dimensions³ Weight²	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm 4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg)	
Case material Standard Battery External Battery Battery - life ¹⁰	Display cover: Magnesium + PCABS; Bottom: Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery as 2nd battery Some: Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+) 4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr	Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3
Chipset Ultrabase Multicard reader ExpressCard Ports	Mobile Intel QM67 Express Chipset Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) i7 model: One USB 3.0, two USB 2.0 (one powered) other model: Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	Provides desktop expansion and cable management for X220 and X220 Tablet Easily connects to the bottom of the X220 or X220 Tablet for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side
PCIe Mini Card WLAN ⁴ WWAN Carrier Modem Bluetooth TM Ethernet Intel AMT Audio support	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 Some: User selectable, contract required with service provider None Some: Bluetooth 3.0 wireless, LED indicator 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 /	Other features: Power button (front) Security key lock, security keyhole Analog VGA DB-15 monitor port DisplayPort (supports single-link DVI-D via optional cable) Four USB 2.0 ports Gigabit ethernet (RJ-45) port Microphone in and headphone out Requires 65W or 90W AC adapter 1.39 lb; 630g
	volume up, down, mute buttons / dual array microphone, 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, Power On Authentication, supports the security chip 3-years/1-yr battery - depot repair service / service upgrades ²² available	65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

ThinkPad® X220 (4291) - Onsite (November 2011) - I - withdrawn

Type-model Proce	Widescreen ssor Memory display	Camera	Disk SATA GB [®] rpm			e Mini Card	PCIe Mini Card WWAN	Carrier		Intel		Globa (G) GMP (F	l Pre- P) load	
4291-4CG i7-264 4291-4BG i7-262 4291-49G i7-262 4291-47G i7-262 4291-47G i5-252 4291-5DG i5-245	0M 4GBx1 12.5" HD Prem 0M 4GBx1 12.5" HD Prem 0M 4GBx1 12.5" HD Prem 10M 4GBx1 12.5" HD Prem 10M 4GBx1 12.5" HD Prem 10M 4GBx1 12.5" HD Prem 10M 4GBx1 12.5" HD 10M 4GBx1 12.5" HD 10M 4GBx1 12.5" HD 10M 4GBx1 12.5" HD	720p 3 720p 1 720p 1 720p 3	320G 7200 320G 7200 160G SSD 160G SSD 160G SSD 320G 7200 320G 7200 320G 5400 320G 7200	DVD±RW	UltraB	Intel 6205 Intel 6205 Intel 6300 ²⁸ Intel 6300 Intel 6300 Intel 6205	WWAN upg Ericsson Ericsson WWAN upg WWAN upg WWAN upg Ericsson Ericsson		9 9 9 9 6 6 6	iAMT iAMT iAMT iAMT iAMT	vPro vPro vPro vPro vPro	G P G P	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	
Positioning Processor	echnology echnology echnology echnology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models)												
Memory	8GB max ⁷ / PC3-10600 1333 dual-channel capable, two 20							• Pass	wórd	Mana	ger (fir	gerpr	int	
Optical Ultrabay SATA disk	Some: DVD burner, removable Supports Ultrabay Slim device Some: Solid State Drive (SS Some: Hard Disk Drive / SAT All: removable, upgradab in optional or standard	le from The in option D) / SATA A 3.0Gb/se, Shock	hinkPad Ulti nal or standa 3.0Gb/s, 2. s, 2.5" wide Mounted H	rabase Ser ard ThinkPa 5" wide, 7r 7mm high ard Drive, s	ad Ultrab nm high , Active	Protection S	ystem™	models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (only s listed) • Norton™ Internet Security 2011						
mSATA™ SSD Widescreen	None	(1266,76	O) TET cold	w onti ala	o LEDI	a akliaht				of virus		tions)		
display	Some: 12.5" (317.5mm) HD 200 nits, 16:9 aspect Some: (Premium) 12.5" (317 300 nits, 16:9 aspect	ratio, 300 '.5mm) H I ratio, 500	:1 contrast D (1366x76 :1 contrast	ratio 8) TFT col e ratio, IPS, V	or , anti-ç VideViev	glare, LED ba v (170° view		 Adobe® Reader® Skype™ for Windows Windows Live™ Essentials Microsoft Office 2010 preloaded purchase product key to activate 						
Camera	Some: HD720p resolution, w		angle, low l	ight sensiti	ve, fixed	focus		DurchCore						
Graphics	Intel HD Graphics 3000 in prexternal analog monitor supp digital monitor support via Dissupports dual independent di Maximum external resolution. 2048x1536 (VGA)@75Hz; 19	ort via VG splayPort splay; 2560x16	(supports si 600 (Display	ngle-link D •Port)@60l	VI-D via I z;		,,	 Corel Burn.Now™ Lenovo Édition (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™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 14-cell: from 2.97 lb (1.35kg); Display cover: Magnesium 4 Lithium Ion 4-cell, 6-cell, or 9-None 4-cell (28Whr): up to 4.1 hr; external battery (64Whr): up t	6-cell: PCABS; cell, supp	from 3.31 ll Bottor ports option 2.4Whr): up	o (1.50kg); n: Magne al external to 9.2 hr;	9-cellesium allesium alles battery a 9-cell (9	: from 3.67 by as 2nd batter <i>99.9Whr):</i> up	lb (1.67kg) y							
Chipset	Mobile Intel QM67 Express		9-cell plus	exterriar L	allery. U	p 10 23.2 III		Suppoi	ts Ir	ninkvar	ntage®	techn	ologies	
Ultrabase Multicard reader ExpressCard Ports	Some: ThinkPad Ultrabase S 4-in-1 reader (SD, SDHC, SD One slot (ExpressCard/34, Ex i7 model: One USB 3.0, other model: Three USB 2.0 external monitor (VGA DB-15	Series 3 (s XC, MMC xpressCar xwo USB 2 (one pow	c) rd/54) 2.0 (one pov vered)	wered)				ThinkPad Ultrabase Series 3 Provides desktop expansion and cable management for X220 and X220 Tablet Easily connects to the bottom of the X220 or X220 Tablet for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side Other features: Power button (front) Security key lock, security keyhole Analog VGA DB-15 monitor port DisplayPort (supports single-link DVI-D via optional cable) Four USB 2.0 ports Gigabit ethernet (RJ-45) port Microphone in and headphone out Requires 65W or 90W AC adapter 1.39 lb; 630g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷						
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card s Some: 11a/b/g/n, PCIe Half I Some: 11a/b/g/n, PCIe Half I	Mini Card, Mini Card,	, Intel Centri , Intel Centri	no® Advan no Ultimate	ced-N 6: e-N 6300	205, 2x2), 3x3								
WWAN	Some: Wireless WAN upgrad Some: Wireless WAN, Ericss GPRS/WCDMA/HSP/ Some: User selectable, contri	on® F552 VHSPA+,	ĞPS			e, PCIe Mini	Card,							
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip	Some: User selectable, conti None Bluetooth 3.0 wireless, LED ii Intel 82579LM Gigabit Netwo Some: Intel Active Managerr High Definition (HD) Audio, C volume up, down, mute buttons Power-on password, hard dis Trusted Platform Module, TC/	ndicator rk Connection ent Techronexant 2 dual arr cypasswor	ction (Lewis nology (iAM 20672 coded ay micropho rd, supervis	ville), PHY, T) c / stereo s ne, combo	PCle x	1 watt x 2 / ic jack								
Fingerprint reader	Trusted Platform Module, TC0 UPEK Fingerprint reader on p Power On Authentication, sup 3-years/1-year battery, limite	palm rest, ports the d onsite	swipe sens security chi service ²⁴ , 8	p am - 5 pm	ı, Mon -	Fri coverage	excluding							
	public and national holidays. (day for service dispatch / service datailed information	Calls rece	ived after 3	pm will rec	uire an	addtional ne	xt business	24 hou durin	r x 7 ig the	day ¹⁸ to warra	oll-free inty pe	riod ¹²	ort	

ThinkPad® X220 (4291) - Onsite (November 2011) - II - withdrawn

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB [®] rpm	Optical in UltraBase	Ultrabas	e Mini Card	PCle Mini Card WWAN	Carrier	Finger print reader	tery	Intel		Pre-
4291-45G	i7-2620M	4GBx1	12.5" HD		320G 7200			Intel 6300 ²⁸	WWAN upg		Fing	9	vPro	GΡ	Pro 64
4291-43G	i5-2520M	4GBx1	12.5" HD	720p	128G SSD			Intel 6205 ²⁸	WWAN upg		Fing	6	vPro	GΡ	Pro 64
4291-44G	i5-2520M	4GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg		Fing	6	vPro	GΡ	Pro 64
4291-42G	i5-2540M	4GBx1	12.5" HD Prem		128G SSD			Intel 6300	WWAN upg		Fing	6	vPro	GΡ	Pro 64
4291-37G	i5-2520M	4GBx1	12.5" HD	720p	320G 7200			Intel 6205	Ericsson	select	Fing	6	vPro		Pro 64
4291-36G	i7-2620M	4GBx1	12.5" HD	720p	320G 7200	DVD ±RW	UltraB	Intel 6205	Ericsson	select	Fing	9	vPro		Pro 64
4291-35G	i7-2620M	4GBx1	12.5" HD	720p	160G SSD			Intel 6205	Ericsson	select	Fing	9	vPro		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)

	which some 2010 i found hey fleady (510 i Kil)	
Positioning Processor	An ultraportable for the executive on the move; one spindle 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 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	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	 Access Connections™ Fingerprint Software (fingerprint models)
Optical Ultrabay SATA disk mSATA™ SSD Widescreen display Camera	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3 None Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) Some: HD720p resolution, wider view angle, low light sensitive, fixed focus	Password Manager (fingerprint models) ThinkVantage System Update ThinkVantage Power Manager ThinkVantage Toolbox 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:
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)	• 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™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Latton (DVD±11vv)
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm 4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Botton: Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery as 2nd battery None 4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr;	
Chipset	external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr Mobile Intel QM67 Express Chipset	Supports ThinkVantage® technologies
Ultrabase Multicard reader ExpressCard Ports	Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) i7 model: One USB 3.0, two USB 2.0 (one powered) other model: Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	ThinkPad Ultrabase Series 3 Provides desktop expansion and cable management for X220 and X220 Tablet Easily connects to the bottom of the X220 or X220 Tablet for traveling Onverts ThinkPad to a two-spindle
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Some: Wireless WAN upgradable Some: Wireless WAN, Ericsson® F5521gw Mobile Broadband Module, PCIe Mini Card, GPRS/WCDMA/HSPA/HSPA+, GPS Some: Upgradable better the source with convice provider.	system with optional Ultrabay Slim accessories in right side Other features: Power button (front) Security key lock, security keyhole Analog VGA DB-15 monitor port
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: User selectable, contract required with service provider None Bluetooth 3.0 wireless, LED indicator 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 microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	DisplayPort (supports single-link DVI-D via optional cable) Four USB 2.0 ports Gigabit ethernet (RJ-45) port Microphone in and headphone out Requires 65W or 90W AC adapter 1.39 lb; 630g
Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip 3-vears/1-vear battery. limited onsite service ²⁴ . 8 am - 5 pm. Mon - Fri coverage excluding	65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷
	public and national holidays. Calls received after 3 pm will require an additional next business day for service dispatch / service upgrades available	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²

ThinkPad® X220 (4291) - Onsite (November 2011) - III - withdrawn

			Widescreen		Disk SATA	Optical in	ThinkPa Ultrabas	d PCle se Mini Card	PCle Mini Card		Finger	Blue-	Bat- terv r	Ext	GI Intel	obal (0	G) Pre-
Type-model Pro	ocessor	Memory		Camera	GB [®] rpr	n UltraBase		3 WLAN	Mini Card WWAN	Carrier	reader	tooth	cells	cells	vPro	(P)	load
4291-2XG i5-	-2540M	4GBx1	12.5" HD	720p	320G 720	0		Intel 6205 ²⁸	upg				6	١	/Pro	GPF	ro 64
4291-2WG i5-	-2540M	4GBx1	12.5" HD Prem	720p	320G 720	0 DVD±RV	√ UltraB	Intel 6205	upg		Fing	BT	9	١	/Pro	GPF	ro 64
4291-2BG i7-	-2620M	4GBx1	12.5" HD	720p	160G SS	D DVD±RV	√ UltraB	Intel 6205	Ericsson	select	Fing	BT	9	١	/Pro	F	ro 64
4291-2AG i5-	-2540M	4GBx1	12.5" HD	720p	320G 540	00		Intel 6205	Ericsson	select	Fing	BT	6	6 ١	/Pro	F	ro 64
4291-29G i5-	-2520M	2GBx2	12.5" HD	720p	320G 720	00		Intel 6205	upg		Fing	BT	6	١	/Pro	F	ro 64
4291-28G i5-	-2520M	2GBx1	12.5" HD	720p	250G 540	00		Intel 6205	upg			BT	6	١	/Pro	F	ro 64
4291-26G i5-	-2520M	2GBx1	12.5" HD		250G 540	00		Intel 6205	upg		Fing	BT	6	6 ١	/Pro	GPF	ro 64
4291-27G i7-	-2620M	2GBx2	12.5" HD		320G 720	00		Intel 6205	upg		Fing	BT	9	6 ١	/Pro	GPF	ro 64
4291-5CG i5-	-2520M	4GBx1	12.5" HD	720p	320G 540	00		Intel 6205	Ericsson	select	Fing	BT	6	١	/Pro	P	ro 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)

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Positioning Processor	An ultraportable for the executive on the move; one spindle 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 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	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™				
Memory	SGB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Access Connections™ Fingerprint Software (fingerprint models)				
Optical Ultrabay SATA disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 Some: Solid State Drive (SSD) / SATA 3.0Gb/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, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3	Password Manager (fingerprint models) ThinkVantage System Update ThinkVantage Power Manager ThinkVantage Toolbox Preloaded applications ¹⁴ (only some				
mSATA™ SSD	None	listed)				
Widescreen display	Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) Some: HD720p resolution, wider view angle, low light sensitive, fixed focus	Norton™ Internet Security 2011 (30 days of virus definitions) Adobe® Reader® Skype™ for Windows Windows Live™ Essentials				
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)	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™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Edition (BVB±HVV)				
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm 4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) Display cover: Magnesium + PCABS; Botton: Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery as 2nd battery Some: Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+) 4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; otherwise between the state of the	Supports ThinkVantage® technologies				
Chineat	external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr Mobile Intel OM67 Express Chipset	ThinkPad Ultrabase Series 3				
Chipset Ultrabase Multicard reader ExpressCard Ports	Mobile Intel QM67 Express Chipset Some: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) i7 model: One USB 3.0, two USB 2.0 (one powered) other model: Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	Provides desktop expansion and cable management for X220 and X220 Tablet Easily connects to the bottom of the X220 or X220 Tablet for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim				
PCIe Mini Card WLAN ⁴ 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 Some: User selectable, contract required with service provider	accessories in right side Other features: Power button (front) Security key lock, security keyhole Analog VGA DB-15 monitor port				
Modem Bluetooth™ Ethernet Intel AMT Audio support Security	None Some: Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCle 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 microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole	DisplayPort (supports single-link DVI-D via optional cable) Four USB 2.0 ports Gigabit ethernet (RJ-45) port Microphone in and headphone out Requires 65W or 90W AC adapter 1.39 lb; 630g				
Security chip Fingerprint reader	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	65-watt AC Adapter 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				