ThinkStation

Personal Systems Reference Lenovo® ThinkStation® Workstations 2008 to 2013 - withdrawn

January 2014 - Version 449 (Western Europe)



ThinkStation S10 (left) ThinkStation D10 (right)

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ThinkStation



Lenovo ThinkStation E30 with Intel HD Graphics



Lenovo ThinkStation E30



Lenovo ThinkStation E30



Lenovo ThinkStation E30 with ThinkVision® L2440p



Lenovo ThinkStation E30 with toolless removable side cover



Lenovo ThinkStation Graphics Card Option NVIDIA Quadro NVS450

ThinkStation® E30 (7824) - TopSeller (Integrated Graphics)

Type- model	Slot x bay	Processor	Cor GHz Thre		Memory DIMMs	ECC	Disk(s)	Pre-cor RAID		SATA ptical	Media reader	Chassis Intrusion switch	Graphics adapter(s)	Global	Win7 preload
7824-32G	4x5	Core i3-2100	3.1 2C	/4T	2x2GB		1x500GB SATA	No	DV	/D±RW	Media	None	Intel HD	No	Pro 64
7824-33G		Core i3-2120	3.3 2C				1x500GB SATA			/D±RW	Media	None	Intel HD	No	Pro 64
7824-36G		Xeon E3-1225	3.1 4C		2x2GB		1x500GB SATA			/D±RW	Media	None	Intel HD	No	Pro 64
7824-38G		Xeon E3-1235	3.2 4C		2x2GB		1x500GB SATA			/D±RW	Media	None	Intel HD	No	Pro 64
7824-42G		Xeon E3-1245	3.3 4C		2x2GB		1x500GB SATA			/D±RW	Media	None	Intel HD	No	Pro 64
7824-43G		Xeon E3-1235	3.2 4C				1x1TB SATA			D±RW	Media	None	Intel HD	No	Pro 64
7824-45G		Xeon E3-1225			2x2GB	ECC	1x1TB SATA			D±RW	Media	None	Intel HD	No	Pro 64
7824-47G	4X5	Xeon E3-1225	3.1 4C	41	2X2GB		1x500GB SATA	NO	DV	/D±RW	Media	None	Intel HD	No	Pro 64
Processor		integrated Intel DDR3 memory Intel Core i3-2 integrated Intel DDR3 memory Intel Xeon E3- Boost 2.0 (up to DDR3 memory Intel Xeon E3- Boost 2.0 (up to DDR3 memory Intel Xeon E3- Boost 2.0 (up to	HD Graph controller 120 proce HD Graph controller -1225 proc 3.4GHz), controller 1235 proc 3.6GHz), controller 1245 proc 3.7GHz),	ics 20 (up to ssor ics 20 (up to cesso integ (up to esso (up to esso integ (up to esso integ (up to esso	000, 1333MI (2C/4T, 3 000, 1333MI or (4C/4T) grated Int 1333MI r (4C/8T, grated Int 1333MI r (4C/8T, grated Int	Hz) 3.3GHz 5,3.1Gi el HD (Hz) 3.2GH el HD (Hz) 3.3GH el HD (Hz, 3MB Cache , 3MB Cache), Hz, 6MB Cache), Graphics P3000, Iz, 8MB Cache), Graphics P3000, Iz, 8MB Cache), Graphics P3000,), Turbo Turbo Turbo		Tower		 Raven black 6.9"W x 17. 175mm W > 24.7 lb (11 Removable Toolless side Toolless ad Illuminated Recessed p 	0"D x 16.7"F	I (with ha 425mm I nfiguration p front oval I drive rer	H ´ n
		DDR3 memory		(up to	5 1333MI	Hz)				Bav 1:	5.25". 1.0	6" high, acce	ss. for op	tical	
Implement	ation	One LGA1155	socket							Bay 2:	5.25", 1.0	6" high, acce	ss, for op	tical	
Memory		UDIMM, PC3-1 DIMM sockets; ECC model(s): Non-ECC mode	32GE	3 max	(ECC or	non-ECC, four :	240-pin		Bay 3: Bay 4: Bay 5:	3.5", 1" 3.5", 1" 3.5", 1"	high, acce high, inter high, inter	ess, for me nal, for dis nal, for dis	k	
Additional memory disclaimers	3		n proccess ed	or me	emory co	ntrolle	t installed speed speed and insta			Slot 2: Slot 3:	half-lengt half-lengt	th, full-height th, full-height th, full-height th, full-height	, PCIe 2.0 x1 , 32-bit PCI 2	.3	ax)
Graphics			nics in pro	cesso	or, uses n		emory, one VGA	, one		-	0				
Media read Optical Disk(s) Disk Contro			rner DL D\ , SATA 3.0 ATA 3.0Gb A 3.0Gb/s	/D±R Gb/s, /s, 72	W SATA , 7200 rp 200 rpm,	m, 3.5" 3.5"	s Drive ntegrated in chip	oset,							
		RAID 0, 1 supp two SATA 6.0GI	b/s connec							- Intel Al	MT suppo	Inte orted on mod	I AMT el(s) with Xe	on proces	sor
Chipset		Intel C206 Chij ethernet MAC,			Controller	Hub [F	PCH] (PCI Expre	ess [®] 2.0	x1,			SECUR	. ,		
Front porto		,	,		mm) hor	doboo	o (3 5mm)			- Soou	ritu obin (
Front ports Rear ports		Two USB 2.0, n Six USB 2.0, or ports (line-in, in	ne serial (S	-pin)			RJ-45), three an	alog aud	dio	 Padlo 	ock loop (i	see informat in rear for op bits side cove	t padlock;		
							Port connector			 Secu 	rity slot (i	n rear for opt	ional		
Audio		High Definition				C662 (codec					/licrosaver® c			
Speaker		Internal speake									er-on pass	cover remova	ai)		
Ethernet		One gigabit eth										bassword			
Security ch	nip			NP18	3 Trusted	Platfor	m Module (TPM)),			sequence				
		TCG 1.2-compl										eyboard, mo	use		
Keyboard		Preferred Pro U					, 104-key, black				I port I/O				
Mouse		Optical Wheel N										blement (fron <i>ion switch av</i>		lactad m	odol(c)
Power sup	ріу	280 watts with v 80 PLUS® Bron			ian, autos	sensing	, 85% PSU,							iecteu m	Juei(3)
ThinkVanta	age®	Supports Think			logies					RoHS-	compliant	® certified t			
Preload OS	0	Genuine Windo			•					EPEAT	™ Gold r	ating			
Preload		Rescue and F													
Application	IS	 Password Ma ThinkVantage Norton[™] Inter Adobe Reade Adobe Flash[®] Skype[™] for W 	nager e Toolbox rnet Secur er Player /indows fice 2010 µ /D (for DVI ow™ (for D	oreloa D±RV VD±l	aded; pur V model(RW mode	chase s) only) el(s) on	product key to a	ctivate		 Cust (with 8 am next ⇒ Lend see 1 • Or • Po ⇒ For 1 	n limited on - 5 pm, M business bvo service lenovo.com nsite service ost warrar more info	Ind labor placeable Un ponsite service Mon - Fri cove s day respon- ces available n/services_war ice upgrade ty maintena rmation find	e for selected erage exclud se time) ; rranty/us/en/ler options (in e nce services the Lenovo	d parts ³ , ing holid novo-warra ligible loo	nty.html cations) ⁷
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ThinkStation® E30 (7824) - TopSeller (Integrated Graphics) - Dec 2011 Personal Systems Reference(PSREF)

Type- model	Slot x bay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-con RAID	f SATA optical	Media reader		Graphics adapter(s)	Global	Win7 preload
		Xeon E3-1235 Xeon E3-1225			-		2x500GB SATA 2x500GB SATA		DVD±RW DVD±RW	Media Media		Intel HD Intel HD	No No	Pro 64 Pro 64

Processor	Intel [®] Xeon [®] E3-1225 processor (4C/4T, 3.1GHz, 6MB Cache), Turbo Boost 2.0 (up to 3.4GHz), integrated Intel HD Graphics P3000, DDR3 memory controller (up to 1333MHz) Intel Xeon E3-1235 processor (4C/8T, 3.2GHz, 8MB Cache), Turbo Boost 2.0 (up to 3.6GHz), integrated Intel HD Graphics P3000, DDR3 memory controller (up to 1333MHz)	Tower • Raven black color; metal case • 6.9"W x 17.0"D x 16.7"H (with handle) • 175mm W x 431mm D x 425mm H • 24.7 lb (11.2kg) max configuration • Removable handle on top front
Implementation	One LGA1155 socket	Toolless side cover removal
Memory	UDIMM, PC3-10600 1333MHz DDR3, ECC or non-ECC, four 240-pin DIMM sockets; ECC model(s): 32GB max Non-ECC model(s): 16GB max	 Toolless disk and optical drive removal Toolless adapter retention Illuminated front icons Recessed power button
Additional memory disclaimers	 Actual memory operating speed is the lowest installed speed, dependent on proccessor memory controller speed and installed memory speed ECC and non-ECC DIMMs cannot be mixed 	Bay 1: 5.25", 1.6" high, access, for optical
Graphics	• Let and homelet binning cannot be mixed Intel HD Graphics in processor, uses main memory, one VGA, one DisplayPort™ (see <i>Rear ports</i> section)	Bay 2: 5.25", 1.6" high, access, for optical Bay 3: 3.5", 1" high, access, for media reader
Media reader Optical Disk(s) Disk Controller	25-in-1 media reader, internal USB 2.0 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5" Serial ATA, SATA 3.0Gb/s and SATA 6.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA 6.0Gb/s connectors, two SATA 3.0Gb/s connectors	Bay 4: 3.5", 1" high, internal, for disk Bay 5: 3.5", 1" high, internal, for disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
Chipset Front ports Rear ports IEEE 1394 adptr	Intel C206 Chipset, Platform Controller Hub [PCH] (PCI Express [®] 2.0 x1, ethernet MAC, PCI, and USB) Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Six USB 2.0, one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, ine-out, mic-in), one analog VGA DB-15 connector, one DisplayPort connector None	
Audio	High Definition (HD) Audio, Realtek [®] ALC662 codec	Intel AMT
Speaker	Internal speaker for business audio	Intel AMT supported on model(s) with Xeon processor
Ethernet Security chip	One gigabit ethernet on planar, Intel 82579 STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	SECURITY • Security chip (see information on left)
Keyboard Mouse Power supply	Preferred Pro USB Keyboard (USB connector), 104-key, black Optical Wheel Mouse (USB connector), black 280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS [®] Bronze qualified	 Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) Security slot (in rear for optional Kensington[®] Microsaver[®] cable; prohibits side cover removal)
ThinkVantage®	Supports ThinkVantage technologies	Power-on password
Preload OS Preload Applications	Genuine Windows [®] 7 Professional 64 ● Rescue and Recovery ● Password Manager ● ThinkVantage Toolbox ● Norton™ Internet Security (30 days of virus definitions) ● Adobe Reader [®]	 Administrator password Boot sequence control Boot without keyboard, mouse Serial port I/O control USB port disablement (front or all) Chassis intrusion switch available on selected model(s)
	 Adobe Flash[®] Player Skype[™] for Windows Microsoft[®] Office 2010 preloaded; purchase product key to activate Corel[®] WinDVD (for DVD±RW model(s) only) 	GREENGUARD [®] certified RoHS-compliant EPEAT™ Gold rating
	 Corel Burn.Now™ (for DVD±RW model(s) only) 	LIMITED WARRANTY ¹
	 Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) 	 3-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warranty.html Onsite service upgrade options (in eligible locations)⁷ Post warranty maintenance services For more information find the Lenovo support phone
		number in your country at http://www-307.ibm.com/pc/support/site.wss/document. do?Indocid=MIGR-69107

ThinkStation® E30 (7824) - TopSeller (Discrete Graphics)

Type- Slot model bay	Processor	Cores / GHz Threads	Memory DIMMs E	ECC	Disk(s)	Pre-con RAID		SATA ptical	Media reader	Chassis Intrusion switch	Graphics adapter(s)	Global	Win7 preload
7824-34G4x57824-35G4x57824-37G4x57824-39G4x57824-41G4x57824-44G4x57824-46G4x57824-48G4x5	Xeon E3-1220 Xeon E3-1220 Xeon E3-1230 Xeon E3-1270 Xeon E3-1270 Xeon E3-1220 Xeon E3-1220 Xeon E3-1280	 3.1 4C/4T 3.2 4C/8T 3.4 4C/8T 3.4 4C/8T 	2x2GB E 2x2GB E 2x2GB E 2x2GB E 2x2GB E 2x2GB E 2x2GB		1x500GB SATA 1x500GB SATA 1x500GB SATA 1x1TB SATA 1x500GB SATA 1x1TB SATA 1x500GB SATA 1x500GB SATA 1x160GB SSD	No No No No No	DV DV DV DV DV	(D±RW (D±RW (D±RW (D±RW (D±RW (D±RW (D±RW (D±RW)	Media Media Media Media Media Media Media	None None None None None	Quadro 600 Quadro 2000 Quadro 2000	No No No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64
Processor	Intel [®] Xeon [®] E3 Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to	3.4GHz), DD 230 processo 3.6GHz), DD 270 processo 3.8GHz), DD 280 processo 3.9GHz), DD	R3 memory or (4C/8T, 3. R3 memory or (4C/8T, 3. R3 memory or (4C/8T, 3.	conti conti conti conti conti conti 5GH	roller (up to 1333 z, 8MB Cache) , roller (up to 1333 z, 8MB Cache) , roller (up to 1333 z, 8MB Cache) ,	3MHz) Turbo 3MHz) Turbo 3MHz) Turbo		Tower	al	 6.9"W x 175mm 24.7 lb Remova Toolless Toolless 	black color; meta : 17.0"D x 16.7"H W x 431mm D x (11.2kg) max cor able handle on to s side cover remos s disk and optical s dapter retentic	I (with har 425mm H ofiguration p front oval drive rem	ł ´
Implementation Memory Additional memory disclaimers	UDIMM, PC3-10 DIMM sockets; ECC model(s): Non-ECC mode • Actual memory	32GB ma 32GB ma l(s): 16GB ma y operating sp proccessor m d	ix beed is the lonemory contri	owes roller	·	I,		(5) Bay 1: Bay 2: Bay 3:	5.25", 1 3.5", 1	 Illumina Recess .6" high, a .6" high, a " high, a 	ted front icons ed power button access, for opt access, for opt access, for me	ical ical dia reade	r
Graphics	Some: NVIDIA one Dis Some: NVIDIA	® Quadro ® 60 playPort™, on	0 , PCle x16 e dual-link D) , PCle x16 a	adap VI-I, adap	40W ter, 1GB,			Slot 1:	3.5", 1 half-leng	" high, i gth, full-he	nternal, for dis nternal, for dis ight, PCIe 2.0 x1 ight, PCIe 2.0 x1	k	x)
Media reader Optical Disk(s) Disk Controller	25-in-1 media re Super Multi-Bur Some: 500GB, Some: 1TB, SA Some: 160GB Serial ATA, SATJ RAID 0, 1 supportwo SATA 6.0Gb	ner DL DVD±f SATA 3.0Gb/s ATA 3.0Gb/s, 7 Solid State Dr A 3.0Gb/s and Drt,	RW SATA 1.5 s, 7200 rpm, 200 rpm, 3.5 ive (SSD), S I SATA 6.0GI	3.5" 5" SATA b/s, ii	3.0Gb/s, 2.5" ntegrated in chip	set,		Slot 3:	half-len	gth, full-he	ight, 32-bit PCI 2 ight, 32-bit PCI 2		
Chipset	Intel C206 Chip ethernet MAC, F	set , Platform PCI, and USB)	Controller H	lub [F	PCH] (PCI Expre	ss [®] 2.0	x1,	-					
Front ports Rear ports Audio Speaker Ethernet Security chip	Two USB 2.0, m Six USB 2.0, on ports (line-in, in High Definition (Internal speaker One gigabit ethe STMicroelectror	e serial (9-pin e-out, mic-in) (HD) Audio, Re for business ernet on plana nics ST19NP1), one etheri ealtek [®] ALC(audio Ir, Intel 8257	net (F 662 c 9	RJ-45), three and	0	io	 Secul Padlo padlo 	rity chip ock loop ock prohi	orted on r SEC (see infor (in rear fo	Intel AMT nodel(s) with Xec CURITY mation on left) r opt padlock; cover removal) coptional	on proces	sor
Keyboard Mouse Power supply ThinkVantage [®] Preload OS	TCG 1.2-compli Preferred Pro U Optical Wheel M 280 watts with v 80 PLUS® Bron: Supports Think Genuine Window	SB Keyboard louse (USB co ariable speed ze qualified /antage techn	onnector), bl fan, autoser ologies	ack				Kensi prohil Powe Admi Boot Boot Seria USB	ington® bits side r-on pas nistrator sequenc without I I port I/C port disa	Microsave cover ren sword passworc ce control keyboard, control ablement (r® cable; noval) I mouse (front or all)		
Preload Applications	 Rescue and F Password Mai ThinkVantage Norton™ Inter Adobe Reade Adobe Flash[®] 	nager Toolbox net Security (3 r [®]	30 days of vi	irus c	lefinitions)			GREEN RoHS-0		D® certified nt rating		lected mo	del(s)
	 Skype™ for W Microsoft® Off Corel® WinDV Corel Burn.Nc Ulead DVD M 	indows ice 2010 prelc D (for DVD±R ow™ (for DVD±	W model(s) ⊧RW model(only) s) on	ly)	ctivate		 Cust (with 8 am next Lenc see I Or Po For I num http:// 	omer Re limited - 5 pm, busines bvo servi enovo.co site ser st warra nore info ber in yo	and labor eplaceable onsite se Mon - Fri is day res ices availa m/services vice upgra inty maint ormation four our countr	e Unit (CRU) part rvice for selected coverage exclud ponse time) able; _warranty/us/en/ler ade options (in e enance services find the Lenovo s	d parts ³ , ing holida novo-warrar ligible loc support pl	nty.html ations) ⁷ none

ThinkStation[®] E30 (7824) - TopSeller (Discrete Graphics) - May 2011

Type- S model	Slot x bay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-con RAID	f SATA optical	Media reader	Chassis Intrusion switch	i (Graphics dapter(s)	G	ilobal	Win7 preload
7824-A4G		Xeon E3-1220		4C/4T			1x250GB SATA		DVD±RW	Media	None	No	Quadro			Pro 64
7824-A1G 7824-A2G		Xeon E3-1230 Xeon E3-1240		4C/8T 4C/8T	1x4GB 1x4GB	FCC	1x250GB SATA 1x250GB SATA		DVD±RW DVD±RW	Media Media	None None	No No	Quadro Quadro		No No	Pro 64 Pro 64
7824-A3G		Xeon E3-1270		4C/8T			1x500GB SATA		DVD±RW	Media		No	Quadro			Pro 64
		 High Reliabili These small a 	ity wit and m	h Indepe edium bi	ndent So usiness (S	ftware SMB) n	dibly low price po Vendors (ISV) cen nodels are part of Product Key Read	tified ap the EM	EA TopSell			' supp	ort			
Processor		Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to Intel Xeon E3-1	0 3.4G 1230 0 3.6G 1240 0 3.7G 0 3.7G	Hz), DD processo Hz), DD processo Hz),DDF process	R3 memo or (4C/8T, R3 memo or (4C/8T, R3 memor or (4C/8T	ry cont 3.2GH ry cont 3.3GH y cont , 3.4G	GHz, 8MB Cache roller (up to 1333 Iz, 8MB Cache), roller (up to 1333 Iz, 8MB Cache), roller (up to 1333 Hz, 8MB Cache), roller (up to 1333	MHz) Turbo MHz) Turbo MHz) Turbo	Tower		 6.9"W 175mn 24.7 lb Remove Toolles 	x 17.0 n W x (11.2 /able h ss side	color; me)"D x 16.7' 431mm D kg) max c nandle on e cover rer and optic	"H (wi x 42 onfigu top fr noval	ith har 5mm H uration ont	ł
Implementa	ation	One LGA1155 s				,		,			 Toolles 	s ada	pter reten			
Memory		UDIMM, PC3-10 DIMM sockets; ECC model(s):		1333MH 32GB ma		ECC or	non-ECC, four 2	240-pin					ront icons ower butto	n		
A shelled a second		Non-ECC mode							5							
Additional memory disclaimers			n proc ed	cessor n	nemory co	ontrolle	st installed speed r speed and insta		Bay 2: Bay 3:		.6" high, " high,	acces acces	s, for o s, for n			r
Graphics		Some: NVIDIA	splayP Qua	ort™, on dro 2000	e dual-linl	CDVI-I	40W oter, 1GB,		Bay 5: Slot 1:	3.5", 1 half-leng	" high, jth, full-h			isk :16 (7	5w ma	x)
Media read	er	25-in-1 media re				,			Slot 3:	half-leng	th, full-h	eight,	32-bit PCI	2.3		
Optical		Super Multi-Bur							Slot 4:	half-leng	th, full-h	eight,	32-bit PCI	2.3		
Disk(s) Disk Contro	oller	Some: 250GB, Some: 500GB, Serial ATA, SAT, RAID 0, 1 support two SATA 6.0Gb	, SATA A 3.00 ort,	3.0Gb/s Gb/s and	s, 7200 rp SATA 6.0	m, 3.5)Gb/s,	ntegrated in chip	set,								
Chipset							PCH] (PCI Expre	ss [®] 2.0	x1,							
-		ethernet MAC, I		,		1 - 1	(0.5)									
Front ports Rear ports			ne ser	ial (9-pin			RJ-45), three and	alog aud	io			Intel	AMT			
Audio		ports (line-in, in High Definition			altok [®] ΔΙ	C662	codec		Intel A	MT supp	orted on	mode	l(s) with X	eon p	roces	sor
Speaker		Internal speake	· /	,		0002	LOUEC				SE	CURI	ТҮ			
Ethernet		One gigabit ethe	ernet	on plana	r, Intel 82				• Seci	urity chip	(see info	rmatio	on on left)			
Security ch	ip	STMicroelectror TCG 1.2-compli		T19NP1	8 Trusted	Platfor	m Module (TPM)	,					padlock; removal)			
Keyboard		Preferred Pro U		eyboard	(USB con	nector	, 104-key, black		— Seci	urity slot (in rear fo	or option	onal Ó			
Mouse		Optical Wheel N	Nouse	(USB co	onnector),	black			proh	sington® Ì ibits side	cover re	moval)			
Power supp	bly	280 watts with v 80 PLUS® Bron			fan, autos	sensing	g, 85% PSU,		 Pow 	er-on pas	sword		,			
ThinkVanta	ae®	Supports Think	<u> </u>		ologies					inistrator sequenc						
Preload OS	<u> </u>	Genuine Windo	~	0	0				 Boot 	: without l	keyboard		se			
Preload Applications	e	 Rescue and F Password Ma 							• USB	al port I/C port disa	blement					
Applications	5	 ThinkVantage 	e Toolb	XOX									ailable on s	select	ed mo	del(s)
		 Norton[™] Inter Adobe Reade Adobe Flash[®] 	er®		30 days of	fvirus	definitions)		RoHS	NGUARE -compliar T™ Gold	nt	ed				
		 Skype[™] for W 	/indóv	/S									ARRANTY	/1		
		 Microsoft[®] Off Corel[®] WinDV Corel Burn.No 	/D (foi	DVD±R	W model(s) only	product key to ac) nlv)	tivate	⇔ 3-ye ⇔ Cus	ear parts	and labo	r	t (CRU) pa		nlv	
		Ulead DVD M	lovieF	actory® (for DVD±I	RŴ'nc	dél(s) only)		(wit 8 aı	h limited n - 5 pm,	onsite s Mon - Fr	ervice i cove	for select rage exclu	ed pa	rts³,	ys,
										t busines ovo servi			e time)			
									see	lenovo.co	m/service	s_warr	anty/us/en/l			
									• P ⇔ For	ost warra more info	nty main prmation	tenan find t	options (in ice service the Lenovo	es		
									nun	nber in yo	our count	try at	oport/site.w			
											IGR-69107		por vsite.w	55/000	ament.	

ThinkStation® E30 (7824) - TopSeller (Discrete Graphics) - Oct 2011

Type- Slot x model bay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-cor RAID	of SATA optical	Media reader	Chassis Intrusion switch	1394 adptr	Graphics adapter(s)	Global	Win7 preload
7824-A7G 4x5	Core i3-2130		2C/4T		ECC	1x1TB SATA		DVD±RW	Media		None	Intel HD	No	Pro 64
7824-A8G 4x5 7824-A9G 4x5	Core i5-2400 Core i5-2500		4C/4T 4C/4T			1x1TB SATA 1x1TB SATA		DVD±RW DVD±RW	Media Media		None None	Intel HD Intel HD	No No	Pro 64 Pro 64
7824-B1G 4x5	Core i7-2600		4C/8T	-		1x1TB SATA		DVD±RW	Media		None	Intel HD	No	Pro 64
	 True workstat High Reliabili These small a These system 	ity wit and m	h Indepe edium bi	ndent Sof usiness (S	ftware SMB) m	Vendors (İSV) c nodels are part o	ertified a of the EM	IEA TopSelle			support			
Processor	Intel [®] Core™ i3 integrated Intel DDR3 memory Intel Core i5-24 integrated Intel Turbo Boost 2.0 DDR3 memory Intel Core i5-25 integrated Intel Turbo Boost 2.0 DDR3 memory Intel Core i7-26 integrated Intel Turbo Boost 2.0 DDR3 memory	HD G contro 400 pr HD G (up to contro 500 pr HD G (up to contro 600 pr HD G (up to	raphics 2 biller (up 1 rocesson raphics 2 o 3.4GH2 biller (up 1 rocesson raphics 2 o 3.7GH2 biller (up 1 rocesson raphics 2 o 3.8GH2	2000, to 1333MH r (4C/4T, 3 2000, z), to 1333MH r (4C/4T, 3 2000, z), to 1333MH r (4C/8T, 3 2000, z),	Hz) 3.1GHz Hz) 3.3GHz Hz) 3.4GHz	z, 6MB Cache), z, 6MB Cache),	e),	Tower		 6.9"W> 175mm 24.7 lb Remova Toolless Toolless 	(17.0"D W x 43 (11.2kg) able han s side co s disk ar s adapte ted fron eed powe		with har 25mm F guratior front al frive rem	Η΄ 1
Implementation	One LGA1155 s				/			Bay 2:	5.25", 1	.6" high, a	access,	for optic		
Memory	UDIMM, PC3-10 DIMM sockets; ECC model(s):	3	32GB ma	x	ECC or	non-ECC, four	240-pin	Bay 3: Bay 4:	3.5", 1	"high, a "high, i	access, nternal, nternal,	for med for disk for disk		r
Additional	 Non-ECC mode Actual memory 				e lowes	st installed spee	d.					le 2.0 x16	(75w ma	ax)
disclaimers		n proc ed	cessor m	nemory co	ontrolle	r speed and ins		Slot 2: Slot 3:	half-leng	yth, full-he yth, full-he	ight, PC ight, 32-			,
Graphics	Intel HD Graph one DisplayPort					emory, one VGA	۹,							
Media reader Optical Disk(s) Disk Controller	25-in-1 media re Super Multi-Bur 1TB, SATA 3.00 Serial ATA, SAT	rner D 3b/s, 7	L DVD±F 200 rpm	RW SATA 1, 3.5"			nset							
	RAID 0, 1 supportion two SATA 6.0Gb	ort,				5	poor,	Intel A	MT supp		Intel AN model(s)	I T with Xeor	n proces	sor
Chipset	Intel C206 Chip ethernet MAC, F	PCI, a	nd USB)		-		ess® 2.0		rity chin	SEC (see infor	CURITY	on left)		
Front ports Rear ports	Two USB 2.0, m Six USB 2.0, on ports (line-in, in Intel HD models	ne seri e-out, s: one	ial (9-pin mic-in) analog \), one eth	ernet (5 conr	RJ-45), three a	nalog aud	dio • Padlo padlo • Secu Kens	ock loop ock prohi irity slot (sington®	(in rear fo bits side o (in rear for Microsave cover rer	r opt pa cover rer r optiona er® cable	dlock; noval) al		
IEEE 1394 adpti	None	00	210010031	0.1100					er-on pas		noval)			
Audio Speaker	High Definition (· /	,		C662	codec				password ce control				
Ethernet	Internal speake One gigabit ethe				579			 Boot 	without I	keyboard,				
Security chip	STMicroelectror TCG 1.2-compli	nics S				m Module (TPN	1),	• USB		ablement			otod ma	dal(a)
Keyboard	Preferred Pro U	ISB Ke	eyboard	(USB con	nector)	, 104-key, black	1					ble on sele		1001(5)
Mouse Power supply	Optical Wheel M 280 watts with w 80 PLUS [®] Bronz	/ariabl	le speed	onnector), fan, autos	black sensing	g, 85% PSU,		RoHS-	NGUARI compliar ™ Gold		u 			
ThinkVantage®	Supports Think	Vanta	ge techn	ologies						LIMITE	D WAR			
Preload OS Preload Applications	Genuine Windo Rescue and F Password Ma ThinkVantage Norton™ Inter Adobe Reade Adobe Flash® Skype™ for W	Recove nager Toolb rnet Ser® Playe	ery oox ecurity (3 er vs	30 days of		,		 ✓ Cus (with 8 an next) ✓ Lenges • Other 1 	tomer Re h limited n - 5 pm, t busines ovo serv lenovo.co nsite ser	onsite se Mon - Fri s day res ices availa m/services vice upgr	e Unit (C rvice for coverag ponse ti able; _warranty ade opti	y/us/en/leno ons (in elig	parts³, g holida vo-warrai	nty.html
	 Microsoft[®] Off Corel[®] WinDV Corel Burn.No Ulead DVD M 	′D (for ow™ (†	· DVD±R' for DVD±	W model(RW mode	s) only el(s) or)))lv)	activate	→ For num http:	more info ber in yo //www-307	our count	find the ry at	services Lenovo su rt/site.wss/d		

ThinkStation® E30 (7824) - TS (Discrete Graphics) - Dec 2011 - I

Personal Systems Reference(PSREF)

	Slot x bay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-cor RAID	f SATA optical	Media reader	Chassis Intrusion switch	1394 adptr	Graphics adapter(s)	Global	Win7 preload
7824-C8G		Xeon E3-1270		4C/8T			2x500GB SATA	No	DVD±RW			None		No	Pro 64
7824-D1G 7824-D5G		Xeon E3-1220 Core i3-2130	3.1 3.4		2x2GB 2x2GB		2x500GB SATA 2x500GB SATA	No	DVD±RW DVD±RW			None None	Intel HD	No No	Pro 64 Pro 64
7824-D5G		Core i5-2400		4C/4T		LUU	2x500GB SATA	No	DVD±RW			None	Intel HD		Pro 64
7824-D7G		Core i5-2500			2x2GB		2x500GB SATA	No	DVD±RW			None	Intel HD		Pro 64
7824-D8G	4x5	Core i7-2600	3.4	4C/8T	2x2GB		2x500GB SATA	No	DVD±RW	Media	None	None	Intel HD	No	Pro 64
							odels are part of roduct Key Read			ler™ Prog	ıram				
Processor		integrated Intel DDR3 memory Intel Core i5-24 integrated Intel Turbo Boost 2.0 DDR3 memory Intel Core i5-25 integrated Intel Turbo Boost 2.0 DDR3 memory Intel Core i7-26 integrated Intel Turbo Boost 2.0 DDR3 memory Intel Xeon [®] E3- Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to	HD G contro 100 pi HD G (up t contro 500 pi (up t contro 500 pi) (up t) (up t)	raphics 2 biller (up 5 rocessor raphics 2 o 3.4GH: biller (up 5 rocessor raphics 2 o 3.7GH: biller (up 5 rocessor raphics 2 o 3.8GH: biller (up 5 rocessor Hz), DD process Hz), DD	2000, to 1333MI to 1333MI r (4C/4T, 3 2000, z), to 1333MI r (4C/4T, 3 2000, z), to 1333MI r (4C/8T, 3 2000, z), to 1333MI sor (4C/8T, R3 memo br (4C/8T,	Hz) 3.1GHz Hz) 3.3GHz Hz) 4z) T, 3.1G 7, 3.1G 3.4GH	z, 6MB Cache),	, Turbo 3MHz) Turbo	Bay 2 Bay 3 Bay 4	cal = 5.25", 1 5.25", 1 5.25", 1 3.5", 1	 6.9"W > 175mm 24.7 lb Remov. Toolles: Toolles: Toolles: Illumina Recess .6" high, a " high, a " high, i 	(17.0"D W x 43 (11.2kg) able han s side co s disk ar s adapte ated fron sed powe access.		with har 25mm H guratior front al Irive ren rive ren al al al	noval
Implementa	ation	One LGA1155 s									•	,			
Memory		UDIMM, PC3-10 DIMM sockets; ECC model(s): Non-ECC model	3	32GB ma	х	ECC or	non-ECC, four 2	240-pin	Slot 2 Slot 3	: half-leng : half-leng	yth, full-he yth, full-he	eight, PC eight, 32-	le 2.0 x16 le 2.0 x1 bit PCI 2.3 bit PCI 2.3		ix)
Additional memory disclaimers		Actual memory	ry ope 1 proc ed	erating sp cessor m	peed is the nemory co	ntrolle	st installed speed r speed and insta				,,	g, o_			
Graphics		Some: Intel HD	Grap	hics in p		uses	main memory, on	e VGA,							
Media read	er	25-in-1 media re				1 504						Intel AN			
Optical Disk(s)		Super Multi-Bur 500GB, SATA 3				1.5GD/	s Drive		Intel A	AMT supp	orted on I	model(s)	with Xeor	proces	sor
Disk Contro	oller					Gb/s, i	ntegrated in chip	set,				CURITY			
		RAID 0, 1 supportion two SATA 6.0Gb		nnectors	two SAT	4 3.0G	b/s connectors				(see infor (in rear fo				
Chipset							PCH] (PCI Expre	ss [®] 2.0	x1 pad	lock prohi	bits side of	cover rer	noval)		
Front ports Rear ports		ethernet MAC, F Two USB 2.0, m	PCI, a nicrop ne ser e-out, s: one	nd USB) hone (3.9 ial (9-pin mic-in) analog \	5mm), hea), one eth	adphor ernet (5 conr	ne (3.5mm) RJ-45), three and		lio • Adn • Boo	sington® nibits side ver-on pas ninistrator t sequence	password ce control	er® cable noval) d			
IEEE 1394	adptr	None	0110	piuyi	000111					al port I/C	keyboard,) control	mouse			
Audio		High Definition (.C662	codec		 USE 	3 port disa	ablement	(front or	all)	oted	dalla
Speaker Ethernet		Internal speake One gigabit ethe				570							ble on sele	cted ma	ael(s)
Security chi	ip		nics S				m Module (TPM)	,	RoHS	ENGUARI S-compliar T™ Gold		d			
Keyboard		Preferred Pro U					, 104-key, black			0.0.0	<u> </u>				
Mouse Power supp	bly	Optical Wheel M 280 watts with w 80 PLUS [®] Bronz	/ariab	le speed			g, 85% PSU,				and labor		RU) parts	only	
ThinkVanta	ge®	Supports Think			ologies								selected		ivs
Preload OS	6	Genuine Windo			onal 64				nex	t busines	s day res	ponse ti		Support	.yo,
Preload Applications	\$	 Rescue and F ThinkVantage 									ices avail		y/us/en/leno	VO-W2**C	atv html
(only some		 Norton[™] Inter 	met S	ecurity (3	30 days of	virus	definitions)		• 0	Onsite ser	vice upgr	ade opti	ons (in elig		
listed)		 Skype™ for W 	/indov	/s	-		,	otivoto	• F	Post warra	inty main	tenance	services		
		 Microsoft[®] Off Corel[®] WinDV Corel Burn.No 	'D (foi	· DVD±R	W model(s) onlv	product key to ac	livate			ormation		Lenovo su	pport p	none

See footnotes for important warranty information EMEA model(s) announced December 6, 2011 EMEA model(s) withdrawn effective October 2012

ThinkStation® E30 (7824) - TS (Discrete Graphics) - Dec 2011 - II

Type- Slot x model bay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-con RAID	f SATA optical	Media reader	Chassis Intrusion switch	1394 adptr	Graphics adapter(s)	Global	Win7 preloa
7824-C2G 4x5 7824-C3G 4x5	Xeon E3-1235 Core i5-2500		4C/8T 4C/4T		ECC	1x160GB SSD 1x160GB SSD		DVD±RW DVD±RW	Media Media		None None	Intel HD Intel HD	No No	Pro 6 Pro 6
						nodels are part o Product Key Read			er™ Prog	ıram				
Processor	integrated Intel Turbo Boost 2.0 DDR3 memory Intel Xeon [®] E3	HD G (up to contro -1235 0 3.6G	raphics 2 o 3.7GH oller (up process iHz), inte	2000, z), to 1333M sor (4C/8 ⁻ grated Int	Hz) T, 3.2G tel HD	GHz, 6MB Cache Hz, 8MB Cache Graphics P3000), Turbo	Tower optic	al	 6.9"W x 175mm 24.7 lb Removal 	17.0"D W x 43 (11.2kg) able han	lor; metal c x 16.7"H (1mm D x 4) max confi idle on top over remov	with har 25mm guratior front	ΗÍ
Implementation	One LGA1155	socket	t .		,			disk	ונ			nd optical d		noval
Memory	UDIMM, PC3-1 DIMM sockets; ECC model(s): Non-ECC mode	З	32GB ma	x	ECC or	non-ECC , four	240-pin			IoollessIlluminaRecess	ted fron			
Additional memory disclaimers	 Actual memo 	ry ópe n proc ed	erating sp cessor n	peed is the nemory co	ontrolle	st installed speed r speed and inst				.6" high, a .6" high, a		for optic for optic		
Graphics		nics in	process	or, uses r		emory, one VGA	, one	Bay 3: Bay 4:	3.5", 1	" high, ía " high, íi	nternal, nternal,	for medi for disk for disk		r
Media reader Optical Disk(s) Disk Controller	25-in-1 media r Super Multi-Bui 160GB Solid St	eader, rner D ate Dr A 3.00 ort,	, internal L DVD±I rive (SSI Gb/s and	USB 2.0 RW SATA D), SATA 3 SATA 6.0	3.0Gb/s)Gb/s,	s, 2.5" integrated in chip	oset,	Slot 1: Slot 2: Slot 3:	half-leng half-leng half-leng	gth, full-he gth, full-he gth, full-he	ight, PC ight, PC ight, 32-	le 2.0 x16		ax)
Chipset Front ports Rear ports	Intel C206 Chip ethernet MAC, Two USB 2.0, n	pset, l PCI, a nicrop ne seri ie-out,	Platform Ind USB) hone (3. ial (9-pin mic-in)	Controlle 5mm), he), one eth	r Hub [adphor ernet (PCH] (PCI Expre ne (3.5mm) RJ-45), three an					Intel AM	лт		
				Port conn		,		Intel Al	MT supp) with Xeon	proces	sor
IEEE 1394 adptr Audio Speaker Ethernet Security chip	High Definition Internal speake One gigabit eth	r for b ernet nics S	usiness on plana	audio .r, Intel 82	579	codec m Module (TPM),	 Secu Padlo padlo Secu 	irity chip ock loop ock prohi irity slot (SEC (see infor (in rear fo bits side c (in rear for	CURITY mation of r opt pa over rer	on left) idlock; moval) al		
Keyboard Mouse Power supply		ISB Ke Nouse variab	(USB co le speed	, onnector),	, black), 104-key, black g, 85% PSU,		prohi • Powe • Admi • Boot	bits side er-on pas inistrator sequenc	password ce control	noval) I	9;		
ThinkVantage®	Supports Think		-	-					without I al port I/C	keyboard,) control	mouse			
Preload OS Preload Applications	Genuine Windo • Rescue and F • Password Ma • ThinkVantage • Norton™ Inter • Adobe Reade	Recover nager Toolb rnet S er®	ery box ecurity (3		f virus	definitions)		USB Chas GREE RoHS-	port disa ssis intru	ablement (<i>sion switc</i> D® certified	h availai	all) ble on sele	cted mo	odel(s)
	 Adobe Flash[®] 	Playe												
	 Skype™ for W Microsoft[®] Of Corel[®] WinDV Corel Burn.N Ulead DVD M 	fice 20 /D (for ow™ (010 preid DVD±R for DVD±	W model(ERW mod	s) only el(s) or	ńly)	ctivate	 Cus (with 8 an next) Lend see Of € Po For 	tomer Re h limited n - 5 pm, t busines ovo servi lenovo.co nsite ser ost warra more info	and labor eplaceable onsite se Mon - Fri iss day res ices availa m/services vice upgra inty maint ormation	e Unit (C rvice for coverag ponse ti able; _warranty ade opti enance find the	RU) parts r selected µ je excludin me) y/us/en/lenov ons (in elig	oarts ³ , g holida vo-warra jible loc	nty.html ations) ⁷
								http:	//www-30	our countr 7.ibm.com/µ IIGR-69107		rt/site.wss/d	ocument	

ThinkStation® E30 (7783) - Integrated Graphics - withdrawn

Type- Slot x model bay	Processor	Cores / GHz Threads		ECC	Disk(s)	Pre-con RAID	f SATA optical	Media reader	Chassis Intrusion switch	Graphics adapter(s)	Global	Win7 preload
7783-27G 4x5 7783-28G 4x5 7783-29G 4x5	Xeon E3-1245 Xeon E3-1275 Xeon E3-1275	3.3 4C/8T 3.4 4C/8T 3.4 4C/8T	2x2GB	ECC	1x1TB SATA 1x1TB SATA 1x300GB SATA		DVD±RW DVD±RW DVD±RW	Media	None None None	Intel HD Intel HD Intel HD	No No No	Pro 64 Pro 64 Pro 64
	 High Reliabil. 	ity with Indepe	endent So	ftware	edibly low price p Vendors (ISV) cel Product Key Read	rtified a		and ECC	C memory s	support		
Processor	Boost 2.0 (up to DDR3 memory Intel Xeon E3-1	o 3.7GHz), inte controller (up f 1275 processo o 3.8GHz), inte controller (up f	grated Int to 1333MI or (4C/8T, grated Int	el HD Hz) 3.4GH el HD	GHz, 8MB Cache Graphics P3000, Iz, 8MB Cache), Graphics P3000,		, Tower		 6.9"W x 175mm 24.7 lb (Removal 	plack color; met 17.0"D x 16.7' W x 431mm D (11.2kg) max c able handle on side cover ren	'H (with ha x 425mm onfiguratic top front	ΗÍ
Memory		0600 1333MH 32GB ma	x	ECC or	non-ECC , four 2	240-pin			ToollessIlluminat	disk and optic adapter retent ted front icons ed power butto	ion	moval
Additional memory disclaimers		n proccessor m ed	nemory co	ontrolle	st installed speed r speed and insta I		 Bav 1:		.6" high, a	ccess. for o	ptical	
Graphics		ics in process	or, uses r		emory, one VGA,	one	— Bay 2: Bay 3:	5.25 ["] , 1 3.5 ["] , 1	.6" high, a " high, a	ccess, for o ccess, for m	ptical nedia read	ler
Media reader Optical	25-in-1 media re Super Multi-Bur	eader, internal	USB 2.0	1 5Gb	e Drive			3.5", 1 3.5", 1		nternal, for d nternal, for d		
Disk(s) Disk Controller	Some: 300GB, Some: 1TB, S	, SATA 6.0Gb/s ATA 3.0Gb/s, 7 A 3.0Gb/s and ort,	s, 10000 r 200 rpm, SATA 6.0	pm, 2.9 3.5" IGb/s, i	5" integrated in chip	set,	Slot 2: Slot 3:	half-len half-len	gth, full-hei gth, full-hei	ght, PCIe 2.0 x ght, PCIe 2.0 x ght, 32-bit PCI ght, 32-bit PCI	1 2.3	nax)
Chipset		oset, Platform	Controlle		PCH] (PCI Expre	ss [®] 2.0	x1,					
Front ports Rear ports	Two USB 2.0, m Six USB 2.0, or ports (line-in, in	nicrophone (3. ne serial (9-pin e-out, mic-in),	5mm), hea), one eth	ernet (ne (3.5mm) RJ-45), three ana yPort connector	alog aud	lio					
Audio Speaker	High Definition Internal speake	(HD) Audio, Re	ealtek® AL						l	ntel AMT		
Ethernet Security chip	One gigabit eth	ernet on plana nics ST19NP1	r, Intel 82		m Module (TPM)	3			SEC	nodel(s) with X CURITY mation on left)	eon proce	ssor
Keyboard Mouse Power supply	Preferred Pro U Optical Wheel M 280 watts with 80 PLUS [®] Bron	Nouse (USB co variable speed	onnector),	black	, 104-key, black g, 85% PSU,		 Padl padl Secu Kens 	ock loop ock prohi urity slot sington®	(in rear for ibits side c (in rear for Microsave	r opt padlock; over removal) optional r [®] cable;		
ThinkVantage® Preload OS	Supports Think' Genuine Windo		0				 Pow 	er-on pas		,		
Preload Applications	 Rescue and F Password Ma ThinkVantage Norton[™] Inter Adobe Reade 	Recovery nager Toolbox rnet Security (3 pr®		virus (definitions)		 Boot Boot Seria USB 	t sequend without al port I/C port disa	r password ce control keyboard, D control ablement (<i>sion switch</i>		selected m	nodel(s)
	 Adobe Flash[®] Skype[™] for W Microsoft[®] Off Corel[®] WinDV 	/indows fice 2010 prelo	aded; pur W model(chase	product key to ac	tivate	RoHS	NGUARI -complia T™ Gold		I		
	• Corel Burn.N • Ulead DVD M	ow™ (for DVD±	-RW mod	el(s) or	nly)		 ✓ Cus (wit 8 ar nex ↓ Len ◇ O ♥ For nun 	tomer Re h limited m - 5 pm, t busines ovo serv lenovo.co nsite ser ost warra more inf nber in ye ://www-30	and labor eplaceable onsite ser Mon - Fri of ss day resp rices availa m/services rvice upgra anty mainto ormation f our countr	warranty/us/en/la ade options (in enance service ind the Lenovo	rts only ed parts ³ , ding holid enovo-warr eligible lo s s o support	anty.html ocations) ⁷ phone

ThinkStation® E30 (7783) - Integrated Graphics (December 2011)

Type- Slot x model bay	Processor		s/ Memory ds DIMMs	ECC	Disk(s)	Pre-con RAID	f SATA optical	Media reader	Chassis Intrusio switch		Graphics adapter(s)	Global	Win7 preload
7783-B9G 4x5 7783-C1G 4x5	Xeon E3-1245 Xeon E3-1275		T 2x2GB T 2x2GB		2x500GB SATA 2x500GB SATA		DVD±RW DVD±RW			None None	Intel HD Intel HD	No No	Pro 64 Pro 64
	High Reliabil	ity with Inde	ependent So	ftware	edibly low price p Vendors (ISV) ce Product Key Read	rtified a		and ECC	C memory	/ suppo	rt		
Processor	Boost 2.0 (up to DDR3 memory Intel Xeon E3-	o 3.7GHz), i controller (1275 proce o 3.8GHz), i controller (ntegrated In up to 1333M ssor (4C/81 ntegrated In	tel HD Hz) ; 3.4GI tel HD	GHz, 8MB Cache Graphics P3000, Hz, 8MB Cache), Graphics P3000,	Turbo	optio		 6.9"W 175mn 24.7 lb Remov Toolles 	x 17.0"[n W x 43 (11.2kg /able ha ss side c	olor; metal D x 16.7"H 31mm D x 4 3) max cont ndle on top cover remov	(with ha 425mm figuratio front /al	H ´ n
Memory Additional	DIMM sockets; ECC model(s): Non-ECC mode	32GB e <i>l(s):</i> 16GB	max max		r non-ECC , four : st installed speed	·			ToollesIllumin	ss adapt ated fro	and optical er retention nt icons ver button		noval
memory disclaimers		n proccesso ed	r memory c	ontrolle	r speed and insta		Bay 1:	 5.25", 1	.6" high,	access,	for optic		
Graphics	Intel HD Graph DisplayPort™ (s			main m	emory, one VGA	, one		3.5", 1		access, access, internal	for med	lia read	er
Media reader Optical Disk(s) Disk Controller	25-in-1 media r Super Multi-Bu 500GB, SATA 3 Serial ATA, SAT RAID 0, 1 supp two SATA 6.0Gl	rner DL DVI 3.0Gb/s, 720 A 3.0Gb/s a ort,	D±RW SATA 00 rpm, 3.5" and SATA 6.0	1.5Gb 0Gb/s,	integrated in chip	oset,	Bay 5: Slot 1: Slot 2: Slot 3:	3.5", 1 half-len half-len half-len	" high, gth, full-h gth, full-h gth, full-h	internal eight, P(eight, P(eight, 32		(75w m 3	ax)
Chipset Front ports Rear ports	Intel C206 Chij ethernet MAC, Two USB 2.0, n Six USB 2.0, or ports (line-in, in one analog VG/	pset , Platfo PCI, and Us nicrophone ne serial (9- ie-out, mic-i	rm Controlle SB) (3.5mm), he pin), one eth n),	er Hub [adphoi nernet (PCH] (PCI Expre								
IEEE 1394 adptr Audio Speaker Ethernet Security chip	High Definition Internal speake One gigabit eth	r for busine ernet on pla nics ST19N	ss audio anar, Intel 82	2579	codec rm Module (TPM)	,				CURITY	s) with Xeor	n proces	ssor
Keyboard Mouse Power supply	Preferred Pro U Optical Wheel M 280 watts with w 80 PLUS® Bron	ISB Keyboa Mouse (USB variable spe ze qualified	3 connector) ed fan, auto	, black			 Padl padl Secution 	ock loop ock proh urity slot sington®	(in rear fo ibits side (in rear fo Microsav cover re	or opt p cover re or option rer [®] cab	adlock; emoval) ial		
ThinkVantage® Preload OS Preload Applications	Supports Think Genuine Windo • Rescue and F • Password Ma • ThinkVantage • Norton™ Inter • Adobe Reade	ws [®] 7 Profe Recovery nager Toolbox rnet Securit er [®]	essional 64	f virus	definitions)		 Pow Adm Boot Boot Seria USE 	er-on pas inistrator t sequent t without al port I/0 5 port dis	ssword passwor ce contro keyboard D control ablement	rd I I, mouse (front o		ected m	odel(s)
	 Adobe Flash[®] Skype™ for W Microsoft[®] Of Corel[®] WinDW 	/indóws fice 2010 pi			product key to a	ctivate	RoHS	NGUAR -complia T™ Gold		ed			
	 Corel Burn.Ni Ulead DVD M 	ow™ (for D\	D±RW mod	lel(s) o	ńly)		 ✓ Cus (with 8 an nex ↓ Len ↓ O ↓ P ↓ For num http 	tomer R h limited m - 5 pm, t busines ovo serv lenovo.cc nsite ser ost warra more inf nber in y ://www-30	and labo eplaceab lonsite s Mon - Fr ss day re- vices avai om/service rvice upg anty main formation our coun	r le Unit (ervice fo i covera sponse lable; s_warran rade opi ntenance find the try at /pc/support	RRANTY ¹ CRU) parts or selected ge excludin time) ty/us/en/lenc tions (in eli e services e Lenovo su ort/site.wss/o	parts ³ , ng holid ovo-warra gible loo upport p	nty.html cations) ⁷ phone

ThinkStation® E30 (7783) - Discrete Graphics - withdrawn

	ot x ay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-con RAID	f SATA optical		Chassis Intrusion switch	Graphics adapter(s)	Global	Win7 preload
7783-25G 4» 7783-26G 4»		Xeon E3-1230 Xeon E3-1270		4C/8T 4C/8T			1x500GB SATA 1x500GB SATA		DVD±RW DVD±RW			Quadro 600 Quadro 2000	No No	Pro 64 Pro 64
		• High Reliabil	ity wit	th Indepe	endent So	ftware	dibly low price p Vendors (ISV) ce Product Key Read	rtified ap		and EC	C memor	ry support		
Processor		Boost 2.0 (up to Intel Xeon E3-1 Boost 2.0 (up to) 3.6G 270) 3.8G	iHz), DD processo iHz), DD	R3 memo or (4C/8T,	ry cont 3.4GF	GHz, 8MB Cache roller (up to 1333 Iz, 8MB Cache), roller (up to 1333	8MHz) Turbo	Tower		6.9"W175m	n black color; mo / x 17.0"D x 16. m W x 431mm I	7"H (with ha D x 425mm	ΗĆ
Implementation Memory		One LGA1155 s UDIMM, PC3-1 DIMM sockets; ECC model(s): Non-ECC mode	0600	1333MH 32GB ma	X	ECC or	non-ECC, four 2	240-pin			 Remo Toolle Toolle Toolle 	b (11.2kg) max wable handle or ss side cover re ss disk and opti ss adapter rete	n top front moval cal drive rer ntion	
Additional memory disclaimers		 Actual memo dependent or memory spee ECC and non 	ry ópe n proc ed i-ECC	erating sp cessor m DIMMs	peed is the nemory co cannot be	ntrolle mixed			5			nated front icons ssed power butt		
Graphics		Some: NVIDIA two Dis	playF Qua playP	ort™, on dro 2000 ort, one o	e dual-link), PCIe x1 dual-link D	c DVI-I, 6 adap	40W ter, 1GB,		Bay 2: Bay 3: Bay 4:	5.25", 3.5", 3.5",	1.6" high 1.6" high 1" high, 1" high,	, access, for access, for internal, for	optical optical media reade disk	ər
Media reader Optical Disk(s) Disk Controlle	er	25-in-1 media ro Super Multi-Bur 500GB, SATA 3 Serial ATA, SAT RAID 0, 1 supp two SATA 6.0Gb	ner D .0Gb/ A 3.00 ort,	L DVD±F s, 7200 r Gb/s and	RW SATA pm, 3.5" I SATA 6.0	Gb/s, i	ntegrated in chip	set,	Slot 1: Slot 2: Slot 3:	half-ler half-ler half-ler	ngth, full-h ngth, full-h	internal, for neight, PCIe 2.0 neight, PCIe 2.0 neight, 32-bit PC neight, 32-bit PC	x1 I 2.3	ax)
Chipset Front ports Rear ports Audio Speaker		ethernet MAC, I Two USB 2.0, m	PCI, a nicrop ne ser e-out (HD)	nd USB) hone (3.9 ial (9-pin , mic-in) Audio, Re) 5mm), hea), one eth ealtek [®] AL	adphor ernet (RJ-45), three and							
Ethernet Security chip		One gigabit eth	ernet nics S	on plana	r, Intel 82		m Module (TPM)	3	Intel A	AMT sup	ported or	Intel AMT n model(s) with	Xeon proces	sor
Keyboard Mouse Power supply	,		SB K Iouse /ariab	(USB co le speed	onnector),	black	, 104-key, black g, 85% PSU,		Padl padl	lock loop ock prol	o (see info o (in rear hibits side	ECURITY ormation on left for opt padlock; e cover removal)		
ThinkVantage Preload OS Preload Applications	9 [®]	Supports Think' Genuine Windo • Rescue and F • Password Ma • ThinkVantage • Norton™ Inter • Adobe Reade • Adobe Flash • Skype™ for W	ws [®] 7 Recov nager Toolk rnet S r [®] Playe /indov	Professi ery box ecurity (3 er vs	ional 64 30 days of		,		Kens proh Pow Adm Boo Boo Seri USE	sington® ibits sid er-on pa inistrato t sequer t without al port l/ b port dis	 Microsa e cover reassword or password or ce contro t keyboard O control sablemen 	ord ol d, mouse	selected mo	odel(s)
		 Microsoft[®] Off Corel[®] WinDV Corel Burn.No Ulead DVD M 	′D (foi ow™ (r DVD±R for DVD±	W model(RW mode	s) only el(s) or	ily)	tivate	RoHS	NGUAF -complia T™ Gold		ed		
									 ✓ Cus (with 8 an nex ↓ Len ↓ Cus ↓ Cus ↓ Por ↓ For nur http 	stomer F th limite m - 5 pm t busine lenovo.co nsite se ost warn more in nber in y ://www-3	s and labo Replaceab d onsite s n, Mon - F ess day re vices ava com/service ervice upg ranty mai formation your cour	ble Unit (CRU) p service for selec ri coverage excl esponse time) ilable; es_warranty/us/en grade options (i ntenance servic n find the Lenov try at n/pc/support/site.1	arts only ted parts ³ , uding holid /lenovo-warra n eligible loo es ro support p	nty.html cations) ⁷ hone

ThinkStation[®] E30 (7783) - Discrete Graphics (May 2011)

Disk(s) 500GB, SATA 3.06b/s, 7200 rpm, 3.5° Bisk Controller For media reader Disk Controller Serial ATA, SATA 3.05b/s and SATA 6.06b/s, integrated in chipset, RAID 0, 1 support. Bisk 2.35°, 1° high, internal, for disk Chipset Intel C206 Chipset, Platform Controller Hub [PCH] (PCI Express [®] 2.0 x1, etherent MAC, PCI, and USB) Stot 1; half-length, full-height, PCIe 2.0 x1 (350) Front ports Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Stot 2; half-length, full-height, 32-bit PCI 2.3 Stot 2; Land-Length, full-height, 32-bit PCI 2.3 Stot 4; half-length, full-height, 32-bit PCI 2.3 Audio Prefored Pro USB (how, Reather, ALC662 codec Internal speaker for business audio Stot 2; half-length, full-height, 32-bit PCI 2.3 Prefored Pro USB Keyboard (USB connector), 104-key, black Optical Wheel Mouse (USB connector), black Mouse Prefored Pro USB Keyboard (USB connector), black Optical Wheel Mouse (USB connector), black Preload OS Security foil (see information on left) Preload OS Preload PLUS* Bronze qualified Security foil (see information on left) Preload OS Preload PLUS* For Windows* 7 Professional 64 Password Manager Preload OS Preload PLUS* For Windows* 7 Professional 64 Power-onpassword Adobe Flash* Player Adobe Flash* Player Skopte* for Windows* 7 Professional 64 Skopte* for Windows	Type- model	Slot x bay	Processor	GHz	Cores / Threads	Memory DIMMs	ECC	Disk(s)	Pre-con RAID	f SATA optical		Chassis Intrusion switch	Graphics adapter(s)	Global	Win7 preloa
 High Reliability with independent Software Vendors (ISV) certified applications and ECC memory support This system is Microsoft 'Office 2010 Product Key Ready (O10PKR) Processor Intel[®] Xen[®] E-1230 processor (4C/8T, 3.2GHz, 8MB Cache), Turbo memory composition (up to 1333MHz) Memory UDIM, PC2-10600 133MHz DDR3, ECC or non-ECC, four 240-pit MM sockets, 1877H yells have configuration on <i>ECC molecles</i>, 1868 max Additional Mone CC- model(s): 1868 max Additional memory operating speed is the lowest installed speed, memory tortoller speed and installed speed, internation on bipleyport*, one dual-link DVI-1, 4004. Witha² Vart 70 UD/D-WM SATA 1.5Gb/s Drive Disk(s) 5005B. SATA 3.0Gb/s and SATA 6.0Gb/s, integrated in chipset. Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Sist USB 2.0, microphone (3.5mm	7783-92G	4x5	Xeon E3-1230	3.2	4C/8T	4x2GB	ECC	1x500GB SATA	No	DVD±RW	None	None	Quadro 600	Global	Pro 6
Boost 20 (up to 3 6G/FL), DDR3 memory controller (up to 1333MH2) • A aven black color, metal case Memory UDIMM, PC3-16600 1333MH2 DDR3, ECC or non-ECC, four 240-pin • Gaven black color, metal case JDIMM sockets; ECC model(s): S2GB max 23GB max • Cases of memory controller speed and installed demony producessor memory controller speed and installed demony produces demony controller speed and installed demony producessor memory controller speed and installed demony produces demony produces demony controller speed and the speed and produce different on plant, the speed start & LGGbs produces, the speed speak is 25, 1, 16 th high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, access, for optical Bay 2, 55, 1, 16 th , high, high, access, for optical Bay 2, 55, 1, 16 th , high, hight, access, for optical Bay 2, 55, 1			 High Reliabil 	lity wi	th Indepe	endent So	ftware	Vendors (İSV) cei	tified a		and EC	CC memor	ry support		
Memory UDIMM, PC3-10600 1333MHz DDR3, ECC or non-ECC, four 240-pin DIMM socket; ECC model(s): 16GB max Additional eCC model(s): 16GB max Additional encode(s): 16GB max encode(s): 16GB max Additional encode(s): 16GB max Additional encode(s): 16GB max Additional encode(s): 16GB max Anone Optical Bay 1: 525; 16° high, access, for optical Bay 2: 525; 16° high, access, for optical Constant Ad			Boost 2.0 (up t	o 3.60	GHz), DD	ssor (4C/ R3 memo	8T, 3.2 ory con	GHz, 8MB Cache troller (up to 1333), Turbo 3MHz)	Towe	r	Raver	n black color; me	etal case	- dl -)
Weithing' Duration Procession Public Score 24.7 Ib (11.2kg) max configuration Procession Procestant Procescone Procession Procestant Procession Proc	•	ation					F00	500 (10			• 6.9"W	/ x 17.0°D x 16.7 m W x 431mm [^{or} H (with ha) x 425mm	naie) H
Additional memory operating speed is the lowest installed speed, dependent on processor memory control error memory control is speed and installed memory speed • 0001858 sites and Oplical Omer Centrol MMs cannot be mixed Graphics NVDIDA® Quadro® 600, PCIe x16 adapter, 1GB, on DibisplayPort™, one dual-ink DV1-1, 40W Media reader Optical None Super Multi-Burner DL DVD=RW SATA 1.3Gb/s Drive SoGB, SATA 3.0Gb/s, 7200 prn, 3.5° Bay 1: 5.25°, 1.6° high, access, for optical Bay 2: 5.25°, 1.1° high, access, tor motical reader Disk(s) Disk Controller SoGAB, SATA 3.0Gb/s adsATA 6.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA 6.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA 3.0Gb/s connectors Bay 3: 3.5°, 11 high, access, tor optical Bay 3: 3.5°, 11 high, access, tor optical Bay 3: 3.5°, 11 high, access, tor motical reader Disk Controller, PL adder Controller Hub [PCH] (PCI Express ² 2.0.1] Front ports Intel C266 Chipset, Platform Controller Hub [PCH] (PCI Express ² 2.0.1] Front ports Two USB 2.0, microphone (3.5mm) headphone (3.5mm) Seeurity Chip State Areader Disk of two adders and the S2579 Soewater Think antage Tor USB report and instant and B2579 Soewater Think variable speed and, utosensing, 85% PSU, 300 PL is adder cover removal) Soewater Corell Wincodws? 7 Professional 64 Preload OS Genuine Windows? 7 Professional 64 Preload OS Rescueral Recovery	Memory		DIMM sockets; ECC model(s):	-	32GB ma	ax	ECC 0	r non-ECC, tour 2	240-pin			 24.7 I Remo Toolle 	b (11.2kg) max o ovable handle on ess side cover re	configuration top front moval	า
Graphics NVIDIA* Ousdro* 600, PCIe x16 adapter, 1GB, one DisplayPort*, one dual-link DVI-1, 40W Media reader Optical Super Multi-Burner DL DVD-RW SATA 1.5Gb/s Drive Stores, 1ATA, SATA 3.0Gb/s, 7200 rpm, 3.5* Disk Controller Super Multi-Burner DL DVD-RW SATA 3.5Gb/s, integrated in chipset, bisk Controller Disk Controller String ATA, SATA 3.0Gb/s, and SATA 3.0Gb/s, integrated in chipset, string ATA, SATA 3.0Gb/s, and SATA 3.0Gb/s, integrated in chipset, thore SATA 8.0Gb/s, concetors Chipset Intel C206 Chipset, Platform Controller Hub [PCH] (PCI Express* 2.0 xt) string 10, one serial (Pp-int), one ethermet (RJ-45), three analog audio ports (line-in, ine-out, mic-in) Audio High Definition (HD) Audio, Realtek* ALC662 codec Internal speaker for business audio Cone gigabit ethernet on planar, Intel 82579 Security ohip Stringe ethernet on business audio Optical Wheel Mouse (USB connector), black Preterad Pro USB Keyboard (Mouse Optical Medows* 7 Professional 64 * Rescue and Recourtly (30 days of virus definitions) Adobe Reader* StrinkVantage* Terofossional 64 * Rescue and Recourtly (30 days of virus definitions) Adobe Reader* Skyper* for WinDows Adobe Reader* Skyper* for WinDows (for DVD-R+RW model(s) only) • Ulead DVD MovieFactory* (for DVD-R+RW model(s) only) • Chassis intrusites express control Box carring on WinDows (CRU) protocated purchase product key to activate * Oref* WinDVN (for DVD-R+RW model(s) only) • Ulead DVD MovieFactory* (for DVD-R+RW model(s) only) • Chassis intrusites service for elected parts*, 8 am = 5 m, Mo	memory	6	 Actual memory dependent o memory spe 	ory op n pro ed	erating s ccessor n	peed is th nemory c	ontrolle	r speed and insta				ToolleIllumii	ess adapter reter nated front icons	ntion S	noval
Optical Super Multi-Burner DL DVD=FW SATA 1.5Gb/s Drive Bisk (5) Disk Controller SongB, SATA 3.0Gb/s and SATA 6.0Gb/s, integrated in chipset, FAID 0, 1 support. Bay 3.35, '' high, internal, for disk Disk Controller Serial ATA, SATA 3.0Gb/s and SATA 6.0Gb/s, integrated in chipset, FAID 0, 1 support. Bay 3.35, '' high, internal, for disk Chipset Intel C206 Chipset, Platform Controller Hub [PCH] (PCI Express" 2.0 x1 ethermet MAC, PCI, and USB) Sint 1: half-length, full-height, PCI 2.2 or 16 (75w max 501 2: iaff-length, full-height, PCI 2.2 or 16 (75w max 501 2: iaff-length, full-height, S2-bit PCI 2.3 Audio High Definition (HD) Audio, Reathet," ALC662 codec Internal speaker for business audio Preferat PO USB Keyboard (USB connector), black Mouse Intel AMT Preferat PO USB Keyboard (USB connector), black Mouse Preferat PO USB Keyboard (USB connector), black Optical Wheel Mouse (USB connector), black Mouse Intel AMT supports on model(s) with Xeon process 80 PLUS" Bronze gualified ThinkVantage ^T Preload OS Genuine Windows ^T 7 Professional 64 Preload Preload S Peascurity chip (see information on left) Password Manager Notrons ^T Skype TM of Windows Set Player Skype To Windows Steller Padlock loce cortrol Password Addbe Flash ^T Preload OS Genuine Windows ^T 7 Professional 64 Preload A Password Password Patiox Manager ThinkVantage Tooubac Padl	Graphics		NVIDIA® Quad	lro® 6	00, PCle	x16 adap	ter, 1G			5					
Disk (s) 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5" For media reader Disk Controller Serial ATA, SATA 3.0Gb/s and SATA 6.0Gb/s, integrated in chipset, RAID 0, 1 support, two SATA 6.0Gb/s connectors, two SATA 3.0Gb/s connectors Bay 5.35", 1" high, internal, for disk Bay 5.35", 1" high, inte		der	None												
Disk Controller Serial XTX, SATA 30,01/2007 MAC 300, factor services servi							1.5Gb	/s Drive		Bay 2	: 5.25", : 3.5"	1.6" high 1" high			er
Chipset Intel C206 Chipset, Platform Controller Hub [PCH] (PCI Express* 2.0 x1. ethernet MAC, PCI, and USB) Sint 2: half-length, full-height, PCI 2.0 x1 Front ports Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Rear ports Six USB 2.0, one serial (9-pin), one thermet (RJ-45), three analog audio ports (line-in, ine-out, mic-in) Audio High Definition (HD) Audio. Realtek* ALC662 codec Ethernet One gigabit ethernet on planar, Intel 82579 Scurity chip STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant Keyboard Optical Wheel Mouse (USB connector), black Mouse Porferred Pro USB Keyboard (USB connector), black Mouse Publical Windows* 7 Professional 64 Preload OS Genuine Windows* 7 Professional 64 Preload OS Fleadar F Applications * Adobe Fleader* * Adobe Fleader* * Adobe Fleader* * Adobe Fleader* * Microsavit Otipo Vindows * Microsavit Of Uncov DVD_FNW model(s) only) • Ulead DVD MovieFactory* (for DVD=RW model(s) only) • Ulead DVD MovieFactory* (for DVD=RW model(s) only) • Ulead DVD MovieFactory* (for DVD=RW model(s) only) • Ulead DVD MovieFactory* (for DVD=RW model(s) only) • Ulead DVD MovieFactory* (for DVD=RW model(s) only)<		oller	Serial ATA, SA RAID 0, 1 supp	TA 3.0 port,	Gb/s and	SATA 6.		о ,	set,	Bay 4 Bay 5	: 3.5", : 3.5",	1" high, 1" high,	internal, for internal, for	disk disk	
Rear ports Si USB 2.0, one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, ine-out, mic-in) Audio High Definition (HD) Audio, Realtek® ALC662 codec Internal speaker for business audio One gigabit ethernet on planar, Intel 82579 Struicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1:2-compliant Keyboard Optical Wheel Mouse (USB connector), 104-key, black Optical Wheel Mouse (USB connector), 104-key, black Optical Wheel Mouse (USB connector), black 280 PLUS® Bronze qualified ThinkVantage® Supports ThinkVantage technologies Preload OS Preload OS Preload OS Preload OS Prelose and Recovery • Adobe Flash® Player • Norton™ Internet Security (30 days of virus definitions) • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Corel Burn.Now™ (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • Corel® Minited onsite service for selected parts®, 8 am - 5 pm, Mon - Fri coverage excluding holidag next business day response time) • Lowos services available; see lenova confservices available; see lenova confservices available; see lenova confservices available; • Port warranty maintenance services (exarphity) service upgrade options (in eligible loca · Post warranty maintenance services (exarphi			ethernet MAC,	PCI,	and USB)	-		ss® 2.0	x1, Slot 2 Slot 3	: half-le : half-le	ngth, full-ł ngth, full-ł	neight, PCIe 2.0 neight, 32-bit PC	x1 I 2.3	ax)
Audio High Definition (HD) Audio, Realtek® ALC662 codec Speaker Internal speaker for business audio Chernet One gigabit ethernet on planar, Intel 82579 Security chip STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant Keyboard Preferred Pro USB Keyboard (USB connector), 104-key, black Mouse Optical Wheel Mouse (USB connector), black Power supply 280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS® ThinkVantage technologies Preload OS Genuine Windows® 7 Professional 64 Preload Applications Pescue and Recovery Applications Padlock loop (in rear for opt padlock; padlock kopt (in rear for opt padlock; padlock loop (in rear for opt padlock; padlock spohibits side cover removal) Applications Nortorm Internet Security (30 days of virus definitions) Adobe Reader [®] Adobe Reader [®] Adobe Reader [®] Stype™ for Windows Corel WinDVD (for DVD-ERW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Security control Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Secure Replaceable Unit (CRU) parts			Six USB 2.0, o	ne se	rial (9-pir				alog aud		: half-le	ngth, full-ł	neight, 32-bit PC	12.3	
Eihernet One gigabit ethernet on planar, Intel 82579 Security chip STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant Keyboard Mouse Optical Wheel Mouse (USB connector), 104-key, black Optical Wheel Mouse (USB connector), 104-key, black 80 PLUS [®] Bronze qualified Supports ThinkVantage technologies Preload OS Preload Applications Skype ^m for Windows [®] 7 Professional 64 • Rescue and Recovery • Password Manager • ThinkVantage Toolbox • Nortor [™] Internet Security (30 days of virus definitions) • Adobe Reader [®] • Adobe Reader [®] • Adobe Reader [®] • Corel [®] WinDVD (for DVD±RW model(s) only) • Uiead DVD MovieFactory [®] (for DVD±RW model(s) only) • Chassis infrusion switch available ons elected parts [®] • Bar · 5 m, Mon · Fri coverage excluding holday • Portwere information find the Lencovo services available; • Portwere information find the Lencovo services availab			High Definition	(HD)	Audio, R		LC662	codec							
Security chip STMicroelectronics ST15NP18 Trusted Platform Module (TPM), TCG 1.2-compliant Keyboard Preferred Pro USB Keyboard (USB connector), 104-key, black Mouse Intel AMT Mouse Optical Wheel Mouse (USB connector), black Intel AMT supported on model(s) with Xeon process 80 PLUS* Bronze qualified Preford Security stole speed fan, autosensing, 85% PSU, 80 PLUS* Bronze qualified Security stole (in rear for opt padlock; padlock prohibits side cover removal) Preload OS Preload OS Preload OS Genuine Windows* 7 Professional 64 - Security stole (in rear for opt padlock; padlock prohibits side cover removal) • Paescue and Recovery • Dationtom ¹ Internet Security (30 days of virus definitions) • Adobe Flash* Player • Skope* for Windows • Microsoft* Office 2010 preloaded; purchase product key to activate • Corel* WinDVD (for DVD±RW model(s) only) • Ulead DVD MovieFactory* (for DVD±RW model(s) only) • Ulead DVD MovieFactory* (for DVD±RW model(s) only) • Ulead DVD MovieFactory* (for DVD±RW model(s) only) • Serail por I//O control • Cassis intrusion switch available on selected mod GREENGUARD* certified RoHS-compliant EPEAT** Gold rating • LIMITED WARRANTY1 • 3-year parts and labor • Lenovo services available; se te lenovo.com/services, warranty/us/en/lenove-warrant • Onsite service upgrade options (in eligible loca • Post warranty maintenance services • For more information find the Lenovo support phr							0570								
Mouse Power supply Optical Wheel Mouse (USB connector), black Intel AMT Power supply 280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS [®] Bronze qualified 11tel AMT supported on model(s) with Xeon process ThinkVantage [®] Supports ThinkVantage technologies > Preload OS Genuine Windows [®] 7 Professional 64 > Preload OS Rescue and Recovery > Password Manager * Norton™ Internet Security (30 days of virus definitions) > Adobe Flash [®] Player * Skype [™] for Windows > Adobe Flash [®] Player * Skype [™] for Windows > Microsoft [®] Office 2010 preloaded; purchase product key to activate > Serial port I/O control > Corel [®] WinDVD (for DVD±RW model(s) only) • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) • USB port disablement (front or all) • Corel [®] WinDVD MovieFactory [®] (for DVD±RW model(s) only) • USB port disablement (front or all) • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) • USB port disablement (front or all) • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) • Chassis infrusion switch available on selected model		nip	STMicroelectro	onics \$				rm Module (TPM)	,						
Mouse Optical Wheel Mouse (OSB Control(OT), black Power supply 280 watts with variable speed fan, autosensing, 85% PSU, 80 PLUS® Bronze qualified Intel AMT supported on model(s) with Xeon process ThinkVantage Supports ThinkVantage technologies - Security chip (see information on left) Preload OS Genuine Windows® 7 Professional 64 - Security chip (see information on left) Preload OS - Rescue and Recovery - Security chip (see information on left) • Password Manager - ThinkVantage Toolbox - Security chip (see information on left) • Norton™ Internet Security (30 days of virus definitions) - Adobe Reader [®] - Adobe Reader [®] • Adobe Reader [®] - Adobe Flash" Player - Skype™ for Windows - Boot without keyboard, mouse • Corel [®] WinDVD (for DVD±RW model(s) only) - Corel [®] WinDVD (for DVD±RW model(s) only) - Chassis intrusion switch available on selected moded reader • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) - Chassis intrusion switch available on selected moded reader • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) - Chassis intrusion switch available on selected moded reader • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) - Chassis intrusion switch available on selected moded reader • Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>), 104-key, black</td><td></td><td></td><td></td><td></td><td>Intel AMT</td><td></td><td></td></t<>), 104-key, black					Intel AMT		
ThinkVantage* Supports ThinkVantage technologies - Preload OS Genuine Windows* 7 Professional 64 - Preload - Rescue and Recovery Applications - Password Manager ThinkVantage Toolbox - Protom/m Internet Security (30 days of virus definitions) Adobe Flash** Player Adobe Flash** Player Adobe Crash** Player Skype** for Windows - Microsoft* Office 2010 preloaded; purchase product key to activate Corel* WinDVD (for DVD±RW model(s) only) Ocorel* Ulead DVD MovieFactory** (for DVD±RW model(s) only) Ulead DVD MovieFactory** (for DVD±RW model(s) only) - Chessis intrusion switch available on selected mod GREENGUARD** Coreligen Amount - Addit - Payer aparts and labor - Custors available; - Support - Addit - Bayer - Bayer - Corel* WinDv Ulead DVD MovieFactory** (for DVD±RW model(s)		ply	280 watts with	varial	ole speed			g, 85% PSU,		Intel A	AMT sup		n model(s) with X	Keon proces	sor
Preload OS Genuine Windows® 7 Professional 64 • Padlock loop (in rear for opt padlock; padlock cop (in rear for opt padlock; padlock cop (in rear for opt padlock; padlock prohibits side cover removal) Applications • Password Manager • ThinkVantage Toolbox • Norton™ Internet Security (30 days of virus definitions) • Adobe Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD (for DVD±RW model(s) only) • Orerl Burn.Now™ (for DVD±RW model(s) only) • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • USB port disablement (front or all) • Carel Burn.Now™ (for DVD±RW model(s) only) • Chassis intrusion switch available on selected moded • Ulead DVD MovieFactory® (for DVD±RW model(s) only) • USB port disablement (front or all) • Carel Burn.Now™ (for DVD±RW model(s) only) • Chassis intrusion switch available on selected moded GREENGUARD® certified RoHS-compliant EPEAT™ Gold rating • Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am -5 pm, Mon - Fri coverage excluding holiday next business day response time) • Lenovo services available; see lenovo.com/service_waranty/us/en/lenovo-warand - Onsite service upgrade options (in eligible loca - Post warranty maintenance service	ThinkVanta	age®				ologies				• Sec	urity chi	-			
Applications Password Manager Applications Password Manager ThinkVantage Toolbox Norton™ Internet Security (30 days of virus definitions) Adobe Reader [®] Adobe Flash [®] Player Skype™ for Windows Microsoft [®] Office 2010 preloaded; purchase product key to activate Boot sequence control Corel Burn.Now™ (for DVD±RW model(s) only) Corel Burn.Now™ (for DVD±RW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Carels or Now™ (for DVD±RW model(s) only) Corel Burn.Now™ (for DVD±RW model(s) only) Ulead DVD MovieFactory [®] (for DVD±RW model(s) only) Carels or Now™ (for DVD±RW model(s) only) Carels or Now™ (for DVD±RW model(s) only) Carels or Now™ (for DVD±RW model(s) only) Carels or Now™ (for DVD±RW model(s) only) Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) Customer Replaceable Unit (CRU) parts only (with limited onsite service or selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time)	Preload OS	-	Genuine Windo	ows® 1	7 Profess	-				 Pad 	lock loo	p (in rear	for opt padlock;		
 ThinkVantage Toolbox Norton™ Internet Security (30 days of virus definitions) Adobe Reader[®] Adobe Flash[®] Player Skype™ for Windows Microsoft[®] Office 2010 preloaded; purchase product key to activate Corel[®] WinDVD (for DVD±RW model(s) only) Corel Burn.Now™ (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) 	Preload Application	10	Rescue and Password M	Reco	very					 pad Sec 	lock pro uritv slo	hibits side t (in rear f	e cover removal) for optional		
 Adobe Reader[®] Adobe Flash[®] Player Skype[™] for Windows Microsoft[®] Office 2010 preloaded; purchase product key to activate Corel[®] WinDVD (for DVD±RW model(s) only) Corel Burn.Now[™] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Corel[®] Serial port I/O control Chassis intrusion switch available on selected model GREENGUARD[®] certified RoHS-compliant EPEAT[™] Gold rating LIMITED WARRANTY¹ 3-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) Lenovo services available; See lenovo.com/services_avarranty/us/en/lenovo-warrant Onsite service upgrade options (in eligible loca - Post warranty maintenace services) 	Application	15	 ThinkVantage 	e Tool	box					Ken	sington	[®] Microsa	ver® cable;		
 Adobe Flash[®] Player Skype™ for Windows Microsoft[®] Office 2010 preloaded; purchase product key to activate Corel[®] WinDVD (for DVD±RW model(s) only) Corel Burn.Nov™ (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Corel[®] Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Corel[®] Ulead DVD MovieFactory[®] (for DVD±RW model(s) only)<td></td><td></td><td></td><td></td><td>Security (</td><td>30 days c</td><td>of virus</td><td>definitions)</td><td></td><td></td><td></td><td></td><td>emoval)</td><td></td><td></td>					Security (30 days c	of virus	definitions)					emoval)		
 Microsoft[®] Office 2010 preloaded; purchase product key to activate Corel[®] WinDVD (for DVD±RW model(s) only) Corel Burn.Now™ (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) GREENGUARD[®] certified RoHS-compliant EPEAT[™] Gold rating LIMITED WARRANTY¹ 3-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) Lenovo services available; See lenovo.com/services_warranty/us/en/lenovo-warrant Onsite service upgrade options (in eligible loca) Post warranty maintenance services For more information find the Lenovo support ph 			 Adobe Flash 	[®] Play						 Adn 	ninistrate	or passwo			
 Corel[®] WinDVD (for DVD±RW model(s) only) Corel Burn.Now[™] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) GREENGUARD[®] certified RoHS-compliant EPEAT[™] Gold rating LIMITED WARRANTY¹ 3-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warrant Onsite service upgrade options (in eligible loca Post warranty maintenance services 			 Skype™ for V Microsoft[®] O 	Vindo	WS 2010 prole	naded: nu	rchase	product key to a	tivato						
 Ulead DVD MovieFactory[®] (for DVD±RW model(s) only) Chassis intrusion switch available on selected models on the selected models of			 Corel[®] WinD[®] 	VD (fo	or DVD±F	RW model	(s) only	r)	livale	 Seri 	al port I	/O contro	l		
RoHS-compliant EPEAT™ Gold rating LIMITED WARRANTY¹ → 3-year parts and labor → Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) → Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warrant • Onsite service upgrade options (in eligible loca • Post warranty maintenance services → For more information find the Lenovo support ph										• USE • Cha	s port di <i>ssis inti</i>	rusion swi	it (front or all) itch available on	selected me	odel(s)
 3-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warrant Onsite service upgrade options (in eligible loca Post warranty maintenance services For more information find the Lenovo support ph 										RoHS	-compli	ant	ed		
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 (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holiday next business day response time) ✓ Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warrant Onsite service upgrade options (in eligible loca Post warranty maintenance services ✓ For more information find the Lenovo support ph 															
next business day response time) → Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warrant • Onsite service upgrade options (in eligible loca • Post warranty maintenance services → For more information find the Lenovo support ph										(wi	th limite	ed onsite s	service for selec	ted parts ³ ,	
 Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warrant Onsite service upgrade options (in eligible loca Post warranty maintenance services For more information find the Lenovo support ph 														uding holid	ays,
 Onsite service upgrade options (in eligible loca Post warranty maintenance services For more information find the Lenovo support ph 										🗢 Ler	10VO Sel	rvices ava	ilable;		
 Post warranty maintenance services For more information find the Lenovo support ph 															
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number in your country at														o support p	none
http://www-307.ibm.com/pc/support/site.wss/document. do?Indocid=MIGR-69107										http	o://www-3	307.ibm.com	n/pc/support/site.v	vss/documen	t.

ThinkStation



Lenovo ThinkStation E31 Tower



Lenovo ThinkStation E31 Tower



Lenovo ThinkStation E31 Tower



Lenovo ThinkStation E31 SFF



Lenovo ThinkStation E31 SFF



Lenovo ThinkStation E31 SFF

ThinkStation® E31 Tower (2555) - TopSeller

											Chassis		
	ocessor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical	Graphics adapter(s)	<u> </u>	Global	intrusion switch	rear I/O	Win7 preload
2555-11G Xeon 2555-12G Xeon			2x2GB 2x2GB	No No	1x1TB SATA 1x256GB SSD	Media Media	DVD±RW DVD±RW			No No		No No	Pro 64 Pro 64
2555-13G Xeon			2x2GB	No	1x2TB SATA		DVD±RW			No	Switch	No	Pro 64
2555-14G Xeon			2x2GB	No	1x1TB SATA			Quadro 600	No	No	Switch	No	Pro 64
2555-15G Xeon 2555-16G Xeon			2x2GB 2x4GB	No No	1x2TB SATA 1x2TB SATA			Quadro 2000 Intel HD P4000	No No	No No	Switch Switch	No No	Pro 64 Pro 64
2555-17G Xeon	E3-1275V2	1600MHz ECC	2x4GB	No	1x2TB SATA	Media	DVD±RW	Intel HD P4000	No	No	Switch	No	Pro 64
2555-18G Xeon	E3-1290V2	1600MHz ECC	2x4GB	No	1x2TB SATA	Media	DVD±RW		No	No	Switch	No	Pro 64
Processor		Xeon[®] E3-1220V2 Boost 2.0 (up to 3.					1Hz)	Tower	Davia				
	Intel X Turbo f DDR3 Intel X Turbo f Intel X Turbo f DDR3 Intel X Intel X	eon E3-1225V2 p Boost 2.0 (up to 3. memory controlle eon E3-1240V2 p Boost 2.0 (up to 3. eon E3-1245V2 p Boost 2.0 (up to 3. memory controlle eon E3-1275V2 p Boost 2.0 (up to 3. memory controlle eon E3-1290V2 p	brocessor (.6GHz), inter r (up to 16C brocessor (.8GHz), DD brocessor (.8GHz), inter r (up to 16C brocessor (.9GHz), inter r (up to 16C brocessor (.9GHz), inter r (up to 16C brocessor (.9GHz), inter .9GHz), inter .9GHz), inter .9GHz), inter .9GHz, inter .9	4C/4T, 3.20 ograted Inte 0MHz) 4C/8T, 3.40 RS memory 4C/8T, 3.40 ograted Inte 0MHz) 4C/8T, 3.50 ograted Inte 0MHz) 4C/8T, 3.70	GHz, 8MB Cache HD Graphics F Controller (up t Controller (up t HZ, 8MB Cache HD Graphics F HZ, 8MB Cache HD Graphics F GHz, 8MB Cache	e), 24000, e), o 1600№ e), 24000, e), 24000, e),	IHz)	optical ② ③ disk 	 6.9"V 175m 27.56 25-lit Rem Toolle Toolle Toolle Illum 	V x 17.0 nm W x 5 lb (12. er ovable l ess side ess disk ess ada inated f	color; me "D x 16.7 431mm D 5kg) max handle on cover reises and option pter retent ront icons ower butto	"H (with x 425m configur top fron moval cal drive tion	m H ration t
Implomentation		Boost 2.0 (up to 4.	.1GHz), DD	R3 memory	/ controller (up t	o 1600N	1Hz)	Bay 1: 5.25", 1	.6" high	n, acces	ss, for c	optical	
mplementation Memory		GA1155 socket max, UDIMM , PC	3-12800 16		B3 ECC or non	-ECC		Bay 2: 5.25", 1			ss, ope	ń	odor
wentory		0-pin DIMM socke				-200,		Bay 3: 3.5", 1 Bay 4: 3.5", 1	" high,	acces intern		nedia rea lisk	ader
Additional mem disclaimers	contro	I memory operating oller speed, installed g of ECC and non-E	memory spe	ed, and quar	tity of memory DII	MMs		Bay 5: 3.5", 1 Slot 1: half-leng (75w max, near Cl	" high,	intern	al, for c	lisk	
	Some: Some:	discrete graphics Xeon E3-1225/2 Core i3-2120/213 Pentium/Celeron: (connector inform NVIDIA [®] Quadro one DisplayPort™ NVIDIA Quadro 2 two DisplayPort, o	//1245V2/12 30: mation pleas ® 600 , PCle ⁴ , one dual- 2000 , PCle	275V2: Intel Intel e see Rear x16 adapt link DVI-I, 4 x16 adapte	HD Graphics P4 HD Graphics 20 HD Graphics <i>ports section</i>) er, 1GB, 0W r, 1GB,			x16 on Xeon mo Slot 2: half-leng Slot 3: half-leng Slot 4: half-leng	th, full-l th, full-l	height, 3	32-bit PCI	2.3	
Media reader		29-in-1 Media ca											
Optical Hard drive(s)	250GE	Multi-Burner DL D 3/500GB/1TB/2TB 3/300GB/600GB S	/3TB SATA	SATA 6.00 SATA 6.00	Gb/s, 7200 rpm, Gb/s, 10000 rpm	າ, 2.5"		Intel AMT supp		ntel AM n mode		eon pro	cessor
Onboard SATA	Two SA	3/180GB/256GB S ATA 6.0Gb/s conne), 1 support via Int	ectors (red)	, two SATA	e Drive, SATA 6 3.0Gb/s connec			• Windows® 7 F	rofessi	onal 64			
Onboard SAS	None							 Preloade Rescue and F 			s⁵ (only s	ome lis	ted)
Chipset		216 Chipset						 Norton[®] Interr 	net Sec		0 days of v	virus def	initions)
Front ports Rear ports	Two US analog one Dis (Onboa	SB 2.0, microphor SB 2.0, four USB 3 audio ports (line- splayPort connect ard VGA and Disp ed: Xeon E3-1225	3.0 (blue), c in, line-out, or layPort are	one serial (9 mic-in), one functional v	-pìn), oné ether e analog VGA D vhen the followir	B-15 con ng proce	nnector, ssors	 Adobe® Read Microsoft® Off purchase proc Corel® WinDV Ulead® DVD M 	ice 201 Juct key D [®] (DV AovieFa	y to acti D±RW actory®	vate model(s)) (DVD±RW	/ model(s))
	Celero	n processors)					,	Coolumba ob im	-	ECURI			
EEE 1394 adpt	r No ont	oard 1394 ports;	rear I/O cat	ble		S		 Security chip Padlock loop padlock prohi Security slot ((in rear bits sid	for opt e cover	padlock; removal)		
	1394 N	nodels: additional 400Mbps,		orts on rea				Kensington [®]	Microsa	aver® ca	able;		
Audio		efinition (HD) Aud	lio, Realtek					prohibits sidePower-on pas		removal)		
Speaker Ethernet		I speaker for busin board gigabit eth		82570				 Administrator 	passw				
Security chip	STMici TCG 1	roelectronics ST33 .2-compliant	3ZP24 Trus	ted Platforn		,		 Boot sequence Boot without I Serial port I/C 	keyboar contro	rd, mou ol			
Keyboard		ed Pro USB Keyb			104-key, black			 USB port disa Chassis intrus 	ablemer	nt (front	or all/indi	vidual) selected	model/a
Mouse Power supply	280 wa	Wheel Mouse (U atts with variable s	peed fan, a	utosensing							fications	JUICULEU	1100001(8
	Climat	e Savers® Comp				ified		Please visit ww				SV	
Limited Warrant	y 3-year	parts and labor						GREENGUARE RoHS-compliar EPEAT™ Gold	D®certif nt rating	fied		•	
								ENERGY STAF	₹5.2-co	omplian	t		

ThinkStation® E31 Tower (2555) - TopSeller - II

Type- model P	Processor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	Global	Chassis intrusion switch	PS/2 rear I/O	Win7 preload
2555-19G Penti 2555-21G Xeon 2555-28G Core 2555-29G Core	E3-1230V2 i3-2130	1600MHz ECC 1600MHz ECC 1600MHz Non-ECC 1600MHz Non-ECC		No No No No	1x500GB SATA 1x500GB SATA 1x1TB SATA 1x1TB SATA	Media		Intel HD Intel HD 2000 Intel HD 2000	No No No No	No No No No	Switch Switch Switch Switch	No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64
Processor	integra Intel C integra Intel C integra Intel X	Pentium [®] G860 pro ted Intel HD Graph ore [™] i3-2120 proc ted Intel HD Graph ore i3-2130 proces ted Intel HD Graph eon [®] E3-1230V2 p Boost 2.0 (up to 3.7	ics, DDR3 essor (20 ics 2000, ssor (2C/4 ics 2000, rocessor	6 memory of C/4T, 3.3G DDR3 mer 4T, 3.4GH2 DDR3 mer (4C/8T, 3 .3	controller (up to 1 Hz, 3MB Cache) nory controller (u z, 3MB Cache), nory controller (u 3GHz, 8MB Cacl	333MHz , ip to 133 ip to 133 he) ,	3MHz) 3MHz)	Tower optical 2 3 disk	 6.9"\/ 175r 27.5 25-li Rem 	W x 17.0 mm W x 6 lb (12 ter novable	c color; me 0"D x 16.7 431mm D .5kg) max handle on e cover rei	"H (with x 425m configur top fron	m H [′] ation
mplementatior		GA1155 socket									k and optic		remova
Vemory		max, UDIMM, PC3- 0-pin DIMM socket		00MHz DE	DR3, ECC or non	I-ECC,					apter reten front icons		
Additional men disclaimers	nory • Actua contro	al memory operating s oller speed, installed n g of ECC and non-EC	peed deper nemory spe	ed, and qua	ntity of memory Dll	MMs		5	Rec	essed p	ower butto	on	
Graphics		D Graphics in prod discrete graphics to Xeon E3-1225V2/1 Core i3-2120/2130 Pentium/Celeron: (connector informa	o support 1245V2/12	multi-displa 275V2: Inte Inte Inte	ay; I HD Graphics P I HD Graphics 20 I HD Graphics	4000		Bay 1: 5.25", Bay 2: 5.25", Bay 3: 3.5", Bay 4: 3.5", Bay 5: 3.5",	1.6" hiğ 1" high, 1" high, 1" high,	h, acces acces interr interr	ss, oper ss, for r nal, for c nal, for c	nedia rea disk	ader
Media reader		29-in-1 Media car	d reader, i	nternal US	B 2.0			Slot 1: half-len (75w max, near 0	CPU)	0			
Optical		Multi-Burner DL DV				0.5"		* PCle 2.0 x16 or x16 on Xeon m		/Pentium/	/Celeron mc	odels, PCI	e 3.0
Hard drive(s)	150GE 128GE	3/500GB/1TB/2TB/3 3/300GB/600GB SA 3/180GB/256GB SS	TA: SD:	SATA 6.0 Solid Sta)Gb/s, 10000 rpm ate Drive, SATA 6	n, 2.5" .0Gb/s, 2		Slot 2: half-len Slot 3: half-len Slot 4: half-len	gth, full- gth, full-	height,	32-bit PCI	2.3	
Onboard SATA		ATA 6.0Gb/s connec), 1 support via Inte			3.0GD/S connec	tors (ora	inge),		gui, iun	noigini,	02 011 01	2.0	
Onboard SAS	None												
Chipset		216 Chipset	(0.5										
Front ports Rear ports	Two US analog one Di (Onboa	SB 2.0, microphone SB 2.0, four USB 3. audio ports (line-in splayPort connecto ard VGA and Displa ed: Xeon E3-1225V	0`(blue), c ı, line-out, r ıyPort are	one serial (mic-in), or functional	9-pin), oné ether ne analog VGA D when the followir	B-15 cor	nnector, ssors	Intel AMT supp	ported o		el(s) with X		cessor
	Celero	n processors) nodels: additional					,	• Windows® 7			ating sys	tem ²⁰	
EEE 1394 adp	otr No ont	via PS/2 re poard 1394 ports; nodels: additional F	ar I/O cat	ole Cle adapte	er, 1394a-2000,			 Rescue and Norton[®] Inter 	Recove net Sec	ry®	ns ⁵ (only s 0 days of v		
Audio	High D	400Mbps, t efinition (HD) Audio						 Adobe® Read Microsoft® O 		13 prelo	aded:		
Speaker	Interna	Il speaker for busine	ess audio		couco			 purchase pro Corel[®] WinD 	duct ke	v to act	ivate		
Ethernet Security chip	STMic	board gigabit ether roelectronics ST332 .2-compliant			m Module (TPM)	,	-	Ulead® DVD	MovieF		(DVD±̀ŔŴ	/ model(s))
Keyboard	Preferr	ed Pro USB Keybo), 104-key, black			Security chip	(see ir	formati	on on left)		
Mouse Power supply	280 wa	I Wheel Mouse (US atts with variable sp a e Savers[®] Compu	eed fan, a	utosensing	g, 85% PSU, JS[®] Bronze qua	lified		 Padlock loop padlock prof Security slot 	ibits sic (in rear	le cover for opti	removal)		
imited Warran	ıty 3-year	parts and labor						Kensington® prohibits side Power-on pa Administrato Boot sequen Boot without Serial port I/ USB port dis Chassis intro	e cover ssword r passw ce cont keyboa O contr ableme	remova rol irol ird, mou ol ent (front	l) Ise t or all/indi		model
								Dia			ifications		
							ł	Please visit w			support/IS	δV	
								GREENGUAR RoHS-complia EPEAT™ Gold ENERGY STA	nt I rating		t		

ThinkStation® E31 Tower (2555) - TopSeller (June 5, 2012)

Type- model Proc	essor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	Global	Chassis intrusion switch	PS/2 rear I/O	Win7 preload
2555-22G Core 2555-23G Core 2555-24G Core 2555-25G Core 2555-25G Core	7-3770 7-3770 7-3770 5-3450 5-3550 5-3550	1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC	2x4GB 1x4GB 1x4GB 1x4GB	No No No No No	1x2TB SATA 1x1TB SATA 1x256GB SSD 1x1TB SATA 1x1TB SATA 1x1TB SATA 1x2TB SATA		DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	/	No No No No No	No No No No No	Switch Switch Switch Switch	No No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64
Processor mplementation Memory	integra Turbo Intel C integra Turbo Intel C integra Turbo One L 32GB	Core [™] i5-3450 pro ted Intel HD Graphi Boost 2.0 (up to 3.5 ore i5-3550 proces ted Intel HD Graphi Boost 2.0 (up to 3.7 core i7-3770 proces ted Intel HD Graphi Boost 2.0 (up to 3.9 GA1155 socket max, UDIMM, PC3- 0-pin DIMM socket	cs 2500, GHz), DE ssor (4C/ cs 2500, GHz), DE ssor (4C/ cs 4000, GHz), DE 12800 16	0R3 memor 4 T, 3.3GHz 0R3 memor 8 T, 3.4GHz 0R3 memor	y controller (up t , 6MB Cache) , y controller (up t , 8MB Cache) , y controller (up t	o 1600M o 1600M o 1600M	1Hz)	Tower optical @ disk =====	 6.9" 175i 27.5 25-li Rem Tool Tool Tool Illum 	W x 17.0 mm W x 6 lb (12 ter novable less side less dis less ada ninated f	color; me D"D x 16.7 431mm D 5kg) max handle on e cover rer and optic apter reten ower butto	"H (with x 425m configur top front moval cal drive tion	m H ration t
Additional memory disclaimers Graphics	e Mixir	al memory operating sp oller speed, installed m g of ECC and non-EC ID Graphics in proc along with discrete y Yoon 62, 1225V/d/	emory spe C memory essor, us graphics t	eed, and quar is not suppor es main me to support n	ntity of memory DII rted emory, nulti-display;			Bay 1: 5.25", Bay 2: 5.25", Bay 3: 3.5", Bay 4: 3.5",	1.6" hig 1" high,	h, acces acces	ss, oper ss, for r	nedia rea	ader
		Xeon E3-1225V2/1 Core i7-3770: Core i5-3450/3470/ Core i3-2120/2130. Pentium/Celeron: (connector informa)	/3550:	Inte Inte Inte Inte	I HD Graphics 4 I HD Graphics 2 I HD Graphics 2 I HD Graphics I HD Graphics	000 500		Bay 5: 3.5", Slot 1: half-ler (75w max, near * PCle 2.0 x16 c PCle 3.0 x16 c	1" hiğh, ngth, full- CPU) on Core i3	interr height, l / <i>Pentium</i> /	nal, for c PCIe* x16 'Celeron mc	lisk odels,	
Media reader Optical Hard drive(s) Onboard SATA Onboard SAS	Super 250GE 150GE 128GE Two S	29-in-1 Media card Multi-Burner DL DV 3/500GB/1TB/2TB/3 3/300GB/600GB SA 3/180GB/256GB SS ATA 6.0Gb/s connec 0, 1 support via Intel	D±RW SA TB SATA TA: D: stors (red)	ATA 1.5Gb/s SATA 6.0 SATA 6.0 Solid Stat two SATA	s Drive Gb/s, 7200 rpm, Gb/s, 10000 rpm te Drive, SATA 6	n, 2.5" .0Gb/s, 2		Slot 2: half-ler Slot 3: half-ler Slot 4: half-ler	ngth, full-	height,	32-bit PCI	2.3	
Chipset		216 Chipset								ntel AN	т		
Front ports Rear ports EEE 1394 adptr Audio	Two U analog one Di (Onbo are us Core is <i>PS/2 r</i> No onl <i>1394 r</i> High E	SB 2.0, microphone SB 2.0, four USB 3.0 audio ports (line-in splayPort connector ard VGA and Displa ed: Xeon E3-1225V 3-2120/2130, Pentiu nodels: additional Fi via PS/2 re poard 1394 ports; nodels: additional Fi 400Mbps, tw efinition (HD) Audio	0 (blue), c , line-out, 2/1245V2 m, and C PS/2 keyb ar I/O cat ireWire P wo 6-pin p o, Realtek	one serial (9 mic-in), on functional v /1275V2, C eleron proc poard and m ole Cle adapter ports on rea	B-pin), one ether e analog VGA D when the followir core i7-3770, Co essors) house connector r, 1394a-2000, tr	B-15 cor ng proce re i5-345	nnector, ssors 50/3550,	• Windows® 7	Preload Profess ded app Recove rnet Sec der® Office 20 oduct ke VD® (D\ MovieF	ed oper sional 64 lication ry® curity (3 13 prelo y to act /D±RW actory®	el(s) with X ating system s ⁵ (only so 0 days of v aded; ivate model(s)) (DVD±RW	tem ²⁰ come list	<i>ted)</i> initions)
Speaker Ethernet Security chip Keyboard Mouse Power supply Limited Warranty	One o STMic TCG 1 Prefer Optica 280 wa Clima	al speaker for busine hooard gigabit ether roelectronics ST332 .2-compliant red Pro USB Keyboa I Wheel Mouse (USI atts with variable spe te Savers [®] Comput parts and labor	net, Intel 2P24 Trus ard (USB B connec eed fan, a	ted Platforn connector), tor), black autosensing	, 104-key, black	-		 Security chi Padlock loop padlock pro Security slo Kensington[®] prohibits sid Power-on pa Administrato Boot sequer 	p (see ir o (in rea hibits sid t (in real Micros le cover assword or passw nce cont	r for opt de cover r for opti aver® c remova vord rol	on on left) padlock; removal) onal able; l)		
								 Boot withou Serial port I USB port di <i>Chassis intr</i> Please visit w	O contr sableme <i>rusion s</i> u	ol ent (fron <i>vitch ava</i> SV cert	t or all/indi a <i>ilable on</i> a	selected	model(
		warranty informatio						GREENGUAF RoHS-complia EPEAT™ Gol ENERGY STA	RD®cert ant d rating	ified			©lenov

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	ocessor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	Global	Chassis intrusior switch	n PS/2 rear I/O	
2555-AJG Xeon 2555-AKG Xeon	E3-1245V2 E3-1220V2	1600MHz ECC 1600MHz ECC	1x4GB 1x4GB	No No	1x1TB SATA 1x1TB SATA	Media Media	DVD±RW DVD±RW	Intel HD P4000 Quadro 600) No No	No No	No No	No No	Pro 64 Pro 64
Processor mplementation Memory	Turbo Bo Intel Xeo Turbo Bo DDR3 me One LGA 32GB ma four 240-	on [®] E3-1220V2 ost 2.0 (up to 3.5 n E3-1245V2 pr ost 2.0 (up to 3.8 emory controller 1155 socket x, UDIMM, PC3- pin DIMM socket	GHz), DD ocessor (GHz), inte (up to 160 -12800 16 s;	PR3 memor (4C/8T, 3.40 egrated Inte 00MHz) 00MHz DD	y controller (up t GHz, 8MB Cach HD Graphics F R3, ECC or nor	to 1600M e) , 24000,	lHz)	Tower	 6.9" 175 27.5 25-I Ren Tool 	W x 17.0 mm W x 66 lb (12 iter novable less side	color; m 0"D x 16. 431mm l .5kg) max handle or e cover re	7"H (with D x 425m k configui n top fron emoval	handle) im H ration t
Additional memo disclaimers Graphics	e Mixing c	nemory operating s r speed, installed n f ECC and non-EC tel HD Graphics	hemory spe C memory	ed, and quar is not suppor	ntity of memory DI rted		a with		ToolIllun	less ada ninated f	k and opt apter rete front icons ower butt	ntion s	removal
Graphics	dis Xe Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca	screte graphics to con E3-1225V2/1 pre i7-3770: pre i3-3450/3470 pre i3-2120/2130 contium/Celeron: connector informa //IDIA® Quadro® le DisplayPort, oi	o support 1245V2/12 //3550: :: :: tion pleas 600, PCle	multi-displa 275V2: Inte Inte Inte Inte Inte se see Rea e x16 adapt	IV; El HD Graphics F El HD Graphics 2 El HD Graphics 2 El HD Graphics 2 El HD Graphics 2 El HD Graphics r ports section) ier, 1GB,	24000 4000 2500 2500	g with	⑤ Bay 1: 5.25", * Bay 2: 5.25", * Bay 3: 3.5", * Bay 4: 3.5", * Bay 5: 3.5", * Slot 1: half-leng (75w max, near C * PCle 2.0 x16 or	I.6" hiğ I" high I" high I" high I" high SPU)	h, acces acces interr interr -height, l	ss, ope ss, for nal, for nal, for PCIe* x16	media re disk disk S	
Media reader Optical Hard drive(s) Onboard SATA Onboard SAS	Super Mu 250GB/5 150GB/3 128GB/1 Two SATA RAID 0, 1 None	9-in-1 Media car Ilti-Burner DL DV 00GB/1TB/2TB/3 00GB/600GB SA 80GB/256GB SS \ 6.0Gb/s connec support via Inte	/D±RW S/ BTB SATA TA: SD: ctors (red)	ATA 1.5Gb/s SATA 6.0 SATA 6.0 Solid Stat two SATA	s Drive Gb/s, 7200 rpm, Gb/s, 10000 rpn te Drive, SATA 6	n, 2.5" 5.0Gb/s, 2		x16 on Xeon m Slot 2: half-leng Slot 3: half-leng Slot 4: half-leng	odels gth, full gth, full	-height, l -height, 3	PCIe 2.0 32-bit PC	x1 I 2.3	
Chipset Front ports Rear ports	Two USB Two USB analog at	6 Chipset 2.0, microphone 2.0, four USB 3. udio ports (line-ir	0`(blue), c 1, line-out,	one serial (9	9-pin), oné ether			Intel AMT supp		Intel AN		Xeon pro	cessor
IEEE 1394 adptr Audio	(Onboarc are used: Core i3-2 <i>PS/2 mod</i> No onboa <i>1394 mod</i> High Defi	ayPort connecto I VGA and Displa Xeon E3-1225V 120/2130, Pentii dels: additional via PS/2 re ard 1394 ports; dels: additional F 400Mbps, t nition (HD) Audio peaker for busin.	yPort are 2/1245V2 um, and C PS/2 keyb ar I/O cab ireWire P wo 6-pin p o, Realtek	2/1275V2, C eleron proc poard and m ble Cle adapter ports on rea	core i7-3770, Co cessors) nouse connector r, 1394a-2000, ar	re i5-345		• Windows® 7	Profess ed app Recove net Se der® fice 20 duct ke /D® (D)	sional 64 blication ery® curity (3 13 prelo y to acti /D±RW	ns ⁵ (only 0 days of paded; ivate model(s)	<i>some lis</i> virus def)	initions)
Speaker Ethernet Security chip	One onbo STMicroe TCG 1.2-	bard gigabit ethe electronics ST332 compliant	rnet, Intel ZP24 Trus	ted Platforr	· · · · ·	,		 Security chip Padlock loop 	(see ii	SECURI	TY on on left)	-,,
Keyboard Mouse Power supply	Optical W 280 watts Climate	Pro USB Keybo /heel Mouse (US with variable sp Savers [®] Compu	B connec eed fan, a	tor), black autosensing	, 85% PSU,	lified		 padlock proh Security slot Kensington[®] prohibits side Power-on pa 	ibits si (in rea Micros cover	de cover r for opti aver® c remova	r removal) ional able;		
Limited Warranty	3-year pa	rts and labor						 Administrato Boot sequen Boot without Serial port I// USB port dis Chassis intru 	r passv ce con keyboa O contr ableme	vord trol ard, mou ol ent (fron	t or all/inc	lividual) <i>selected</i>	model(s
								Please visit wy			ifications /support/l		
								GREENGUAR RoHS-complia EPEAT™ Gold ENERGY STA	nt rating		t		

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		Chassis
	cessor (MHz/ECC) DIMMs RAID Hard drive(s) reader op	ATA Graphics 1394 intrusion PS/2 Preload tical adapter(s) adptr Global switch rear I/O OS
2555-CPG Core i3 2555-CQG Core i3		D±RW Intel HD 2500 No No Switch No Win7 Pro64 D±RW Intel HD 2500 No No Switch No Win8 Pro64
2555-CRG Core i5		
2555-CSG Core i5		
2555-CTG Core i5	-3550 1600MHz Non-ECC 1x4GB No 1x1TB SATA 29-in-1 DVD 3-1220V2 1600MHz ECC 1x4GB No 1x1TB SATA 29-in-1 DVD	
	3-1220V2 1600MHz ECC 1x4GB No 1x1TB SATA 29-in-1 DVD	
2555-CWG Xeon E	3-1230V2 1600MHz Non-ECC 1x4GB No 1x1TB SATA 29-in-1 DVD	0±RW_NVS 510 No No Switch No Win7 Pro64(DG)
* Win7 Pro64(DG) = Win	dows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit	
Processor	Intel [®] Core [™] i3-3240 processor (2C/4T, 3.4GHz, 3MB Cache), integrated Intel HD Graphics 2500, DDR3 memory controller (up to 1600 Intel Core i5-3470 processor (4C/4T, 3.2GHz, 6MB Cache), integrated Intel HD Graphics 2500, Turbo Boost 2.0 (up to 3.6GHz), DDR3 memory controller (up to 1600M Intel Core i5-3550 processor (4C/4T, 3.3GHz, 6MB Cache), integrated Intel HD Graphics 2500, Turbo Boost 2.0 (up to 3.7GHz), DDR3 memory controller (up to 1600M Intel Xeon [®] E3-1220V2 processor (4C/4T, 3.1GHz, 8MB Cache), Turbo Boost 2.0 (up to 3.5GHz), DDR3 memory controller (up to 1600M Intel Xeon E3-1230V2 processor (4C/8T, 3.3GHz, 8MB Cache), Turbo Boost 2.0 (up to 3.7GHz), DDR3 memory controller (up to 1600M Intel Xeon E3-1230V2 processor (4C/8T, 3.3GHz, 8MB Cache),	Hz) Hz) Hz) Hz) Hz) Hz) Hz) Hz)
Implementation	One LGA1155 socket	
Memory	32GB max, UDIMM, PC3-12800 1600MHz DDR3, ECC or non-ECC, four 240-pin DIMM sockets;	Bay 1: 5.25", 1.6" high, access, for optical
	Actual memory operating speed depends on processor memory	Bay 2: 5.25", 1.6" high, access, open
disclaimers	controller speed, installed memory speed, and quantity of memory DIMMs Mixing of ECC and non-ECC memory is not supported	Bay 3: 3.5", 1" high, access, for media reader Bay 4: 3.5", 1" high, internal, for disk
Graphics	Some: Intel HD Graphics in processor, uses main memory, works along discrete graphics to support multi-display;	g with Bay 5: 3.5", 1" high, internal, for disk
	(connector information please see Rear ports section)	Slot 1: half-length, full-height, PCIe* x16 (75w max, near CPU)
	Some: NVIDIA® NVS™ 310, PCIe x16 adapter, 512MB,	* PCIe 2.0 x16 on Core i3/Pentium/Celeron models,
	DMS59 to dual DisplayPort™, 19.5Ŵ Some: NVIDIA NVS 510, PCIe x16 adapter, 2GB,	PCIe 3.0 x16 on Xeon/Core i5/Core i7 models
	four mini DisplayPort to four DisplayPort, 35W	Slot 2: half-length, full-height, PCIe 2.0 x1
Media reader	29-in-1 media card reader on selected models, internal USB 2.0	Slot 3: half-length, full-height, 32-bit PCI 2.3
Optical	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	Slot 4: half-length, full-height, 32-bit PCI 2.3
Hard drive(s)	250GB/500GB/1TB/2TB/3TB SATA: SATA 6.0Gb/s, 7200 rpm, 3.5" 150GB/300GB/600GB SATA: SATA 6.0Gb/s, 10000 rpm, 2.5"	Intel AMT
	128GB/180GB/256GB SSD: Solid State Drive, SATA 6.0Gb/s, 2	2.5" Intel AMT supported on model(s) with Xeon processor
Onboard SATA	Two SATA 6.0Gb/s connectors (red), two SATA 3.0Gb/s connectors (ora RAID 0, 1 support via Intel C216 Chipset	nge), Preloaded operating system ²⁰ Some: Windows [®] 7 Professional 64
Onboard SAS	None	Some: Windows 7 Professional 64
Chipset	Intel C216 Chipset	preinstalled through downgrade rights in Windows 8 Pro 64-bit
Front ports Rear ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Two USB 2.0, four USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-4 analog audio ports (line-in, line-out, mic-in), one analog VGA DB-15 cor one DisplayPort connector (Onboard VGA and DisplayPort are functiona the following processors are used: Xeon E3-12X5V2, Core i7, i5, i3, Per and Celeron processors) <i>PS/2 models:</i> additional PS/2 keyboard and mouse connectors via PS/2 rear I/O cable	I5), three Some: Windows 8 Pro 64-bit nector, Preloaded applications ⁵ (only some listed) al when -Windows 7 models
IEEE 1394 adptr	No onboard 1394 ports; 1394 models: additional FireWire PCIe adapter, 1394a-2000,	 purchase product key to activate Corel[®] WinDVD[®] (DVD±RW model(s))
	400Mbps, two 6-pin ports on rear	 Ulead[®] DVD MovieFactory[®] (DVD±RW model(s))
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	-Windows 8 models
Speaker	Internal speaker for business audio	Intel AppUp®
Ethernet Security chip	One onboard gigabit ethernet, Intel 82579 STMicroelectronics ST33ZP24 Trusted Platform Module (TPM), TCG 1.2-compliant	 Evernote[®] Norton Internet Security (30 days of virus definitions) Norton Studio
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black	 Skype™ Microsoft Office 2013 preloaded;
Mouse	Optical Wheel Mouse (USB connector), black	purchase product key to activate
Power supply	280 watts with variable speed fan, autosensing, 85% PSU, Climate Savers [®] Computing Bronze, 80 PLUS [®] Bronze qualified	 Cyberlink Power2Go (DVD±RW model(s)) Cyberlink PowerProducer (DVD±RW model(s))
Limited Warranty	3-year parts and labor	SECURITY
Eco-Label and	GREENGUARD® certified	Security chip (see information on left) Bodiack loop (in root for ant podiack)
environmental certifications	RoHS-compliant EPEAT™ Gold rating	 Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
	ENERGY STAR 5.2-compliant	Security slot (in rear for optional
ISV certifications	See the latest list of ISV certifications at www.lenovo.com/support/ISV	Kensington [®] Microsaver [®] cable;
		prohibits side cover removal)Power-on password
		Administrator password
		Boot sequence control
		 Boot without keyboard, mouse
		 Serial port I/O control USB port disablement (front or all/individual) Chassis intrusion switch available on selected model(s

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Personal Systems Reference (PSREF)

2555-CYG Xeon E3		4GB No	Hard drive(s) 1x1TB SATA 2 1x1TB SATA 2	29-in-1	DVD±RW		e r(s) adp 410 No	otr Global	Chassis intrusion switch Switch Switch	PS/2 rear I/O No No	Preload OS Win7 Pro64(DG)' Win7 Pro64(DG)
2555-D1G Core i3- 2555-D2G Core i5- 2555-D3G Xeon E3 2555-D4G Core i7- 2555-D5G Core i5- 2555-D6G Xeon E3	3225 1600MHz ECC 1x 3330 1600MHz Non-ECC 1x 3-1225V2 1600MHz Non-ECC 1x 3770 1600MHz Non-ECC 1x	4GB No 4GB No 4GB No 4GB No 4GB No 4GB No	1x1TB SATA 1x1TB SATA 1x1TB SATA 1x1TB SATA 1x1TB SATA 1x1TB SATA 1x1TB SATA	29-in-1 29-in-1 29-in-1 29-in-1 29-in-1 29-in-1	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	NVS 31 NVS 51 NVS 31 Quadro Quadro	0 No 0 No 0 No 410 No 410 No	o No o No o No o No o No	Switch Switch Switch Switch Switch Switch	No No No No No	Win7 Pro64(DG) Win7 Pro64(DG) Win7 Pro64(DG) Win7 Pro64(DG) Win7 Pro64(DG) Win7 Pro64(DG)
	Intel® Core™ i3-3225 processo integrated Intel HD Graphics 40 Intel Core i5-3330 processor (integrated Intel HD Graphics 25 Turbo Boost 2.0 (up to 3.2GHz) Intel Core i5-3470 processor (integrated Intel HD Graphics 25 Turbo Boost 2.0 (up to 3.6GHz) Intel Core i7-3770 processor (untegrated Intel HD Graphics 40 Turbo Boost 2.0 (up to 3.9GHz) Intel Xeon® E3-1220V2 process Turbo Boost 2.0 (up to 3.5GHz) Intel® Xeon® E3-1225V2 process Turbo Boost 2.0 (up to 3.6GHz) DDR3 memory controller (up to Intel Xeon E3-1245V2 process Turbo Boost 2.0 (up to 3.8GHz) DDR3 memory controller (up to	00, DDR3 mer 4C/4T, 3.0GH2 00, , DDR3 memoi 4C/4T, 3.2GH2 00, , DDR3 memoi 4C/8T, 3.4GH2 00, , DDR3 memoi sor (4C/4T, 3. , DDR3 memoi ssor (4C/4T, 3 , integrated Intr 1600MH2) sor (4C/8T, 3.4 integrated Intr	nory controlle 2, 6MB Cache 2, 6MB Cache 2, 6MB Cache 7y controller (I 2, 8MB Cache 7y controller (I 1GHz, 8MB C 2GHz, 8MB el HD Graphic GHz, 8MB Ca	er (up to e), up to 1), up to 1 (ache) up to 1 (ache) up to 1 (Cache) cs P40 (ache),	600MHz) 600MHz) 600MHz) 600MHz) 00,	z) [[[Bi Bi Bi Bi Bi Bi Bi Bi Bi	ay 2: 5.25 ay 3: 3.5" ay 4: 3.5"	• 6.9" • 175 • 275. • 25- • Rer • Too • Too • Too • Illur • Rec • Too • 110 • Too • 110 • 110 • 110 • 110 • 110	mm W x 4 56 lb (12.5 iter novable h lless side lless disk lless adag ninated fra essed po gh, access dh, access , access , interna	"D x 16.7 431mm I 5kg) max andle on cover re and opti oter reter ont iccons wer butto s, for e s, for e al, for e	7"H (with handle) D x 425mm H a configuration top front moval cal drive removal tion s on optical
Implementation	One LGA1155 socket							Ū		·	
Memory Additional memory disclaimers	 32GB max, UDIMM, PC3-1280 four 240-pin DIMM sockets; Actual memory operating speed a controller speed, installed memory Mixing of ECC and non-ECC men 	lepends on proce v speed, and qua	essor memory Intity of memory		-	(7	5w max, ne PCIe 2.0 x1	ength, full ar CPU) 6 on Core i: 6 on Xeon/(3/Pentium/C	Celeron m	odels,
Graphics	Some: Intel HD Graphics in pro- discrete graphics to supp (connector information p Some: NVIDIA® NVS™ 310, PC DMS59 to dual DisplayP Some: NVIDIA NVS 510, PCIe four mini DisplayPort to f Some: NVIDIA Quadro® 410, P one DisplayPort, one dua	oort multi-displa lease see Rea le x16 adapter ort™, 19.5W x16 adapter, 20 our DisplayPor Cle x16 adapte	ay; r ports sectic ; 512MB, GB, t, 35W er, 512MB,		along wit	n SI	ot 3: half-l	ength, full ength, full ength, full	-height, 32	2-bit PCI	2.3
Media reader Optical Hard drive(s) Onboard SATA	29-in-1 media card reader on se Super Multi-Burner DL DVD±RV 250GB/500GB/1TB/2TB/3TB S 150GB/300GB/600GB SATA: 128GB/180GB/256GB SSD: Two SATA 6.0Gb/s connectors (V SATA 1.5Gb/ ATA: SATA 6.0 SATA 6.0 Solid Sta red), two SATA	s Drive Gb/s, 7200 r Gb/s, 10000 te Drive, SAT	pm, 3.9 rpm, 2 A 6.00	.5" ib/s, 2.5"	,					
Ohinaat	RAID 0, 1 support via Intel C21	6 Chipset							Intel AM	г	
Chipset Front ports	Intel C216 Chipset Two USB 2.0, microphone (3.5r	nm) headnhor	00 (3 5mm)			In	tel AMT s	upported	on model((s) with X	Keon processor
Rear ports	Two USB 2:0, fnicrophone (3:3) Two USB 2:0, four USB 3.0 (blu analog audio ports (line-in, line- one DisplayPort connector (Ont the following processors) <i>PS/2 models:</i> additional PS/2 1 via PS/2 rear I/C No onboard 1394 ports:	e), one serial (out, mic-in), or board VGA and ed: Xeon E3-12 keyboard and r	9-pin), oné et ne analog VG, l DisplayPort a 2X5V2, Core i	A DB-1 are fun i7, i5, i	5 connect ctional wh	or, • ' en ,	rights in W Preic Rescue ar	7 Professi ed through /indows 8 paded app nd Recove Internet S	downgra Pro 64-bi blications	de it 5 ⁵ (only s	t em[∞] some listed) f virus definitions
	1394 models: additional FireWin 400Mbps, two 6- High Definition (HD) Audio, Rea Internal speaker for business au	pin ports on rea Itek [®] ALC662 Idio	ar	0,		•	Microsoft® burchase Corel® Wir	Office 20 product ke	ey to activ VD±RW m	ate 10del(s))	V model(s))
	One onboard gigabit ethernet, I STMicroelectronics ST33ZP24 TCG 1.2-compliant	Trusted Platfor		,.		•	Security of	chip (see i	SECURIT nformatio	'Y n on left))
Power supply	Preferred Pro USB Keyboard (U Optical Wheel Mouse (USB con 280 watts with variable speed fa Climate Savers [®] Computing E	nector), black	g, 85% PSU,		ed	•	padlock p Security s Kensingto prohibits	pop (in rea rohibits si slot (in rea on [®] Micros side cover	de cover i ir for optio saver [®] ca removal)	removal) mal ble;	
	3-year parts and labor							password ator passv			
Eco-Label and environmental certifications	GREENGUARD [®] certified RoHS-compliant EPEAT [™] Gold rating ENERGY STAR 5.2-compliant						Boot sequestion Boot with Serial por	uence con out keybo rt I/O cont	itrol ard. mous	se	
	See the latest list of ISV certific						LICD	diachlar	ent (front	or all/!	lividual)

See footnotes for important warranty information EMEA model(s) announced January 15, 2013

ThinkStation® E31 Tower (2555) - TopSeller (March 2013)

	Processor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Drive(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	PS/2 rear I/O	Chassis intrusion switch	Preload OS ²
2555-DBG Xeor			2x4GB	No	1x500GB 3.5" SATA		Blu-ray	Intel HD P4000	No	No		Win7 Pro64
2555-DCG Xeor 2555-DDG Xeor		1600MHz Non-ECC 1600MHz Non-ECC	2x4GB 2x4GB	No No	1x500GB 3.5" SATA 1x500GB 3.5" SATA				No No	No No		Win7 Pro64 Win7 Pro64(DG
555-DEG Xeor	1E3-1245V2	1600MHz Non-ECC	2x4GB	No	1x500GB 3.5" SATA	Media	DVD±RW	Quadro 600	No	No		Win7 Pro64
2555-DFG Xeor 2555-DGG Xeor			2x4GB 2x4GB	No No	1x500GB 3.5" SATA 1x500GB 3.5" SATA				No No	No No		Win7 Pro64 Win7 Pro64(D0
Model in italics sh		1	27400	110			DVDEIW	Quadro Nooo		NO	Switch	Will/ 1 1004(DC
Win7 Pro64(DG)	= Windows 7 Pro	ofessional 64 preinstalled thro										
Processor	Turbo B DDR3 n	eon [®] E3-1245V2 pro oost 2.0 (up to 3.8GF nemory controller (up A1155 socket	lz), integra	ated Intel),		• 6	.9"W x	17.0"D		l case I (with handle) 425mm H
lemory		nax, UDIMM, PC3-12	800 1600	MHz DDF	R3, ECC or non-ECC	D ,		• 2				onfiguration
dditional mem lisclaimers	ory • Actual control)-pin DIMM sockets; memory operating spee ler speed, installed mem of ECC and non-ECC n	ory speed,	and quan	tity of memory DIMMs			3 3 3 3 4 1 3 4 5 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	emova polless polless	s side co s disk ar		oval drive removal
Graphics	Some: I c (ntel HD Graphics in liscrete graphics to su detailed graphics mo connector information	processo upport mu del name please se	r, uses m Iti-display please so see Rear p	ain memory, works a r; ee Processor sectio ports section)	0		• • R	umina ecess	ted fron ed powe	er button	
<i>N</i> edia reader	Some: N	NVIDIA [®] Quadro [®] 600 one DisplayPort, one 6 NVIDIA Quadro K600 one DisplayPort, one 6 Media card reader in	dual-link [), PCIe x1 dual-link [DVI-I, 40V 6 adapte DVI-I, 41V	v r, 1GB, V		Bay Bay Bay	y 1: 5.25", 1.6" y 2: 5.25", 1.6" y 3: 3.5", 1" hig y 4: 3.5", 1" hig y 5: 3.5", 1" hig	high, a gh, a gh, ii	access, access, access, access, aternal, aternal,	for op open for me for dis for dis	dia reader k
Detical Drive(s)		VD±RW, or Blu-ray, de TA: SATA 6.0 TA: SATA 6.0	epending)Gb/s, 720)Gb/s, 100	on model 00 rpm, 3 000 rpm,	.5" 2.5"		(75) * P0	t 1: half-length, f w max, near CPU) Cle 2.0 x16 on Core	e i3/Per	ntium/Cel		els, PCIe 3.0
Onboard SATA	Two SA RAID 0,	TA 6.0Gb/s connector 1 support via Intel C	s (red), tv	vo SATA 3	Gb/s, 2.5" 3.0Gb/s connectors	(orange), Slo Slo	16 on Xeon/Core i5, t 2: half-length, f t 3: half-length, f	ull-hei ull-hei	ght, PCI ght, 32-l	oit PCI 2.	
Onboard SAS	None						Slo	t 4: half-length, f	ull-hei	ght, 32-l	oit PCI 2.	3
Chipset Front ports		216 Chipset B 2.0, microphone (3	Cuerce) le c		(0.5							
lear ports	Two US analog a one Dis <i>(Onboa.</i> <i>are use</i>	B 2.0, four USB 3.0 (I audio ports (line-in, lir playPort connector rd VGA and DisplayPi d: Xeon E3-12X5V2, odels: additional PS/	blue), one ne-out, mi ort [™] are f Core i7, it /2 keyboa	serial (9 c-in), one functional 5, i3, Pen	pin), oné ethernet (l analog VGA DB-15 when the following l tium, and Celeron pi	connec process	ctor, Inte cors rs) Sor	el AMT supporte Prelo me: Windows® me: Windows 7 preinstalle	ed on r aded 7 Profe	operati essiona	ng syste al 64 64	
EEE 1394 adp		via PS/2 rear bard 1394 ports; odels: additional Fire 400Mbps, two	Wire PCle				Sor	rights in W me: Windows 8 Preloaded a	indow 3 Pro 6	s 8 Pro 64-bit	64-bit	ma listad)
udio	High De	efinition (HD) Audio, R					_Wi	indows 7 mode	•••	allons	(only so	ine iisteu)
Speaker	Internal	speaker for business	audio				• R	lescue and Reco	overy®			
Ethernet Security chip		board gigabit etherne belectronics ST33ZP2			Module (TPM)			lorton™ Internet dobe [®] Reader [®]	Secu	rity (30	days of v	irus definitions
becunty chip	TCG 1.2	2-compliant			(),		• N	licrosoft® Office				
leyboard Iouse	Preferre Optical	ed Pro USB Keyboard Wheel Mouse (USB o	(USB con	nnector),	104-key, black		• C	urchase product orel [®] WinDVD [®]	(DVD±	RW mo	del(s))	
ower supply	280 wat	ts with variable speed Savers® Computing	d fan, auto	osensing,			-Wi	llead® DVD Movi indows 8 mode ivernote®		ory® (D\	/D±Rw r	nodel(s))
co-Label and nvironmental ertifications	RoHS-c	GUARD [®] certified ompliant ™ Gold rating					• N • N	lorton Internet S lorton Studio kype™	ecurity	/ (30 da	ys of viru	is definitions)
SV certification	ENERG	IX STAR 5.2-complian		at www.lo	novo com/support/lo	SV	• N	licrosoft Office 2 urchase product				
hinkVantage		ts ThinkVantage [®] tech		AL WWWWW.IC	novo.com/support/te		• ċ	yberlink Power2	Go (D	VD ±RW	/ model(s	s)) sdol(s))
imited Warrant		parts and labor						ybennik rowerf		URITY	vitin Anutra	uci(s))
							• F • ps • k • F	Security chip (se Padlock loop (in 1 Padlock prohibits Security slot (in r Censington® Mic rohibits side cov Power-on passwo dministrator pas	e infor rear fo side c ear for rosave ver ren ord	mation r opt pa cover re r optiona er® cable noval)	adlock; moval) al	

ThinkStation® E31 Tower (2552)

Type- model Proce	· · · ·	Memory DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	Global	Chassis intrusion switch	PS/2 rear I/O	Win7 preload
	1245V2 1600MHz ECC 1275V2 1600MHz ECC	2x4GB 1x4GB	No No	1x1TB SATA 1x500GB SATA	Media		Quadro 2000 Quadro 2000	No No	No No	No No	PS/2 PS/2	Pro 64 Pro 64
Processor	Intel [®] Xeon [®] E3-1245V2 Turbo Boost 2.0 (up to 3. DDR3 memory controller Intel Xeon E3-1275V2 p	8GHz), inte (up to 160	egrated Int 0MHz)	el HD Graphics F	P4000,		Tower	• 6.9"	W x 17.0	color; me 0"D x 16.7	7"H (with	
	Turbo Boost 2.0 (up to 3. DDR3 memory controller	9GHz), inte	egrated Int	el HD Graphics F	94000,		optical 2		56 lb (12	: 431mm [:.5kg) max		
Implementation	One LGA1155 socket						3 disk			handle or		t
Memory Additional memorv	32GB max, UDIMM, PC: four 240-pin DIMM socke • Actual memory operating	ets;			I-ECC,			 Tool Tool	lless dis lless ada	e cover re k and opti apter reter	cal drive	removal
disclaimers	controller speed, installed Mixing of ECC and non-E	CC memory	is not suppo	orted	MMs		5			front icons ower butt		
Graphics	NVIDIA [®] Quadro [®] 2000, two DisplayPort [™] , one d	PCle x16 ual-link DV	adapter, 10 I-I, 62W	GB,			Bay 1: 5.25",	1.6" hia	h. acces	ss. for	optical	
Media reader Optical Hard drive(s)	Media: 29-in-1 Media ca Super Multi-Burner DL D 250GB/500GB/1TB/2TB, 150GB/300GB/600GB S 128GB/180GB/256GB S	VD±RW SATA /3TB SATA /ATA:	ATA 1.5Gb SATA 6.0 SATA 6.0	/s Drive	n, 2.5"	0 F"	Bay 2: 5.25", Bay 3: 3.5", Bay 4: 3.5", Bay 5: 3.5",	1.6" hig 1" high, 1" high,	h, acces acces interr	ss, ope ss, for nal, for		ader
Onboard SATA	Two SATA 6.0Gb/s conne RAID 0, 1 support via Int	ectors (red)	, two SATA				Slot 1: half-len (75w max, near	CPU)				
Onboard SAS	None						* PCle 2.0 x16 o x16 on Xeon m		8/Pentium/	/Celeron m	odels, PCI	e 3.0
Chipset	Intel C216 Chipset						Slot 2: half-len Slot 3: half-len	gth, full-				
Front ports Rear ports	Two USB 2.0, microphon Two USB 2.0, four USB 3 analog audio ports (line- one DisplayPort connect (Onboard VGA and Displ are used: Xeon E3-1225	3.0 (blue), o in, line-out, or ayPort are	one serial (mic-in), or functional	(9-pin), one ether he analog VGA D when the followir	B-15 co ng proce	nnector, essors	Slot 4: half-len	ğth, full	-heiğht, :	32-bit PC	2.3	
	Celeron processors) <i>PS/2 models:</i> additiona via PS/2	l PS/2 keyb ear I/O cab		mouse connector	S		Intel AMT sup		Intel All		Xeon pro	cessor
IEEE 1394 adptr	No onboard 1394 ports; 1394 models: additional	FireWire P	Cle adapte				• Windows® 7			rating sys	stem ²⁰	
Audio Speaker Ethernet Security chip	High Definition (HD) Aud Internal speaker for busin One onboard gigabit eth STMicroelectronics ST33	ness audio ernet, Intel	[®] ALC662 82579	codec	,		 Rescue and Norton[®] Inte Adobe[®] Rea Microsoft[®] C 	Recove ernet Se ider® Office 20	ery® curity (3)13 prelo	baded;		,
Keyboard Mouse	TCG 1.2-compliant Preferred Pro USB Keyb Optical Wheel Mouse (U	SB connec	tor), black	-			 purchase pr Corel[®] WinD Ulead[®] DVD 	VD® (D	VD±RW	model(s)) V model(s))
Power supply	280 watts with variable s Climate Savers [®] Comp	peed fan, a uting Bron	utosensin ze, 80 PL	g, 85% PSU, US[®] Bronze qua	lified		 Security chi 		SECUR nformati)	
Limited Warranty	3-year parts and labor						 Padlock loo padlock pro Security slo Kensington prohibits sic Power-on p Administrate Boot seque Boot withou Serial port I USB port di Chassis intr 	p (in rea hibits si t (in rea Micros le cover assworc or passy nce con t keyboa /O conti sablemo	ar for opt de cove r for opt saver® c r remova r remova d word trol ard, mou rol ent (fron	t padlock; r removal) ional able; ab) lividual)	model(
							Please visit w			ifications		
							GREENGUAF RoHS-compli EPEAT™ Gol ENERGY STA	RD® cert ant d rating	tified			

ThinkStation[®] E31 Tower (2553) - GMP

Type- model	Processor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Disk(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	Global	Chassis intrusion switch	PS/2 rear I/O	Win7 preload
	eon E3-1240V2	1600MHz ECC 1600MHz ECC	2x2GB 2x2GB	No	1x1TB SATA	Media		Quadro 600	No	Global Global	Switch	PS/2	Pro 64 Pro 64
	eon E3-1225V2 eon E3-1270V2	1600MHz ECC	2x2GB 2x2GB	No No	1x1TB SATA 1x2TB SATA			Quadro 600 Quadro 2000	No No	Global	Switch		Pro 64
2553-14G Xe	eon E3-1275V2	1600MHz ECC	2x2GB	No	1x256GB SSD	Media	DVD±RW	Intel HD P4000		Global	Switch		Pro 64
	eon E3-1290V2	1600MHz ECC	2x2GB	No	1x256GB SSD			Quadro 2000	No	Global	Switch	00/0	Pro 64
2553-18G Co 2553-21G Xe	eon E3-1245V2	1600MHz ECC 1600MHz ECC	1x4GB 1x4GB	No No	1x500GB SATA 1x500GB SATA			Quadro 400 Quadro 600	No No	Global Global	Switch Switch	PS/2 PS/2	Pro 64 Pro 64
	Part o	f the Global Models	: Plus (GN	1P) progran	n with limited onsite	e service	3-year limi	ted warranty					
mplementat Memory Additional m disclaimers Graphics	integrate intel Xe Turbo B DDR3 n Intel Xe Turbo B Intel Xe Turbo B DDR3 n Intel Xe Turbo B Intel Xe Turbo B DDR3 n Intel Xe Turbo B DDR3 n Intel Xe Turbo B Some: I Some: I	ore [™] i3-2130 pro ad Intel HD Graph on [®] E3-1225V2 p oost 2.0 (up to 3.6 on E3-1240V2 pr oost 2.0 (up to 3.8 on E3-1245V2 pr oost 2.0 (up to 3.8 on E3-1270V2 pr oost 2.0 (up to 3.8 on E3-1270V2 pr oost 2.0 (up to 3.9 on E3-1275V2 pr oost 2.0 (up to 4.1 A1155 socket max, UDIMM, PC3- lopin DIMM socket memory operating s fer speed, installed n of ECC and non-EC ntel HD Graphics tiscrete graphics to keon E3-1225V2/ Core i3-2120/2130 Pentium/Celeron: connector informa WIDIA® Quadro® one DisplayPort [™] ,	ics 2000, rocessor GHz), inti (up to 160 ocessor GHz), DE ocessor (GHz), DE ocessor (GHz), DE ocessor (GHz), DE (GHz), Inti (up to 160 ocessor (GHz), Inti (GHZ),	DDR3 mei (4C/4T, 3. egrated Int)0MHz) (4C/8T, 3.4)R3 memo (4C/8T, 3.4)R3 memo (4C/8T, 3.5)R3 memo (4C/8T, 3.5)R3 memo (4C/8T, 3.7)R3 memo (30MHz) (4C/8T, 3.7) (4C/8T, 3.7)) (4C/8T, 3.	mory controller (u 2GHz, 8MB Cach rel HD Graphics P GHz, 8MB Cach ry controller (up t GHz, 8MB Cach ry contr	p to 133 14000, 14000, 14000, 1600M 1600M 1600M 14000, 14000, 14000, 14000, 1600M	IHz) IHz) IHz)	Tower optical (2) (3) disk Bay 1: 5.25", 1 Bay 2: 5.25", 1 Bay 2: 5.25", 1 Bay 3: 3.5", 1 Bay 4: 3.5", 1 Bay 4: 3.5", 1 Slot 1: half-leng (75w max, near C * PCle 2.0 x16 on x16 on Xeon mo Slot 2: half-leng Slot 3: half-leng Slot 4: half-leng	 6.9"' 175r 27.5 25-1 Rem Tool Tool Tool Tool Illum Reco .6" hig /ul>	W x 17.0 mm W x 6 lb (12. ter novable h less side less disk less ada initated fi essed po h, access intern intern height, F //Pentium// height, 3	s, oper s, for n al, for d al, for d PCle* x16 <i>Celeron mo</i> PCle 2.0 x 32-bit PCI	"H (with x 425m configur top front noval al drive tion n nedia real isk dels, PClo 1 2.3	m H ź
	Some: N Some: N	VIDIA Quadro 6 one DisplayPort, o VIDIA Quadro 2	00, PCle x ne dual-lir 000, PCle	<16 adapte nk DVI-I, 40 x16 adapt	er, 1GB, DW ter, 1GB,					Intel AM			
/ledia reade		wo DisplayPort, or 29-in-1 Media car		,				Intel AMT supp	orted o	on mode	I(s) with X	eon proo	cessor
Dptical Disk(s)	Super N 250GB/ 150GB/	lulti-Burner DL D\ 500GB/1TB/2TB/3 300GB/600GB SA	D±RW S BTB SATA TA:	ATA 1.5Gb : SATA 6.0 SATA 6.0	/s Drive 0Gb/s, 7200 rpm, 0Gb/s, 10000 rpm	n, 2.5"		 Windows[®] 7 I Preload 	[⊃] rofess ed app	ional 64 lication	ating syst s⁵ <i>(only s</i>		ted)
Onboard SA	TA Two SA RAID 0,	180GB/256GB SS TA 6.0Gb/s connect 1 support via Inte	ctors (red)), two SATA	ate Drive, SATA 6. A 3.0Gb/s connec	tors (ora	inge),	 Rescue and I Norton[®] Inter Adobe[®] Read 	net Seo ler®	curity (30	2	/irus def	initions
Onboard SA								 Microsoft[®] Of purchase pro 					
Chipset		16 Chipset	(0.5	hard 1				 Corel[®] WinDV 	′D® (D\	/D±RW I	model(s))		
Front ports Rear ports		B 2.0, microphone B 2.0, four USB 3.				net (RJ-4	45), three	Ulead® DVD I	MovieF	actory®	(DVD±RW	/ model(s	s))
·	analog a one Dis (Onboa are use Celeron	audio ports (line-ir playPort connecto rd VGA and Displa d: Xeon E3-1225V processors) odels: additional via PS/2 re	ı, line-out, r ıyPort are 2/1245V2 PS/2 keyt	mic-in), o functional 2/1275V2, o board and	when the followir Core i3-2120/213	B-15 cor ng proce: 0, Pentiu	nnector, ssors	 Security chip Padlock loop padlock proh Security slot Kensington[®] prohibits side 	(see ir (in rea ibits sid (in rea Micros	r for opt de cover r for optio aver [®] ca	on on left) padlock; removal) onal able;		
EEE 1394 a		oard 1394 ports; odels: additional F 400Mbps, t	ireWire P	Cle adapte				 Power-on pas Administrator Boot sequent 	ssword ^r passw ce cont	vord trol	,		
Audio		finition (HD) Audio	o, Realtek	[®] ALC662				Boot without Sorial port I//	keyboa	ard, mou	se		
Speaker		speaker for busin						 Serial port I/C USB port disc 			or all/indi	vidual)	
Ethernet Security chip	o STMicro	ooard gigabit ethe pelectronics ST332 2-compliant			m Module (TPM)	,		Chassis intru	ision sv	vitch ava			model
Keyboard	Preferre	d Pro USB Keybo						Please visit ww				V	
Vouse Power suppl	Optical y 280 wat	Wheel Mouse (US ts with variable sp	B connec eed fan, a	tor), black autosensin	g, 85% PSU,			GREENGUAR	D® cert				
		Savers [®] Compu	ting Bror	ize, 80 PL	US [®] Bronze qual	ified		RoHS-complia EPEAT™ Gold	rating				
imited Warı	ranty 3-year p	arts and labor						ENERGY STAI		ompliant	t		

ThinkStation[®] E31 Tower (2553) - GMP II

Type- model Proc	essor	Memory (MHz/ECC)	Memory DIMMs	Pre-con RAID	Disk(s)	Media reader	SATA optical	Graphics adapter(s)	1394 adptr	Global	Chassis intrusion switch	PS/2 rear I/O	Win7 preload
2553-16G Core i7- 2553-17G Xeon E3 2553-19G Core i7-	3-1225V2	1600MHz Non-ECC 1600MHz ECC 1600MHz Non-ECC	1x4GB	No No No	180GB SSD+1TB SATA 1x500GB SATA 1x500GB SATA		DVD±RW	Intel HD 4000 Intel HD P400 Quadro 2000		Global Global Global	Switch Switch Switch	PS/2	Pro 64 Pro 64 Pro 64
	• Part	of the Global Models	s Plus (Gl	MP) prog	ram with limited onsite s	ervice 3-y	ear limited	l warranty					
Processor	integra Turbo Intel X Turbo DDR3	ated Intel HD Graph Boost 2.0 (up to 3.9 Ceon® E3-1225V2 p	ics 4000, GHz), Dl rocesso GHz), ini	DR3 me r (4C/41 tegrated	3.4GHz, 8MB Cache), mory controller (up to , 3.2GHz, 8MB Cache Intel HD Graphics P4(),		optical	 6.9"V 175n 27.56 25-lit 	V x 17.0 nm W x 6 lb (12.9 er	color; me "D x 16.7 431mm D 5kg) max 1andle on	"H (with) x 425m configur	m H ´ ation
•			10000 1	600MU-	DDR3, ECC or non-E	<u> </u>	[[disk			cover rei		
	four 24 y ● Actua	10-pin DIMM socket al memory operating s	s; peed depe	ends on p	rocessor memory	-			ToollTooll	ess disk ess ada	and option pter reten ont icons	cal drive	removal
disclaimers		oller speed, installed n ng of ECC and non-EC			quantity of memory DIMN pported	15	,		 Rece 	essed po	wer butto	on	
Graphics		discrete graphics to Xeon E3-1225V2/1 Core i7-3770: Core i5-3450/3470 Core i3-2120/2130 Pentium/Celeron:	o support 245V2/1 /3550: :: tion plea 2000 , P0	t multi-d 275V2: se see I Cle x16	Intel HD Graphics P40 Intel HD Graphics 400 Intel HD Graphics 250 Intel HD Graphics 200 Intel HD Graphics Rear ports section) adapter, 1GB,)00)0)0	Bi Bi Bi Bi Si (7	(5) ay 1: 5.25", 1 ay 2: 5.25", 1 ay 3: 3.5", 1 ay 4: 3.5", 1 ay 5: 3.5", 1 ay 5: 3.5", 1 lot 1: half-leng 5w max, near Cl PCIe 2.0 x16 on	6" hiğf ' high, ' high, ' high, ' high, D)	n, acces acces interna interna neight, P	s, ope s, for r al, for c al, for c 2Cle* x16	nedia rea lisk lisk	ader
Media reader	Media	: 29-in-1 Media car						PCIe 3.0 x16 on					
Optical Disk(s)	Super 250GE 150GE 128GE	Multi-Burner DL DV 3/500GB/1TB/2TB/3 3/300GB/600GB SA 3/180GB/256GB SS	D±RW S BTB SATA TA: SD:	SATA 1.5 A: SATA SATA Solid	Gb/s Drive 6.0Gb/s, 7200 rpm, 3. 6.0Gb/s, 10000 rpm, 3 State Drive, SATA 6.00	2.5" Gb/s, 2.5"	S	lot 2: half-leng lot 3: half-leng lot 4: half-leng	h, full-l	neight, 3	2-bit PCI	2.3	
Onboard SATA Onboard SAS		0, 1 support via Inte			ATA 3.0Gb/s connecto	rs (orange	e),						
Chipset	Intel C	216 Chipset											
Front ports Rear ports	Two U analog one Di (Onbo are us Core i	audio ports (line-in splayPort connecto ard VGA and Displa ed: Xeon E3-1225V 3-2120/2130, Pentiu	0 (blue), I, line-out Port are 2/1245V Im, and 0 PS/2 key	one ser t, mic-in e functio 2/1275V Celeron board a	ial (9-pin), oné etherne), one analog VGA DB- nal when the following '2, Core i7-3770, Core	15 conné processo	ctor, rs 5550, • •	Windows [®] 7 F Preloade Rescue and F Norton [®] Interr	eloade rofessi d appl lecove iet Sec	ed operational 64	(s) with X ating sys s⁵ <i>(only s</i>	tem ²⁰	ted)
IEEE 1394 adptr	1394 ı	board 1394 ports; <i>nodels:</i> additional F 400Mbps, t	wo 6-pin	ports or	rear		•	Adobe® Read Microsoft® Off purchase proc Corel® WinDV	ice 201 luct ke	y to activ	vate		
Audio Speaker		Definition (HD) Audio al speaker for busing			62 codec			Ulead® DVD N					s))
Ethernet Security chip	One o STMic	nboard gigabit ethe	rnet, Inte	l 82579	tform Module (TPM),			Security chip Padlock loop	(see in		on on left)		
Keyboard Mouse Power supply	Prefer Optica 280 wa	red Pro USB Keybo I Wheel Mouse (US atts with variable sp	B conne eed fan,	ctor), bla autosen		ed	•	padlock loop padlock prohi Security slot (Kensington® prohibits side Power-on pas	oits sid in rear Microsa cover	e cover for optic aver [®] ca	removal) onal ible;		
Limited Warranty	3-year	parts and labor					•	Administrator Boot sequence Boot without I Serial port I/C USB port disa Chassis intrus	passw e contr ceyboa contro bleme	rol rd, mou: ol nt (front	or all/indi		model(s
							Р	lease visit ww			fications support/IS		
							G R E	REENGUARE oHS-compliar PEAT™ Gold NERGY STAF)® certi t rating	fied			

ThinkStation® E31 SFF (3695) - TopSeller

Type- model Proce	Memory essor (MHz/ECC)	Memory Pre-conf DIMMs RAID	Hard drive(s)	Media reader	SATA optical	2nd Disk bay	Graphics	1394 adptr		Chassis intrusion switch			Win7 preload
3695-A2G Xeon E3- 3695-A8G Xeon E3- 3695-B1G Xeon E3- 3695-B2G Pentium	1225V2 1600MHz ECC 1245V2 1600MHz ECC 1230V2 1600MHz ECC 1225V2 1600MHz ECC 6860 1600MHz Non-ECC 1245V2 1600MHz ECC		1x1TB SATA 1x1TB SATA 1x1TB SATA 1x128GB SSD 1x500GB SATA 1x2TB SATA	Media Media Media Media	DVD±RW DVD±RW DVD±RW DVD±RW	No No No No	Intel HD P4000 Intel HD P4000 Quadro 600 Intel HD P4000 Intel HD Intel HD P4000	No No No No	No No No No No	No No No No No	No No No No No	No No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64
Processor Implementation Memory Additional memory disclaimers Graphics	Intel [®] Pentium [®] G860 pro integrated Intel HD Graph Intel Xeon [®] E3-1225V2 p Turbo Boost 2.0 (up to 3.6 DDR3 memory controller Intel Xeon E3-1230V2 pro Turbo Boost 2.0 (up to 3.7 Intel Xeon E3-1245V2 pro Turbo Boost 2.0 (up to 3.8 DDR3 memory controller One LGA1155 socket 32GB max, UDIMM, PC3- four 240-pin DIMM socket • Actual memory operating si controller speed, installed n • Mixing of ECC and non-EC Some: Intel HD Graphics with discrete graphics to s Xeon E3-1225V2/1/ Core i3-2120/2130 Pentium/Celeron: (connector informa Some: NVIDIA [®] Quadro [®] one DisplayPort [™] ,	cs, DDR3 memor rocessor (4C/4T, GHz), integrated (up to 1600MHz) bcessor (4C/8T, 3 GHz), DDR3 mem bcessor (4C/8T, 3 GHz), integrated (up to 1600MHz) 12800 1600MHz 5; beed depends on pr beend son pr temory speed, and of C memory is not sup in processor, use upport multi-displ 245V2/1275V2: 1 tion please see R 600, PCIe x16 ad	y controller (up 3.2GHz, 8MB (Intel HD Graphi 3.3GHz, 8MB C nory controller (3.4GHz, 8MB C Intel HD Graphi DDR3, ECC or occessor memory quantity of memory oported es main memory ay; Intel HD Graphi ear ports secti apter, 1GB,	to 133: Cache) cs P40 ache), up to 1 ache), cs P40 non-E(y DIMM. , can w cs P40 cs 2000 cs	00, 600MHz) 00, CC , s vork along		Small Desktop ③ disk [A Raven black cc 13.35"W x 15.0 339mm W x 38 16.53 lb (7.5kg 11-liter Toolless top cc Toolless top cc Toolless disk a Toolless adapt Recessed pow Bay 1: 5.25", 1.0 Bay 2: 3.5", 0.3 Bay 3: 3.5", 1" Slot 1: Low Prof	olor; m D'D x 3 31.1mr I) max I) max I) max I) max I) max II In max II II II II II II II II II II II II II	etal ca 3.93"H n D x 9 config moval ical dri ntion n, acce n, acce interr PCle	99.7mm H uration ve remov ss, foi ss, foi nal, foi * x16 (45	val r optic r medi r disk w max		er PU)
Media reader Optical Hard drive(s) Onboard SATA Onboard SAS	Media: 29-in-1 Media car Super Multi-Burner DL DV 250GB/500GB/1TB/2TB/2 150GB/300GB/600GB SA 128GB/180GB/256GB SS Two SATA 6.0Gb/s connec RAID 0, 1 support via Inte disk bay) None	d reader, slim, inte D±RW SATA 1.50 <i>TB SATA:</i> SATA <i>TA:</i> SATA <i>D:</i> Solid s stors (red), two SA	ernal USB 2.0 Gb/s Drive 6.0Gb/s, 7200 r 6.0Gb/s, 10000 State Drive, SA NA 3.0Gb/s cor	rpm, 2 IA 6.00 inector	.5" ib/s, 2.5" s (orange)	,	* PCle 2.0 x16 on 0 x16 on Xeon moo Slot 2: Low Prof Slot 3: Low Prof Slot 4: Low Prof	<i>lels</i> ile, ile,	PCle 32-bi	2.0 x1 t PCI 2.3 t PCI 2.3	3	, PCIe 3.	υ
Chipset	Intel C216 Chipset									AT			
Front ports Rear ports	Two USB 2.0, microphone Two USB 2.0, four USB 3. three analog audio ports (connector, one DisplayPoi (Onboard VGA and Displa are used: Xeon E3-1225V Celeron processors) <i>PS/2 models:</i> additional	0 (blue), one seria line-in, line-out, m t connector yPort are function 2/1245V2/1275V2	al (9-ṗin), oné e lic-in), one anal nal when the foll 2, Core i3-2120/	og VGA owing p 2130, F	DB-15	nd •	ntel AMT suppo Pre Windows® 7 Pr Preloade Rescue and R Norton® Intern Adobe® Reade Microsoft® Offi	eloade rofessi d appl ecover et Sec er®	ed oper onal 64 icatior 'y® urity (3	el(s) with rating sy 4 ns⁵ <i>(only</i> 30 days o	vstem v <i>som</i>	20 e listed	1)
IEEE 1394 adptr Audio Speaker Ethernet Security chip Keyboard	No onboard 1394 ports; 1394 models: additional F 400Mbps, t High Definition (HD) Audic Internal speaker for busine One onboard gigabit ethe STMicroelectronics ST332 TCG 1.2-compliant Preferred Pro USB Keybo	ireWire PCIe ada, wo 6-pin ports on b, Realtek [®] ALC66 ses audio net, Intel 82579 2P24 Trusted Plat ard (USB connect	rear 52 codec form Module (T ror), 104-key, bla	PM),		•	Security chip Security chip (Security side of prohibits side of Power-on pass	uct key 0° (DV lovieFa S see int n rear <i>l</i> icrosa cover r	y to act D±RW actory® ECUR formati for opt aver® c	ivate model(s (DVD±R ITY ion on lef ional able;	W mc	odel(s))	
Mouse Vertical Stand Power supply Limited Warranty	Optical Wheel Mouse (US Some: Vertical stand with 240 watts with variable sp Climate Savers [®] Comput 3-year parts and labor	retractable tongu eed fan, autosens	e for vertical or sing, 85% PSU,			_:	Administrator Boot sequence Boot without k Serial port I/O USB port disal Chassis intrus	basswo e contr eyboar contro blemer	ol rd, mou ol nt (fron	t or all/in			odel(s)
										ification			
						(Please visit wwv GREENGUARD RoHS-complian EPEAT™ Gold r ENERGY STAR	® certif t ating	ied		ISV		

ThinkStation[®] E31 SFF (3695) - TopSeller (June 5, 2012)

Type- model Pi	rocessor	Memory (MHz/ECC)	Memory F DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical	2nd Disk bay	Graphics	1394 adptr	Global	Chassis intrusion switch		Vertical	Win7 preload
3695-A4G Con 3695-A5G Con 3695-A6G Con	re i5-3450 re i5-3550 re i5-3550 re i7-3770 re i7-3770	1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC 1600MHz Non-ECC	2x2GB 2x2GB 2x2GB	No No No	1x1TB SATA 1x1TB SATA 1x256GB SSD 1x256GB SSD 1x1TB SATA	Media Media Media	DVD±RW	No No No	Intel HD 2500 Intel HD 2500 Intel HD 2500 Intel HD 4000 Intel HD 4000	No No No No	No No No No	No No No No	No No No No	No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64
Processor Implementation Memory Additional memo disclaimers	integra Turbo I Intel C integra Turbo I Intel C integra Turbo I One LC 32GB four 24	Core [™] i5-3450 proc ted Intel HD Graphic Boost 2.0 (up to 3.50 ore i5-3550 proces ted Intel HD Graphic Boost 2.0 (up to 3.70 ore i7-3770 proces ted Intel HD Graphic Boost 2.0 (up to 3.90 GA1155 socket max, UDIMM, PC3-1 0-pin DIMM sockets al memory operating sp oiller speed, installed mu	25 2500, GHZ), DDI sor (4C/4) (2500, GHZ), DDI sor (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/8) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/4) (4C/8)	R3 men T, 3.3G R3 men T, 3.4G R3 men D0MHz ds on pro	hory controller Hz, 6MB Cach hory controller Hz, 8MB Cach hory controller DDR3, ECC or pacessor memory wantity of memor	(up to 1 e), (up to 1 e), (up to 1 non-E(600MHz) 600MHz) CC,		Small Desktop ③ disk [• Raven black co • 13.35"W x 15.4 • 339mm W x 38 • 16.53 lb (7.5kg • 11-liter • Toolless top co • Toolless disk a • Toolless disk a	plor; m D'D x 3 31.1mi) max over re nd op er rete	3.93"H m D x 9 config moval tical dr ention	99.7mm H uration			
Graphics	Intel H works	D Graphics in proce along with discrete of Xeon E3-1225V2/12 Core i7-3770: Core i3-3450/3470/ Core i3-2120/2130: Pentium/Celeron: (connector informat	essor, use praphics to 245V2/12 3550: ion please	es main o suppo 75V2: 	memory, rt multi-display ntel HD Graphi ntel HD Graphi ntel HD Graphi ntel HD Graphi ntel HD Graphi ear ports secti	cs P40 cs 400 cs 250 cs 200 cs 200 cs))	E	• Recessed pow Bay 1: 5.25", 1. Bay 2: 3.5", 0. Bay 3: 3.5", 1" Slot 1: Low Prof	6" higl 5" higl high, ile,	n, acce n, acce inter PCle	ess, for nal, for e* x16 (45	^r medi disk w max		er
Media reader Optical Hard drive(s) Onboard SATA Onboard SAS	Super 250GE 150GE 128GE Two SA	29-in-1 Media card Multi-Burner DL DVI 3/500GB/1TB/2TB/3 3/300GB/600GB SAT 3/180GB/256GB SSI ATA 6.0Gb/s connect 0, 1 support via Intel ay)	D±RW SA TB SATA: A: D: tors (red),	TA 1.50 SATA (SATA (Solid S two SA	6b/s Drive 6.0Gb/s, 7200 (6.0Gb/s, 10000 State Drive, SA TA 3.0Gb/s cor	rpm, 2 TA 6.00 nnector:	.5" ib/s, 2.5" s (orange)	,	* PCle 2.0 x16 on 0 PCle 3.0 x16 on 2 Slot 2: Low Prof Slot 3: Low Prof Slot 4: Low Prof	K <i>eon/C</i> ile, ile,	ore i5/C PCle 32-b		lels	,	
Chipset		216 Chipset													
Front ports Rear ports	Two US Two US three a conneo (Onboa are uso Core is	SB 2.0, microphone SB 2.0, four USB 3.0 Inalog audio ports (li ctor, one DisplayPort ard VGA and Display ed: Xeon E3-1225V2 5-3450/3550, Core i3 nodels: additional P via PS/2 rea) (blue), o ne-in, line connecto Port are f /1245V2/ 8-2120/21 S/2 keybo	ne seria e-out, m or function 1275V2 30, Pen oard an	II (9-pin), one e ic-in), one anal al when the fol 2, Core i7-3770 tium, and Cele	og VGA lowing p , ron pro	DB-15	6 • •	Intel AMT suppo Pre Windows [®] 7 P Preloade Rescue and R Norton [®] Intern Adobe [®] Reade	eloade rofess d app ecove et Sec	ed ope ional 6 licatio ry®	el(s) with rating sy 4 ns⁵ <i>(only</i>	stem som	e listed)
IEEE 1394 adpt Audio Speaker Ethernet Security chip	1394 m High D Interna One or STMic	board 1394 ports; nodels: additional Fin 400Mbps, tw efinition (HD) Audio, al speaker for busine nboard gigabit ethern roelectronics ST33Z 2-compliant	ro 6-pin p Realtek® ss audio net, Intel 8	orts on ALC66 32579	rear 2 codec			•	Microsoft® Offi purchase prod Corel® WinDVI Ulead® DVD M Security chip (Security slot (i	ce 20 uct ke D® (DV lovieF See in	y to ac 'D±RW actory® ECUR format	tivate / model(s) / (DVD±R ITY ion on lef	Ŵ mc	odel(s))	
Keyboard Mouse Vertical Stand Power supply Limited Warrant	Preferr Optica <i>Some:</i> 240 wa Climat	.2-compliant ed Pro USB Keyboa I Wheel Mouse (USE Vertical stand with atts with variable spe te Savers [®] Computi parts and labor	connector retractable ed fan, au	or), blac e tongu utosens	k e for vertical or ing, 85% PSU,	ientatio		•	Kensington® M prohibits side Power-on pase Administrator Boot sequence Boot without k Serial port I/O	Aicros cover sword passw e cont eyboa contro	aver®' c remova rord rol .rd, mo ol	cable; al) use			
	, cycar								USB port disa Chassis intrus	ion sv	vitch av	vailable or	n sele		odel(s)
								1	Please visit www			tification /support/			
								E	GREENGUARD RoHS-complian EPEAT™ Gold I ENERGY STAR	t ating		nt			

ThinkStation® E31 SFF (3695) - TopSeller (July 2012)

Type- model Pr	Memory ocessor (MHz/ECC)	Memory Pre-conf DIMMs RAID	Disk(s)	Media reader		2nd Disk bay		1394 adptr	Global	Chassis intrusion switch			Win7 preload
3695-M1G Cor 3695-M2G Cor 3695-M3G Cor	a) 3-2130 1600MHz ECC a) 3-2130 1600MHz ECC a) 3-2130 1600MHz ECC a) 3-2120 1600MHz Non-ECC a) 3-2120 1600MHz Non-ECC a) 3-2120 1600MHz ECC		1x500GB SATA 1x500GB SATA 1x500GB SATA 1x500GB SATA 1x500GB SATA	Media Media Media	DVD±RW DVD±RW DVD±RW	No No No		No No No No	No No No No	Switch Switch Switch Switch Switch	No No No No	Stand Stand Stand	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64
Processor	Intel [®] Core [™] i3-2120 pro integrated Intel HD Graph Intel Core i3-2130 proce integrated Intel HD Graph	ics 2000, DDR3 m ssor (2C/4T, 3.4G	emory controlle Hz, 3MB Cach	er (up t e) ,		z) [Small Desktop	opt	tical				
Implementation	One LGA1155 socket							_	3	.			
Memory	32GB max, UDIMM, PC3 four 240-pin DIMM socket		DDR3, ECC or	non-E	CC,				00 🗖	1			
disclaimers	 Actual memory operating s controller speed, installed n Mixing of ECC and non-EC 	peed depends on pro nemory speed, and o C memory is not sup	uantity of memor	-			 Raven black c 13.35"W x 15. 339mm W x 38 16.53 lb (7.5kg) 	0"D x 81.1m	3.93"H m D x 9	99.7mm H	ł		
Graphics	Some: Intel HD Graphics discrete graphics to Xeon E3-1225V2/3 Core i7-3770: Core i5-3450/3470 Core i3-2120/2130 Pentium/Celeron: (connector information)	o support multi-dis 245V2/1275V2: /3550: :	play; ntel HD Graphi ntel HD Graphi ntel HD Graphi ntel HD Graphi ntel HD Graphi	ics P40 ics 400 ics 250 ics 200 ics	00 0 0	n •	11-liter Toolless top co Toolless disk a Toolless adapt Recessed pow	over re and op	emoval tical dr ention		val		
	Some: NVIDIA® Quadro® DMS59 to dual sin Some: NVIDIA Quadro 40 one DisplayPort™,	NVS 300, PCIe x gle-link DVI-I, 17.5 00. PCIe x16 adag	16 adapter, 512 W oter. 512MB.			E	Bay 1: 5.25", 1. Bay 2: 3.5", 0. Bay 3: 3.5", 1'	5" hiğl	h, acce	ess, for		al/2nd o ia reade	
Media reader Optical Disk(s)	Media: 29-in-1 Media car Super Multi-Burner DL DV 250GB/500GB/1TB/2TB/2 150GB/300GB/600GB SA 128GB/180GB/256GB SS	D±RW SATA 1.50 BTB SATA: SATA (TA: SATA (ab/s Drive	rpm, 2	2.5"		Slot 1: Low Prot * PCle 2.0 x16 on x16 on Xeon mod Slot 2: Low Prot Slot 3: Low Prot	Core i3, dels file, file,	/Pentium PCIe 32-b	e 2.0 x1 it PCI 2.3	nodels		
Onboard SATA	Two SATA 6.0Gb/s connec RAID 0, 1 support via Inte disk bay)	ctors (red), two SA	TA 3.0Gb/s cor	nector	s (orange)	,	Slot 4: Low Prot	nie,	32-0	it PCI 2.3			
Onboard SAS	None												
Chipset Front ports	Intel C216 Chipset Two USB 2.0, microphone	(3.5mm) beadph	one (3 5mm)										
Rear ports	Two USB 2.0, four USB 3. three analog audio ports (connector, one DisplayPo (Onboard VGA and Displa are used: Xeon E3-1225V Core i5-3450/3550, Core <i>PS/2 models:</i> additional	0 (blue), one seria line-in, line-out, m rt connector yPort are function 2/1245V2/1275V2 3-2120/2130, Pen	al (9-pin), one e ic-in), one anal al when the foll 2, Core i7-3770 tium, and Cele	og VGA owing (ron pro	A DB-15 processors	•	Windows [®] 7 P Preloade Rescue and R	eloade rofess d app ecove	ed ope ional 6 licatio	el(s) with rating sy 4 ns⁵ <i>(only</i>	stem som	20 e listed)
IEEE 1394 adpti Audio	No onboard 1394 ports; 1394 models: additional F	ireWire PCIe ada wo 6-pin ports on	rear	00,		•	 Norton[®] Intern Adobe[®] Reade Microsoft[®] Off purchase prod Corol[®] WinDV/ 	er® ice 20 ⁻ luct ke	13 prel y to ac	oaded; tivate		s definit	ons)
Speaker	Internal speaker for busin	ess audio				•	Corel® WinDVI Ulead® DVD N	lovieF	actory®	0VD±R	// W mc	odel(s))	
Ethernet Security chip	One onboard gigabit ethe STMicroelectronics ST33 TCG 1.2-compliant	ZP24 Trusted Platf		,.			Security chip	(see ir		ion on lef	t)	,	
Keyboard Mouse Vertical Stand Power supply	Preferred Pro USB Keybo Optical Wheel Mouse (US Some: Vertical stand with 240 watts with variable sp Climate Savers [®] Compu	B connector), blac retractable tongu eed fan, autosens	e for vertical or ing, 85% PSU,	ientatio		•	 Security slot (Kensington[®] I prohibits side Power-on pas Administrator Boot sequenc 	Vicros cover sword passw e cont	aver®' o remova rord rol	cable; al)			
Limited Warranty	3-year parts and labor					•	 Boot without k Serial port I/O USB port disa Chassis intrus 	eyboa contro bleme	urd, mo ol ent (fror	nt or all/in			odel(s)
										tification			
						(Please visit www GREENGUARD RoHS-complian)® certi t		/support/	157		
							EPEAT™ Ġold ENERGY STAR		omplia	nt			

ThinkStation[®] E31 SFF (3695) - TopSeller (August 2012)

Type- model Proc	Memory essor (MHz/ECC)	Memory Pre-co DIMMs RAID		Media reader	SATA optical	2nd Disk bay	Graphics adapter(s)	1394 adptr (Chassis intrusion switch		Vertical	Win7 preload
3695-N2G Core i5-3	-1230V2 1600MHz ECC 3470 1600MHz Non-EC -1230V2 1600MHz ECC	2x2GB No C 1x4GB No 1x4GB No	1x1TB SATA 1x500GB SATA 1x500GB SATA	Media	DVD±RW	No	Quadro 410 Intel HD 2500	No No No	No No No	Switch	No No No		Pro 64 Pro 64 Pro 64
Processor Implementation Memory Additional memory disclaimers	Intel [®] Core [™] i5-3470 pro integrated Intel HD Graph Turbo Boost 2.0 (up to 3.6 Intel Xeon [®] E3-1230V2 p Turbo Boost 2.0 (up to 3.7 One LGA1155 socket 32GB max, UDIMM, PC3 four 240-pin DIMM socket • Actual memory operating s controller speed, installed r • Mixing of ECC and non-EC	ics 2500, GGHz), DDR3 m rocessor (4C/8 'GHz), DDR3 m -12800 1600MH :s; peed depends on nemory speed, and	emory controller T, 3.3GHz, 8MB emory controller z DDR3, ECC or processor memory d quantity of memo	(up to 1 Cache) (up to 1	, 600MHz) CC ,	_[Small Desktop ③ disk [Raven black cr 13.35"W x 15.0 339mm W x 38 16.53 lb (7.5kc)	olor; me 0"D x 3 31.1mm	2 o □ etal ca: .93"H n D x 9	9.7mm ŀ			
Graphics	• Mixing of Ecc and horeec Some: Intel HD Graphics discrete graphics to Xeon E3-1225V2/ Core i7-3770: Core i5-3450/3470 Core i3-2120/2130 Pentium/Celeron: (connector informa Some: NVIDIA [®] Quadro [®] one DisplayPort [™] ,	a in processor, u o support multi- 1245V2/1275V2 0/3550: 0: ation please see 410 , PCIe x16 a	ses main memor lisplay; Intel HD Graph Intel HD Graph Intel HD Graph Intel HD Graph Intel HD Graph Rear ports sect adapter, 512MB,	ics P40 ics 400 ics 250 ics 200 ics	00 0 0	h • •	11-liter Toolless top cc Toolless disk a Toolless adapt Recessed pow Bay 1: 5.25", 1. Bay 2: 3.5", 0. Bay 3: 3.5", 1"	over ren and opti- er reter ver butto 6" high, 5" high,	noval cal drin ntion on , acces	ve remov ss, for ss, for	[,] optic	cal/2nd d ia reade	
Media reader Optical Disk(s) Onboard SATA Onboard SAS	Media: 29-in-1 Media car Super Multi-Burner DL DV 250GB/500GB/1TB/2TB/ 150GB/300GB/600GB SA 128GB/180GB/256GB SS Two SATA 6.0Gb/s conne RAID 0, 1 support via Inter disk bay) None	d reader, slim, ir /D±RW SATA 1.3 37B SATA: SATA NTA: SAT SD: Solid ctors (red), two S	nternal USB 2.0 5Gb/s Drive A 6.0Gb/s, 7200 A 6.0Gb/s, 10000 J State Drive, SA SATA 3.0Gb/s co) rpm, 2 TA 6.00 nnector	2.5" 3b/s, 2.5" s (orange)	, d	Slot 1: Low Prof PCle 2.0 x16 on PCle 3.0 x16 on Slot 2: Low Prof Slot 3: Low Prof Slot 4: Low Prof	ile, Core i3/F Xeon/Co ile, ile,	PCle Pentium, re i5/Co PCle 32-bi	* x16 (45 /Celeron r	w max nodels lels	, near CF	PU)
Chipset Front ports Rear ports	Intel C216 Chipset Two USB 2.0, microphone Two USB 2.0, four USB 3 three analog audio ports connector, one DisplayPo (Onboard VGA and Displa are used: Xeon E3-1225V Core i5-3450/3550, Core <i>PS/2 models:</i> additional	0 (blue), one se (line-in, line-out, rt connector ayPort are functio 2/1245V2/1275 i3-2120/2130, P	rial (9-pin), one e mic-in), one ana onal when the fol V2, Core i7-3770 entium, and Cele	log VGA lowing , eron pro	DB-15	-	Windows® 7 P	orted or eloaded rofessio	d oper onal 64	el(s) with r ating sy 4	stem	20	
IEEE 1394 adptr Audio Speaker Ethernet Security chip	via PS/2 re No onboard 1394 ports; 1394 models: additional F 400Mbps, t High Definition (HD) Audi Internal speaker for busin One onboard gigabit ethe STMicroelectronics ST33. TCG 1.2-compliant	ear I/O cable FireWire PCIe ac wo 6-pin ports o o, Realtek® ALC ess audio rnet, Intel 82579 ZP24 Trusted Pla	lapter, 1394a-200 n rear 662 codec atform Module (T	00, ⁻ PM),		• • •	Preloade Rescue and R Norton® Intern Adobe® Reade Microsoft® Offi purchase prod Corel® WinDVI Ulead® DVD M Security chip (ecovery et Secu ce 2013 luct key D® (DVE lovieFa	y [®] urity (3 3 preic to act D±RW ctory [®] ECURI	0 days o paded; ivate model(s (DVD±R	f virus)) W mo	s definiti	
Keyboard Mouse Vertical Stand Power supply Limited Warranty	Preferred Pro USB Keybo Optical Wheel Mouse (US <i>Some:</i> Vertical stand with 240 watts with variable sp Climate Savers [®] Compu 3-year parts and labor	B connector), bl retractable tong eed fan, autose	ack gue for vertical or nsing, 85% PSU,	rientatio			Security slot (i Kensington M prohibits side Power-on pass Administrator Boot sequenc Boot without k Serial port I/O USB port disa	in rear f Microsa cover re sword passwo e control control blemen	ior opti ver® c emova ord ol d, mou l t (from	ional able; I) use t or all/in	dividu		
						F	Chassis intrus Please visit www GREENGUARD RoHS-complian EPEAT™ Gold I ENERGY STAR	IS' w.lenove ecertifi t t rating	V cert o.com/ ed	ification /support/	s		

ThinkStation® E31 SFF (3695) - TopSeller (September 2012)

Type- model Proc	Memory essor (MHz/ECC)	Memory Pre-co DIMMs RAID		Media reader	SATA optical	2nd Disk bay	Graphics	1394 adptr (Global	Chassis intrusion switch			Win7 preload
3695-NQG Core i3 3695-NRG Core i3 3695-NSG Core i3 3695-NTG Core i3	-3220 1600MHz Non-EC0 -3240 1600MHz Non-EC0	C 1x4GB No C 1x4GB No	1x500GB SATA 1x500GB SATA 1x500GB SATA 1x500GB SATA 1x500GB SATA	Media Media	DVD±RW DVD±RW	No No	NVS 310 Quadro 410	No No No	No No No	No No No	No No No	Stand Stand	Pro 64 Pro 64 Pro 64 Pro 64
Processor	Intel [®] Core [™] i3-3220 pro integrated Intel HD Graph Intel Core i3-3240 proce integrated Intel HD Graph One LGA1155 socket	ics 2500, DDR3 ssor (2C/4T, 3.4 ics 2500, DDR3	memory controll GHz, 3MB Cach memory controll	er (up t e) , er (up t	o 1600MH	z) [Small Desktop	opti	cal				
Memory	32GB max, UDIMM, PC3 four 240-pin DIMM socket		z DDR3, ECC or	non-E	CC,								
Additional memory disclaimers	 Actual memory operating s controller speed, installed n Mixing of ECC and non-EC 	peed depends on peed depends on peed and	l quantity of memo	ry DIMM	s	•	 Raven black c 13.35"W x 15. 339mm W x 38 	0"D x 3 81.1mn	8.93"H n D x 9	99.7mm H	4		
Graphics	Some: Intel HD Graphics discrete graphics to Xeon E3-1225V2/ Core i7-3770: Core i5-3450/3470 Core i3-220/3240 Core i3-2120/2130 Pentium/Celeron: (connector informa Some: NVIDIA® Quadro® one DisplayPort™, Some: NVIDIA Quadro M DMS59 to dual Dis	o support multi-c 1245V2/1275V2: 1/3550: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1:	isplay; Intel HD Graph Intel HD Graph Intel HD Graph Intel HD Graph Intel HD Graph Intel HD Graph Rear ports sect Idapter, 512MB, /1-1, 38W 6 adapter, 512N	ics P40 ics 400 ics 250 ics 250 ics 200 ics 200 ics	00 0 0 0	in • • • •	 16.53 lb (7.5kg 11-liter Toolless top co Toolless disk a Toolless adapt Recessed pow Bay 1: 5.25", 1. Bay 2: 3.5", 0. Bay 3: 3.5", 1' Slot 1: Low Proi 	over rer and opti ter reter ver butt 6" high 5" high,	noval ical dri ntion on , acce , acce interr	ive remov ss, for ss, for nal, for	r optic r medi r disk	al/2nd d ia reade , near CF	er
Media reader Optical Disk(s) Onboard SATA	Media: 29-in-1 Media car Super Multi-Burner DL DV 250GB/500GB/1TB/2TB/2 150GB/300GB/600GB SA 128GB/180GB/256GB SS Two SATA 6.0Gb/s connec RAID 0, 1 support via Inte disk bay)	/D±RW SATA 1.5 37B SATA: SATA 17A: SATA SD: Solid ctors (red), two S	5Gb/s Drive A 6.0Gb/s, 7200 A 6.0Gb/s, 10000 I State Drive, SA SATA 3.0Gb/s con	rpm, 2 TA 6.00 nnector	2.5" 3b/s, 2.5" s (orange)	* PCle 2.0 x16 on Core i3/Pentium/Celeron models, P x16 on Xeon models Slot 2: Low Profile, PCle 2.0 x1 Slot 3: Low Profile, 32-bit PCl 2.3 Slot 4: Low Profile, 32-bit PCl 2.3 e),							0
Onboard SAS Chipset	None Intel C216 Chipset					_							
Front ports Rear ports	Two USB 2.0, microphone Two USB 2.0, four USB 3. three analog audio ports (connector, one DisplayPo (Onboard VGA and Displa are used: Xeon E3-1225V Core i5-3450/3550, Core <i>PS/2 models:</i> additional	0 (blue), one se line-in, line-out, rt connector ayPort are functio 2/1245V2/1275 i3-2120/2130, Pe	rial (9-pin), oné e mic-in), one anal onal when the fol /2, Core i7-3770 entium, and Cele	og VGA lowing , ron pro	A DB-15	6 • •	Windows [®] 7 P Preloade Rescue and R Norton [®] Intern	eloade rofession dappl lecover net Sector	d ope onal 64 icatior y®	el(s) with rating sy 4 ns⁵ <i>(only</i>	vstem v som	20 e listed)
IEEE 1394 adptr	No onboard 1394 ports; 1394 models: additional F 400Mbps, t High Definition (HD) Audio	ireWire PCIe ad wo 6-pin ports o b, Realtek® ALC	n rear)0,		•	 Adobe[®] Reade Microsoft[®] Off purchase prod Corel[®] WinDVI Ulead[®] DVD M 	ice 201 luct key D® (DVI	≀ to act D±RW	tivate model(s		odel(s))	
Speaker Ethernet Security chip	Internal speaker for busin One onboard gigabit ethe STMicroelectronics ST33 TCG 1.2-compliant	rnet, Intel 82579		PM),			Security chip Security slot (Kensington® I	S I (see inf in rear	ECUR formati	ITY ion on lef ional			
Keyboard Mouse Vertical Stand Power supply	Preferred Pro USB Keybo Optical Wheel Mouse (US <i>Some:</i> Vertical stand with 240 watts with variable sp Climate Savers [®] Compu	B connector), bl retractable tong eed fan, autoser	ack jue for vertical or nsing, 85% PSU,	ientatic		•	prohibits side Power-on pas Administrator Boot sequenc Boot without k	cover r sword passwo e contr ceyboar	emova ord ol rd, mou	al)			
Limited Warranty	3-year parts and labor					•	 Serial port I/O USB port disa Chassis intrus 	blemer sion sw	nt (fron <i>itch av</i>		n sele		odel(s)
							Please visit ww GREENGUARD RoHS-complian EPEAT™ Gold ENERGY STAR)® certif It rating	ied		ISV		

ThinkStation® E31 SFF (3695) - TopSeller (November 2012)

Type- model	Processor	Memory (MHz/ECC)	Memory Pre-c DIMMs RAI		Media reader	SATA optical	2nd Disk bay	Graphics adapter(s)	1394 adptr	Globa	Chassis intrusion switch		Vertical stand	Preload OS
3695-PCG C		1600MHz ECC	1x4GB No	1x500GB SATA						No	No	No		Win8 Pro64
3695-PDG C 3695-PEG C		1600MHz ECC 1600MHz ECC	1x4GB No 1x4GB No	1x500GB SATA 1x500GB SATA					No No	No No	No No	No No		Win8 Pro64 Win8 Pro64
3695-PFG C	Core i3-3240	1600MHz ECC	1x4GB No	1x500GB SATA	Media	DVD±RW	No	Intel HD 2500	No	No	No	No	Stand	Win8 Pro64
Processor	Intel®	Core [™] i3-3220 pr	ocessor (2C/	IT, 3.3GHz, 3MB	Cache)	,		Small Desk	top					
	Intel C integra	ted Intel HD Grap ore i3-3240 proc ted Intel HD Grap	essor (2C/4T,	3.4GHz, 3ŃB Ca	che), `ˈ			3 disk		optica	ıl			
Implementati		GA1155 socket								(2)				
Memory		max, UDIMM , PC 0-pin DIMM socke		MHZ DDR3, ECC	or non-	ECC,			L			I		
Additional me disclaimers	emory • Actua contro	al memory operating oller speed, installed g of ECC and non-E	speed depends memory speed,	and quantity of mer		IMs		 Raven blac 13.35"W x 339mm W 	15.0"E x 381.) x 3.9 1mm	03"H D x 99.7m			
Graphics		Intel HD Graphic discrete graphics Xeon E3-1225V2 Core i7-3770: Core i3-3220/324 Core i3-2120/213 Pentium/Celeron. (connector inform NVIDIA® Quadro DMS59 to dual D	to support mu /1245V2/1275 ?0/3550: ?0: 	iti-display; V2: Intel HD Gra Intel HD Gra Intel HD Gra Intel HD Gra Intel HD Gra Intel HD Gra ee Rear ports se Cle x16 adapter, 5	phics P4 phics 40 phics 25 phics 25 phics 20 phics phics phics	4000 000 500 500	with	 16.53 lb (7 11-liter Toolless to Toolless dia Toolless dia Toolless active Recessed Bay 1: 5.25" Bay 2: 3.5", Bay 3: 3.5", Slot 1: Low I 	p cove sk and lapter power , 1.6" 0.5" 1" hij	r remo optica retent buttor high, a high, a gh, i	oval al drive re ion ו access,	for o for r for m for d	ptical/2 nedia re isk	
		NVIDIA Quadro one DisplayPort,	410, PCIe x16 one dual-link [adapter, 512MB, VI-I, 38W				* PCle 2.0 x16 x16 on Xeon Slot 2: Low I	on Cor models Profile,	e i3/Pe	ntium/Celer PCIe 2.0 x	ròn moi (1		
Media reade Optical Disk(s)	Super 250GE 150GE 128GE	29-in-1 Media ca Multi-Burner DL D 3/500GB/1TB/2TB 3/300GB/600GB S 3/180GB/256GB S	ND±RW SATA /3TB SATA: S ATA: S SD: SD:	1.5Gb/s Drive ATA 6.0Gb/s, 720 ATA 6.0Gb/s, 100 olid State Drive, 5	00 rpm, 3 000 rpm, SATA 6.0	, 2.5")Gb/s, 2.5		Slot 3: Low I Slot 4: Low I			32-bit PCI 32-bit PCI			
Onboard SA	RAID (disk ba	ATA 6.0Gb/s conn), 1 support via In ay)						Intel AMT su	ipporte		el AMT model(s) v	with Xe	eon pro	cessor
Onboard SA									Prelo	aded	operating	g syst	tem ²⁰	
Chipset		216 Chipset			、 、			Some: Win				64		
Front ports Rear ports	Two US three a conned (Onbo are us Core is proces	nodels: additiona	3.0 (blue), one (line-in, line-co ort connector layPort are fur V2/1245V2/12 i3-2120/2130	serial (9-pin), on ut, mic-in), one a ctional when the 75V2, Core i7-37 /3220/3240, Pent	é ethern nalog V(following 70, ium, and	GA DB-15 g processo d Celeron		-Windows 7 • Rescue an • Norton™ I • Adobe® Re • Microsoft® purchase p • Corel® Win	aded a mode d Rec nterne eader [®] Office produc DVD [®]	applic overy t Secu 2013 t key t (DVD	ations⁵ (a urity (30 d preloaded o activate ±RW mod	ays of d; el(s))	virus d	efinitions)
EEE 1394 a	1394 r	ooard 1394 ports; nodels: additional 400Mbps,	FireWire PCIe two 6-pin por	s on rear	2000,			Ulead® DV Windows 8 Intel AppU	mode		tory® (DVI	D±RW	model	(s))
Audio Speaker Ethernet	Interna One or	efinition (HD) Auc I speaker for busi board gigabit eth	ness audio ernet, Intel 82	579				 Evernote® Norton Inte Norton Stu Skype™ 		Securit	y (30 day	s of vi	rus def	initions)
Security chip		roelectronics ST3 .2-compliant	32P24 Irusted	Platform Module	(TPM),			 Microsoft C 						
Keyboard Mouse	Preferr Optica	ed Pro USB Keyb I Wheel Mouse (U	SB connector)	, black				purchase pCyberlink ICyberlink I	Power2	2Go ([0VD±RW	model))
Vertical Stan Power supply		Vertical stand with the stand with the stand with the standard sta				tion		Coordination	ain (-		- 10#1		
	Climat	e Savers [®] Comp	uting Bronze	80 PLUS® Bron	ze quali	fied		 Security cl Security sl 	oṫ (Ìn r	ear fo	r optional	,		
imited Warr		parts and labor						Kensingtor	n® Mic	rosav	er® cable;			
Eco-Label ar		NGUARD [®] certifie	d					prohibits sPower-on j			noval)			
environmenta		compliant ™ Gold rating						 Administra 	tor pas	sswor				
	ENER	GY STAR 5.2-com						 Boot seque Boot witho 						
ISV certificat	ions See th	e latest list of ISV	certifications a	t www.lenovo.com	m/suppc	ort/ISV		 Serial port 	I/O co	ontrol		11/i!!	dial or 1	
								 USB port of <i>Chassis in</i> 	nsable	ement	(Tront or a	ui/indiv	/idual)	

ThinkStation® E31 SFF (3695) - TopSeller (March 2013)

695-RAG Xeo		(MHz/ECC)	DIMMs	Pre-conf RAID	SATA drive(s)	drive bay	Media reader		TA ical	Graphics adapter(s)	1394 adptr	intrusion switch	Vertical stand	Preload OS ²
		1600MHz Non-ECC		No	1x500GB 3.5"	No	Media	DVD		Intel HD P4000	No	Switch		Win7 Pro64
695-BBG Xe0		1600MHz Non-ECC		No No	1x500GB 3.5" 1x500GB 3.5"	No No	Media Media	DVD	±RW +RW	Intel HD P4000 Quadro K600	No No	Switch Switch		Win7 Pro64(DG Win7 Pro64(DG
695-RCG Xeo	n E3-1245V2	1600MHz Non-ECC	2x4GB	No	1x500GB 3.5"	No	Media	DVD	±RW	Quadro 600	No	Switch	Stand	Win7 Pro64
695-RDG Core		1600MHz Non-ECC 1600MHz Non-ECC		No No	1x500GB 3.5" 1x500GB 3.5"	No No	Media Media	DVD		Intel HD 2500 Intel HD 2500	No No	Switch Switch		Win7 Pro64 Win7 Pro64(DG
1 Model in italics s														
) = Windows 7 Pro	ofessional 64 preinstalled							Ormal	Deelden				
TOCESSO	integrat Intel Xe Turbo B	ed Intel HD Graphic eon [®] E3-1245V2 pr loost 2.0 (up to 3.80 nemory controller (cs 2500, ocessor GHz), int	DDR3 m (4C/8T, egrated I	emory control 3.4GHz, 8MB	ler (up Cache	o to 1600 e) ,	MHz)		I Desktop	tical			
mplementation	n One LG	A1155 socket					500				② ○ ○ ⊏			
Memory	four 240	nax, UDIMM , PC3-)-pin DIMM sockets	;				ECC,			ven black color;				
Additional men disclaimers	control	l memory operating sp ller speed, installed m 1 of ECC and non-ECC	emory spe	eed, and q	uantity of memo		Ms		• 339 • 16.	35"W x 15.0"D x 9mm W x 381.1n 53 lb (7.5kg) ma	nm D	x 99.7mr		
Graphics	Some: I Some: I	ntel HD Graphics discrete graphics to (detailed graphics ri- connector informati NVIDIA® Quadro® (one DisplayPort, on NVIDIA Quadro K6 one DisplayPort, on	support nodel na on pleas 500, PCI e dual-lin 500, PCI	multi-dis me pleas e see Re e x16 ad nk DVI-I, e x16 ada	play; se see Proces p ar ports section apter, 1GB, 40W apter, 1GB,	sor se	0	with	Toc Toc Toc Rec Bay	liter illess top cover r illess disk and o illess adapter re cessed power bu I: 5.25", 1.6" hig 2: 3.5", 0.5" hig 3: 3.5", 1" high	ptical tentio utton gh, ao gh, ao	drive ren on ccess, ccess,	for optic	cal/2nd disk lia reader
Media reader	Media:	29-in-1 Media card	l reader,	slim, inte	ernal USB 2.0					1: Low Profile,				k, near CPU)
Optical		im DVD, DVD±RW,			r Blu-ray, depe	nding	on mode	el		e 2.0 x16 on Core i on Xeon models	3/Pent	ium/Celerc	n model	s, PCIe 3.0
SATA drive(s)	2.5": SI	ATA 6.0Gb/s, 7200 ATA 6.0Gb/s, 10000) rpm, 2.	5"					Slot 2	2: Low Profile, 3: Low Profile,		Cle 2.0 x ⁻ 2-bit PCI 2		
Onboard SATA	Two SA RAID 0 drive ba	olid State Drive, SA TA 6.0Gb/s connec , 1 support via Intel ay only)	tors (red), two SA						4: Low Profile,		2-bit PCI		
Onboard SAS	None													
Chipset		216 Chipset	()		()									
Front ports Rear ports EEE 1394 adp	Two US three ar connect (Onboa are use otr No onbo	B 2.0, microphone B 2.0, four USB 3.0 halog audio ports (I tor, one DisplayPor rd VGA and Display d: Xeon E3-12X5V oard 1394 ports; odels: additional Fi) (blue), (ine-in, lir t connec /Port [™] a 2, Core i	one seria le-out, m tor <i>re functio</i> 7, <i>i5, i3,</i>	al (9-ṗin), oné é ic-in), one ana onal when the Pentium, and (log VG followi Celero	BA DB-1	5 essors	Some Some Some	e: Windows® 7 e: Windows 7 F preinstalled t rights in Windows 8 F	Profe Profes hroug dows Pro 64	sional 64 gh downg 8 Pro 64 1-bit	4 rade -bit	
		400Mbps, tv	vo 6-pin	ports on	rear	,			-Wind	Preloaded app lows 7 models	oncar		ny som	e lísled)
Audio Speaker		efinition (HD) Audio speaker for busine			2 codec				• Res	scue and Recove			-	
Ethernet		board gigabit ether								ton™ Internet S be® Reader®	ecuri	ty (30 day	/s of vir	us definitions)
Security chip	STMicro	pelectronics ST33Z			orm Module (1	ΓPM),			 Mic 	rosoft® Office 20)13 p	reloaded;		
Keyboard		2-compliant ed Pro USB Keyboa	rd (LISB	connect	r 101-key b	lack				chase product k el® WinDVD® (D			(s))	
Nouse		Wheel Mouse (USE				lack				ad [®] DVD Moviel				odel(s))
/ertical Stand		Vertical stand with				rientat	ion			dows 8 models				
Power supply	240 wat Climate	tts with variable spe Savers [®] Comput	ed fan, a ina Bror	autosens Ize. 80 P	ing, 85% PSU LUS [®] Bronze	quali	fied		 Nor 	ernote® ton Internet Sec	urity	(30 days	of virus	definitions)
_imited Warran		parts and labor		,		-1			 Nor Sky 	ton Studio pe™	-	-		
Eco-Label and	GREEN	IGUARD [®] certified							 Mić 	rosoft Office 20 ⁻				
environmental		compliant							pur	chase product k perlink Power2G	ey to	activate	odal(e)	1
certifications		[™] Gold rating ¥ STAR 5.2-compl	iant						el(s))					
SV certification		latest list of ISV ce		ns at ww	w.lenovo.com/	suppo	rt/ISV]		SECI	JRITY		
ntel AMT	Intel AM	1T supported on mo	odel(s) w	ith Xeon	processor				 See Ker pro Pov Adr Boo Boo Ser US 	curity chip (see i curity slot (in rea sington® Micros hibits side cover ver-on password ministrator passs of sequence con of without keybo rial port I/O cont B port disablem assis intrusion s	nform ir for (saver remo tremo word itrol ard, r rol ent (fi	nation on optional © cable; oval) nouse ront or all	/individu	

ThinkStation® E31 SFF (3690)

Type- model Proc	2nc Memory Memory Pre-conf Media SATA Dis essor (MHz/ECC) DIMMs RAID Hard drive(s) reader optical bay	k Graphics 1394 intrusion rear Vertical Win7
3690-A9G Xeon E3 3690-B1G Xeon E3	1280V2 1600MHz ECC 2x2GB No 1x2TB SATA Media DVD±RW No 1270V2 1600MHz ECC 2x2GB No 1x1TB SATA Media DVD±RW No	
disclaimers	Intel [®] Xeon [®] E3-1245V2 processor (4C/8T, 3.4GHz, 8MB Cache), Turbo Boost 2.0 (up to 3.8GHz), integrated Intel HD Graphics P4000, DDR3 memory controller (up to 1600MHz) Intel Xeon E3-1270V2 processor (4C/8T, 3.5GHz, 8MB Cache), Turbo Boost 2.0 (up to 3.9GHz), DDR3 memory controller (up to 1600MHz) Intel Xeon E3-1280V2 processor (4C/8T, 3.6GHz, 8MB Cache), Turbo Boost 2.0 (up to 4.0GHz), DDR3 memory controller (up to 1600MHz) Intel Xeon E3-1280V2 processor (4C/8T, 3.6GHz, 8MB Cache), Turbo Boost 2.0 (up to 4.0GHz), DDR3 memory controller (up to 1600MHz) One LGA1155 socket 32GB max, UDIMM, PC3-12800 1600MHz DDR3, ECC or non-ECC, four 240-pin DIMM sockets; • Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs • Mixing of ECC and non-ECC memory is not supported	Small Desktop
Graphics Media reader Optical Hard drive(s) Onboard SATA Onboard SAS Chipset Front ports Rear ports	Some: NVIDIA® Quadro® NVS 300, PCIe x16 adapter, 512MB, DMS59 to dual single-link DVI-I, 17.5W Some: NVIDIA Quadro 600, PCIe x16 adapter, 1GB, one DisplayPort™, one dual-link DVI-I, 40W Media: 29-in-1 Media card reader, slim, internal USB 2.0 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive 250GB/500GB/1TB/2TB/3TB SATA: SATA 6.0Gb/s, 7200 rpm, 3.5" 150GB/300GB/600GB SATA: SATA 6.0Gb/s, 10000 rpm, 2.5" 128GB/180GB/256GB SSD: Solid State Drive, SATA 6.0Gb/s, 2.5" Two SATA 6.0Gb/s connectors (red), two SATA 3.0Gb/s connectors (orange), RAID 0, 1 support via Intel C216 Chipset (RAID only work on models with 2nd disk bay) None Intel C216 Chipset Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Two USB 2.0, four USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in), one analog VGA DB-15 connector, one DisplayPort connector (Onboard VGA and DisplayPort are functional when the following processors	 Toolless adapter retention Toolless adapter retention Recessed power button Bay 1: 5.25", 1.6" high, access, for optical/2nd disk Bay 2: 3.5", 0.5" high, access, for media reader Bay 3: 3.5", 1" high, internal, for disk Slot 1: Low Profile, PCle* x16 (45w max, near CPU) * PCle 2.0 x16 on Core i3/Pentium/Celeron models, PCle 3.0 x16 on Xeon models Slot 2: Low Profile, PCle 2.0 x1 Slot 3: Low Profile, 32-bit PCl 2.3
IEEE 1394 adptr Audio Speaker Ethernet Security chip	are used: Xeon E3-1225V2/1245V2/1275V2, Core i3-2120/2130, Pentium, and Celeron processors) <i>PS/2 models:</i> additional PS/2 keyboard and mouse connectors via PS/2 rear I/O cable No onboard 1394 ports; <i>1394 models:</i> additional FireWire PCIe adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear High Definition (HD) Audio, Realtek [®] ALC662 codec Internal speaker for business audio One onboard gigabit ethernet, Intel 82579 STMicroelectronics ST33ZP24 Trusted Platform Module (TPM), TCG 1.2-compliant Preferred Pro USB Keyboard (USB connector), 104-key, black	Intel AMT Intel AMT supported on model(s) with Xeon processor Preloaded operating system ²⁰ • Windows® 7 Professional 64 Preloaded applications ⁵ (only some listed) • Rescue and Recovery® • Norton® Internet Security (30 days of virus definitions) • Adobe® Reader® • Microsoft® Office 2013 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW model(s))
Keyboard Mouse Vertical Stand Power supply Limited Warranty	Optical Wheel Mouse (USB connector), black Some: Vertical stand with retractable tongue for vertical orientation 240 watts with variable speed fan, autosensing, 85% PSU, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified 3-year parts and labor	Ulead® DVD MovieFactory® (DVD±ŘÍW model(s)) SECURITY Security chip (see information on left) Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) Power-on password Administrator password Boot sequence control Boot without keyboard, mouse Serial port I/O control USB port disablement (front or all/individual) Chassis intrusion switch available on selected model(s) ISV certifications Please visit www.lenovo.com/support/ISV GREENGUARD® certified RoHS-compliant EPEAT™ Gold rating ENERGY STAR 5.2-compliant

ThinkStation[®] E31 SFF (3690) - February 2013

Type- model Proc	Memory Memory Pre-conf Media SATA D	2nd Chassis PS/2 Disk Graphics 1394 intrusion rear Preload Day adapter(s) adptr Global switch I/O OS					
		No Quadro 410 No No Switch No Win7 Pro64(DG) No Quadro 600 No No Switch No Win7 Pro64					
* Win7 Pro64(DG) = Wir	dows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit						
Processor	Intel [®] Xeon [®] E3-1270V2 processor (4C/8T, 3.5GHz, 8MB Cache), Turbo Boost 2.0 (up to 3.9GHz), DDR3 memory controller (up to 1600MHz)	Small Desktop					
Implementation	One LGA1155 socket	3 disk optical					
Memory	32GB max, UDIMM, PC3-12800 1600MHz DDR3, ECC or non-ECC, four 240-pin DIMM sockets;						
Additional memory disclaimers	 Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs Mixing of ECC and non-ECC memory is not supported 	Raven black color; metal case					
Graphics	Some: NVIDIA [®] Quadro [®] 410, PCIe x16 adapter, 512MB, one DisplayPort [™] , one dual-link DVI-I, 38W Some: NVIDIA Quadro 600, PCIe x16 adapter, 1GB, one DisplayPort, one dual-link DVI-I, 40W	 13.35"W x 15.0"D x 3.93"H 339mm W x 381.1mm D x 99.7mm H 16.53 lb (7.5kg) max configuration 11-liter Toolless top cover removal 					
Media reader Optical Hard drive(s)	Media: 29-in-1 Media card reader, slim, internal USB 2.0 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive 250GB/500GB/1TB/2TB/3TB SATA: SATA 6.0Gb/s, 7200 rpm, 3.5" 150GB/300GB/600GB SATA: SATA 6.0Gb/s, 10000 rpm, 2.5" 1200GB/600GB SATA: SATA 6.0Gb/s, 10000 rpm, 2.5" 1200GB/600GB SATA: SATA 6.0Gb/s, 10000 rpm, 2.5"	 Toolless disk and optical drive removal Toolless adapter retention Recessed power button Bay 1: 5.25", 1.6" high, access, for optical/2nd disk 					
Onboard SATA	128GB/180GB/256GB SSD: Solid State Drive, SATA 6.0Gb/s, 2.5" Two SATA 6.0Gb/s connectors (red), two SATA 3.0Gb/s connectors (orange), RAID 0, 1 support via Intel C216 Chipset (RAID only work on models with 2nd disk bay)	Bay 2: 3.5", 0.5" high, access, for media reader Bay 3: 3.5", 1" high, internal, for disk					
Onboard SAS	None	Slot 1: Low Profile, PCIe* x16 (45w max, near CPU) * PCIe 2.0 x16 on Core i3/Pentium/Celeron models, PCIe 3.0					
Chipset	Intel C216 Chipset	x16 on Xeon models					
Front ports Rear ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Two USB 2.0, four USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in), one analog VGA DB-15 connector, one DisplayPort connector (Onboard VGA and DisplayPort are functional when the following processors are used: Xeon E3-1225V2/1245V2/1275V2, Core i3-2120/2130, Pentium, and Celeron processors)	Slot 2: Low Profile, PCIe 2.0 x1 Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3 Intel AMT Intel AMT supported on model(s) with Xeon processor					
IEEE 1394 adptr	PS/2 models: additional PS/2 keyboard and mouse connectors via PS/2 rear I/O cable No onboard 1394 ports;	Preloaded operating system ²⁰ come: Windows [®] 7 Professional 64 come: Windows 7 Professional 64 preinstalled through downgrade					
Audio Speaker Ethernet Security chip	1394 models: additional FireWire PCIe adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear High Definition (HD) Audio, Realtek [®] ALC662 codec Internal speaker for business audio One onboard gigabit ethernet, Intel 82579 STMicroelectronics ST33ZP24 Trusted Platform Module (TPM), TCG 1.2-compliant	rights in Windows 8 Pro 64-bit Some: Windows 8 Pro 64-bit Preloaded applications⁵ (only some listed) -Windows 7 models • Rescue and Recovery [®] • Norton™ Internet Security (30 days of virus definitions)					
Keyboard Mouse Vertical Stand Power supply	Preferred Pro USB Keyboard (USB connector), 104-key, black Optical Wheel Mouse (USB connector), black Vertical stand with retractable tongue for vertical orientation 240 watts with variable speed fan, autosensing, 85% PSU, Climate Savers [®] Computing Bronze, 80 PLUS [®] Bronze qualified	 Adobe® Reader® Microsoft® Office 2013 preloaded; purchase product key to activate Corel® WinDVD® (DVD±RW model(s)) Ulead® DVD MovieFactory® (DVD±RW model(s)) -Windows 8 models 					
Limited Warranty	3-year parts and labor	Intel AppUp® Evernote®					
Eco-Label and environmental certifications	GREENGUARD® certified RoHS-compliant EPEAT™ Gold rating	 Norton Internet Security (30 days of virus definitions) Norton Studio Skype™ 					
ISV certifications	ENERGY STAR 5.2-compliant See the latest list of ISV certifications at www.lenovo.com/support/ISV	 Microsoft Office 2013 preloaded; purchase product key to activate Cyberlink Power2Go (DVD±RW model(s)) Cyberlink PowerProducer (DVD±RW model(s)) 					
	portant warranty information	SECURITY • Security chip (see information on left) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Administrator password • Boot sequence control • Boot without keyboard, mouse • Serial port I/O control • USB port disablement (front or all/individual) • Chassis intrusion switch available on selected model(s) © Lenovo					

ThinkStation[®] E31 SFF (3691) - GMP (February 2013)

Type- model Prod	essor	Memory (MHz/ECC)	Memory DIMMs	Pre-conf RAID	Hard drive(s)	Media reader	SATA optical		Graphics adapter(s)	1394 adptr	Globa	Chassis intrusion switch		Preload OS
		1600MHz Non-ECC 1600MHz Non-ECC			1x180GB SSD 1x180GB SSD		DVD±RW	/ No	Quadro 600			I Switch	No No	Win7 Pro64 Win7 Pro64(DG
		Part of the Globa												
* Win7 Pro64(DG) = Wi	ndows 7 Profe	essional 64 preinstalled th	nrough down	grade rights	s in Windows 8 Pro	64-bit								
Processor	Turbo B	eon [®] E3-1270V2 p oost 2.0 (up to 3.90	rocesso GHz), DD	r (4C/8T, R3 mem	3.5GHz, 8MB ory controller (Cache up to 1) , 600MHz)	:	Small Desk	top				
Implementation Memory	32GB m	A1155 socket nax, UDIMM , PC3- 1		00MHz C	DR3, ECC or	non-E	CC,		3 disk	ור	optical			
Additional memor disclaimers	y • Actual control	D-pin DIMM sockets memory operating sp ler speed, installed me of ECC and non-ECC	eed deper emory spe	ed, and qu	antity of memor	y DIMM	S		 Raven blac 			l case		
Graphics	Some: N Some: N	NVIDIA [®] Quadro [®] 4 one DisplayPort [™] , c NVIDIA Quadro 60 one DisplayPort, on	10, PCle one dual- 0, PCle x	x16 ada link DVI-I 16 adapt	pter, 512MB, , 38W er, 1GB,				 13.35"W x 339mm W 16.53 lb (7 11-liter Toolless to 	x 381. .5kg) i	1mm D max co	0 x 99.7mr nfiguratior		
Media reader Optical	<i>Media:</i> Super M	29-in-1 Media card Iulti-Burner DL DVI	reader, s D±RW SA	slim, inte ATA 1.5G	rnal USB 2.0 b/s Drive			:	 Toolless di Toolless ad 	sk and lapter	l optica retentio	l drive ren on	noval	
Disk(s)	150GB/ 128GB/	'500GB/1TB/2TB/3' '300GB/600GB SAT '180GB/256GB SSI	7A: D:	SATA 6 Solid S	.0Gb/s, 10000 tate Drive, SA	rpm, 2 TA 6.00	.5" ib/s, 2.5"		 Recessed Bay 1: 5.25" Bay 2: 3.5", Bay 3: 3.5", 	, 1.6" 0.5"	high, a high, a	ccess, ccess,		tical/2nd disk edia reader
Onboard SATA	RAID 0, disk bay	TA 6.0Gb/s connect 1 support via Intel /)	C216 Ch	ipset (RA	AID only work	on moc	els with 2	nd	Slot 1: Low	Profile	, P	Cle* x16	(45w m	ax, near CPU)
Onboard SAS	None								* PCle 2.0 x16 x16 on Xeon			tium/Celerc	n mod	els, PCle 3.0
Chipset Front ports		B 2.0, microphone	(0.5	le e e el e le le	(0.5)				Slot 2: Low Slot 3: Low	Profile	, Р	Cle 2.0 x ⁻ 2-bit PCI		
Rear ports	three an connect (Onboar are used Celeron	B 2.0, four USB 3.0 nalog audio ports (li ror, one DisplayPort rd VGA and Display d: Xeon E3-1225V2 processors) odels: additional P	ne-in, line connecte Port are 2/1245V2	e-out, mi or functiona /1275V2,	c-in), one anal al when the foll Core i3-2120/	og VGA owing /2130, l	DB-15	s –	Slot 4: Low	pporte	Inte ed on m	()	ith Xe	on processor
IEEE 1394 adptr Audio	No onbo 1394 m	via PS/2 rea bard 1394 ports; odels: additional Fin 400Mbps, tw efinition (HD) Audio,	ar I/O cab reWire P(vo 6-pin p	le Cle adap orts on r	ter, 1394a-200 ear					dows® dows nstalle	7 Profe 7 Profe d throu		4 rade	m ²⁰
Speaker Ethernet Security chip	Internal One ont STMicro	speaker for busine board gigabit ethern belectronics ST33Z	ss audio net, Intel	82579		PM),		-	Some: Win Preloa Windows 7	dows a aded a mode	8 Pro 6 applica els	4-bit		me listed)
Keyboard Mouse Vertical Stand Power supply	Preferre Optical Vertical 240 wat	2-compliant ed Pro USB Keyboa Wheel Mouse (USE stand with retractal ts with variable spe Savers [®] Computi	3 connect ble tongu ed fan, a	or), blacl e for vert utosensi	< ical orientation ng, 85% PSU,	١	ed	•	 Rescue an Norton™ Ii Adobe® Re Microsoft® purchase p Corel® Win Ulead® DV 	nterne ader® Office produc DVD®	t Sećur 2013 p t key to (DVD±	oreloaded; activate RW mode	l(s))	irus definitions) nodel(s))
Limited Warranty	3-year p	parts and labor						-	Windows 8	mode		, , , , , , , , , , , , , , , , , , , ,		
Eco-Label and environmental certifications	RoHS-c EPEAT ⁺	IGUARD [®] certified compliant [™] Gold rating Y STAR 5.2-compli	ant					•	Norton Stu	ernet S	Security	(30 days	of viru	s definitions)
ISV certifications		latest list of ISV ce		is at www	v.lenovo.com/s	support	(ISV	•	 Skype™ Microsoft C purchase p Cyberlink F Cyberlink F 	oroduc Power2	t key ṫo 2Go (D'	activate VD±RW m		
									 Security cf Security sl Kensingtor prohibits s Power-on j Administra Boot seque Boot witho Serial port USB port of Chassis in 	ot (in r Mic ide co bassw tor pa ence c ut key I/O co disable	e inforr rear for crosave ver rem ord ssword control board, ontrol ement (optional r® cable; noval) mouse front or all	/indivi	dual) lected model(s)

ThinkStation



Lenovo ThinkStation C20 (left) Lenovo ThinkStation C20x (right)



Lenovo ThinkStation C20x



Lenovo ThinkStation C20/C20x Stack



Lenovo ThinkStation Graphics Card Option NVIDIA® Quadro® NVS 450 (57Y4398)



Multi-monitor Display with Optional Lenovo ThinkVision Monitor and Dual NVIDIA Quadro NVS 450 (Both Lenovo ThinkStation C20/C20x)

ThinkStation® C20 (4265) - TopSeller (June 2010) - withdrawn

Type- Slot x model bay	Processor(s) GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>)
4265-17G 6x4 4265-18G 6x4 4265-51G 6x4 4265-52G 6x4 4265-61G 6x4	2xE5620 2.40 1xX5650 2.66 1xE5620 2.40 1xE5620 2.40 2xE5620 2.40	6x1GB UDIMM 3x2GB UDIMM 3x2GB RDIMM 3x2GB RDIMM 2x2GB UDIMM	1x150GB SATA 1x500GB SATA 1x150GB SATA	No No No No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	No No No	Switch Switch	None None None None	No No No No	No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	06/15/10 06/15/10 06/15/10 06/15/10 06/15/10
	EnvirorPart of	erformance works nmentally friendly i the EMEA TopSe oft Office 2010 Pi	cool, and quiet eller™ Program	with roc	k solid engi		g					
Processor(s)	Intel [®] Xeon [®] Proce 5.86GT/s (giga-tran. Intel 64, Hyper-Thre Virtualization Techn. 1066MHz DDR3 me Intel Xeon Process 6.4GT/s QPI, Intel 6 Hyper-Threading Te Turbo Boost Techno 1333MHz DDR3 me	sfers/second) QP eading Technology ology, Turbo Boos emory controller, a sor X5650 with si j4, schnology, Virtuali ology,	I (QuickPath Inte y, st Technology, and 12MB cache x-core , zation Technolog	e gy,	ot),		optical	 Rack-m Raven b 5.1"W x 130mm 40.7 lb 24-liter Toolless Toolless Toolless 	black c 17.5" W x 4 (18.5k) s side o s disk a s adap	olor; ma D x 16.3 44mm l g) max cover re and opt ter rete	etal case 8"H D x 427m configura emoval ical drive ntion	nm H ation
Implementation Memory	Two LGA1366 socket UDIMM or RDIMM, 48GB max for UDIM 6-channel capable,	PC3-10600 1333 MM model, 48GB six 240-pin DIMM	MHz DDR3, EC max for RDIMM I sockets	C , model,			disk disk disk	 Illumina Rack sh 				rail kit
Additional memory disclaimers	 Actual memory op dependent on pro- memory speed Over three DIMMs 	cessor memory c	ontroller speed a			Ba	ay 1: 5.25' ay 2: 3.5",	1" high,	extern interna	al, for	l optical disk	
Graphics	None					— Ba	ay 3: 3.5", ay 4: 3.5",	1" high, 1" high	interna		disk disk	
Media reader	None						-	-		,		
Optical Hard drive(s) Disk Controller	Super Multi-Burner Some: 500GB, SATA Some: 150GB or 30 Serial ATA, SATA 3.0 three SATA connect RAID 0, 1, 5 suppor	A 3.0Gb/s, 7200 r 00GB, SATA 3.0G 0Gb/s, integrated tors for disks, one	pm, 3.5" b/s, 10000 rpm, in ICH10R,	2.5"	cal,	Slo Slo Slo Slo	ot 2: full-le ot 3: full-le ot 4: full-le ot 5: full-le	ength, full-he ength, full-he ength, full-he ength, full-he ength, full-he ength, full-he	eight, F eight, 3 eight, F eight, F	Cle 2.0 2-bit P0 Cle 2.0 Cle x10) x16 (75' Cl 2.3) x16 (75' 6 (x4 eleo	W* max)
Chipset Front ports Rear ports	Intel 5520 Chipset, Two USB 2.0, micro Eight USB 2.0, eSA six analog audio po	, Intel ICH10R, W phone (3.5mm), I TA, one ethernet rts (line-in, mic-in	neadphone (3.5r (RJ-45), , front-out, rear-(mm) out, cent	·		Adapters > rom PSU	75W use au	xiliary		connecto	r(s)
IEEE 1394 adptr Audio Speaker Ethernet Security chip Keyboard Mouse Power supply	side out), Optical SF None High Definition (HD) Internal speaker for One gigabit etherne Broadcom Trusted F Preferred Pro USB Optical Wheel Mous 800 watts with 80m Climate Savers® Co) Audio, Analog D business audio et on planar, Broa Platform Module, Keyboard (USB c se (USB connecto m side-mounted v	evices AD1988/ dcom [®] BCM575 TCG 1.2-complia onnector), 104-k or), black variable speed fa	A codec 5 ant key, black an, unive	rsal,	・ 9 F 9 K F A 日日し	Side cover Padlock loo Security slo Censington Power-on p Administrat Boot seque Boot seque JSB port di	ip (see inform lock (ships v p (in rear for t (in rear for Microsave	mation vith two r opt p optior r [®] cable mouse front o	on left) o identi adlock) aal e) r all)	cal keys)	
ThinkVantage [®]	Supports ThinkVant	age technologies								lecieu	mouei(s)	
Preload OS	Genuine Windows®		ļ				REENGUA HS-compli	RD [®] certifiec ant	1			
Preloaded applications	 Rescue and Recc ThinkVantage Sys ThinkVantage Too Norton® Internet S Adobe® Reader® Adobe Flash® Pla Microsoft® Office Roxio® Creator® E Roxio MyDVD® (E Corel® WinDVD® (E Ulead® DVD Movi 	stem Update olbox Security (30 days 2010 preloaded; j Business Edition (DVD±RW model(s (DVD or DVD±RV	ourchase produc DVD±RW mode) only) / model(s) only)	ct key to I(s) only)	activate		PEAT™ Go 3-year part Customer I (with limite 3 am - 5 pn next businc Lenovo ser see lenovo. • Onsite se • Onsite se For more in http://www-3		lidays, mranty.html locations) ⁷ t phone			

ThinkStation® C20 (4265) - TopSeller (April 2011) - withdrawn

Type- Slot x model bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-cont RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Globa	Win7 I preload	Ann date (<i>mm/dd/yy</i>
265-1JG 6x4 265-1KG 6x4 265-1LG 6x4	1xE5649 1xE5645 1xE5606	2.53 2.40 2.13	3x2GB UDIMM 3x2GB UDIMM 3x2GB UDIMM	1x1TB SATA	No No No	DVD±RW DVD±RW DVD±RW	No	None None None	None None None	No No No	No No No	Pro 64 Pro 64 Pro 64	04/26/11 04/26/11 04/26/11
	• / • /	Enviroi Part of	erformance works nmentally friendly, the EMEA TopSe oft Office 2010 Pr	cool, and quie ller™ Program	t with rock	k solid engi							
Processor(s) Implementation Memory	4.8GT/s (gig Intel 64, Virt 1066MHz DJ Intel Xeon F 5.86GT/s Qf Virtualization 1333MHz DJ Two LGA136 UDIMM or F 48GB max fr	a-tran ualizat DR3 m Proces PI, Inten Tech DR3 m 66 soc DIMM or UDI	essor E5606 with sfers/second) QPI ion Technology, emory controller, sor E5645 or E56 el 64, Hyper-Threa nology, Turbo Boo emory controller, kets, supports up , PC3-10600 1333 MM model, 48GB	(QuickPath In and 8MB cach 549 with six-cc ding Technology, and 12MB cac to two process 50MHz DDR3, E max for RDIM	ne ore, gy, she ors ECC ,	t),			 5.1"W 130m 40.7 ll 24-lite Toolle Toolle Toolle Illumir 	n black 7 x 17.5 m W x b (18.5 er ss side ss side ss disk ss ada nated fi	color; n "D x 16 444mm kg) max cover (and op pter ret cont ico	netal case 5.8"H n D x 427n x configura removal otical drive ention	nm H ation removal
Additional memory disclaimers	 Actual mendent dependent memory spectrum 	mory o t on pr peed		the lowest inst controller spee	talled spe d and inst	ed, alled	Ba	disk disk disk				·	
Graphics Media reader Optical Hard drive(s) Disk Controller	Over three DIMMs requires dual processors None Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive 1TB, SATA 3.0Gb/s, 7200 rpm, 3.5" Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, one SATA connector for optical, RAID 0, 1, 5 support						Ba Ba Ba Slo Slo	y 2: 3.5" y 3: 3.5" y 4: 3.5" ot 1: half- ot 2: full-1	5", 1.6" high, , 1" high, , 1" high, , 1" high, , 1" high, length, full-ł length, full-ł	inter inter inter height, neight,	nal, fo nal, fo nal, fo PCle 2 PCle 2	.0 x16 (75	W* max)
Chipset Front ports Rear ports	Intel 5520 C Two USB 2.0 Eight USB 2 six analog a	hipse 0, micr .0, eS udio p	t, Intel ICH10R, W ophone (3.5mm), ATA, one ethernet orts (line-in, mic-ir SPDIF digital out, ⁴	headphone (3. (RJ-45), n, front-out, rea	.5mm) ır-out, cen	·	Slo Slo	ot 5: full-l ot 6: half-	length, full-ł length, full-ł -length, full- >75W use a	height, height,	PCle x 32-bit	16 (x4 èle PCI 2.3	ctrical)
IEEE 1394 adptr Audio Speaker Ethernet Security chip	None High Definiti Internal spea One gigabit	on (HI aker fo ethern	D) Audio, Analog I r business audio et on planar, Broa Platform Module,	Devices AD198	8A codec								
Keyboard Mouse Power supply	Optical Whe 800 watts wi Climate Sav	el Mou ith 80n /ers ® (Keyboard (USB of use (USB connect of side-mounted Computing Gold,	or), black variable speed 80 PLUS® Gol	fan, unive	ersal,	• S • P	ide cover adlock lo	hip (see info r lock (ships op (in rear i	s with tw for opt	n on le vo iden padloci	tical keys)	1
ThinkVantage [®] Preload OS Preloaded applications	Genuine Wir • Rescue a • ThinkVan • ThinkVan	ndows ⁶ Ind Re tage S tage Te nterne Reader	ystem Update oolbox t Security (30 day ®	4	itions)		К • Р • А • В • В	Censington Power-on Idministra Boot sequi Boot witho JSB port of	lot (in rear f n [®] Microsay password ator passwo ence contro out keyboard disablemen ntrusion swit	ver® cat ord ol d, mous t (front	ole) se or all)	d model(s,)
	 Microsoft Roxio[®] Ci Roxio My 	[®] Offic reator [®] DVD [®]	e 2010 preloaded Business Edition (DVD±RW model(OVD or DVD±R	(DVD±RW mo s) only)	del(s) on		Ro	HS-comp	ARD® certifi oliant old rating	ed			
			vieFactory® (Blu-r				→ () 8 → L •	Customer with limit am - 5 p next busir enovo se see lenovo Onsite s	rts and labor Replaceab ed onsite s m, Mon - Fr ness day re ervices avai o.com/service service upg	or le Unit ervice i cover sponse ilable; es_warra rade op	for sele age exc time) nty/us/e otions (parts only octed parts cluding ho n/lenovo-wa in eligible	s ³ , Ilidays, arranty.html
							⇔ F r	Post wa For more number in http://www-	irranty mair information your coun -307.ibm.com	ntenand find th try at /pc/sup	e servi ne Leno	ices ivo suppo	rt phone

ThinkStation® C20 (4265) - TopSeller (July 2011) - withdrawn

Type- Slot x model bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Globa	Win7 preload	Ann date (<i>mm/dd/yy</i>
4265-2FG 6x4 4265-2GG 6x4	2xE5607 2xE5620	2.26 2.40	4x2GB UDIMM 4x2GB UDIMM		No No	DVD±RW DVD±RW		Switch Switch	None None	No No	No No	Pro 64 Pro 64	07/19/11 07/19/11
	• E • F	Environ Part of t	rformance works mentally friendly, the EMEA TopSe ft Office 2010 Pr	cool, and quie ller™ Program	t with rock	solid engir							
Processor(s)	4.8GT/s (giga Intel 64, Virtu 1066MHz DE Intel Xeon P 5.86GT/s QF Virtualization	a-trans ualizatio DR3 me P rocess PI, Intel n Techn	essor E5607 with fers/second) QPI on Technology, emory controller, sor E5620 with q 64, Hyper-Threa ology, Turbo Boo	l (QuickPath Ini and 8MB cach uad-core , iding Technolog st Technology,	e gy,),			 5.1"W 130m 40.7 li 24-lite 	n black 7 x 17.5 m W x 4 b (18.5 er	color; n "D x 16 444mm kg) max	netal case .8"H D x 427n c configura	nm H
Implementation			emory controller, ets, supports up						Toolle Toolle			tical drive	removal
Memory	UDIMM or R 48GB max fc	DIMM, or UDIN	PC3-10600 1333 /IM model, 48GB six 240-pin DIMM	3MHz DDR3, E max for RDIM	CC,			disk	• Toolle • Illumir • Rack	nated fr	ont ico		l rail kit
Additional memory disclaimers	 Actual mer dependent memory sp 	nory op on pro beed	perating speed is cessor memory of	the lowest inst controller spee				disk disk	3				
Graphics	• Over three None	DIIVIIVI	s requires dual p	rocessors					5", 1.6" high	, exter interr		d optical r disk	
Media reader	None						Ba	y 2. 3.5 y 3: 3.5"	', 1" high, ', 1" high,	interr		r disk	
Optical Hard drive(s) Disk Controller	Super Multi-E 1TB, SATA 3 Serial ATA, S	.0Gb/s ATA 3. connect	DL DVD±RW SA , 7200 rpm, 3.5" 0Gb/s, integrated tors for disks, one rt	l in ICH10R,		cal,	Ba Slo Slo Slo	y 4: 3.5" ot 1: half ot 2: full- ot 3: full-	', 1" high, -length, full- length, full-l length, full-l length, full-l	neight, neight,	PCIe x PCIe 2 32-bit F	0 x16 (75 PCI 2.3	,
Chipset Front ports Rear ports	Two USB 2.0 Eight USB 2. six analog au), micro 0, eSA udio po	, Intel ICH10R, W pphone (3.5mm), ITA, one ethernet rts (line-in, mic-ir PDIF digital out, (headphone (3. (RJ-45), n, front-out, rea	5mm) r-out, cent	·	Slo Slo	ot 5: full- ot 6: half	length, full-l -length, full- >75W use a	neight, height,	PCIe x 32-bit l	16 (x4 èle PCI 2.3	ctrical)
IEEE 1394 adptr Audio Speaker Ethernet Security chip	None High Definition Internal speat One gigabit e	on (HD aker for etherne) Audio, Analog E business audio et on planar, Broa Platform Module,	Devices AD198 adcom [®] BCM57	8A codec 755								
Keyboard Mouse Power supply	Preferred Pro Optical Whee 800 watts wit	o USB el Mous th 80m	Keyboard (USB of se (USB connect m side-mounted omputing Gold,	connector), 104 or), black variable speed	I-key, blacl fan, unive	rsal.	• S	side cove	SE hip (see info r lock (ships oop (in rear	s with ty	n on lei vo iden	tical keys))
ThinkVantage [®]	Supports Thi	nkVant	tage technologies	6			• S	Security s	lot (in rear f	or optic	nal	-7	
Preload OS Preloaded applications	 Rescue ar ThinkVant ThinkVant 	nd Rec age Sy age To nternet eader®	vstem Update olbox Security (30 day		itions)		• P • A • B • B • U	Power-on Idministra Boot seque Boot witho JSB port	n [®] Microsay password ator passwo lence contro but keyboard disablemen ntrusion swi	rd bl d, mous t (front	se or all)	d model(s,)
	 Microsoft[®] Roxio[®] Cr Roxio MyI 	[©] Office eator [®] DVD [®] (1	2010 preloaded Business Edition DVD±RW model((DVD or DVD±R)	(DVD±RW mo (s) only)	del(s) only	activate)	Ro	HS-comp	ARD® certifi bliant old rating	ed			
	 Ulead[®] D\ 	/D Mov	vieFactory [®] (Blu-r	ay model(s) or	ily)				LIMIT	ED WA	RRAN	TY ¹	
			·				<pre></pre>	Customer with limit am - 5 p next busin Lenovo so	rts and labo r Replaceab ted onsite s om, Mon - Fr ness day re ervices avai	le Unit ervice f i cover sponse lable;	for sele age exc time)	cted parts luding ho	s³, llidays,
							<i>⇔</i> F r r	Onsite Post wa For more number in http://www	o.com/service service upg arranty main information your coun -307.ibm.com d=MIGR-6910	rade op ntenand find th try at //pc/sup/	otions (ce servi ne Leno	in eligible ces vo suppo	locations)

ThinkStation® C20 (4265) - TopSeller (December 2011) - withdrawn

Type- Slot x model bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy)</i>
4265-2KG 6x4 4265-2LG 6x4 4265-2MG 6x4 4265-2NG 6x4 4265-3AG 6x4	1xE5649 1xE5645 1xE5606 2xE5607 2xE5620	2.53 2.40 2.13 2.26 2.40	3x2GB UDIMM 3x2GB UDIMM 4x2GB UDIMM	2x500GB SATA 2x500GB SATA 2x500GB SATA 2x500GB SATA 2x500GB SATA	No No No No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	No No No	Switch Switch	None None None None	No No No No	No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	12/06/11 12/06/11 12/06/11 12/06/11 12/06/11
	• E • F	Environ Part of	erformance works mentally friendly, the EMEA TopSe oft Office 2010 Pr	cool, and quiet v ller™ Program	with rock	solid engir							
Processor(s) Implementation Memory Additional memory disclaimers Graphics Media reader	4.8GT/s (gig Intel 64, Virtu 1066MHz DD Intel Xeon P 5.86GT/s QF Virtualization 1066MHz DD Intel Xeon P 5.86GT/s QF Virtualization 1333MHz DD Two LGA136 UDIMM or R 48GB max fo 6-channel ca • Actual mer dependent memory sp	a-trans Jalizati DR3 m Proces PI, Intel DR3 m Proces PI, Intel DR3 m G6 sock DIMM, or UDI upable, mory o on pro peed	essor E5606 or E fers/second) QPI on Technology, emory controller, sor E5620 with q 64, Hyper-Threa ology, Turbo Boo emory controller, sor E5645 or E56 64, Hyper-Threa ology, Turbo Boo emory controller, tets, supports up PC3-10600 1333 MM model, 48GB six 240-pin DIMM perating speed is occessor memory of s requires dual p	I (QuickPath Inte and 8MB cache Juad-core , ading Technology, and 12MB cache 649 with six-core ading Technology, and 12MB cache to two processor 3MHz DDR3 , EC max for RDIMM V sockets a the lowest instal controller speed	rconnect , , , , , , , , , , , , , , , , , , ,	:d,	Ba Ba Ba Ba Ba Slo	y 2: 3.5" y 3: 3.5" y 4: 3.5" ot 1: half ot 2: full-	 5.1"W 130mii 24-lite Toolle Toolle Toolle Illumir Rack : 	 black x 17.5 m W x 4 o (18.5) r ss side ss disk ss adap nated fr shelf su , exter interr interr height, height, 	color; n "D x 16 444mm kg) max cover 1 and op pter retr ont icor upport c nal, st nal, fo nal, fo nal, fo PCIe 2.	netal case .8"H D x 427r c configur removal trical drive ention ns or optiona d optical or disk or disk (75)	nm H ation e removal I rail kit
Optical Hard drive(s) Disk Controller	Super Multi-I 500GB, SATA Serial ATA, S	A 3.0G SATA 3. connec	DL DVD±RW SA b/s, 7200 rpm, 3. .0Gb/s, integrated tors for disks, one rt	.5" d in ICH10R,		cal,	Slo Slo Slo	ot 3: full- ot 4: full- ot 5: full- ot 6: half	length, full-h length, full-h length, full-h -length, full- >75W use a	neight, neight, neight, height,	32-bit F PCle 2. PCle x ⁻ 32-bit I	PCI 2.3` .0 x16 (75 16 (x4 ele PCI 2.3	W* max) ctrical)
Chipset Front ports Rear ports IEEE 1394 adptr	Two USB 2.0 Eight USB 2. six analog au side out), Op None), micro .0, eSA udio po otical S	, Intel ICH10R, W pphone (3.5mm), MA, one ethernet orts (line-in, mic-ir PDIF digital out, (headphone (3.5) (RJ-45), n, front-out, rear- Optical SPDIF di	mm) out, cent gital in	·		rom PSU		uxinar y	power	connecte	
Audio Speaker Ethernet Security chip Keyboard Mouse Power supply ThinkVantage [®] Preload OS Preloaded applications	Internal spea One gigabit of Broadcom Tr Preferred Pro Optical Whee 800 watts wi Climate Sav Supports Thi Genuine Win • Rescue al • ThinkVant • Norton [®] IR • Adobe [®] R • Adobe Fla • Microsoft [®]	aker for etherne usted o USB el Mou th 80m ers® C inkVan dows [®] nd Rec tage St tage To ternet eader [®] Pl o Office	ystem Update oolbox Security (30 day ayer 2010 preloaded	adcom [®] BCM575 <u>TCG 1.2-complia</u> connector), 104-k or), black variable speed fa 80 PLUS® Gold s 4 s of virus definition ; purchase produ	5 ant key, black an, unive qualified ons) ct key to	rsal,		Side cover Padlock lo Security s Censingto Power-on Odministra Boot seque Boot withous JSB port Chassis in REENGU/ HS-comp	hip (see info r lock (ships op (in rear f n [®] Microsaw password ttor password ttor pa	with tw for opt or optic ver® cab rd ol d, mous t (front <i>cch on s</i>	n on lei vo iden padlock onal ble) se or all)	tical keys <) d model(s	
	 Roxio[®] Cr Roxio MyI Corel[®] Window 	eator® DVD® (nDVD®	Business Edition DVD±RW model((DVD or DVD±R vieFactory® (Blu-r	2 () 8 r 1 s • • • 7 r	Customer with limit a am - 5 p next busin Lenovo se see lenovo Onsite s Post wa For more number in http://www	rts and labo Replaceab ed onsite s m, Mon - Fr ness day re- ervices avai a.com/service	r le Unit ervice f i cover sponse lable; s_warra rade op tenanco find th try at //pc/supp	(CRU) p for sele age exc time) nty/us/ep tions (se servi ne Leno	parts only cted parts cluding ho n/lenovo-w in eligible ces vo suppo	s ³ , blidays, arranty.html e locations) ⁷ rt phone			

ThinkStation® C20 (4263) - June 2010 - withdrawn

Type- model	Slot x bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-con RAID	f SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>
4263-24G (4263-62G (1xX5650 1xX5650	2.66 2.66	3x2GB UDIMM 1x4GB RDIMM			DVD±RW DVD±RW		Switch	1xNVS295	No No	No No	Pro 64 Pro 64	06/15/10 06/15/10
		• Er	vironn	formance worksta nentally friendly, c t Office 2010 Proc	ool, and quiet wi	th rock :	solid engine							
Processor(,	6.4GT/s (giga Intel 64, Hyp Turbo Boost 1333MHz DE	a-trans er-Thre Techno DR3 m	emory controller,	(QuickPath Inter y, Virtualization 7 and 12MB cache	Fechnolo e				• 5.1"W • 130mr	black x 17.5 n W x	color; n "D x 16 444mm	netal case .8"H D x 427r	nm H
Implementa Memory	ation	UDIMM or R 48GB max fo	DIMM, or UDIN	ets, supports up t PC3-10600 1333 /IM model, 48GB	MHz DDR3, EC max for RDIMM	C ,		— Ľ	5 1	 24-lite Toolles 	r ss side	coverı		
Additional memory disclaimers	6	 Actual mer dependent memory sp Over three 	nory o on pro beed DIMM	six 240-pin DIMM perating speed is cessor memory o s requires dual pr	the lowest instal controller speed	and inst	alled		disk disk	• Toolles • Illumin • Rack s	ss ada ated fi	pter rete ont icor	ention	e removal I rail kit
Graphics				adro® NVS 295, Port™, 23W	PCIe x16 adapte	er, 256M	IB,		disk	ו				
Media read Optical Hard drive(Disk Contro	s)	None Super Multi-E 500GB, SATA Serial ATA, S	Burner A 3.0G SATA 3.	DL DVD±RW SA b/s, 7200 rpm, 3. 0Gb/s, integrated tors for disks, one	5" in ICH10R,		ical,	Ba Ba Ba Slo	y 2: 3.5" y 3: 3.5" y 4: 3.5" ot 1: half	5", 1.6" high, , 1" high, , 1" high, , 1" high, , 1" high,	interi interi interi height,	nal, fo nal, fo nal, fo PCle x		14/*
Chipset Front ports Rear ports		Intel 5520 C Two USB 2.0 Eight USB 2. six analog au	hipset), micro .0, eSA udio po	, Intel ICH10R, W ophone (3.5mm), TA, one ethernet rts (line-in, mic-in PDIF digital out, (mm) out, cen		Slo Slo Slo	ot 3: full- ot 4: full- ot 5: full-	length, full-h length, full-h length, full-h length, full-h -length, full-l	eight, eight, eight,	32-bit F PCle 2. PCle x ⁻	PCI 2.3` 0 x16 (75 I6 (x4 ele	W* max)	
IEEE 1394 Audio Speaker Ethernet Security ch	·	None High Definition Internal speat One gigabit e	on (HD aker for etherne) Audio, Analog D business audio et on planar, Broa Platform Module,	evices AD1988 dcom [®] BCM575	A codec 5			dapters : rom PSU	>75W use a	uxiliary	v power	connecto	or(s)
Keyboard Mouse Power supp		Preferred Pro Optical Whee 800 watts wit	o USB el Mou th 80m	Keyboard (USB c se (USB connector m side-mounted omputing Gold,	onnector), 104-k or), black variable speed fa	key, blac an, unive	ersal,		Security of	SE hip (see info	CURI		÷+)	
ThinkVanta Preload OS Preloaded applications	3	Genuine Win • Rescue au • ThinkVant • ThinkVant • Norton [®] Ir • Adobe [®] R • Adobe Fla • Microsoft [®]	vstem Update olbox Security (30 days) activate	 ・・・・ ・・・・・・・・・・・・・・・・・・・・・・・・・・・・	Side cove Padlock lo Security s Censingto Power-on Administra Soot seque Soot without JSB port	ri lock (ships op (in rear f lot (in rear f n [®] Microsav password ator password ence contro but keyboard disablement ttrusion switt	with two or option or option or option of opti	vo iden padlock onal ble) se or all)	tical keys <)				
		 Corel[®] Wir 	าDVD®้	DVD±RW model((DVD or DVD±R) /ieFactory® (Blu-ra	N model(s) only)		,	Ro	HS-comp	ARD [®] certifie bliant old rating	ed			
									Customer with limit a am - 5 p next busin Lenovo so see lenovo Onsite Post wa For more	LIMITE ts and labo Replaceabl ed onsite se m, Mon - Fri ness day res ervices avail .com/services service upgi urranty main information n your count	r e Unit cover sponse able; s_warra rade op tenanc find th	for sele age exc time) nty/us/e otions (ce servi	parts only cted parts luding ho n/lenovo-w in eligible ces	s ³ , blidays, arranty.html blocations) ⁷

ThinkStation® C20 (4263) - April 2011 - withdrawn

Type- Slot x model bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-cont RAID		Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>)
4263-A7G 6x4 4263-A8G 6x4 4263-A9G 6x4 4263-B1G 6x4 4263-B2G 6x4	2xE5649 2xE5607 1xX5675	2.40 2.53 2.26 3.06 3.20	6x2GB UDIMM 6x2GB UDIMM 6x2GB UDIMM 3x2GB UDIMM 3x2GB UDIMM	1x1TB SATA 1x1TB SATA 1x1TB SATA	No No No No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	No No No	None None None None	None None None None None	No No No No	No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	04/26/11 04/26/11 04/26/11 04/26/11 04/26/11
	• E	Inviron	rformance works mentally friendly, oft Office 2010 Pro	cool, and quier	t with rock	solid engir							
Processor(s)	4.8GT/s (giga Intel 64, Virtu 1066MHz DE Intel Xeon P 5.86GT/s QP Virtualization 1333MHz DE Intel Xeon P 6.4GT/s QPI, Virtualization Turbo Boost 1333MHz DE Intel Xeon P 6.4GT/s QPI, Virtualization Turbo Boost	a-trans ualizati DR3 m roces I, Intel Techn DR3 m roces , Intel DR3 m roces , Intel DR3 m Techn Coh Techn Techn Techn Techn	blogy, emory controller, sor X5675 with si 64, Hyper-Thread bology,	(QuickPath Int and 8MB cach 549 with six-co ding Technolog st Technology, and 12MB cacl uad-core, ing Technology and 12MB cacl ix-core, ing Technology	e re , y, ne ;),	Bay	disk disk disk y 1: 5.25	 5.1"W 130mr 40.7 lk 24-lite Toolles Toolles Toolles Illumin 	n black x 17.5 m W x c (18.5 r ss side ss side ss side ss side fr shelf su	color; n "D x 16 444mm kg) max cover r and op oter rete ont icor upport c	netal case .8"H D x 427n c configura emoval tical drive ention ns or optional	nm H ation removal
Implementation	Two LGA136	6 sock	ets, supports up	to two processo	ors		Ba	y 3: 3.5"	, 1" high,	interr	nal, fo	r disk r disk r disk	
Memory Additional memory disclaimers	 48GB max fo 6-channel ca Actual men dependent memory sp 	or UDIN pable, nory of on pro peed	PC3-10600 1333 /M model, 48GB six 240-pin DIMM perating speed is processor memory of s requires dual pi		Slo Slo Slo Slo Slo	ot 1: half- ot 2: full-1 ot 3: full-1 ot 4: full-1 ot 5: full-1	, 1" high, -length, full- length, full-h length, full-h length, full-h	neight, neight, neight, neight,	PCIe x PCIe 2. 32-bit P PCIe 2. PCIe x1	1 0 x16 (75 Cl 2.3 0 x16 (75 6 (x4 ele	W* max)		
Graphics	None	DIIVIIVI	s requires duar pr	00005015			_ Slo	ot 6: half	length, full-	height,	32-bit F	PCÌ 2.3	,
Media reader Optical Hard drive(s) Disk Controller	1TB, SATA 3. Serial ATA, S	.0Gb/s ATA 3. onnec	DL DVD±RW SA , 7200 rpm, 3.5" 0Gb/s, integrated tors for disks, one rt	l in ICH10R,		cal,		dapters > om PSU	⊳75W use a	uxiliary	v power	connecto	r(s)
Chipset Front ports Rear ports IEEE 1394 adptr Audio Speaker Ethernet Security chip Keyboard Mouse Power supply	Two USB 2.0 Eight USB 2. six analog au side out), Op None High Definitic Internal spea One gigabit e Broadcom Trr Preferred Pro Optical Whee 800 watts wit), micro 0, eSA udio po tical S on (HD uker for etherne usted I o USB el Moust h 80m	, Intel ICH10R, W pphone (3.5mm), ITA, one ethernet rts (line-in, mic-ir PDIF digital out, () Audio, Analog D business audio et on planar, Broa Platform Module, Keyboard (USB connector m side-mounted to computing Cold	headphone (3. (RJ-45), a, front-out, rea Dptical SPDIF Devices AD198 dcom [®] BCM57 TCG 1.2-comp connector), 104 or), black variable speed	5mm) r-out, cent digital in 3A codec 55 liant -key, blact fan, unive	k k k	• S • P • S • P • A • B • B • U • C	ide cover adlock lo ecurity sl ensingto ower-on dministra oot sequ oot withc ISB port o Chassis in	hip (see info r lock (ships op (in rear f n [®] Microsav password ttor password ttor password ence contro ut keyboard disablement ttrusion switt	with tw for opt or optic ver® cab rd ol d, mous t (front tch on s	n on lef vo ident padlock onal ole) se or all)	tical keys) <)	
ThinkVantage®			omputing Gold, tage technologies		d qualified	1		EENGUA	ARD [®] certifie	ed			
Preload OS Preloaded applications	Genuine Win Rescue ar ThinkVanta ThinkVanta ThinkVanta Norton® In Adobe® Re Adobe® Re Adobe Fla Microsoft® Roxio® Cre Roxio MyL Corel® Wir	dows [®] nd Rec age Sy age To tternet eader [®] office eator [®] DVD [®] (nDVD [®]	7 Professional 64 covery® ystem Update olbox Security (30 days	4 s of virus defini purchase proc (DVD±RW mo s) only) W model(s) onl	luct key to del(s) only y)	activate 1)	← EP	EAT™ G -year pan Customer with limit a am - 5 p next busin enovo so cere lenovo Onsite s Post wa For more number in ttp://www	old rating	r le Unit ervice f i cover sponse lable; s_warra rade op tenanco find th try at //pc/sup/	for select age exc time) nty/us/en otions (i ce servie ne Leno	oarts only cted parts luding ho n/lenovo-wa in eligible ces vo suppor	³³ , lidays, arranty.html locations) ⁷ rt phone

ThinkStation® C20 (4263) - July 2011 - withdrawn

Type- Slot x model bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann dat (<i>mm/dd/y</i>)
4263-B7G 6x4 4263-B8G 6x4	1xX5650 1xX5660	2.66 2.80	2x2GB UDIMM 2x2GB UDIMM		No No	DVD±RW DVD±RW		Switch Switch	1xQuadro 600	No No			07/19/1 07/19/1
	• E	Environ	rformance worksi mentally friendly, ft Office 2010 Pro	cool, and quiet v	vith rock	solid engi		,					
Processor(s)	6.4GT/s (gig Hyper-Threa Turbo Boost 1333MHz DI	a-trans ding Te Techno DR3 mo	emory controller,	(QuickPath Inte zation Technolog and 12MB cache	rconnect gy, e), Intel 64,			• Rack-m • Raven b • 5.1"W x • 130mm	lack co 17.5"[W x 44	olor; me 0 x 16.8 14mm D	tal case "H x 427m	
Implementation Memory	UDIMM or R 48GB max fo	DIMM, or UDIN	ets, supports up t PC3-10600 1333 /IM model, 48GB	MHz DDR3, EC max for RDIMM	С,		_ [Ľ		 40.7 lb (24-liter Toolless Toolless 	side d	over rei	noval	
Additional memory disclaimers	 Actual mer dependent memory sp Over three 	nory o on pro beed DIMM	six 240-pin DIMM perating speed is cessor memory c s requires dual pr	the lowest insta controller speed rocessors	and insta			disk disk	• Toolless • Illumina • Rack sh	adapt ted fro	er reṫen nt icons	tion	
Graphics			uadro [®] 600, PCle Port™, one dual-l		θB,				-1	outoro	al atd	ontinal	
Media reader Optical Hard drive(s) Disk Controller	500GB, SATA Serial ATA, S	A 3.0G SATA 3. connec	DL DVD±RW SA b/s, 7200 rpm, 3. 0Gb/s, integrated tors for disks, one rt	5" in ICH10R,		cal,	Ba Ba Ba Slo	y 2: 3.5" y 3: 3.5" y 4: 3.5" ot 1: half	, 1" high, , 1" high,		al, for a al, for a al, for a PCIe x1	disk disk	V* max)
Chipset Front ports Rear ports	Two USB 2.0 Eight USB 2. six analog au), micro .0, eSA udio po	, Intel ICH10R, W ophone (3.5mm), I TA, one ethernet rts (line-in, mic-in PDIF digital out, 0	headphone (3.5) (RJ-45), , front-out, rear-	mm) out, cent	·	Slo Slo Slo Slo	ot 3: full- ot 4: full- ot 5: full- ot 5: full- ot 6: half	length, full-he length, full-he length, full-he -length, full-he	ight, 32 ight, P ight, P eight, 3	2-bit PC Cle 2.0 Cle x16 2-bit PC	l 2.3 x16 (75V (x4 elec X 2.3	V* max) trical)
IEEE 1394 adptr Audio Speaker Ethernet Security chip	High Definition Internal speat One gigabit of	aker for etherne) Audio, Analog D business audio et on planar, Broa Platform Module,	dcom [®] BCM575	5			om PSU	>75W use au>	dilary p	oower co	onnector	(S)
Keyboard Mouse Power supply	Optical Whee 800 watts with	el Mou: th 80m	Keyboard (USB c se (USB connector m side-mounted v omputing Gold,	or), black variable speed fa	an, unive	rsal,		Security c	SEC hip (see inforr	URITY nation			
ThinkVantage [®] Preload OS Preloaded applications	Supports Thi Genuine Win • Rescue a • ThinkVant • ThinkVant • Norton [®] IR • Adobe [®] R • Adobe Fla • Microsoft [®]	inkVan nd Rec age Sy age To nternet eader [®] ash [®] PI [®] Office	tage technologies 7 Professional 64 overy® /stem Update olbox Security (30 days	4 s of virus definitio purchase produ	ons) ct key to	activate	90円90K F A 田田し	Gide cover Padlock lo Security s Censingto Power-on Administra Boot seque Soot without JSB port	r lock (ships w oop (in rear for lot (in rear for n [®] Microsaver password ator password ator password ence control but keyboard, disablement (<i>htrusion switch</i>	vith two opt pa option a cable mouse front o	o identic adlock) al e) r all)		
	 Roxio MyI Corel[®] Win 	DVD® (nDVD®	DVD±RW model((DVD or DVD±R) /ieFactory® (Blu-ra	s) only) V model(s) only)))	Ro	HS-comp	ARD [®] certified bliant old rating				
								Customer with limit 3 am - 5 p next busin Lenovo so See lenovo Onsite s Post wa For more number ir	LIMITED rts and labor r Replaceable ted onsite ser im, Mon - Fri c ness day resp ervices availa .com/services_ service upgra arranty mainte information fi n your country. -307.ibm.com/p	Unit (C vice fo coverag onse t ble; warrant de opt enance nd the v at	CRU) pa r select ge exclu ime) xy/us/en/l ions (in service Lenovo	rts only ed parts ding hol enovo-wa eligible s s support	idays, rranty.html locations) t phone

ThinkStation® C20 (4263) - December 2011 - withdrawn

	Slot x bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID		Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy)</i>
4263-C1G 6 4263-C2G 6 4263-C3G 6 4263-C4G 6 4263-C4G 6 4263-C5G 6	6x4 6x4 6x4	2xE5645 2xE5649 2xE5607 1xX5675 1xX5672	2.40 2.53 2.26 3.06 3.20	6x2GB UDIMM 6x2GB UDIMM 3x2GB UDIMM 3x2GB UDIMM	2x500GB SATA	No No No No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	No No No	None None None None	None None None None None	No No No No	No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	12/06/11 12/06/11 12/06/11 12/06/11 12/06/11
		• E	Environ	erformance works mentally friendly, oft Office 2010 Pro	cool, and quiet w	vith rock	solid engir		,					
Processor(s	5)	4.8GT/s (gig Intel 64, Virtu 1066MHz DI Intel Xeon P 5.86GT/s QF Virtualizatior 1333MHz DI Intel Xeon P 6.4GT/s QPI Virtualizatior Turbo Boost 1333MHz DI Intel Xeon P 6.4GT/s QPI Virtualizatior Turbo Boost	a-transualizati DR3 m Process Pl, Intel Techr DR3 m Process , Intel (Techr DR3 m Process , Intel (Techr DR3 m Process , Intel (Techr	blogy, emory controller, sor X5675 with s 64, Hyper-Thread hology,	(QuickPath Inter and 8MB cache 49 with six-core ding Technology, st Technology, and 12MB cache uad-core, ing Technology, and 12MB cache ix-core, ing Technology,))),	Ba	wer	 5.1"W 130m 40.7 ll 24-lite Toolle Toolle Toolle Illumir Rack 	n black / x 17.5 m W x 17.5 m W x 18.5 er ss side ess side ess side ess side ess side ess side fisse f	color; n "D x 16 444mm kg) max cover i and op pter rete ont icon upport o	netal case 58"H D x 427n c configura removal trical drive ention ns or optional ad optical	nm H ation removal
Implementat	tion	Two LGA136	6 sock	ets, supports up	to two processor	s		Ba	у З: З.5"	, 1" high, , 1" high, , 1" high,	interi interi interi	nal, fo	or disk or disk or disk	
Memory Additional memory disclaimers		 48GB max for 6-channel car Actual mer dependent memory sp 	or UDIN pable, nory o on pro peed	PC3-10600 1333 MM model, 48GB six 240-pin DIMM perating speed is pocessor memory of s requires dual pr	max for RDIMM I sockets the lowest instal controller speed	model, led spee		Slo Slo Slo Slo Slo	ot 1: half- ot 2: full-l ot 3: full-l ot 4: full-l ot 5: full-l	-length, full- length, full-h length, full-h length, full-h length, full-h -length, full-	height, height, height, height,	PCIe 2. 32-bit F PCIe 2. PCIe x	.0 x16 (75 PCI 2.3 .0 x16 (75 16 (x4 ele	W* max)
Graphics		None								-	-			*(0)
Media reade Optical Hard drive(s Disk Control	6)	500GB, SATA Serial ATA, S	A 3.0G SATA 3. connec	DL DVD±RW SA b/s, 7200 rpm, 3. .0Gb/s, integrated tors for disks, one rt	5" I in ICH10R,		cal,		rom PSU	>75W use a	uxillary	power	connecto	1(5)
Chipset Front ports Rear ports IEEE 1394 a Audio Speaker Ethernet Security chip Keyboard Mouse	p	Two USB 2.0 Eight USB 2 six analog au side out), Op None High Definitia Internal spee One gigabit o Broadcom Tr Preferred Pro Optical Whee), micro 0, eSA udio po otical S on (HD aker for etherne usted o USB el Mou	, Intel ICH10R, W ophone (3.5mm), ITA, one ethernet rts (line-in, mic-ir PDIF digital out, () Audio, Analog E business audio et on planar, Broa Platform Module, Keyboard (USB connector	headphone (3.5r (RJ-45), n, front-out, rear Dptical SPDIF di Devices AD1988/ dcom [®] BCM575 TCG 1.2-complia connector), 104-k pr), black	nm) put, cent gital in A codec 5 ant xey, black	er/sub-out,	・SPSK ・SKPABB ・し	Side cover Padlock lo Security sl Censington Power-on Administra Boot sequ Boot without JSB port	hip (see info r lock (ships op (in rear f n® Microsay password ator passwo ence contro out keyboard disablemen	s with tw for opt for optic ver® cat ord ol d, mous t (front	n on lei wo iden padlock onal ble) se or all)	tical keys) <)	
Power suppl	<u> </u>	Climate Sav	ers® C	m side-mounted omputing Gold,	80 PLUS [®] Gold			GF		ARD [®] certifi		selected	a model(s,)
ThinkVantag Preload OS Preloaded applications	-	Genuine Wir Rescue a ThinkVant ThinkVant Norton® Ir Adobe® R Adobe Fla Microsoft Roxio® Cr Roxio Myl Corel® Wir	ndows [®] nd Rec tage Sy tage To ternet eader [®] Office eator [®] DVD [®] (nDVD [®]	ystem Update oolbox Security (30 days	4 s of virus definitio purchase produ (DVD±RW mode s) only) W model(s) only)	ct key to el(s) only		- EP	PEAT™ G B-year par Customer with limit B am - 5 p next busin enovo se see lenovo Onsite s Post wa For more number in http://www	LIMIT LIMIT Its and labor Replaceab ed onsite s m, Mon - Fr ness day re ervices avai o.com/service	or ile Unit ervice sponse ilable; s_warra rrade op ntenanco find th try at a/pc/sup	for sele age exc e time) nty/us/e ptions (ce servi ne Leno	parts only cted parts cluding ho n/lenovo-wa in eligible ces vo suppo	s ³ , lidays, arranty.html locations) ⁷ rt phone

ThinkStation® C20x (4269) - June 2010 - withdrawn

Type- Slot x model bay	Memory Pre-conf SATA M Processor(s) GHz DIMMs Disk(s) RAID optical re	Chassis Iedia intrusion Graphics 1394 Win7 Ann date eader switch adapter(s) adptr Global preload (<i>mm/dd/yy</i> ,
4269-26G 6x4 4269-27G 6x4 4269-28G 6x4 4269-29G 6x4 4269-31G 6x4 4269-31G 6x4 4269-32G 6x4	1xE5620 2.40 2x2GB RDIMM 1x150GB SATA No DVD±RW 1xE5620 2.40 2x2GB RDIMM 1x300GB SAS No DVD±RW 1xX5650 2.66 1x4GB RDIMM 1x500GB SATA No DVD±RW 1xX5650 2.66 1x4GB RDIMM 1x500GB SATA No DVD±RW 1xX5650 2.66 1x4GB RDIMM 1x150GB SATA No DVD±RW 1xX5650 2.66 1x4GB RDIMM 1x300GB SAS No DVD±RW	No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10 No Switch None No No Pro 64 06/15/10
	 High performance workstation with smallest-possible form factor Environmentally friendly, cool, and quiet with rock solid engined Microsoft Office 2010 Product Key Ready (O10PKR) 	
Processor(s)	Intel [®] Xeon [®] Processor E5620 with quad-core, 5.86GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 12MB cache Intel Xeon Processor X5650 with six-core, 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache Two LGA1366 sockets, supports up to two processors	Tower • Rack-mountable to 3U • Raven black color; metal case • Saven black color; metal case • S.1"W x 17.5"D x 16.8"H • 130mm W x 444mm D x 427mm H • 40.7 lb (18.5kg) max configuration • 24-liter • Toolless side cover removal • Toolless adapter retention
Additional memory	UDIMM or RDIMM, PC3-10600 1333MHz DDR3, ECC, 96GB max for UDIMM model, 96GB max for RDIMM model, 6-channel capable, twelve 240-pin DIMM sockets • Actual memory operating speed is the lowest installed speed, dependent on processor memory controller speed and installed	disk disk disk disk
disclaimers	over six DIMMs requires dual processors	Bay 1: 5.25", 1.6" high, external, std optical Bay 2: 3.5", 1" high, internal, for disk
Graphics	None	Bay 3: 3.5", 1" high, internal, for disk
Media reader Optical Hard drive(s) Disk Controller	None Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Some: 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5" Some: 150GB, SATA 3.0Gb/s, 10000 rpm, 2.5" Some: 300GB, SAS 3.0Gb/s, 15000 rpm, 3.5" 3 SATA connectors for optical, SATA 3.0Gb/s, integrated in ICH10; 5 SATA/SAS ⁴ connectors for disks, SATA 3.0Gb/s, SAS 3.0Gb/s,	Bay 4: 3.5", 1" high, internal, for disk Slot 1: half-length, full-height, PCIe x1 Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, 32-bit PCI 2.3 Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, PCIe x16 (x4 electrical)
	RAID 0, 1, 5, integrated in Marvell® 88SE6480	Slot 6: half-length, full-height, 32-bit PCI 2.3
Chipset Front ports Rear ports	Intel 5520 Chipset, Intel ICH10, Winbond [®] W83627DHG-P Super I/O Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394a) Eight USB 2.0, eSATA, serial (9-pin), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side out).	 * Adapters >75W use auxiliary power connector(s) from PSU
IEEE 1394 adptr	Optical SPDIF digital out, Optical SPDIF digital in	
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec	SECURITY
Speaker Ethernet Security chip	Internal speaker for business audio Two gigabit ethernet on planar, Broadcom [®] BCM5755 and BCM5754 Broadcom Trusted Platform Module, TCG 1.2-compliant	 Security chip (see information on left) Side cover lock (ships with two identical keys) Padlock loop (in rear for opt padlock)
Keyboard Mouse Power supply	Preferred Pro USB Keyboard (USB connector), 104-key, black Optical Wheel Mouse (USB connector), black 800 watts with 80mm side-mounted variable speed fan, universal, Climate Savers [®] Computing Gold, 80 PLUS [®] Gold qualified	 Security slot (in rear for optional Kensington[®] Microsaver[®] cable) Power-on password Administrator password Boot sequence control
ThinkVantage [®] Preload OS Preloaded	Supports ThinkVantage technologies Genuine Windows® 7 Professional 64 • Rescue and Recovery®	Boot without keyboard, mouse USB port disablement (front or all) Chassis intrusion switch on selected model(s)
applications	 ThinkVantage System Update ThinkVantage Toolbox Norton® Internet Security (30 days of virus definitions) Adaba® Recader® 	GREENGUARD [®] certified RoHS-compliant EPEAT™ Gold rating
	 Adobe® Reader® Adobe Flash® Player Microsoft® Office 2010 preloaded; purchase product key to activate Roxio® Creator® Business Edition (DVD±RW model(s) only) Roxio MyDVD® (DVD±RW model(s) only) Corel® WinDVD® (DVD or DVD±RW model(s) only) Ulead® DVD MovieFactory® (Blu-ray model(s) only) 	LIMITED WARRANTY ¹ S-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) Lenovo services available; see lenovo.com/services_warranty/us/en/lenovo-warranty.html Onsite service upgrade options (in eligible locations) ⁷ Post warranty maintenance services For more information find the Lenovo support phone number in your country at http://www-307.ibm.com/pc/support/site.wss/document. do?Indocid=MIGR-69107

ThinkStation® C20x (4269) - July 2011 - withdrawn

Type- Slot x model bay	Processor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID		Media reader	Chassis intrusior switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload (Ann dat mm/dd/yy
4269-87G 6x4	1xE5620	2.40	2x2GB UDIMM	1x450GB SAS	No	DVD±RW	No	Switch	1xQuadro 400	No	Global	Pro 64	07/19/1
	• E	Inviron	rformance works mentally friendly, oft Office 2010 Pro	cool, and quiet	with rock	solid engir		7					
Processor(s)	5.86GT/s (g Intel 64, Hy Virtualizatio 1066MHz D	iga-trai per-Thr n Techi DR3 m	essor E5620 with nsfers/second) Ql reading Technolog nology, Turbo Boo emory controller, kets, supports up	PI (QuickPath Ir gy, ost Technology, and 12MB cac	he	ct),		optical	 Rack-mot Raven bla 5.1"W x 1 130mm W 40.7 lb (1) 	ack col 7.5"D / x 444	or; meta x 16.8"⊦ Imm D x	 427mm	
Memory Additional memory disclaimers	 96GB max f 6-channel c Actual me dependen memory s 	or UDI apable mory c t on pro peed	, PC3-10600 133 MM model, 96GB , twelve 240-pin E pperating speed is ocessor memory requires dual pro	max for RDIMI DIMM sockets the lowest inst controller speed	M model, alled spee	ed, alled		disk disk disk	 24-liter Toolless s Toolless a Toolless a Illuminate Rack she 	disk an adapte d front	d optica r retentio t icons	l drive re on	
Graphics Media reader Optical Hard drive(s) Disk Controller	one Display None Super Multi- 450GB, SAS 3 SATA cont 5 SATA/SAS	Port [™] , Burnei S 3.0Gl nectors S ⁴ conn	400, PCIe x16 ac one dual-link DV r DL DVD±RW SA b/s, 15000 rpm, 3 s for optical, SATA ectors for disks, 5	I-I, 32W TA 1.5Gb/s Dri .5" .3.0Gb/s, integi SATA 3.0Gb/s, S	rated in IC		Ba Ba Ba	ay 2: 3.5" ay 3: 3.5" ay 4: 3.5"	, 1" high, in	ternal, ternal, ternal,	for dis for dis for dis	sk sk	
Chipset Front ports Rear ports IEEE 1394 adptr Audio Speaker Ethernet	Intel 5520 C Two USB 2. FireWire 40 Eight USB 2 six analog a side out), Optical SPE None High Definit Internal spe	Chipse 0, micr 0 (IEEE 2.0, eS/ audio po 0IF digit ion (HE aker fo	rated in Marvell [®] t, Intel ICH10, Wi ophone (3.5mm), E 1394a) ATA, serial (9-pin) orts (line-in, mic-in tal out, Optical SF D) Audio, Analog I r business audio et on planar, Broa	nbond [®] W8362 headphone (3. , two ethernet (n, front-out, rea PDIF digital in Devices AD198	5mm), RJ-45), r-out, cen 8A codec	ter/sub-out	SI SI SI SI SI , * A	ot 2: full-1 ot 3: full-1 ot 4: full-1 ot 5: full-1 ot 6: half-	ength, full-heig ength, full-heig ength, full-heig ength, full-heig length, full-heig >75W use auxil	ht, PC ht, 32 ht, PC ht, PC ht, 32	Cle 2.0 x -bit PCI Cle 2.0 x Cle x16 (-bit PCI	2.3 [`] 16 (75W x4 electi 2.3	* max) rical)
Security chip Keyboard Mouse Power supply ThinkVantage [®] Preload OS Preloaded applications	Broadcom T Preferred P Optical Whe 800 watts w Climate Sar Supports Th Genuine Wi • Rescue a	rusted ro USB eel Mou ith 80m vers® C ninkVar ndows [®] and Rea itage S	Platform Module, Keyboard (USB use (USB connect m side-mounted computing Gold , tage technologie 7 Professional 6 covery® ystem Update	TCG 1.2-comp connector), 104 cor), black variable speed 80 PLUS[®] Gol es	liant -key, blac fan, unive	k ersal,		Side cove Padlock le Security s Kensingto Power-on Administr Boot sequ	SECU chip (see inform r lock (ships wit cop (in rear for c slot (in rear for c slot (in rear or c m [®] Microsaver [®] password ator password uence control	ation c th two opt pao optiona cable)	identica dlock) I	l keys)	
	 Adobe[®] F Adobe FI Microsoft Roxio[®] C Roxio My Corel[®] W 	Reader ash® P ® Office reator® DVD® inDVD®		; purchase proc i (DVD±RW mo (s) only) W model(s) onl	duct key to del(s) only) activate /)	• I • I GI Ro	USB port <i>Chassis i</i> REENGU oHS-com	out keyboard, m disablement (fr ntrusion switch ARD® certified pliant bold rating	ont or on sele	ected m	odel(s)	
							ф ф ф	Custome (with limit 8 am - 5 j next busis Lenovo s see lenov • Onsite • Post w For more number i http://www	rts and labor r Replaceable L ted onsite servi- om, Mon - Fri co- ness day respo- ervices availabl o.com/services_w service upgrad arranty mainten information fin n your country -307.ibm.com/pc/ d=MIGR-69107	ice for overage onse tir le; parranty e optic ance s d the l at	selected e exclud me) /us/en/ler ons (in e services _enovo s	d parts ³ , ing holic novo-warr ligible lo support	anty.html cations) ² phone

ThinkStation



Lenovo ThinkStation S20



Lenovo ThinkStation S20





Lenovo ThinkStation S20 (left) Lenovo ThinkStation D20 (right)



Lenovo ThinkStation Graphics Card Option NVIDIA Quadro 2.5GB 5000





Lenovo ThinkStation Graphics Card Option NVIDIA® Quadro® 2GB 4000*

ThinkStation[®] S20 (4105) - TopSeller (October 2009) - withdrawn

Type- model Proce	ssor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Globa	Win7 preload	Ann date (<i>mm/dd/yy)</i>
4105-96G 1xW	3503	2.40	3x2GB 1066MHz UDIMM	1x500GB SATA	A No	DVD±RV	V Media	No	No	No	No	Pro 64	10/22/09
		 Hig Env Par 3-y 	ter, more efficient architectur h performance workstation w vironmentally friendly, cool, ar t of the EMEA TopSeller™ Pr ear limited warranty ¹ rosoft Office 2010 Product Ki	ith premium gra nd quiet with roc rogram	phics sup k solid er	port for s	specialized		sionals				
Processor(s) Implementation Memory Additional memory disclaimers	4.8G Intel 6 1066I One L 48GB PC3-6 3-cha • Actu dep	T/s (gig 64, Virt MHz DI _GA13 8 max, ¹ 8 max , ¹ 8 500 1 1 mnel ca ual me	[®] Processor W3503 with dua a-transfers/second) QPI (Qui ualization Technology, DR3 memory controller, and 66 socket UDIMM, ECC, 066MHz DDR3 or PC3-1060 apable, six 240-pin DIMM soc mory operating speed is the l to on processor memory contro- peed	ickPath Intercon 4MB cache 0 1333MHz DDF ckets owest installed s	R3 , speed,		optical optical media over disk disk disk	 6.9"W 175m 38.5 31-lite Remo Toolle Toolle Toolle Illumi 	n black col / x 19.0"D m W x 483 b (17.5kg) er by able han ess side cc ss side cc ss adapte nated fron shelf supp	x 18.8 3mm [max dle or over re d opti r reter t icons	3"H (wi O x 478 configu top fro moval cal driv ntion	th handle 3mm H iration ont	
Graphics Media reader Optical Hard drive(s) SATA controller SAS controller Chipset	Super 500G Serial three SAS	a card i r Multi- B, SAT I ATA, S SATA o model(reader, internal USB 2.0 Burner DL DVD±RW SATA 1. A 3.0Gb/s, 7200 rpm, 3.5" SATA 3.0Gb/s, integrated in IC connectors for disks, two SAT s): Marvell [®] 88SE6440, PCIe 4 SATA/SAS ⁴ connectors, cpress Chipset, Intel I/O Cor	CH10R, A connectors fo x4 adapter, SATA 3.0Gb/s, \$	SAS 3.0G	b/s Ba	ay 1: 5.25 ay 2: 5.25 ay 3: 3.5", ay 4: 3.5", ay 5: 3.5",	", 1.6" h 1" hig 1" hig 1" hig	igh, exter h, exter h, inter h, inter	rnal, d rnal, f nal, f nal, f		lia reade	r
Front ports Rear ports	(ICH1 Winbo Two L Eight audio out), (IOR) for ond [®] W JSB 2.0 USB 2 ports 0 Optical	RAID 0, 1, 5 support, 83627DHG-P Super I/O), microphone (3.5mm), heac .0, eSATA, serial (9-pin), ethe (line-in, mic-in, front-out, rear SPDIF digital out, Optical SF	lphone (3.5mm) ernet (RJ-45), siz -out, center/sub	x analog	SI SI SI SI	ot 2: full-le ot 3: full-le ot 4: full-le	ength, f ength, f ength, f ength, f	ull-height, ull-height, ull-height, ull-height, ull-height,	PCIe PCIe PCIe PCIe	2.0 x1 2.0 x4 2.0 x1 x1	6 (75W* ı ** 6 (75W* ı	,
IEEE 1394 adpt Audio Speaker Ethernet Security chip Keyboard Mouse	High Intern One g Broad Prefe	Definiti nal spea gigabit dcom Tr rred Pr	on (HD) Audio, Analog Devic aker for business audio ethernet on planar, Broadcon rusted Platform Module, TCG o USB Keyboard (USB conne el Mouse (USB connector), b	n [®] BCM5755 1.2-compliant ector), 104-key, I		*	from PS	U	use auxilia	ry pov	ver cor	inector(s)
Power supply	625 w	vatts wi	th 120mm bottom-mounted v vers [®] Computing Bronze, 80	ariable speed fa					SECURIT	Y			
ThinkVantage® Preload OS Preloaded applications	Suppo Genu • Re • Th • Th • No • Mio • Ro • Ro • Co	orts Th ine Wir scue a inkVan inkVan orton® In crosoft oxio® Cr oxio My orel® Wi	inkVantage technologies indows [®] 7 Professional 64 nd Recovery [®] tage System Update tage Toolbox nternet Security (30 days of v [®] Office 2010 preloaded; purc reator [®] Business Edition (DVI DVD [®] (DVD±RW model(s) or DVD [®] (DVD or DVD±RW mod VD MovieFactory [®] (Blu-ray m	rirus definitions) chase product ke D±RW model(s) Iy) odel(s) only)	ey to activ		Side cover Padlock lo Security sl Censingtor Power-on Administra Boot sequ Boot withc JSB port (r lock (sh op (in rea n® Micros passwor tor pass ence cor out keybo disablem	word	vo ider badloc nal le) se or all)	ntical k k)		
						R	REENGU oHS-com PEAT™ G	oliant					
							3-year par Customer (with limit 8 am - 5 p next busir Lenovo se see lenovo o nosite s Post wa For more in	Ll ts and la Replace ed onsité m, Mon - ness day ervices a .com/serv service u rranty m informat your co 307.ibm.c	MITED Wa abor able Unit (e service fi Fri covera response vailable; ices_warrar pgrade op aintenanc ion find th untry at om/pc/supp	(CRU) or sele age ex time) nty/us/e tions e serv e Lend	parts o ected p cluding en/lenov (in elig ices ovo suj	oarts ³ , g holiday o-warrant ible loca oport pho	y.html tions) ⁷

ThinkStation[®] S20 (4105) - TopSeller (January 2010) - withdrawn

Type- model Proces	sor(s) GH		/lemory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>
4105-D2G 1xW3	• F • F • E • F • S	Faster, more ef High performan Environmentally Part of the EME 3-year limited w	33MHz UDIMM ficient architectur cce workstation w γ friendly, cool, at A TopSeller™ Pr γarranty¹ ≥ 2010 Product K	ith premium gra nd quiet with roo rogram	t Intel wor aphics sup ck solid e	oport for sp	pecialize		No sionals	No	No	Pro 64	01/12/10
Processor(s) Implementation Memory Additional memory disclaimers Graphics Media reader Optical Hard drive(s) SATA controller SAS controller	4.8GT/s (Intel 64, H Turbo Boo and 8MB One LGA 48GB ma PC3-8500 3-channe • Actual r depend memory None None Super Mu 500GB, S Serial AT/ three SAT	giga-transfers/s Hyper-Threadin ost Technology, cache 1366 socket ix, UDIMM, EC 0 1066MHz DD I capable, six 2 memory operat ent on process y speed ulti-Burner DL E SATA 3.0Gb/s, 7 A, SATA 3.0Gb/ TA connectors f <i>tel(s):</i> Marvell	R3 or PC3-1060 40-pin DIMM soc ing speed is the l or memory contr OVD±RW SATA 1. 200 rpm, 3.5" 's, integrated in IC or disks, two SAT 88SE6440, PCIe	ickPath Intercor tualization Tech memory control 0 1333MHz DD kets owest installed oller speed and 5Gb/s Drive CH10R, A connectors for x4 adapter,	nology, biler, R3 , speed, installed		ver optical optical <u>media</u> <u>disk</u> disk disk disk y 1: 5.25 y 2: 5.25 y 2: 5.25 y 3: 3.5", y 4: 3.5" y 4: 3.5"	 6.9"V 175n 38.5 31-lit Rem. Toolk Toolk Toolk Illumi Rack ", 1.6" h ", 1.6" h ", 1.6" h 1" hig 1" hig 	ovable han ess side cc ess disk ar ess adapte inated fron shelf supp high, exter ingh, exter h, exter h, inter h, inter	x 18.8 3mm I max odle or over re d opti r reter t icons oort rnal, f nal, f nal, f	3"H (wit O x 478 configu n top fro moval cal driv ntion s std opti open for mec for disk for disk	th handle imm H ration ont re remov cal lia reade	al
Chipset Front ports Rear ports IEEE 1394 adptr Audio Speaker Ethernet Security chip Keyboard	(ICH10R) Winbond [®] Two USB Eight USE audio por out), Optid None High Defin Internal s One gigal Broadcon	Express Chip for RAID 0, 1, W83627DHG- 2.0, microphor B 2.0, eSATA, s ts (line-in, mic- cal SPDIF digit nition (HD) Auc peaker for busi bit ethernet on n Trusted Platfor	P Super I/O ne (3.5mm), head erial (9-pin), ethe in, front-out, rear al out, Optical SF lio, Analog Devic	htroller Hub 10 I Iphone (3.5mm) ernet (RJ-45), si -out, center/sub PDIF digital in es AD1988A co n [®] BCM5755 1.2-compliant	RAID x analog -out, side dec	AD/S Ba Sic Sic Sic Sic Sic Sic Sic	y 6: 3.5" ot 1: full-l ot 2: full-l ot 3: full-l ot 4: full-l ot 5: half-	, 1" hig ength, 1 ength, 1 ength, 1 length, 1 length, 1 s >75W U		nal, PCle PCle PCle PCle 32-bit	for disk 2.0 x16 2.0 x4 2.0 x16 x1 t PCI 2.	6 (75W* ı 6 (75W* ı 3	max)
ThinkVantage® Preload OS Preloaded applications	Optical W 625 watts Climate S Supports Genuine V • Rescuu • ThinkV • ThinkV • Norton • Micros • Roxio I • Corel®	/heel Mouse (U with 120mm b Savers [®] Comp ThinkVantage Windows [®] 7 Pri- e and Recovery /antage Toolboo [®] Internet Sect off [®] Office 2011 [©] Creator [®] Busin MyDVD [®] (DVD WinDVD [®] (DVD	SB connector), b ottom-mounted v uting Bronze, 80 technologies ofessional 64 y® 1 Update	lack ariable speed fa) PLUS[®] Bronz prirus definitions) shase product k D±RW model(s) ly) odel(s) only)	an, univer e qualifie	d · S · S · S · P · A · B · B · U · C · F · S · P · A · B · U · C · GF · Ro · P · S · · · · · · · · · · · · · · · · · · ·	ide cove adlock lc ecurity s ensingto ower-on dministra oot sequ oot witht chassis in REENGU HS-com EAT™ C -year par sustomer with limit am - 5 p ext busis enovo so consite s Post wa or more	hip (see r lock (sh op (in re- lot (in re- m [®] Micro- passwor ator pass ence co- out keybo disablern htrusion s ARD [®] ce pliant Gold ratin Cold ratin Cold ratin Replace red onsit m, Mon- ness day ervices a .com/service u irranty m informat	sword ntrol pard, mous nent (front switch on s ertified ng IMITED W.	n on le vo ideu adloc nal e) e e or all) e e e c c RU) c RU) c RU) tions e e serv	NTY ¹ parts c cluding cluding (in elig ices	el(s) only arts³, g holiday o-warrant ible loca	y.html tions) ⁷

ThinkStation[®] S20 (4105) - TopSeller (March 2010) - withdrawn

Type- model Pre	ocessor(s)	GHz	Memory DIMMs	Disk(s)	Pre-cont RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload (Ann date mm/dd/yy
4105-E6G 1: 4105-E9G 1: 4105-F1G 1: 4105-F4G 1: 4105-F5G 1:	xX5650 xX5670 xX5670	2.40 2.66 2.93 2.93 2.66	3x2GB 1066MHz UDIMM 3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM	1x500GB SATA 1x500GB SATA 1x500GB SATA 1x150GB SATA 1x150GB SATA	No No No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	Media Media	None None None	No No No No	No No No No	No No No No	Pro 64 Pro 64 Pro 64	03/16/10 03/16/10 03/16/10 03/16/10 03/16/10
		• З-ує	t of the EMEA TopSeller™ Pr ear limited warranty' rosoft Office 2010 Product K	0	KR)								
Processor(s)	5.86G Intel 6 Virtua 1066I Intel 2 6.4G Virtua	T/s (gig 64, Hyp alization MHz DE Xeon P (/s QPI alization	Processor E5620 with qua ga-transfers/second) QPI (Q er-Threading Technology, Technology, Turbo Boost Te DR3 memory controller, and rocessor X5650 or X5670 v , Intel 64, Hyper-Threading T Technology, Turbo Boost Te DR3 memory controller, and	uickPath Intercor chnology, 12MB cache vith six-core , echnology, chnology,	nect),		optical optical media disk	 6.9"W 175m 38.5 I 31-lite Remo Toolle 	n black col / x 19.0"D im W x 483 bb (17.5kg) er ovable han ess side co ess disk an	x 18.8 3mm E max o dle on ver re	"H (with) x 478r configur top fro moval	n handle mm H œtion nt	,
Implementati	on One L	_GA136	66 socket			E	disk disk	 Toolle 	ess adapte nated front	r reṫer	ntion		
Memory	PC3-	8500 10	JDIMM, ECC, 066MHz DDR3 or PC3-1060 pable, six 240-pin DIMM soc		3,				shelf supp		i		
Additional memory disclaimers	dep		nory operating speed is the l on processor memory contr beed										
Graphics	None						/ 1: 5.25' / 2: 5.25'			nal, s nal, c	std optio	al	
Media reade			eader, internal USB 2.0			Bay	/ 3: 3.5",	1" hig	h, exter	nal, f	or medi	a readei	r
Optical Hard drive(s)			Burner DL DVD±RW SATA 1. B, SATA 3.0Gb/s, 7200 rpm,				/ 4: 3.5", / 5: 3.5",	1" hig 1" hig			or disk or disk		
()	Some	e: 150G	B, SATA 3.0Gb/s, 10000 rpm	i, 2.5"			/ 6: 3.5",			nal, f	or disk		
SATA control	ler Serial	I ATA, S SATA c	SATA 3.0Gb/s, integrated in IC connectors for disks, two SAT	CH10R, A connectors for	onticals	Slo	t 1: full-le	ength, f	ull-height,	PCle	2.0 x16	(75W* n	nax)
SAS controlle			<i>a SATA/SAS⁴</i> connectors,	x4 adapter,		Slo Sh/s Slo	t 2: full-le t 3: full-le	ength, f ength, f	ull-height, ull-height, ull-height,	PCle PCle	2.0 x4*` 2.0 x16	k `	
Chipset Front ports Rear ports	(ICH1 Winbo Two L	0R) for ond [®] W JSB 2.0	press Chipset, Intel I/O Cor RAID 0, 1, 5 support, 83627DHG-P Super I/O), microphone (3.5mm), heac 0, eSATA, serial (9-pin), ethe	lphone (3.5mm)		Slo	t 5: half-l	ength, f s >75W ι J	ull-height, use auxilia	32-bit	PCI 2.3		
·	audio out), (ports (line-in, mic-in, front-out, rear SPDIF digital out, Optical SF	-out, center/sub-			x to thec	nanicai					
IEEE 1394 a Audio		Definitio	on (HD) Audio, Analog Devic	es AD1988A cor	lec								
Speaker			aker for business audio										
Ethernet			ethernet on planar, Broadcor usted Platform Module, TCG						SECURIT				
Security chip Keyboard			o USB Keyboard (USB conne		lack		ecurity ch de cover	nip (see 1 lock (sh	information	n on le vo ider	eft) ntical ke	vs)	
Mouse Power supply	Optica / 625 w	al Whee /atts wit	el Mouse (USB connector), b th 120mm bottom-mounted v	lack ariable speed fa	n. unive	rsal.	adlock lo ecuritv sl	op (in re ot (in rea	ar for opt p ar for optio saver® cabl	adloc nal	k)	J C /	
ThinkVontog			ers [®] Computing Bronze, 80 nkVantage technologies) PLUS [®] Bronze	qualifie		ower-on	passwor	d	0)			
ThinkVantage Preload OS			idows [®] 7 Professional 64				dministra pot sequ						
Preloaded			nd Recovery®			• Bo	oot witho	ut keybo	ard, mous				
applications			age System Update						ent (front o <i>witch on s</i>		d mode	el(s)	
			nternet Security (30 days of v	rirus definitions)			EENGU					(-)	
			Office 2010 preloaded; pure eator [®] Business Edition (DVI			vate Rol	HS-comp	oliant					
	• Ro	xio MyE	DVD® (DVD±RW model(s) or	lv)	Jilly)	EP	EAT™ G	old ratin	g				
	• Co • Ule	rel [®] Wir ead® D∖	nDVD® (DVD or DVD±RŴ mo /D MovieFactory® (Blu-ray m	odel(s) only) odel(s) only)						ARRA	NTY ¹		
			, (, u, iii)				year par ustomer		ibor able Unit (CRU)	parts o	nly	
						(v	vith limite	ed onsite	e service f	cted pa	arts³,		
								Fri covera response		luaing	nondays	5,	
						→ Le	enovo se	rvices a	vailable;	-	n/len	Montest	(html
						•	Onsite s	ervice u	ices_warrar pgrade op	tions (in eligi	ble locat	ions) ⁷
						<i>⇔</i> F	Post wa or more i	rranty m	aintenance ion find the	e servi	ices		
							umber in tp://www-		untry at om/pc/supp	ort/site	.wss/doo	cument.	
							?Indocid						

ThinkStation[®] S20 (4105) - TopSeller (May 2010) - withdrawn

Type- model Proces	sor(s) GI	Hz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media i reader	Chassis ntrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>)
4105-J6G 1xW3 4105-J7G 1xW3 4105-J8G 1xW3 4105-K7G 1xW3	550 3.0 550 3.0	06 3x2GI 06 3x1GI	B 1333MHz UDIMM B 1333MHz UDIMM B 1333MHz UDIMM B 1066MHz UDIMM	1x500GB SATA 1x150GB SATA 1x250GB SATA 1x500GB SATA	No No	DVD±RW DVD±RW DVD±RW DVD±RW	Media Media	None None	No No No	1394 1394 1394	No	Pro 64 Pro 64	05/04/10 05/04/10 05/04/10 05/04/10
	•	3-year limit	EMEA TopSeller™ P ed warranty¹ Office 2010 Product K	0	KR)								
Processor(s)	4.8GT/s Intel 64, V 1066MHz Intel Xec 4.8GT/s Hyper-Th 1066MHz One LGA	(giga-transf Virtualizatio z DDR3 me on Process QPI, Intel 6 nreading Te z DDR3 me A1366 sock		ickPath Interconi 4MB cache -core , nology, st Technology,	nect),		/er pptical pptical media □ · · · □ disk disk disk	 6.9"W 175m 38.5 I 31-lite Remo Toolle Toolle 	n black col / x 19.0"D Im W x 483 b (17.5kg) er ovable han ess side cc ess disk ar ess adapte	x 18.8 3mm E max o dle on over re id optio	B"H (wit 0 x 478 configu top fro moval cal driv	h handle mm H ration ont	,
Memory Additional memory disclaimers	PC3-850 3-channe • Actual depend	el capable, : memory op	, ECC, z DDR3 or PC3-1060 six 240-pin DIMM soo perating speed is the cessor memory contr	ckets lowest installed s	peed.			 Illumi 	nated from shelf supp	t icons			
Graphics Media reader Optical Hard drive(s) SATA controller SAS controller	None Media ca Super Mu Some: 29 Some: 19 Serial AT three SA	ard reader, i ulti-Burner 50GB or 50 50GB, SATA 7A, SATA 3.0 TA connect	nternal USB 2.0 DL DVD±RW SATA 1 0GB, SATA 3.0Gb/s, A 3.0Gb/s, 10000 rpn 0Gb/s, integrated in I ors for disks, two SAT rell® 88SE6440, PCIe	7200 rpm, 3.5" 1, 2.5" CH10R, A connectors for	opticals	Bay Bay Bay Bay Slo		, 1.6" h 1" hig 1" hig 1" hig 1" hig 1" hig	iğh, exter h, exter h, inter h, inter h, inter ull-height,	rnal, c rnal, f nal, f nal, f nal, f PCle	or med or disk or disk or disk 2.0 x16	ia reade 6 (75W* r	
Chipset Front ports Rear ports IEEE 1394 adptr Audio	Intel X58 (ICH10R Winbond Two USE Eight US audio por out), Opt Some: F ty High Def	4 SA 3 Express (1) for RAID (10 W83627E 3 2.0, eSA tical SPDIF FireWire PC wo 6-pin po finition (HD)	TA/SAS ⁴ connectors, Chipset, Intel I/O Cor D, 1, 5 support, DHG-P Super I/O phone (3.5mm), head TA, serial (9-pin), ethe mic-in, front-out, rear digital out, Optical SI I adapter, 1394a-200	SATA 3.0Gb/s, S htroller Hub 10 R dphone (3.5mm) ernet (RJ-45), siz- out, center/sub- PDIF digital in 0, 400Mbps,	AID analog out, side	Slo Slo *	t 4: full-le t 5: half-l	ength, f ength, f ength, f s >75W (J	ull-heiğht, ull-height, ull-height, ull-height, use auxilia	PCIe PCIe 32-bit	2.0 x16 x1 PCI 2.	8 (75W* r 3	,
Speaker Ethernet Security chip Keyboard Mouse Power supply ThinkVantage [®] Preload OS Preloaded applications	One giga Broadcor Preferred Optical W 625 watts Climate Supports Genuine • Rescu • Think	bit etherne m Trusted F d Pro USB I Vheel Mouss s with 120n Savers ® Co s ThinkVant Windows® ue and Rec Vantage Sy	t on planar, Broadcor Platform Module, TCG Keyboard (USB conne- te (USB connector), b m bottom-mounted v omputing Bronze, 8 age technologies 7 Professional 64 overy® stem Update	i 1.2-compliant ector), 104-key, b lack variable speed fa	n, univer	• Si • Pa • Se • Se • Ke • Pa • Ro • Bo • Bo • Bo • US	de cover adlock loo ecurity sl ensingtor ower-on p dministra cot seque cot witho SB port c	hip (see lock (sh op (in re ot (in rea magnetic for second basswort tor pass ence cor ut keybo lisablem	word	n on le vo ider badloc nal le) se or all)	ntical ke k)		
	 Nortor Micros Roxio[®] Roxio Corel[®] 	soft® Office ® Creator® I MyDVD® (I ® WinDVD®	olbox Security (30 days of v 2010 preloaded; pure Business Edition (DVI DVD±RW model(s) or (DVD or DVD±RW m ieFactory [®] (Blu-ray m	chase product ke D±RW model(s) hly) odel(s) only)	y to activ	rate GR Ro EP ⇒ 3. ⇒ C (v so So So Fr n	year par ustomer vith limite am - 5 pp ext busin enovo se se lenovo. Onsite s Post wai pr more i umber in	ARD® ce bliant old ratin Ll ts and la Replace ed onsite n, Mon - ess day rvices a com/serv ervice u rvice u rrranty m nformat your co	rtified g IMITED Wa bor bable Unit (e service for Fri covera response vailable; rices_warrar pgrade op gaintenanc ion find the	ARRA (CRU) or sele age exe time) hty/us/e tions (e servi e Lenc	NTY ¹ parts o ected pa cluding en/lenove (in eligi ices svo sup	nly arts ³ , holiday p-warrant ble local	<mark>y.html</mark> tions) ⁷

ThinkStation[®] S20 (4105) - TopSeller (August 2010) - withdrawn

Type- model Proces	ssor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>
4105-M2G 1xW3	3503	2.40	1x2GB 1333MHz UDIMM	1x250GB SATA	No	DVD±RW	/ Media	None	No	No	No	Pro 64	08/03/10
		 Higi Env Par 3-ye 	ter, more efficient architectur h performance workstation w ironmentally friendly, cool, ar t of the EMEA TopSeller™ Pr ear limited warranty ¹ rosoft Office 2010 Product Ke	ith premium gra _l nd quiet with roc rogram	phics sup k solid ei	port for sp	pecialized		ionals				
Processor(s)	4.8G1 Intel 6	Г/s (gig 64, Virtı	Processor W3503 with dua a-transfers/second) QPI (Qui Jalization Technology, DR3 memory controller, and 4	ckPath Intercon	nect),	Tov	ver optical	• 6.9"W	n black col / x 19.0"D m W x 483	x 18.8	3"H (wit	h handle	e)
Implementation			66 socket				optical		b (17.5kg)) max (configu	ration	
Memory	PC3-8	8500 10	JDIMM, ECC, 066MHz DDR3 or PC3-1060 0pable, six 240-pin DIMM soc		R3 ,		media 	 Toolle 	vable han ss side co	over re	moval		
Additional memory disclaimers	 Acture dep 	ual mer	nory operating speed is the l on processor memory contro	owest installed s			disk disk disk	 Toolle Illumii 	ess disk ar ess adapte nated fron shelf supp	er reter t icons	ntion	e remov	al
Graphics	None												
Media reader Optical Hard drive(s) SATA controller	Super 250G	r Multi-l B, SAT/	eader, internal USB 2.0 Burner DL DVD±RW SATA 1. A 3.0Gb/s, 7200 rpm, 3.5" GATA 3.0Gb/s, integrated in IC				y 1: 5.25				std opti	cal	
SAS controller	three	SATÁ c	connectors for disks, two SAT. s): Marvell [®] 88SE6440, PCIe 4 SATA/SAS ⁴ connectors,	A connectors for x4 adapter,	•	Ba Ba	y 2: 5.25' y 3: 3.5", y 4: 3.5",	1" higl 1" higl	h, extei h, inter	nal, f	or med or disk		r
Chipset	(ICH1	0R) for	press Chipset, Intel I/O Cor RAID 0, 1, 5 support, 83627DHG-P Super I/O			Ba	y 5: 3.5", y 6: 3.5",	0	h, inter h, inter ull-height,	nal, f	or disk or disk		max)
Front ports Rear ports	Two L Eight audio	JSB 2.0 USB 2 ports (0, microphone (3.5mm), head 0, eSATA, serial (9-pin), ethe line-in, mic-in, front-out, rear SPDIF digital out, Optical SF	ernet (RJ-45), six-out, center/sub-		Slo Slo Slo	ot 2: full-le ot 3: full-le ot 4: full-le	ength, fi ength, fi ength, fi	ull-height, ull-height, ull-height, ull-height,	PCle PCle PCle	2.0 x4* 2.0 x16 x1	6 (75W* r	
IEEE 1394 adptr Audio	None High I	Definitio	on (HD) Audio, Analog Device	0	dec	*	Adapters from PSI		ise auxilia	iry pov	ver con	nector(s)
Speaker Ethernet Security chip	One g	gigabit (aker for business audio ethernet on planar, Broadcon rusted Platform Module, TCG			**	x16 mec						
Keyboard Mouse Power supply	Prefe Optica	rred Pro al Whee	o USB Keyboard (USB conne el Mouse (USB connector), b th 120mm bottom-mounted v	ector), 104-key, k lack									
rower supply	Clima	ate Sav	ers [®] Computing Bronze, 80) PLUS [®] Bronze	e qualifie	b			SECURITY				
ThinkVantage®	Suppo	orts Thi	inkVantage technologies			• S	ecurity cl	nip (see i	nformatio	n on le	eft)		
Preload OS Preloaded applications	 Re Thi No Mic Ro Ro Co 	scue a inkVant inkVant rton® Ir crosoft xio® Cr xio Myl rel® Wit	ndows [®] 7 Professional 64 nd Recovery [®] tage System Update tage Toolbox ternet Security (30 days of v [®] Office 2010 preloaded; purce eator [®] Business Edition (DVI DVD [®] (DVD±RW model(s) on nDVD [®] (DVD or DVD±RW mod DD MovieFactory [®] (Blu-ray m	hase product ke D±RW model(s) ly) odel(s) only)	ey to activ only)	• Pa • Si Ki • Pa • Aa • Ba • Ba • Ba • U	adlock lo ecurity sl ensingtor ower-on j dministra oot seque oot seque oot witho	op (in rea ot (in rea n [®] Micros password tor pass ence cor out keybo disablem	word	oadloc nal le) se or all)	k)		
	• 016		Divioner actory (Did-ray in			Ro	REENGU HS-comp PEAT™ G	oliant					
							with limite	ts and la Replace ed onsite	able Unit (service f	(CRU) or sele	parts o ected p	arts³,	
						n ⇒ L s • • F n <i>h</i>	ext busin enovo se ee lenovo Onsite s Post wa or more i umber in ttp://www-	ervices av com/service u rranty m informati your co	ices_warran pgrade op aintenanc on find th untry at om/pc/supp	time) hty/us/e otions e serv e Lenc	en/lenov (in elig ices ovo sup	o-warrant ible loca oport pho	y.html tions) ⁷

ThinkStation[®] S20 (4105) - TopSeller (October 2010) - withdrawn

Type- model Proces	sor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media i reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy)</i>
4105-P1G 1xW3 4105-P2G 1xW3		3.20 3.20	3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM	1x1TB SATA 1x150GB SATA	No No	DVD±RW DVD±RW		None None	No No	No No	No No		10/12/10 10/12/10
		 Hig En Pai 3-y 	ster, more efficient architectu h performance workstation v vironmentally friendly, cool, a rt of the EMEA TopSeller™ F ear limited warranty¹ crosoft Office 2010 Product P	with premium gra and quiet with roo Program	aphics su ck solid e	oport for sp	pecialize		sionals				
Processor(s)	4.8G1 Intel 6 Turbo	Г/s (gig 64, Нур	Processor W3565 with qu ga-transfers/second) QPI (Qu ber-Threading Technology, V Technology, 1066MHz DDR che	ickPath Intercor	nology,		optical	• 6.9"V • 175n	n black co V x 19.0"D nm W x 48 lb (17.5kg)	x 18. 3mm l	8"H (wi D x 478	th handle 3mm H	2)
Implementation			66 socket				media	• 31-lit	er		0		
Memory	PC3-8	8500 1	UDIMM, ECC, 066MHz DDR3 or PC3-1060 apable, six 240-pin DIMM so		R3 ,		disk disk	Tooll Tooll	ovable har ess side co ess disk ar	over re nd opt	emoval ical driv		al
Additional memory disclaimers	 Actu dep 	ual me	mory operating speed is the to processor memory cont	lowest installed	speed, installed		disk	 Illum 	ess adapte inated fron shelf supp	t icon:			
Graphics	None												
Media reader	Media	a card	reader, internal USB 2.0										
Optical Hard drive(s)			Burner DL DVD±RW SATA 1 SATA 3.0Gb/s, 7200 rpm, 3.				y 1: 5.25			rnal, rnal,	std opt	ical	
SATA controller	Serial	I ATA, S	B, SATA 3.0Gb/s, 10000 rpr SATA 3.0Gb/s, integrated in I	CH10R,		Ba	y 2: 5.25 y 3: 3.5", y 4: 3.5",	, 1.0 1 1" hig 1" hig	jh, exte	rnal,		dia reade	r
SAS controller			connectors for disks, two SA s): Marvell [®] 88SE6440, PCI 4 SATA/SAS ⁴ connectors	e x4 adapter,	•	Ba	y 5: 3.5" y 6: 3.5"	, 1" hig	jh, inter	nal,	for disk for disk	ζ.	
Chipset	(ICH1	0R) fo	rpress Chipset, Intel I/O Co r RAID 0, 1, 5 support, /83627DHG-P Super I/O			Slo	ot 2: full-l	ength, i	full-height, full-height, full-height,	PCle	2.0 x4	**`	,
Front ports	Two L	JSB 2.	0, microphone (3.5mm), hea			Slo	ot 4: full-l	ength, i	full-height,	PCle	x1		
Rear ports	audio	ports	2.0, eSATA, serial (9-pin), eth (line-in, mic-in, front-out, rea SPDIF digital out, Optical S	r-out, center/sub)- *	Adapter	s >75W	full-height, use auxilia)
IEEE 1394 adptr				1040004			from PS x16 med						
Audio Speaker	0		on (HD) Audio, Analog Devid aker for business audio	ces AD1988A co	dec		XTO INCC	marmoar					
Ethernet			ethernet on planar, Broadco	m [®] BCM5755									
Security chip	Broad	dcom T	rusted Platform Module, TCC	G 1.2-compliant									
Keyboard			o USB Keyboard (USB conr		black								
Mouse Power supply	625 w	atts w	el Mouse (USB connector), ith 120mm bottom-mounted	variable speed fa	an, unive	rsal,	ecurity c		SECURIT informatio		eft)		
-			vers [®] Computing Bronze, 8	0 PLUS [®] Bronz	e qualifie	• S	ide cove	r lock (sł	nips with tv	vo ide	ntical k	eys)	
ThinkVantage®			inkVantage technologies						ar for opt par for opt p		ck)		
Preload OS Preloaded			ndows [®] 7 Professional 64 Ind Recoverv [®]						saver® cab				
applications	• Th	inkVan	tage System Update				ower-on dministra						
			tage Toolbox nternet Security (30 days of	virue definitions			oot sequ						
			[®] Office 2010 preloaded; pur						pard, mous nent (front				
			reator [®] Business Edition (DV		only)				switch on s			lel(s)	
	• Co	orel® W	DVD [®] (DVD±RW model(s) o inDVD [®] (DVD or DVD±RW m VD MovieFactory [®] (Blu-ray n	iodel(s) only)		Ro	REENGU HS-com PEAT™ G	pliant				. ,	
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						-	-year pai			AKRA	AN LY '		
							ustomer with limit am - 5 p ext busir	Replace ed onsit m, Mon ness day	eable Unit e service f - Fri covera response	or sel age ex	ected p	arts ³ ,	s,
						S	ee lenovo	.com/serv	vailable; vices_warra	nty/us/	en/lenov	o-warrant	y.html
						•	Onsite s Post wa	service u rranty m	upgrade op naintenanc tion find th	otions e serv	(in elig /ices	ible loca	tions)7
						n	umber ir	your co	ountry at				
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ThinkStation[®] S20 (4105) - TopSeller (November 2010) - withdrawn

Type- model Proce	essor(s)	GHz	Memory DIMMs	Disk(s)	Pre-con RAID		SATA optical	Media i reader	Chassi intrusic switch	on Gi	raphics apter(s)	1394 adptr		Win7 preload	Ann date (<i>mm/dd/yy)</i>
4105-O4G 1xW 4105-O5G 1xW 4105-O6G 1xW 4105-O7G 1xW 4105-1CG 1xW	/3550 /3550 /3550	3.06 3.06 3.06	3x2GB 1333MHz UDIM 3x2GB 1333MHz UDIM 3x2GB 1333MHz UDIM 3x2GB 1333MHz UDIM 3x2GB 1333MHz UDIM 2x2GB 1333MHz UDIM	M 1x500GB SAT M 1x150GB SAT M 1x150GB SAT	A No A No A No	D\ D\ D\		Media Media Media	No No No No	1xQu 1xQu	adro 200 adro 400 adro 400 adro 200	0 No 0 No	No No No No	Pro 64 Pro 64 Pro 64	11/02/10 11/02/10 11/02/10 11/02/10 11/30/10
		• 3-y	rt of the EMEA TopSeller rear limited warranty¹ crosoft Office 2010 Produ	0	10PKR)										
Processor(s) Implementation Memory Additional	4.8GT Intel 6 Hyper 1066M One L 48GB PC3-8 3-char • Actu	/s (gic 4, Virt -Threa MHz D GA13 max, 500 1 nnel ca ial me	Processor W3550 with ga-transfers/second) QPI tualization Technology, ading Technology, Turbo I DR3 memory controller, 66 socket UDIMM, ECC, 066MHz DDR3 or PC3-1 apable, six 240-pin DIMM mory operating speed is to opercessor property.	(QuickPath Interd Boost Technology and 8MB cache 0600 1333MHz I I sockets the lowest installe	, DDR3, ed spee	d,		Tower optica optica medii s disk disk disk disk		6.9"W : 175mm 38.5 lb 31-liter Remov Toolles Toolles Toolles Illumina	able har s side co s disk ar s adapte ated fron	x 18.8 3mm E) max o ndle on over rei nd optio er reter t icons	"H (wit 0 x 478 configu top fro moval cal driv tion	h handle mm H ration nt	
memory disclaimers	men	nory s	1	•		linec	1		•	Rack s	helf supp	oort			
Graphics Media reader Optical Hard drive(s)	Some Media Super Some Some	two [two [card Multi- 5000 1500	DIA [®] Quadro [®] 2000, PCIe DisplayPort [™] , one dual-lii DIA Quadro 4000, PCIe 3 DisplayPort, one dual-link reader, internal USB 2.0 Burner DL DVD±RW SA GB, SATA 3.0Gb/s, 7200 GB, SATA 3.0Gb/s, 15000 GB, SAS 3.0Gb/s, 15000	nk DVI-I, 62W (16 adapter, 2GB DVI-I, one stered TA 1.5Gb/s Drive rpm, 3.5" rpm, 2.5"	,	1		Bay 1: 5 Bay 2: 5 Bay 3: 3 Bay 4: 3 Bay 5: 3 Bay 6: 3	.25", 1 .5", 1 .5", 1		h, exte exte inter inter	rnal, c rnal, f nal, f nal, f		ia reade	r
SATA controller	Serial three	ata, : Sata	SATA 3.0Gb/s, integrated connectors for disks, two (s): Marvell [®] 88SE6440, F 4 SATA/SAS ⁴ connect	in ICH10R, SATA connectors Cle x4 adapter,	•		Gb/s	Slot 1: fu Slot 2: fu	ull-leng ull-leng ull-leng	ith, ful ith, ful ith, ful	I-height, I-height, I-height,	PCle PCle PCle	2.0 x16 2.0 x4* 2.0 x16	*`	,
Chipset Front ports Rear ports	(ICH1) Winbo Two U Eight audio	0R) fo nd [®] W SB 2. USB 2 ports	xpress Chipset, Intel I/C r RAID 0, 1, 5 support, V83627DHG-P Super I/O 0, microphone (3.5mm), 2.0, eSATA, serial (9-pin), (line-in, mic-in, front-out, I SPDIF digital out, Optic	headphone (3.5m ethernet (RJ-45) rear-out, center/s	nm) , six ana sub-out,		,	Slot 5: h * Adap from	alf-leng	gth, ful 75W us	I-height, e auxilia	32-bit	PCI 2.)
IEEE 1394 adp Audio Speaker Ethernet Security chip	tr None High [Intern One g	Definiti al spe igabit	ion (HD) Audio, Analog D aker for business audio ethernet on planar, Broa rusted Platform Module,	evices AD1988A dcom [®] BCM5755	codec		-				ECURIT				
Keyboard Mouse Power supply	Prefer Optica 625 w Clima	red Pi Il Whe atts w te Sa v	ro USB Keyboard (USB connecto eel Mouse (USB connecto ith 120mm bottom-moun vers [®] Computing Bronz ninkVantage technologies	onnector), 104-ke or), black ted variable spee e, 80 PLUS[®] Bro	ey, black d fan, ur	nive	ersal, ed	 Padloc Securit 	over loo k loop sy slot (gton® N on pas	ck (ship (in rear (in rear //icrosa ssword	os with tw for opt p for optio wer® cab	vo ider badlocl mal	itical ke	eys)	
Preload OS Preloaded applications	 Res Thi Thi Noi Mic Rox 	scue a nkVan nkVan rton® I rosoft kio® C	ndows [®] 7 Professional 64 and Recovery [®] ttage System Update ttage Toolbox Internet Security (30 days [®] Office 2010 preloaded; reator [®] Business Edition	s of virus definitio purchase produc (DVD±RW model	t key to		ivate	Boot se Boot w USB po Chassi GREEN RoHS-co EPEAT	equenc ithout l ort disa <i>is intrus</i> GUAR omplia	се contr keyboa ableme <i>sion s</i> и D®cert nt	rol rd, mous nt (front <i>vitch on s</i>	or all)	d mode	el(s)	
	 Cor 	el® W	/DVD® (DVD±RW model(inDVD® (DVD or DVD±R\ VD MovieFactory® (Blu-ri	V model(s) only)				 3-year Custor (with li 8 am - next bit Lenova Lenova see len Onsi Post For monumber 	parts a mer Re mited o 5 pm, I usiness o servio ovo.cor ite servio warran ore info er in yo ww-307.	LIN and lab placea onsite Mon - F s day ru ces ava m/servic vice up nty mai prmatio ur cour <i>.ibm.col</i>	ble Unit (service f ri covera esponse ailable; es_warran grade op intenanc n find th ntry at m/pc/supp	(CRU) or sele age exc time) nty/us/e otions (e servi e Lenc	parts o ected pa cluding n/lenovo in eligi ices ovo sup	arts ³ , holiday b-warrant ble loca	y.html tions) ⁷

ThinkStation[®] S20 (4105) - TopSeller (April 2011) - withdrawn

Туре-		Memory	D ial/(a)	Pre-con		Media ir	Chassis	Graphics	1394	lahal	Win7	Ann date (<i>mm/dd/yy</i>)
model Proces 4105-2AG 1xW3 4105-2BG 1xW3 4105-2CG 1xW3 4105-2DG 1xW3	3565 3.20 3 3565 3.20 3	DIMMs x2GB 1333MHz UDIMM x2GB 1333MHz UDIMM x2GB 1333MHz UDIMM x2GB 1333MHz UDIMM	Disk(s) 1x1TB SATA 1x1TB SATA 1x1TB SATA 1x300GB SA	No No	optical DVD±RW DVD±RW DVD±RW DVD±RW	Media	None None None	adapter(s) 1xQuadro 600 1xQuadro 200	No No 0 No	No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	04/26/11 04/26/11 04/26/11 04/26/11
	• <i>3-y</i>	t of the EMEA TopSeller™ ear limited warranty' rosoft Office 2010 Produc	Ū.	O10PKF	3)							
Processor(s) Implementation Memory Additional memory disclaimers Graphics Graphics Media reader Optical Hard drive(s) SATA controller SAS controller Chipset Front ports Rear ports IEEE 1394 adptr Audio Speaker	4.8GT/s (gig Intel 64, Hyp Turbo Boost and 8MB caa One LGA136 48GB max, I PC3-8500 10 3-channel ca • Actual mer dependent memory sp Some: NVID two E Some: NVID two E Media card r Super Multi-1 Some: 1TB, Some: 300G Serial ATA, S three SATA c SAS model(s Intel X58 Ex (ICH10R) for Winbond® W Two USB 2.0 Eight USB 2.0 Eight USB 2.0 Eight USB 2.0 UND Serial None High Definition	bio socket JDIMM, ECC, bio Socket JDIMM, ECC, bio Socket pable, six 240-pin DIMM sock nory operating speed is the on processor memory con- beed IA [®] Quadro [®] 600, PCle x- isplayPort, one dual-link IA Quadro 2000, PCle x-1 isplayPort, one dual-link IC eader, internal USB 2.0 Burner DL DVD±RW SATA SATA 3.0Gb/s, 7200 rpm, B, SAS 3.0Gb/s, 15000 rp SATA 3.0Gb/s, 15000 rp ATA 3.0Gb/s, 15000 rp ATA 3.0Gb/s, 15000 rp ATA 3.0Gb/s, 15000 rp Press Chipset, Intel I/O C RAID 0, 1, 5 support, 83627DHG-P Super I/O 0, microphone (3.5mm), he 0, eSATA, serial (9-pin), e line-in, mic-in, front-out, re SPDIF digital out, Optical on (HD) Audio, Analog Deviker for business audio	QuickPath Interview Path Interview Path Interview Path Interview Path Interview Path Interview Path Path Path Path Path Path Path Path	E DDR3, Illed spear and inst AB, e prs for op b/s, SAS 10 RAIE mm) 5), six ar /sub-out in A codec	ýgy, ed, alled ticals ; 3.0Gb/s) halog ; side-	Bay 2: 5 Bay 3: 3 Bay 4: 3 Bay 5: 3 Bay 6: 3 Slot 1: ft Slot 2: ft Slot 2: ft Slot 3: ft Slot 4: ft Slot 5: h * Adap from	5.25", 1 5.25", 1 5.25", 1 5.5", 1 5.5", 1 1.5", 1	I.6" hiğn, exte " high, exte " high, inter " high, inter " high, inter th, full-height, th, full-height, th, full-height, yth, full-height, yth, full-height, th, full-height,	x 18.8" 3mm D) max con- hole on to over rem- nd optic: er retent tricons port rnal, sto rnal, for- rnal, for- nal, for- nal, for- PCIe 2 PCIe	H (wi x 478 configu top fr noval al drivi ion r met r disk r disk r disk r disk .0 x1 1 2 CI 2	th handle mm H iration ont ve remov ical dia reade ((75W*) 6 (75W*) .3	er max) max)
Ethernet Security chip Keyboard Mouse Power supply ThinkVantage® Preload OS Preloaded applications	Broadcom Tr Preferred Prr Optical Whee 625 watts wi Climate Sav Supports Thi Genuine Wir • Rescue a • ThinkVant • Norton® Ir • Microsoft • Roxio® Cr • Roxio Myl • Corel® Win	ethernet on planar, Broadd usted Platform Module, T(o USB Keyboard (USB con- el Mouse (USB connector) th 120mm bottom-mounter ers® Computing Bronze, nkVantage technologies dows® 7 Professional 64 nd Recovery® age System Update age Toolbox iternet Security (30 days of Office 2010 preloaded; pr eator® Business Edition (E DVD® (DVD ter RW model(s) DVD® (DVD or DVD±RW /D MovieFactory® (Blu-ray	CG 1.2-compli nnector), 104- , black d variable spe 80 PLUS® Bi of virus definiti urchase produ VVD±RW mod only) model(s) only	iant key, blac ronze qu ons) uct key to el(s) only) activate y)	 Side cd Padloci Pecuriti Kensin Power- Admini Boot si Boot si Boot si Boot si USB p Chass GREEN RoHS-cc EPEAT 3-year Custor (with list am - next bi Lenovice See ler Ons Post For mode http://w 	byer lock k loop i ty slot (gon as istrator equenc ithout k ort disa is intrus IGUARI GUARI GUARI GUARI GUARI ompliai M Gold parts a mer Rej imited o 5 pm, N usiness o servic o servic t varrar ore in yoo www-307.	password e control keyboard, mous blement (front <i>sion switch on s</i> D [®] certified nt	An on left wo ident padlock) onal le) Se or all) selecteo (CRU) p for selec age excl time) nty/us/en otions (i e servic ne Lenov	ical k) / moo sted p uding //enov //enov n elig ces //o su	only parts ³ , g holiday o-warrant ible loca	y.html tions) ⁷

ThinkStation[®] S20 (4105) - TopSeller (December 2011) - withdrawn

Type- model Proc	essor(s)	<u></u>	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	C Media in reader	hassis	Graphics adapter(s)	1394	Global	Win7	Ann date (<i>mm/dd/yy</i>)
4105-8CG 1xV 4105-9CG 1xV 4105-4AG 1xV 4105-3CG 1xV 4105-4CG 1xV	V3565 V3565 V3565 V3565	3.20 3x2GB 3.20 3x2GB 3.20 3x2GB 3.20 3x2GB 3.20 3x2GB	1333MHz UDIMM 1333MHz UDIMM 1333MHz UDIMM 1333MHz UDIMM 1333MHz UDIMM	2x500GB SAT 2x500GB SAT 2x500GB SAT 1x160GB SSE	A No A No A No O No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	Media Media Media Media	None None None None	1xQuadro 6 1xQuadro 2	No No No	No No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	12/06/11 12/06/11 12/06/11 12/13/11 12/13/11
		• 3-year lim	e EMEA TopSeller ited warranty ¹ Office 2010 Produ	0	D10PKR)							
Processor(s) Implementation Memory Additional memory disclaimers Graphics	4.8GT Intel 6 Turbo and 8N One L 48GB PC3-8 3-char • Actu deperent Some	/s (giga-trans 4, Hyper-Thre Boost Techne GA1366 sock max, UDIMM 500 1066MH anel capable, al memory op endent on pro fory speed NVIDIA® Qui one DisplayF NVIDIA Qui	I, ECC, z DDR3 or PC3-10 six 240-pin DIMM perating speed is t becessor memory co addro [®] 600, PCIe x Port [™] , one dual-lin adro 2000, PCIe x	QuickPath Inter Virtualization T DR3 memory co 0600 1333MHz sockets he lowest instal ontroller speed (16 adapter, 1G k DVI-I, 40W 16 adapter, 1G	DDR3, Ied spee and insta	i), gy, ed,	Tower		Raven black 6.9"W x 19.0 175mm W x 38.5 lb (17.5 31-liter Removable h Toolless side Toolless disk Toolless ada Illuminated fr Rack shelf si	"D x 18. 483mm kg) max andle o cover re and opt pter rete ront icon	8"H (w D x 478 configu n top fr emoval ical dri ntion	ith handl 3mm H uration ont	
Media reader Optical Hard drive(s) SATA controller SAS controller	Media Super Some: Some: Serial three S	two Displayf card reader, Multi-Burner 500GB, SAT 160GB or 25 ATA, SATA 3. SATA connect nodel(s): Mar	Port, one dual-link internal USB 2.0 DL DVD±RW SAT A 3.0Gb/s, 7200 r 56GB Solid State I 0Gb/s, integrated tors for disks, two vell® 88SE6440, P XTA/SAS ⁴ connector	DVI-I, 62W A 1.5Gb/s Drive om, 3.5" Drive (SSD), SA in ICH10R, SATA connector Cle x4 adapter,	TA 3.0G	ticals	Bay 2: 5 Bay 3: 3 Bay 4: 3 Bay 5: 3 Bay 6: 3 Slot 1: fu Slot 2: fu	.25", 1 .5", 1 .5", 1 .5", 1 .5", 1 .5", 1 ull-lengt	I.6" hiğh, ex I" high, ex I" high, in I" high, in I" high, in th, full-heig th, full-heig	ternal, ternal, ternal, ht, PCIe ht, PCIe	open for me for disk for disk for disk 2.0 x1 2.0 x4	dia reade < < < 6 (75W*	max)
Chipset Front ports Rear ports IEEE 1394 adp Audio Speaker	(ICH10 Winbo Two U Eight U audio out), C otr None High D	58 Express DR) for RAID nd [®] W83627I SB 2.0, micro JSB 2.0, eSA oorts (line-in, optical SPDIF Definition (HD	Chipset, Intel I/O O, 1, 5 support, DHG-P Super I/O ophone (3.5mm), r TA, serial (9-pin), mic-in, front-out, I digital out, Optica) Audio, Analog Do business audio	Controller Hub headphone (3.5r ethernet (RJ-45 rear-out, center il SPDIF digital	10 RAID mm) i), six an /sub-out, in	alog	Slot 4: ft Slot 5: h * Adap from	ull-lengt alf-leng oters >7	th, full-heiğ th, full-heig gth, full-heig 75W use aux hical	ht, PCle ht, 32-bi	x1 it PCI 2	3	,
Ethernet Security chip Keyboard Mouse Power supply ThinkVantage [®] Preload OS Preloaded applications	Broadd Prefer Optica 625 wa Clima Suppo Genuin • Res • Thin • Thin	com Trusted I red Pro USB I Wheel Moust atts with 1200 rts ThinkVant re Windows [®] cue and Reco rkVantage Sy nkVantage To	/stem Update	CG 1.2-complia prinector), 104-k r), black ed variable spec a, 80 PLUS[®] Br	ant key, black ed fan, u onze qu	niversal, alified	 Side cc Padlocl Securit Kensing Power- Adminia Boot se Boot wi USB po 	over loc k loop (gton® N on pas strator equenc ithout k ort disa	SECUR (see informa k (ships with in rear for op flicrosaver® c sword password e control econtrol keyboard, mo blement (fro sion switch o	tion on I n two ide ot padloo otional able) ouse nt or all)	ntićal k ck)		
	 Mic Rox Rox Cor 	rosoft® Office tio® Creator® tio MyDVD® (el® WinDVD®	2010 preloaded; Business Edition (DVD±RW model(s (DVD or DVD±RW /ieFactory® (Blu-ra	ourchase produ DVD±RW mode) only) / model(s) only)	ct key to el(s) only	() - -	 RoHS-cd EPEAT[™] 3-year Custor (with li 8 am - Lenovo see len Onsi Post For mot numbe http://w 	ompliar M Gold parts a mer Rep mited c 5 pm, h usiness o servic ovo.com ite serv warrar ore info rr in you ww-307.	rating LIMITED	hit (CRU) e for sel erage ex se time) ; rranty/us/ options nce serv the Len	ected p ccludin en/lenov (in elig vices ovo su	parts ³ , g holiday vo-warran jible loca pport ph	ty.html itions) ⁷

ThinkStation[®] S20 (4157) - March 2010 - withdrawn

Type- model Proces	ssor(s)	GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media j	Chassis ntrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann dat (<i>mm/dd/y</i>)
4157-B4G 1xE5	620	2.40	3x2GB 1066MHz UDIMM	1x500GB SATA	No	DVD±R\	W Media	None	No	No	No	Pro 64	03/16/10
		 High Envi 3-yea 	er, more efficient architecture performance workstation wit ronmentally friendly, cool, and ar limited warranty ¹ osoft Office 2010 Product Key	h premium graph I quiet with rock	nics supp solid eng	port for s	pecialized		ionals				
Processor(s)	5.860 Intel Virtu 1066	GT/s (gi 64, Hyp alizatior MHz DI	Processor E5620 with qua ga-transfers/second) QPI (Qu ber-Threading Technology, n Technology, Turbo Boost Technology, DR3 memory controller, and 56 socket	uickPath Intercon	inect),	TC	optical optical	• 6.9"V • 175n	en black col V x 19.0"D nm W x 483 Ib (17.5kg)	x 18.8 3mm [3"H (wi D x 478	th handle 3mm H	e)
Memory Additional	48GE PC3- 3-cha • Act	3 max, 1 • 8500 1 annel ca tual me	UDIMM, ECC, 066MHz DDR3 or PC3-1060(apable, six 240-pin DIMM soc mory operating speed is the I	kets owest installed s	peed,		disk disk disk disk	 Rem Toolle Toolle Toolle 	ovable han ess side cc ess disk an ess adapte inated from	over re nd opti r reter	moval cal driv ntion		val
memory disclaimers Graphics		mory s	on processor memory contro peed	blier speed and in	nstalled				shelf supp				
Media reader Optical Hard drive(s) SATA controller SAS controller	Medi Supe 5000 Seria three	a card r er Multi- BB, SAT I ATA, S SATA d	reader, internal USB 2.0 Burner DL DVD±RW SATA 1. A 3.0Gb/s, 7200 rpm, 3.5" SATA 3.0Gb/s, integrated in IC connectors for disks, two SAT s): Marvell [®] 88SE6440, PCIe 4 SATA/SAS ⁴ connectors,	CH10R, A connectors for x4 adapter,	•	B B B B B	ay 1: 5.25 ay 2: 5.25 ay 3: 3.5", ay 4: 3.5", ay 5: 3.5",	", 1.6" h 1" hig 1" hig 1" hig	niğh, exter gh, exter gh, inter gh, inter	rnal, d rnal, f nal, f nal, f	for med for disk for disk	dia reade	er
Chipset Front ports Rear ports	(ICH Winb Two Eight audio	10R) for ond [®] W USB 2.0 USB 2 o ports (press Chipset, Intel I/O Cor r RAID 0, 1, 5 support, /83627DHG-P Super I/O 0, microphone (3.5mm), head .0, eSATA, serial (9-pin), ethe /line-in, mic-in, front-out, rear	troller Hub 10 R, phone (3.5mm) rnet (RJ-45), six out, center/sub-o	AID analog	S S S S	lot 2: full-le lot 3: full-le lot 4: full-le	ength, ength, ength, ength,	gh, inter full-height, full-height, full-height, full-height, full-height,	PCIe PCIe PCIe PCIe	2.0 x4 2.0 x1 x1	6 (75W* ** 6 (75W*	,
IEEE 1394 adptr Audio Speaker Ethernet Security chip	None High Intern One Broa	e Definiti nal spea gigabit dcom Ti	SPDIF digital out, Optical SF on (HD) Audio, Analog Device aker for business audio ethernet on planar, Broadcon rusted Platform Module, TCG	es AD1988A cod [®] BCM5755 1.2-compliant		*	from PS	U	use auxilia	ry pov	ver cor	nector(s	;)
Keyboard Mouse Power supply	Optic 625 v	al Whe vatts wi	o USB Keyboard (USB conne el Mouse (USB connector), b th 120mm bottom-mounted v vers [®] Computing Bronze, 80	lack ariable speed far	n, univer	4	Socurity of		SECURIT		\		
ThinkVantage [®] Preload OS Preloaded applications	Supp Genu • Re • Th • Th • No • Mi • Ro • Ro • Co	oorts Th uine Wir escue a ninkVan ninkVan orton® In icrosoft ^o oxio® Cr oxio My orel® Wi	inkVantage technologies ndows [®] 7 Professional 64 nd Recovery [®] tage System Update tage Toolbox nternet Security (30 days of v [®] Office 2010 preloaded; purc reator [®] Business Edition (DVL DVD [®] (DVD±RW model(s) on DVD [®] (DVD or DVD±RW model)	irus definitions) hase product key D±RW model(s) o ly) del(s) only)	y to activ	/ate	Side cover Padlock lo Security si Kensingto Power-on Administra Boot sequ Boot witho USB port	r lock (sh oop (in re lot (in re n [®] Micro passwor ator pass ence co out keybo disablem	sword	vo ider badloc nal le) se or all)	ntical k k)		
	• UI	ead® D	VD MovieFactory® (Blu-ray m	odel(s) only)		R	REENGU loHS-com PEAT™ G	pliant					
						8 8 8 8	3-year par Customer (with limit 8 am - 5 p next busir Lenovo se see lenovo • Onsite s • Post wa For more number in	L ts and la Replace ed onsit m, Mon ervices a service u service u informat n your co	IMITED W/ abor eable Unit (e service for - Fri covera v response wailable; v/ces_warrar upgrade op upgrade op aaintenanccition find the	(CRU) or sele age ex time) nty/us/e tions e serv e Lend	parts o ected p cluding en/lenov (in elig ices ovo su	parts ³ , g holiday o-warrant ible loca pport ph	ty.html tions) ⁷

ThinkStation[®] S20 (4157) - September 2010 - withdrawn

Type- model Proces	sor(s)GHz	Memory DIMMs	Disk(s)	Pre-conf RAID	SATA optical	Media reader	Chassis intrusior switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy)</i>
4157-F4G 1xW3 4157-F6G 1xW3 4157-G6G 1xW3 4157-G8G 1xW3	3565 3.20 3565 3.20	3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM	1x500GB SAT 1x500GB SAT 1x500GB SAT 2x500GB SAT	4 4	DVD±RW DVD±RW DVD±RW DVD±RW	Media Media	No No	1xQuadro 400 1xQuadro 400 1xQuadro 400 1xQuadro 400	0 No 0 No	No No No No	Pro 64 Pro 64	09/21/10 09/21/10 09/21/10 09/21/10
	• H • E • 3	aster, more efficient architec ligh performance workstation nvironmentally friendly, cool -year limited warranty ¹ licrosoft Office 2010 Produc	n with premium and quiet with	graphics rock solid	support fo	or specia		ofessionals				
Processor(s)	4.8GT/s (c Intel 64, V Hyper-Thr 1066MHz Intel Xeor 4.8GT/s C Virtualizat	n [®] Processor W3550 with c jiga-transfers/second) QPI ((irtualization Technology, eading Technology, Turbo Bo DDR3 memory controller, ar h Processor W3565 with qu IPI, Intel 64, Hyper-Threadin ion Technology, Turbo Boost DDR3 memory controller, ar	QuickPath Intero post Technology nd 8MB cache ad-core , g Technology, Technology,			disk		Raven black cc 5.9"W x 19.0"E 175mm W x 48 38.5 lb (17.5kg 31-liter Removable ha Toolless side c Toolless disk a) x 18.8 33mm [) max ndle or over re	3"H (with D x 478 configu n top fro moval	th handle mm H ration ont	,
Implementation		366 socket				disk disk	<u>-</u> • ⁻	Toolless adapt	er reter	ntion		
Memory	PC3-8500 3-channel	k, UDIMM , ECC , 1066MHz DDR3 or PC3-10 capable, six 240-pin DIMM s	sockets					Rack shelf sup		>		
Additional memory disclaimers		nemory operating speed is th ent on processor memory co speed										
Graphics	two Displa	Quadro [®] 4000, PCIe x16 ada yPort™, one dual-link DVI-I,		W		Bay 2: Bay 3:	5.25", 1 3.5", 1	1.6" high, exte 1" high, exte	ernal, d ernal, f	for med	lia reade	ər
Media reader Optical Hard drive(s) SATA controller SAS controller	Super Mul 500GB, SA Serial ATA three SATA	d reader, internal USB 2.0 ti-Burner DL DVD±RW SATA ATA 3.0Gb/s, 7200 rpm, 3.5" ., SATA 3.0Gb/s, integrated ii A connectors for disks, two S <i>al(s)</i> : Marvell [®] 88SE6440, PC	n ICH10R, ATA connectors	s for optic		Slot 2:	3.5", 1 3.5", 1 full-leng full-leng	l" hiğh, inte I" high, inte th, full-height th, full-height	rnal, 1 rnal, 1 , PCle , PCle	2.0 x4*	6 (75W*	,
Chipset	Intel X58	4 SATA/SAS ⁴ connecto Express Chipset, Intel I/O (rs, SATA 3.0Gb/		.000/3	Slot 4:	full-leng	th, full-height th, full-height gth, full-height	, PCle	x1		max)
Front ports Rear ports	Winbond® Two USB Eight USB audio port out), Optic	for RAID 0, 1, 5 support, W83627DHG-P Super I/O 2.0, microphone (3.5mm), he 2.0, eSATA, serial (9-pin), e s (line-in, mic-in, front-out, re al SPDIF digital out, Optical	thernet (RJ-45) ear-out, center/s	, six anal sub-out, s		from	pters >7 1 PSU mechar	75W use auxilia	ary pov	ver con	nector(s)
IEEE 1394 adptr Audio Speaker	High Defir	nition (HD) Audio, Analog De beaker for business audio	vices AD1988A	codec								
Ethernet Security chip	One gigab Broadcom	it ethernet on planar, Broade Trusted Platform Module, T	CG 1.2-complia	nt				SECURIT (see informatio	on on le			
Keyboard Mouse Power supply	Optical WI 625 watts	Pro USB Keyboard (USB connector meel Mouse (USB connector with 120mm bottom-mounte avers [®] Computing Bronze	, black d variable spee	d fan, uni	iversal,	 Padlo Secur Kensii 	ck loop (ity slot (ngton® M	ck (ships with t (in rear for opt in rear for option /licrosaver® cat	padloc onal		eys)	
ThinkVantage® Preload OS Preloaded applications	Supports Genuine V • Rescue • ThinkVa	ThinkVantage technologies Vindows [®] 7 Professional 64 e and Recovery [®] antage System Update antage Toolbox				 Admir Boot s Boot v USB p 	sequenc vithout k port disa	sword password e control keyboard, mou blement (front <i>sion switch on</i>	or all)	ed mode	el(s)	
	 Norton[®] Microso Roxio[®] 	Internet Security (30 days of oft [®] Office 2010 preloaded; p Creator [®] Business Edition (I	urchase produc VD±RW model	t kev to a		RoHS-	NGUARI compliai ™ Gold					
	 Roxio N Corel[®] \ 	/IyDVD® (DVD±RW model(s) WinDVD® (DVD or DVD±RW	only) model(s) only)						/ARRA	NTY ¹		
		DVD MovieFactory® (Blu-ray			-	Custo (with 8 am next to Lenov see le	imer Re limited o 5 pm, No ousiness vo servio novo.con	and labor placeable Unit onsite service Mon - Fri cover s day response ces available; n/services_warra rice upgrade o	(CRU) for sele age ex e time)	parts o ected p cluding en/lenov	arts ³ , y holiday o-warrant	y.html
					-	 Pos For m numb http://t 	t warran ore info er in yo www-307.	ormation find the country at <i>ibm.com/pc/sup</i> <i>GR-69107</i>	ce serv ne Leno	ices ovo sup	oport ph	

ThinkStation[®] S20 (4157) - October 2010 - withdrawn

Type- model Proce	ssor(s)	GHz	Memory DIMMs	Disk(s)	Pre-cont RAID	SATA optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr		Win7 preload	Ann dat (<i>mm/dd/y</i>)
4157-F3G 1xW	3550	● Fas ● Hig	3x2GB 1333MHz UDIMM ter, more efficient architec h performance workstation ironmentally friendly, cool,	ture with the late	est Intel graphics	support fo	r specia	ology	1xQuadro 200 Difessionals	0 No	No	Pro 64	10/26/10
Processor(s)	Intel®	● 3-ye ● Mic	ear limited warranty ¹ rosoft Office 2010 Product Processor W3550 with g	Key Ready (O1			Tower						
	4.8GT Intel 6 Hyper 1066N	/s (gig 4, Virtu -Threa /IHz DI	a-transfers/second) QPI (Ċ ualization Technology, ding Technology, Turbo Bo DR3 memory controller, an	QuickPath Interc ost Technology,	onnect),		optica		5.9"W x 19.0"D 75mm W x 483 8.5 lb (17.5kg)	x 18.8 3mm D	8"H (wi) x 478	th handle Imm H)
Implementation Memory			56 socket JDIMM, ECC,					ia • F				ont	
Additional memory	PC3-8 3-chai • Actu depo	1500 1 Innel ca Jal mei endent	066MHz DDR3 or PC3-100 apable, six 240-pin DIMM s mory operating speed is th on processor memory cor	ockets e lowest installe	d speed	l, led	disk disk disk			id option r reter t icons	cal driv ntion	ve remova	al
disclaimers Graphics	NVIDI		adro [®] 2000, PCIe x16 ada Port™, one dual-link DVI-I, (
Media reader Optical Hard drive(s) SATA controller SAS controller	Super 500GI Serial three	Multi-I B, SAT ATA, S SATA d	eader, internal USB 2.0 Burner DL DVD±RW SATA A 3.0Gb/s, 7200 rpm, 3.5" SATA 3.0Gb/s, integrated ir connectors for disks, two S s): Marvell [®] 88SE6440, PC 4 SATA/SAS ⁴ connector	ICH10R, ATA connectors le x4 adapter,	•			5.25", 1 3.5", 1 3.5", 1 3.5", 1 3.5", 1	.6" high, exter " high, exter " high, inter " high, inter	nal, c nal, f nal, f nal, f	open [`] or mec or disk or disk	lia reade	r
Chipset Front ports Rear ports	(ICH1 Winbo Two U Eight	0R) for and [®] W ISB 2.0 USB 2	press Chipset, Intel I/O C RAID 0, 1, 5 support, 83627DHG-P Super I/O), microphone (3.5mm), he .0, eSATA, serial (9-pin), e	adphone (3.5m)	m) six ana	log	Slot 2: f Slot 3: f Slot 4: f	ull-lengt ull-lengt ull-lengt	h, full-height, h, full-height, h, full-height,	PCIe PCIe PCIe	2.0 x4' 2.0 x1(x1	⁺*`` 6 (75W* r	,
IEEE 1394 adpt Audio Speaker Ethernet Security chip	out), 0 r None High [Intern One g	Definitional Definitional al spea igabito	line-in, mic-in, front-out, re SPDIF digital out, Optical on (HD) Audio, Analog Dev aker for business audio ethernet on planar, Broado usted Platform Module. To	SPDIF digital in vices AD1988A com [®] BCM5755	codec		from	oters >7 PSU mechan		ry pow	ver con	inector(s))
Keyboard Mouse Power supply	Prefer Optica 625 w	red Pr al Whe atts wi	o USB Keyboard (USB cor el Mouse (USB connector) th 120mm bottom-mounter rers [®] Computing Bronze,	nnector), 104-ke , black d variable speec	y, black I fan, un		Securi Side c	ty chip (over loc	SECURITY see information k (ships with tw	n on le	eft) ntical ke	eys)	
ThinkVantage [®] Preload OS Preloaded applications	Genui • Res • Thi • Thi • Noi • Mic • Ros	ne Wir scue a nkVan nkVan rton® Ir crosoft xio® Cr	inkVantage technologies ndows® 7 Professional 64 nd Recovery® tage System Update tage Toolbox nternet Security (30 days c 0 Office 2010 preloaded; preator® Business Edition (C DVD® (DVD±RW model(s)	urchase product	key to a	activate	Padloc Securi Kensir Power Admin Boot s Boot w USB p	ck loop (ty slot (i ngton® M -on pass istrator equence /ithout k ort disa	in rear for opt p n rear for optio icrosaver® cabl sword bassword e control eyboard, mous blement (front o	e padlocl e) e or all)	k)		
	• Co	rel® Wi	nDVD® (DVD or DVD±RW /D MovieFactory® (Blu-ray	model(s) only)			GREEN RoHS-c EPEAT	compliar		adptr Global preload (<i>n</i> oo No No Pro 64 oo No No Pro 64) x 18.8"H (with handle) 33mm D x 478mm H) max configuration ndle on top front over removal nd optical drive removal er retention nt icons port ernal, std optical ernal, for disk rnal, for disk pele 2.0 x16 (75W* m , PCle 2.0 x16 (75W* m , PCle 2.0 x4** , PCle 2.1 2.3 ary power connector(s) Y Y W on on left) wo identical keys) padlock) onal ole) Se or all) selected model(s) VARRANTY ¹ (CRU) parts only for selected parts ³ , rage excluding holidays ; a time)			
						~	 3-year Custo (with I 8 am - next b Lenov See ler Ons Post For monumber 	parts a mer Rep imited o 5 pm, N usiness o servic o servic ite servi ite servi t warran ore infor	LIMITED W/ nd labor placeable Unit (nsite service fr lon - Fri covera day response es available; //services_warrar ice upgrade op ty maintenanc	CRU) or sele age exe time) hty/us/e tions (e servi e Lenc	parts o ected p cluding n/lenov (in elig ices ovo sup	arts ³ , g holiday o-warrant ible locat oport pho	y.html tions) ⁷

ThinkStation[®] S20 (4157) - November 2010 - withdrawn

Type- model Proces	sor(s)	GHz	Memory DIMMs	Disk(s)	Pre-con RAID	f SATA optical	Media reader	Chassis ntrusio switch	n Graphics adapter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>
4157-M6G 1xW3	550		3x2GB 1333MHz UDIMM			DVD±RW			1xQuadro 200	0 No	No	Pro 64	11/30/10
		 Hig En 3-y 	h performance workstation vironmentally friendly, coo rear limited warranty ¹ crosoft Office 2010 Produ	on with premium ol, and quiet with	graphics rock soli	support fo	or special		ofessionals				
Processor(s)	4.8GT Intel 6 Hyper	/s (gig 4, Virt -Threa	[®] Processor W3550 with ga-transfers/second) QPI tualization Technology, ading Technology, Turbo E DR3 memory controller, a	(QuickPath Intero Boost Technology	,		Tower optica		5.9"W x 19.0"D 75mm W x 48	x 18.8 3mm E	8"H (wit) x 478	th handle 3mm H	e)
Implementation			66 socket				optica medi	<u></u> ⊣•3	31-liter		0		
Memory Additional	PC3-8 3-char	1 100 100 100 1000 1000 1000 1000 1000	UDIMM, ECC, 066MHz DDR3 or PC3-1 apable, six 240-pin DIMM mory operating speed is	sockets		4	disk disk disk		oolless side co oolless disk ar oolless adapte	over re nd opti er reter	moval cal driv ntion		al
memory disclaimers	depe men	enden nory s	t on processor memory c peed	ontroller speed a					lluminated fron Rack shelf supp		5		
Graphics	two Di	splayl	adro [®] 2000, PCIe x16 ac Port [™] , one dual-link DVI-l	dapter, 1GB, , 62W									
Media reader Optical Hard drive(s) SATA controller	Super 300GE Serial	Multi- B, SAS ATA, S	reader, internal USB 2.0 Burner DL DVD±RW SAT S 3.0Gb/s, 15000 rpm, 3.3 SATA 3.0Gb/s, integrated connectors for disks, two	5" in ICH10R,	s for optic	cals	Bay 2:5 Bay 3:3 Bay 4:3	.25", 1 .5", 1 .5", 1	.6" high, exter " high, exter " high, inter	rnal, c rnal, f nal, f	open or mec or disk	dia reade	r
SAS controller			(s): Marvell [®] 88SE6440, F 4 SATA/SAS ⁴ connect	Cle x4 adapter,	•		Bay 5: 3 Bay 6: 3						
Chipset	(ICH1	0R) fo	xpress Chipset, Intel I/O r RAID 0, 1, 5 support, /83627DHG-P Super I/O				Slot 2: fu	ull-lengt	h, full-height,	PCle	2.0 x4'	**`	,
Front ports Rear ports	Eight I audio	USB 2 ports	0, microphone (3.5mm), ł 2.0, eSATA, serial (9-pin), (line-in, mic-in, front-out, I SPDIF digital out, Optica	ethernet (RJ-45) rear-out, center/s	, six ana sub-out, s		Slot 5: h	alf-leng	U	32-bit	PCI 2.)
IEEE 1394 adptr Audio Speaker Ethernet	None High E Interna	Definiti al spe	ion (HD) Audio, Analog D aker for business audio	evices AD1988A	codec		from ** x16 r	PSU nechan	ical				
Security chip Keyboard	Broad	com T	ethernet on planar, Broad rusted Platform Module, ro USB Keyboard (USB c	FCG 1.2-complia	nt								
Mouse Power supply	Optica 625 w	al Whe atts w	el Mouse (USB connecto ith 120mm bottom-mount vers [®] Computing Bronz	r), black ed variable spee	d fan, un	iversal,	Securit	y chip (SECURIT see informatio	n on le	eft)	ave)	
ThinkVantage® Preload OS Preloaded applications	Suppo Genui • Res • Thi • Thi • Nor • Mic • Roy	orts Th ne Win scue a nkVan nkVan rton® I crosoft kio® C	ndows [®] 7 Professional 64 and Recovery [®] tage System Update tage Toolbox nternet Security (30 days [®] Office 2010 preloaded; reator [®] Business Edition	of virus definition purchase produc (DVD±RW model	ns) t key to a	activate	 Padloc Securit Kensin Power- Admini Boot se Boot w USB po 	k loop (y slot (i gton® M on pass strator p equence ithout k ort disal	in rear for opt p n rear for optio licrosaver® cab sword password e control eyboard, mous blement (front	oadloc nal le) se or all)	k)		
	 Cor 	rel® W	rDVD® (DVD±RW model(s inDVD® (DVD or DVD±RV VD MovieFactory® (Blu-ra	V model(s) only)				GUARE	D® certified	adptr Global preload (n 00 No No Pro 64 00 No Pro 64 00 No Pro 100 Protocol 00 Protocol port ernal, std optical ernal, for disk rnal, for disk rnal, for disk PCle 2.0 x16 (75W* m PCle x1 , 32-bit PCl 2.3 ary power connector(s) PY pon on left) wo identical keys) padlock) padlock) ponal pole) Se			
						~	(with li 8 am - next bu Lenovo see len • Onsi • Post For mo numbe	ner Rep mited o 5 pm, N usiness o servic ovo.com te servi warran ore infor er in you	nd labor blaceable Unit (onsite service f lon - Fri covera day response res available; //services_warrar ice upgrade op ty maintenanc	(CRU) or sele age exc time) nty/us/e otions (e serv e Lenc	parts o ected p cluding n/lenov (in elig ices ovo sup	parts ³ , g holiday co-warrant ible loca oport pho	y.html tions) ⁷

ThinkStation[®] S20 (4157) - April 2011 - withdrawn

Type- model Proc	cessor(s)	GHz		nory /Ms	Disk(s)	Pre-conf RAID	SATA optical	Media i reader	Chassis ntrusio switch	n Graj	ohics oter(s)	1394 adptr	Global	Win7 preload	Ann date (<i>mm/dd/yy</i>)
4157-1AG 1x\ 4157-2AG 1x\ 4157-3AG 1x\ 4157-3AG 1x\ 4157-4AG 1x\ 4157-5AG 1x\ 4157-6AG 1x\	N3565 N3690 N3690 N3690	3.20 32 3.46 32 3.46 32 3.46 32	x2GB 1333N x2GB 1333N x2GB 1333N x2GB 1333N x2GB 1333N	1Hz UDIMM 1Hz UDIMM 1Hz UDIMM 1Hz UDIMM 1Hz UDIMM 1Hz UDIMM	1x450GB SAS 1x160GB SSI 1x1TB SATA 1x450GB SAS 1x1TB SATA 1x2TB SATA	D No No	DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW DVD±RW	Media Media Media Media	No No No No	1xQuad 1xQuad 1xNVS3	lro 400	No No No	No No No No No	Pro 64 Pro 64 Pro 64 Pro 64 Pro 64 Pro 64	04/26/11 04/26/11 04/26/11 04/26/11 04/26/11 04/26/11
			ear limited v crosoft Office		ct Key Ready (O10PKF	R)								
Processor(s)	4.8G Intel Turbo and 8 Intel 6.4G Virtua	T/s (giga 64, Hype b Boost 7 3MB cac 3MB cac Xeon P I T/s QPI, alization	a-transfers/s er-Threading Technology, he rocessor W Intel 64, Hy Technology	i Technology, 1066MHz DD 3690 with six per-Threading Turbo Boost	QuickPath Inter Virtualization T R3 memory co - core , g Technology,	echnolo introller,	gy,	Tower		175mm 38.5 lb 31-liter Remova Toolless	19.0"E W x 48 (17.5kg able ha s side c	0 x 18. 33mm g) max ndle of over re	8"H (w D x 47 config n top fr emoval	rith hand 8mm H uration ront	
Implementatio	-		6 socket					disk	•	Toolless					
Memory	PC3- 3-cha	8500 10 annel ca	pable, six 24	R3 or PC3-10 0-pin DIMM s	600 1333MHz sockets e lowest install		d			Illumina Rack sh			s		
Additional memory disclaimers	dep		on processo		ntroller speed a			Pov 1:1	5.05"	1.6" higi	a avte	rnol	atd an	tical	
Graphics	Some	DMS5 e: NVIDI two Di e: NVIDI	59 to dual sir A Quadro 2 isplayPort™ A Quadro 4	igle-link DVI-I 000, PCIe x1 one dual-link 000, PCIe x1	6 adapter, 1GE	3, 3,		Bay 2: Bay 3: Bay 3: Bay 4: Bay 5: Bay 6:	5.25", 3.5", 3.5", 3.5", 3.5",	1.6" high 1" high, 1" high, 1" high, 1" high, 1" high,	n, exte exte inte inte	ernal, ernal, rnal, rnal,	open	dia read k k	er
Media reader	Medi	a card re	eader, intern	al USB 2.0				Slot 1:	full-leng	gth, full	-height	, PCle	2.0 x1	6 (75W*	max)
Optical Hard drive(s)	Some Some	<i>e:</i> 1TB o <i>e:</i> 160GI	r 2TB, SATA B Solid State	3.0Gb/s, 720	, SATA 3.0Gb/s			Slot 3:1 Slot 4:1	full-leng full-leng	gth, full gth, full gth, full igth, full	-height -height	, PCle	2.0 x1 x1	l6 (75W*	max)
SATA controlle SAS controller	r Seria three	I ATA, S SATA c	ATA 3.0Gb/s onnectors fo	, integrated ir r disks, two S	ICH10R, ATA connector Cle x4 adapter,	s for opt	ticals	from	i PSU		e auxili	ary po	wer co	nnector(s)
	0/10	medenje			s, SATA 3.0Gb	/s, SAS	3.0Gb/s	** x16	mecha	nical					
Chipset	(ICH [.] Winb	10R) for ond [®] W8	RAID 0, 1, 5 33627DHG-I	5 support, P Super I/O	Controller Hub)								
Front ports Rear ports					adphone (3.5n thernet (RJ-45)										
near ports	audic	o ports (l	ine-in, mic-iı	n, front-out, re	ar-out, center/	sub-out,	side-	0			CURIT		- (1)		
IEEE 1394 ady Audio Speaker Ethernet Security chip Keyboard Mouse Power supply	otr None High Interr One Broad Prefe Optic 625 v	Definitional spea gigabit e dcom Tru erred Pro cal Whee watts wit	on (HD) Audi ker for busin ethernet on p usted Platfor USB Keybo el Mouse (US h 120mm bo	o, Analog Dev ess audio blanar, Broado m Module, TO bard (USB cor B connector) ottom-mounte	SPDIF digital i vices AD1988A com® BCM5755 CG 1.2-complia nector), 104-k , black d variable spee 80 PLUS® Brd	A codec 5 ant ey, black ed fan, u	niversal,	 Padloo Secur Kensir Power Admir Boot s Boot v USB p 	over lo ck loop ity slot ngton [®] l c-on pas istrator sequent vithout port dis	ck (ships (in rear (in rear Microsay ssword r passwo ce contro keyboar	s with t for opt for option for option of ord of d, mou at (front	wo ide padloo onal ole) se or all)	ntical I ck)		
ThinkVantage			nkVantage te					GREEM	IGUAR	RD® certif	fied				
Preload OS				fessional 64				RoHS-0							
Preloaded applications	 Re Th Th No Mi Ro Ro Co 	escue ar hinkVanta hinkVanta prton® In crosoft® pxio® Cre pxio MyE prel® Win	nd Recovery age System age Toolbox ternet Secu Office 2010 eator® Busin DVD® (DVD± nDVD® (DVD	[™] Update rity (30 days of preloaded; p ess Edition (E RW model(s) or DVD±RW	of virus definitic urchase produc VD±RW mode only) model(s) only) model(s) only)	ct key to el(s) only) activate)	 ✓ Custo (with 8 am - next b → Lenov see le • Ons • Pos ◆ For m numb http://v 	r parts mer Re limited - 5 pm, jusines to servi novo.co site servi t warra t wara t warra t wara t warra t warra t warra t wara t wara	LIM and labo onsite s Mon - Fi ices ava m/service vice upg inty main ormation our coun	ele Unit service sponse ilable; es_warra grade o ntenane find tl try at n/pc/sup	(CRU) for sel rage ex e time) anty/us/ ptions ce serv he Len	ected ccludin en/leno (in eliq vices ovo su	parts ³ , ig holida vo-warran gible loca	ty.html ations) ⁷ ione

Personal Systems Reference (PSREF)

ThinkStation[®] S20 (4157) - May 2011 - withdrawn

Type- model Proc	essor(s)	GHz	Memory DIMMs	Disk(s)	Pre-con RAID	f SA opt		Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr Global	Win7 preload (Ann date mm/dd/yy
4157-J7G 1x\ 4157-M3G 1x\ 4157-M4G 1x\	N3550	3.06	2x2GB 1333MHz UDIMM 2x2GB 1333MHz UDIMM 3x2GB 1333MHz UDIMM	1x150GB SAT	A No		±RW	Media Media Media	No	1xQuadro 200 1xQuadro 200 1xQuadro 600	0 No Global	Pro 64	05/17/11
		 Hig En 3-y 	ster, more efficient architec dip performance workstatior vironmentally friendly, cool, rear limited warranty ¹ crosoft Office 2010 Product	with premium and quiet with	graphics rock soli	supp	ort foi	r special		ofessionals			
Processor(s)	4.8G1 Intel 6 Hyper	7/s (giệ 34, Vir 7-Thre	[®] Processor W3550 with o ga-transfers/second) QPI (d tualization Technology, ading Technology, Turbo Bc DR3 memory controller, ar	QuickPath Interc	,	,	1	optica		aven black co .9"W x 19.0"D 75mm W x 48 8.5 lb (17.5kg)	x 18.8"H (wit 3mm D x 478	h handle mm H)
Implementatio	n One L	.GA13	366 socket					medi	=1 • ³	1-liter	dla on ton fra	nt	
Memory	PC3-8 3-cha	3500 1 nnel c	UDIMM, ECC, 066MHz DDR3 or PC3-10 apable, six 240-pin DIMM s	ockets				disk disk disk		emovable han oolless side co oolless disk ar oolless adapte	over removal		al
Additional memory disclaimers	dep	ual me ender nory s	emory operating speed is th at on processor memory co speed	e lowest installentroller speed a	ed speed nd instal	i, led		UISK	 •	luminated fron lack shelf supp	t icons		
Graphics		one : NVII	DIA [®] Quadro [®] 600, PCle x DisplayPort [™] , one dual-linł DIA Quadro 2000, PCle x1 DisplayPort, one dual-link I	c DVI-I, 40W 6 adapter, 1GB	-								
Media reader Optical Hard drive(s)	Super	i card ′ Multi	reader, internal USB 2.0 -Burner DL DVD±RW SATA GB, SATA 3.0Gb/s, 7200 rp	1.5Gb/s Drive				Bay 2: 5 Bay 3: 3 Bay 4: 3	.25", 1. .5", 1' .5". 1'	6" high, exter ' high, exter ' high, inter			
SATA controlle			GB, SATA 3.0Gb/s, 10000 r SATA 3.0Gb/s, integrated ir					Bay 5: 3 Bay 6: 3	.5", 1' .5", 1'	' high, inter ' high, inter	nal, for disk nal, for disk		
SAS controller	three	SATA	connectors for disks, two S (s): Marvell [®] 88SE6440, PC 4 SATA/SAS ⁴ connector	ATA connectors le x4 adapter,			/s	Slot 1: fu Slot 2: fu	ull-lengti ull-lengti	h, full-height, h. full-height.	PCIe 2.0 x16 PCIe 2.0 x4*	*`	,
Chipset	(ICH1	0R) fc	xpress Chipset , Intel I/O C or RAID 0, 1, 5 support, V83627DHG-P Super I/O	Controller Hub 1	0 RAID			Slot 4: fu	ull-lengtl	h, full-height, h, full-height, th, full-height,	PCle x1		nax)
Front ports Rear ports	Two L Eight audio	ISB 2. USB 2 ports	0, microphone (3.5mm), he 2.0, eSATA, serial (9-pin), e (line-in, mic-in, front-out, re I SPDIF digital out, Optical	thernet (RJ-45) ar-out, center/s	, six ana sub-out, s			* Adap from ** x16 r	PSU	5W use auxilia cal	ry power coni	nector(s)	
IEEE 1394 adj Audio Speaker Ethernet	otr None High I Intern	Definit al spe	ion (HD) Audio, Analog De eaker for business audio ethernet on planar, Broado	vices AD1988A	codec								
Security chip	Broad	Icom 1	Trusted Platform Module, TO	CG 1.2-complia	nt					SECURIT			
Keyboard Mouse			ro USB Keyboard (USB con eel Mouse (USB connector)		ey, black			Securit Side co	y chip (: over lock	see informatio (ships with tv	n on left) vo identical ke	evs)	
Power supply	625 w Clima	atts w I te Sa	vith 120mm bottom-mounte vers [®] Computing Bronze,	d variable spee			al •	Padloc Securit	k loop (i sy slot (ir	n`rear for opt p n rear for optio icrosaver® cab	oadlock) nal	,	
ThinkVantage® Preload OS			ninkVantage technologies indows [®] 7 Professional 64				•	Power-	on pass	word	- /		
Preloaded			and Recovery®				•	Boot se	equence	assword control			
applications			ntage System Update							eyboard, mous plement (front			
	 No 	rton®	Internet Security (30 days o	of virus definition	ns)		•			ion switch on s		el(s)	
	• Ro • Ro	xio® C xio My	t [®] Office 2010 preloaded; p creator [®] Business Edition (E /DVD [®] (DVD±RW model(s) (inDVD [®] (DVD or DVD±RW)VD±RW model only)				GREEN RoHS-c EPEAT ⁺	omplian				
			VD MovieFactory [®] (Blu-ray										
							4	Custor (with li 8 am - next bu Lenovo	mer Rep mited o 5 pm, M usiness o service	nd labor laceable Unit (nsite service f on - Fri covera day response es available;	(CRU) parts o or selected pa age excluding time)	arts³, holidays	
							Ŷ	 Onsi Post For monumber http://w 	te servi warrant ore infor er in you	/services_warran ce upgrade op ty maintenanc mation find th r country at bm.com/pc/supp cR-69107	otions (in eligi e services e Lenovo sup	ble locat port pho	ions) ⁷

ThinkStation[®] S20 (4157) - July 2011 - withdrawn

Type- model Proces	ssor(s)GHz	Memory DIMMs	Disk(s)	Pre-con RAID	optical	Media reader	Chassis intrusion switch	Graphics adapter(s)	1394 adptr	Global	Win7 preload (Ann date mm/dd/yy		
4157-2CG 1xW	3565 3.20	3x2GB 1333MHz UDIMM	1x450GB SAS	No	DVD±RW	Media	Switch	1xQuadro 400	0 No	Global	Pro 64	07/19/1		
	• • • :	Faster, more efficient archited High performance workstation Environmentally friendly, cool 3-year limited warranty ⁷ Microsoft Office 2010 Produc	n with premium , and quiet with	graphics rock sol	s support i	for spec		rofessionals						
Processor(s) Implementation Memory Additional memory disclaimers Graphics Media reader	4.8GT/s (Intel 64, F Virtualizatt 1066MHz One LGA ² 48GB ma: PC3-8500 3-channel • Actual n depende memory NVIDIA ® (two Displa	on [®] Processor W3565 with q giga-transfers/second) QPI (C lyper-Threading Technology, ion Technology, Turbo Boost DDR3 memory controller, an 1366 socket x, UDIMM, ECC, 1066MHz DDR3 or PC3-100 capable, six 240-pin DIMM s nemory operating speed is th ent on processor memory cor speed Quadro [®] 4000, PCIe x16 ada ayPort [™] , one dual-link DVI-I, d reader, internal USB 2.0		Tower optical optical optical media disk disk <										
Optical Hard drive(s) SATA controller SAS controller	Super Mu 450GB, S Serial ATA three SAT	Iti-Burner DL DVD±RW SATA AS 3.0Gb/s, 15000 rpm, 3.5" a, SATA 3.0Gb/s, integrated ir A connectors for disks, two S el(s): Marvell [®] 88SE6440, PC 4 SATA/SAS ⁴ connector	n ICH10R, ATA connectors Cle x4 adapter,		Bay 1: 5.25", 1.6" high, external, std optical Bay 2: 5.25", 1.6" high, external, open Bay 3: 3.5", 1" high, external, for media reader Bay 4: 3.5", 1" high, internal, for disk Bay 5: 3.5", 1" high, internal, for disk Bay 6: 3.5", 1" high, internal, for disk									
Chipset Front ports Rear ports IEEE 1394 adptr Audio Speaker Ethernet Security chip	(ICH10R) Winbond [®] Two USB Eight USE audio port out), Optic None High Defir Internal sp One gigat Broadcorr	Express Chipset, Intel I/O C for RAID 0, 1, 5 support, W83627DHG-P Super I/O 2.0, microphone (3.5mm), he 8 2.0, eSATA, serial (9-pin), e is (line-in, mic-in, front-out, re cal SPDIF digital out, Optical hition (HD) Audio, Analog Dev beaker for business audio bit ethernet on planar, Broado 1 Trusted Platform Module, TO	controller Hub 1 eadphone (3.5m thernet (RJ-45), ear-out, center/s SPDIF digital in vices AD1988A com [®] BCM5755 CG 1.2-compliar	log	 Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe x1 Slot 5: half-length, full-height, 32-bit PCI 2.3 * Adapters >75W use auxiliary power connector(s) from PSU ** x16 mechanical 									
Keyboard Mouse Power supply ThinkVantage [®] Preload OS Preloaded applications	Optical W 625 watts Climate S Supports Genuine W • Rescue • ThinkW • Norton • Micross • Roxio M • Corel®	Pro USB Keyboard (USB con- heel Mouse (USB connector) with 120mm bottom-mounter avers ® Computing Bronze , ThinkVantage technologies Windows® 7 Professional 64 e and Recovery® antage System Update antage Toolbox ® Internet Security (30 days of off® Office 2010 preloaded; pr Creator® Business Edition (D MyDVD® (DVD±RW model(s) WinDVD® (DVD or DVD±RW DVD MovieFactory® (Blu-ray	lified	 Security chip (see information on left) Side cover lock (ships with two identical keys) Padlock loop (in rear for opt padlock) Security slot (in rear for optional Kensington® Microsaver® cable) Power-on password Administrator password Boot sequence control 										
					ء د	 3-yea Cust (with 8 am next Leno see • On Po For n numl http:// 	ar parts a omer Rep limited o - 5 pm, N business vo servic enovo.com site servi site servi st warran nore infoi per in you	LIMITED W. nd labor placeable Unit i nsite service f fon - Fri covera day response eses available; //services_warran ice upgrade op ity maintenanc rmation find th ur country at ibm.com/pc/supp	(CRU) or sele age ex time) nty/us/e otions e serv e Lenc	parts of ected pa cluding en/lenovo (in eligil ices ovo sup	arts ³ , holidays bewarranty ble locat port pho	/.html ions) ⁷		

ThinkStation[®] S20 (4157) - December 2011 - withdrawn

Personal Systems Reference (PSREF)

Type- model Proce	essor(s)	GHz		Memory DIMMs		Disk(Pre-con RAID	f SATA optical	Media reader	Chassi intrusio switch	n Graphics	1394 adptr	Globa	Win7 I preload	Ann date (<i>mm/dd/yy)</i>					
4157-3DG 1xW 4157-5CG 1xW 4157-3CG 1xW	/3690	3.46	3x2GB	1333MHz	UDIMM	2x500GB 2x500GB 1x256GB	SAT	A No	DVD±RW DVD±RW DVD±RW	Media		1xQuadro 4000 1xQuadro 2000		No No No	Pro 64 Pro 64 Pro 64	12/06/11 12/06/11 12/13/11					
				nited warr Office 20		ıct Key Rea	ndy (O10PK	F)												
Processor(s)	Intel [®] Xeon [®] Processor W3565 with quad-core, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 8MB cache Intel Xeon Processor W3690 with six-core, 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache							ogy,	Tower • Raven black color; metal case • 6.9"W x 19.0"D x 18.8"H (with handle) • 175mm W x 483mm D x 478mm H • 38.5 lb (17.5kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • disk												
Implementation Memory Additional memory disclaimers	48GE PC3- 3-cha • Act dep	One LGA1366 socket 48GB max, UDIMM, ECC, PC3-8500 1066MHz DDR3 or PC3-10600 1333MHz DDR3, 3-channel capable, six 240-pin DIMM sockets • Actual memory operating speed is the lowest installed speed, dependent on processor memory controller speed and installed memory operation										• Toolless adapter retention • Illuminated front icons • Rack shelf support									
Graphics	Som	memory speed Some: NVIDIA® Quadro® 2000, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I, 62W Some: NVIDIA Quadro 4000, PCIe x16 adapter, 2GB, two DisplayPort, one dual-link DVI-I, one stereo, 142W Media card reader, internal USB 2.0 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Some: 500GB, SATA 3.0Gb/s, 7200 rpm, 3.5" Some: 256GB Solid State Drive (SSD), SATA 3.0Gb/s, 1.8" Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals SAS model(s): Marvell® 88SE6440, PCIe x4 adapter, 4 SATA/SAS ⁴ connectors, SATA 3.0Gb/s, SAS 3.0Gb/s								Bay 1: 5.25", 1.6" high, external, std optical Bay 2: 5.25", 1.6" high, external, open Bay 3: 3.5", 1" high, external, for media reader Bay 4: 3.5", 1" high, internal, for disk Bay 5: 3.5", 1" high, internal, for disk Bay 6: 3.5", 1" high, internal, for disk Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x4** Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 4: full-length, full-height, PCIe 2.0 x4* Slot 5: half-length, full-height, BCIe 2.0 x16 (75W* max) Slot 5: half-length, full-height, BCIe 2.0 x16 (75W* max)											
Media reader Optical Hard drive(s) SATA controller SAS controller	Supe Som Som Seria three																				
Chipset Front ports Rear ports	(ICH Winb Two Eight audio	Intel X58 Express Chipset, Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond [®] W83627DHG-P Super I/O Two USB 2.0, microphone (3.5mm), headphone (3.5mm) Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side- out), Optical SPDIF digital out, Optical SPDIF digital in									 * Adapters >75W use auxiliary power connector(s) from PSU ** x16 mechanical 										
IEEE 1394 adp Audio Speaker Ethernet Security chip Keyboard Mouse Power supply	tr None High Intern One Broa Prefe Optic 625 v Clim	 None High Definition (HD) Audio, Analog Devices AD1988A codec Internal speaker for business audio One gigabit ethernet on planar, Broadcom[®] BCM5755 Broadcom Trusted Platform Module, TCG 1.2-compliant Preferred Pro USB Keyboard (USB connector), 104-key, black Optical Wheel Mouse (USB connector), black 625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers[®] Computing Bronze, 80 PLUS[®] Bronze qualified 								SECURITY • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock) • Security slot (in rear for optional Kensington® Microsaver® cable) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse											
ThinkVantage [®] Preload OS Preloaded applications	Genu • Re • Th • Th	Supports ThinkVantage technologies Genuine Windows® 7 Professional 64 • Rescue and Recovery® • ThinkVantage System Update • ThinkVantage Toolbox								 USB port disablement (front or all) Chassis intrusion switch on selected model(s) GREENGUARD[®] certified RoHS-compliant EPEAT[™] Gold rating 											
	 Norton[®] Internet Security (30 days of virus definitions) Microsoft[®] Office 2010 preloaded; purchase product key to activate Roxio[®] Creator[®] Business Edition (DVD±RW model(s) only) Roxio MyDVD[®] (DVD±RW model(s) only) Corel[®] WinDVD[®] (DVD or DVD±RW model(s) only) Ulead[®] DVD MovieFactory[®] (Blu-ray model(s) only) 						y)														

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Warranty: For a copy of applicable product warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept ZPYA/B600. Lenovo makes no representation or warranty regarding third party products or services.

- ¹ Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.
- ² Hard drive: GB = billion bytes, TB = trillion bytes. Accessible capacity is less.
- ³ **Systems with limited onsite service** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges.
- ⁵ Included software may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply.
- ⁶ Multi-Burner Plus (part number 73P3305 or 73P3370) is a DVD±RW device that reads and writes to DVD-RAM, DVD-R, DVD-RW, DVD+R, and DVD+RW. It also reads and writes to CD-R and CD-RW media. 73P3370 also writes to DVD+R double layer media.

- ⁶ Multi-Burner Plus (part number 73P3305 or 73P3370) is a DVD±RW device that reads and writes to DVD-RAM, DVD-R, DVD-RW, DVD+R, and DVD+RW. It also reads and writes to CD-R and CD-RW media. 73P3370 also writes to DVD+R double layer media.
- ThinkPlus Services: These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.
- ⁸ Memory: For PCs without a separate graphics card, memory supports both system and video. Accessible system memory may be up to 384MB less than the amount stated, depending on video mode.
- International Warranty Service is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

- ¹⁰ Modem speeds: Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ¹¹ For combination drives, maximum speeds only are given in the following order: CD read, CD write, CD re-write, DVD read.
- ¹⁴ Response times may vary. May exclude some holidays. Telephone support may be subject to additional charges.
- ¹⁵ Update Connector is available at no charge to registered customers during the limited warranty period. Line charges may apply.
- ¹⁶ **Embedded Security Subsystem** works with optional VPN software.