



Annex B2 - Product environmental attributes Servers/Data Storage Products

The declaration may be published only when all rows and/or fields marked with * are filled-in (N/A for not applicable). Additional information regarding each item may be found under P15.

Brand *	Lenovo	Logo				
Company name *	Lenovo		_			
Contact information *	Lenovo Global Environmental Affairs		Lenovo			
e-mail address	Alvin L Carter		LCI IOVO,			
	alcarter@lenovo.com					
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Additional information	mation The latest version of this document can be found at:					
	http://www.lenovo.com/ecodeclaration					

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.					
Type of product *	SERVER				
Commercial name *	Lenovo ThinkSystem SR635				
Model number *	7Y98, 7Y99				
Issue date *	2020-01-31				
Intended market *	Global Europe Asia, Pacific & Japan Americas Other				
Additional information					

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:

P4.1 – P4.3 Consumable materials

P9.1 TEC and Print speed

P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products.

Model number *		7Y98, 7Y99	Logo	Long		
Issue date * 202		2020-1-31		Lenc	ρVC	тм
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	N/A
P1	Hazardo	ous substances and preparations				
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE	B1)	\boxtimes		
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.					
P1.3*						
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychl d (PCT) in preparations (see legal reference).	lorinated			
P1.5*		s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carb ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	oon atoms in the	e 🔀		
P1.6*	Parts wit	th direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	,5 μg/cm²/week	X		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail oww.lenovo.com/us/en/sustainability-resources	contact):	\boxtimes		
P2	Batterie	s				
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with t Information on proper disposal is provided in user manual. (See legal reference)	he disposal	\boxtimes		
P2.2*	Batteries reference	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadm e)	ium. (See lega	I 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P2.4*	Docume	ntation includes the number of cycles the (secondary) battery can withstand. (See le	egal reference)			
P2.5*	user", the	ternal batteries of a notebook computer cannot be "accessed and replaced by a nor e related text is present and legible on the external packaging (see legal reference)	nprofessional			
P3		nity verification & Eco design (ErP)				
P3.1*	The Dec	duct is CE-marked to show conformance with applicable legal requirements (see leg laration of Conformity can be requested at: https://www.lenovo.com/us/en/complian				
P3.2*		duct complies with the Eco design requirements for energy-related products, al reference).				

given in item P15 or added to this document,

Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and

The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s)

The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol

available at: https://www.lenovo.com/us/en/compliance/eco-declaration

Required information is;

used (see legal reference).

hexavalent chromium by weight of these together.

Comment: Legal reference has no maximum concentration values.

Information for recyclers/treatment facilities is available (see legal reference).

Product packaging

(see legal reference).

Treatment information

P5

P5.1*

P5.2*

P5.3*

P6

P6.1*

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	7Y98, 7Y99	Logo	Lanava
Issue date *	2020-1-31		Lei IOVO.

Product	t environmental attributes - Market requirements (See General NOTE GN below)			
	- Environmental conscious design	Require	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	N/A
P7	Design, Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable			
P7.2*	Plastic materials in covers/housing have no surface coating.	\boxtimes		
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	\boxtimes		
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\boxtimes		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\boxtimes		
P7.8*	Upgrading can be done using commonly available tools	\boxtimes		
P7.9	Spare parts are available after end of production for: years			
P7.10	Service is available after end of production for: years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
	Material type: Steel Material type: PC+ABS Material type:			
P7.12	Insulation materials of external electrical cables are PVC free.		\boxtimes	
P7.13	Insulation materials of internal electrical cables are PVC free.		\boxtimes	
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, ar polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.	ıd		
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low haloge as defined in IEC 61249-2-21. (See ⁵ NOTE B2)	n 🗌		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:			
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: chemical name: , CAS #:			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4:			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	n 🔲		
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:			
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; and Hazard statements:			
	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6): If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is or b) The weight of recycled material is			
	b) The weight of recycled material is g.			

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm.

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	7Y98, 7Y99	Logo	Lonovo
Issue date *	2020-1-31		Lei IOVO.

Product environmental attributes - Market requirements (continued)	Requi	remer	nt met
Item	Yes	No	N/A

	Material and sub	stance requirements	(continued)								
P7.21*			in the product (See NC	TE B7):			\square				
	If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or										
		of the biobased plastic n									
P7.22*		free from mercury, i.e.						\boxtimes			
P7.23*	If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg If product includes an integral display, the total mercury content in the integrated display: mg										
P8	Batteries										
P8.1*	Battery chemical composition:										
P9		otion (See NOTE B8)									
P9.1			s or energy consumptio	ns are reported:							
Energy mo	de *	Power level at	Power level at	Power level at	Reference/Standard	for ene	erav	\square			
		100 V AC	115 V AC	230 V AC	modes and test metho		. 37				
Peak (On-I	max)	W	W	W	Full load						
Categor	v										
EPS No-loa		W	W	W							
(External p	ower supply /										
	ugged in the wall										
	disconnected from										
the product	l.)	W	W	W	+						
_	ergy Consumption	V V	V V	VV							
ETEC *	gy	kWh/year	kWh/year	kWh/year				\boxtimes			
	ergy Consumption	•	•								
External Po	ower Supply Efficie	ncy Level (International	Efficiency Marking Prof	ocol) * :				\boxtimes			
Display res	solution * : m	negapixels						\boxtimes			
Default time	e to enter energy s	ave mode: minut	es					\boxtimes			
P9.2*	Information about	the energy save function	on is provided with the p	roduct.		\boxtimes					
P9.3	Energy efficiency	class (monitors only):						$\overline{\boxtimes}$			
P10	Emissions				1						
P10.1			ISO 9296 (See NOTE		t A waighted sound now	or lovel		(D)			
P10.1		Mode description * HDD idle		* 6.2	t A-weighted sound powe	er ievei,	LWA,c ((B)			
				* 6.2				\blacksquare			
Operation * HDD Operating				nition dockton idla)							
		(operator position desktop – idle)									
	Other mode	Declared A-weighted sound	d pressure level (dB) $L_{p \text{Am}}$	(operator pos	sition desktop – operating	<u>) </u>					
	Measured accord	_	ECMA-74								
		Other	(only if not covered by	ECMA-74)							
1	Electromagnetic emissions										
P10.4							Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s):				

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B9 A Guidance document on Acoustic Noise is available;

 $see \ \underline{http://www.ecma-international.org/publications/standards/Ecma-370.htm}$

		1133,1133	ana		•
Issue date *		2020-1-31	Lenc		TM
Product	environr	nental attributes - Market requirements (continued)	Require	ment	met
Item			Yes	No	N/A
P12	Ergono	nics for computing products			
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technologies.			\boxtimes
P12.2*	The phys	sical input device meets the requirements of ISO 9995 and ISO 9241-410.			\boxtimes
P13	Packagi	ng and documentation			
P13.1*	Product	packaging material type(s): Paper - Corrugated Double wall weight (kg): 3.48 packaging material type(s): Plastic - PE (polyethylene) weight (kg): 1.7 packaging material type(s): Paper - Corrugated single wall weight (kg): 0.37			
P13.2*	Product	plastic primary packaging is free from PVC.			
P13.3*		luct primary corrugated fiberboard packaging, specify the contained percentage of minimum poser recovered fiber content: $\%$	st-		
P13.4*		media for user and product documentation (tick box): ronic, ⊠Paper, ⊡Other			
P13.5	Ùser and	only complete this item if paper documentation used) I product documentation on paper media is chlorine-free: lease specify:			
	•	hlorine-free al chlorine-free			

Date:

Date:

Date:

NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied, regarding the information contained in this document. All information provided by supplier in this document is provided based on supplier's knowledge available at the time of completion, and supplier shall have no obligation to update such information. The information provided here is approximate and provided for informational purposes only. See a Lenovo

Logo

Product category:

Product category:

Product category:

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Model number *

P14

P15

P9

P9

P14.1

7Y98, 7Y99

Processed chlorine-free

Additional information (See NOTE B10)

Account Representative for more information.

The product meets the requirements of the following voluntary program(s):

Criteria version:

Criteria version:

Criteria version:

Energy consumption of computer products; description of the tested product configuration:

See Energy Star Qualified Enterprise Servers for the latest information: https://www.energystar.gov/products/data_center_equipment/enterprise_servers

Voluntary programs

ENERGY STAR®

Eco-label:

Eco-label:

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive)* * Specific exemptions apply for certain products and applications.	P1.1, P3.1
Regulation (EC) 1907/2006 (REACH Regulation), annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2006/66/EC (Battery and accumulators Directive), as amended.* * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2014/35/EU (Low Voltage Directive)	P3.1
Directive 2014/30/EU (EMC Directive)	P3.1
Directive 2014/53/EU (RE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power demand and average active efficiency of external power supplies	P3.1, P3.2, P9.1
COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers	P2.4, P2.5, P3.1, P3.2, P7.23, P9.1
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1
Implementing Regulation (EU) 2019/290 establishing the format for registration and reporting of producers of electrical and electronic equipment to the register.	
Commission Implementing Regulation 2017/699 establishing a common methodology for the calculation of the weight of electrical and electronic equipment (EEE) placed on the national market in each Member State and a common methodology for the calculation of the quantity of waste electrical and electronic equipment (WEEE) generated by weight in each Member State.	

Lenovo ErP Lot9 Information Sheet- Servers & Storage Products-

As required by COMMISSION REGULATION (EU) 2019/424 of 15 March 2019 laying down ecodesign requirements for servers and data storage products pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 617/2013. (ErP Lot9)

Products scope of this sheet: Servers & storage products

This document is only valid in connection with the IT Eco Declaration of the specific Product.

SERVERS

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Commercial name (3.1 (b))	Lenovo ThinkSystem SR635	Logo	
Contact Address (3.1 (b))	7001 Development Dr. Building 7, Morrisville, NC 27560, United		
	States		Lonovo
Model Number (3.1 (c))	7Y98, 7Y99		Lenovo
Issue Date	2020-01-31		
Additional information			

Product environmental attributes (EU) 2019/424 – Annex II points 3.1 and 3.3						
1.a	Is the product consider to be in scope of ErP Lot 9 in scope out of scope, product is out of scope as:					
1.b (3.1 (a))	Server type 🔲 Rack Server 🔲 High Performance Computing (HPC)					
(5.1 (a))	Tower Server Multi Node Server					
	Blade Server Data Storage product (Please go to "DATA STORAGE PRODUCTS" section					
1.c (3.1 (d))	Year of manufacture: 2019					
1.d	Product model part of a server product family?					
(3.1 (p))						
1.e	Information on the secure data deletion functionality					
(3.1 (n))	(a) instructions on how to use the functionality:					
	2 methods are provided to use the functionality.					
	Use a command line tool to do the secure data deletion on the remote target system via boot up a customized					
	Linux OS on it.					
	Eg: OneCli.exe serase –bmc USERID:PASSWORD@xx.xx.xx.xxsftp root:password@xx.xxx.xx.xx:/home –log 5 2) Use BoMC to create a full functions bootable media, start the media and choose secure erase from the text menu.					
	(b) techniques used:					
	OS tools under Linux -> Standard Linux Open Source tool					
	(c) supported secure data deletion standard (if any):					
	Secure Erase/block Erase/Crypto Erase, Sanitize					
	OR - Reference to other information:					
	Hdparm: https://en.wikipedia.org/wiki/Hdparm					
	Nvme-format: https://www.mankier.com/1/nvme-format					
	sg_sanitize: https://www.systutorials.com/docs/linux/man/8-sg_sanitize/					
	scrub: https://www.systutorials.com/docs/linux/man/1-scrub/					
	storcli: https://docs.broadcom.com/docs-and-downloads/raid-controllers/raid-controllers-common-iles/StorCLI_RefMan_revf.pdf					
1.f (3.1 (o))	Blade servers? No Yes					
, ,,	list of recommended combinations with compatible chassis:					
Recycling						
2.a (3.3 (a))	Indicative weight range at component level, of the following critical raw materials: (a) Cobalt in the batteries (b) Neodymium in the HDDs					
(* * (* //	loss than og					
	between 5 g and 25 g					
2.b	■ above 25 g ■ above 25 g ■ Instructions on the disassembly operations					
(3.3 (b))	(a) the type of operation;					
	(b) the type and number of fastening technique(s) to be unlocked;					
	(c) the tool(s) required.					
	OR - Reference to other information: https://thinksystem.lenovofiles.com/help/index.jsp					
2.c	Firmware					
	Reference to information on last available firmware:					
A .1.11(*)	https://datacentersupport.lenovo.com/cn/en/products/servers/thinksystem/sr635/downloads/driver-list/					
Additional information						

Server family specific information Family 1

Family no. / name		1 - 1 CPU populated family					
Model number(s) / Description		Standard or low-end performance configuration:					
(3.1 (c))		Processor(Minimum result of core count * frequency in family): AMD EPYC 7262, Storage: 14TB					
		HDD * 2, Memory: 8GB(lowest capacity in family) * 16, PSU: 550W * 2					
		High-end performance configuration:					
		Processor(Maximum result of core count * frequency in family): AMD EPYC 7742, Storage: 480GB					
		SSD * 2, Memory: 32GB * 16, PSU: 1100W * 2					
Additional information		You can refer to https://www.plugloadsolutions.com/80PlusPowerSuppliesDetail.aspx?id=49&type=1 along with https://psref.lenovo.com/Product/ThinkSystem/ThinkSystem SR635 for the PSU efficiency					
Additional information		details.					
Produc	t environmental attri		I points 3.1 and 3.3				
F1.a	Product environmental attributes (EU) 2019/424 – Annex II points 3.1 and 3.3 F1.a PSU efficiency at 10 % (if applicable), 20 %, 50 % and 100 % of rated output power						
(3.1 (e))							
	(expressed in % and rounded to the first decimal place). Single-output						
	Standard or low-end performance configuration(s):						
		93.51% 50% 94.62% 100% §	93.23% Average 93.79%				
			· ·				
	High-end performand						
		94.10% 50% 95.02% 100% 9					
F1.b		of the rated load level	standard or low-end performa				
(3.1 (f))	(rounded to three de	1 /	configuration: 1.000	configuration: 1.000			
F1.c (3.1 (g))	PSU rated power out		standard or low-end performan				
(3.1 (g))	(in Watts rounded to	the hearest integer)	configuration: 550	configuration: 1100			
	internal note:	over product family, all BSUs offered in a conver					
		ver product family, all PSUs offered in a server with the information specified in (e) and (f)					
F1.d	idle state power		standard or low-end performan	• .			
(3.1 (h))		ed to the first decimal place)	configuration: 90.6	configuration: 118.6			
F1.e (3.1 (i))	List of all component	ts for additional idle power allowa	ances				
(3.1 (1))		standard or	low-end performance	high-end performance			
		configuration		configuration:			
	CPU Performance		et (10 × PerfCPU W)	X 1 Socket			
			et (7 × PerfCPU W)	2 Socket			
ıts	Additional PSU	Yes(Yes / No)	,	Yes(Yes / No) #: 1			
idle power allowances adjustments during testing	HDD	Yes (Yes / No)		No(Yes / No) #: 0			
nstr	SDD	No(Yes / No)	,	Yes(Yes / No) #: 2			
adji Ig	Additional memory	Yes(Yes / No		Yes (Yes / No) #: 508GB			
ses	Additional buffered DDF			No(Yes / No) #: 0			
anc g te	Additional I/O devices	none		none			
viri o			No Allowance	< 1 Gb/s: No Allowance			
r al			2,0 W/Active Port	= 1 Gb/s: 2,0 W/Active Port			
)we							
<u>a</u>			and < 10 Gb/s: 4,0 W/Active Port	> 1 Gb/s and < 10 Gb/s: 4,0 W/Active Port			
₽		≥ 10 Gb/s	and < 25Gb/s: 15,0 W/Active Port	≥ 10 Gb/s and < 25Gb/s: 15,0 W/Active Port			
		≥ 25 Gb/s	and < 50Gb/s: 20,0 W/Active Port	≥ 25 Gb/s and < 50Gb/s: 20,0 W/Active Port			
		≥ 50 Gb/s	26,0 W/Active Port	≥ 50 Gb/s 26,0 W/Active Port			
F1.f maximum power standard or low-end performance high-end performance							
(3.1 (j))		ed to the first decimal place)	configuration: 134	configuration: 364.6			
F1.g	operating condition class		standard or low-end performa				
(3.1 (k))	(as defined in Table	6 or ErP lot 9)	configuration:	configuration:			
			A1	□A1 ⊠A2 □A3 □A4			
Exception comments Exception comme							
E1 h	idle state newer at th	no higher houndary temperature	standard or low and norferman	nee high and parformance			
				nce high-end performance configuration: 118.6			
F1.i		ency and the performance in	standard or low-end performal	ŭ			
(3.1 (m))	active state of the se		configuration: 20.8	configuration: 53.3			