



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 ThinkSystem	Logo		
Company name *	Lenovo			
Contact information *	Lenovo DCG Storage Development			
e-mail address	Rick Lin			
	Lenovo Taiwan Branch	Lenovo		
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	Nangang Dist., Taipei City, Zipcode: 11502			
	Rlin12@lenovo.com			
Internet site *	https://www.lenovo.com/us/en/about/sustainability			
Additional information	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 *	Type of product * Data Storage					
Commercial name *	DS6200, DS4200, DS2200, DS LFF/SFF EXP					
Model number *	4619, 4617, 4599, 4588					
Issue date *	01/15/2020					
Intended market * Solobal Solobal Solobal Asia, Pacific & Japan Solobal Soloba						
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 * 4619, 4617, 4599, 4588		4619, 4617, 4599, 4588	ogo	Long				
Issue date * 01/15/2020			Lenc		D _{TM}			
Product	environ	mental attributes - Legal requirements		Requirement met				
Item				Yes	No	N/A		
P1		us substances and preparations						
P1.1*		do comply with current European RoHS Directive. (See legal reference and NOTE B1	1)	\boxtimes				
P1.2*		do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.						
P1.3*	hydrobro trichloro	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), emofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachlori ethane, methyl bromide (see legal reference). Comment: Legal reference has no maxi ation values.						
P1.4*		do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlori (PCT) in preparations (see legal reference).	nated					
P1.5*		do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	atoms in the	e 🔀				
P1.6*	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0,5 pal reference). It: Max limit in legal reference when tested according to EN1811:2011-5.	μg/cm²/week	(
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail con ww.lenovo.com/us/en/sustainability-resources	itact):					
P2	Batterie	S						
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with the Information on proper disposal is provided in user manual. (See legal reference)	disposal					
P2.2*	Batteries referenc	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmiun	n. (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 lega	al reference)			\boxtimes		
P2.5*	When in	ternal batteries of a notebook computer cannot be "accessed and replaced by a nonpre	ofessional			\times		

user", the related text is present and legible on the external packaging (see legal reference)

The product complies with the Eco design requirements for energy-related products,

The product is CE-marked to show conformance with applicable legal requirements (see legal reference). The Declaration of Conformity can be requested at: https://www.lenovo.com/us/en/compliance/eu-doc

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

Conformity verification & Eco design (ErP)

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).

(see legal reference). Required information is;

Product packaging

used (see legal reference)

(see legal reference).

Treatment information

P3

P3.1*

P3.2*

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 *	4619, 4617, 4599, 4588	Logo	Lonovo
Issue date *	01/15/2020		LEI IOVO"

Product	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		ᄴ	- -
P7.2*	Plastic materials in covers/housing have no surface coating.		 	- -
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.		Щ	Щ.
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.		Щ.	
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		Щ.	_ <u>_</u>
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		<u>Ш</u>	
D7 7*	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		Щ.	Щ.
P7.8*	Upgrading can be done using commonly available tools	\boxtimes		
P7.9	Spare parts are available after end of production for: 5 years			_ <u>_</u>
P7.10	Service is available after end of production for: 5 years			
D7 44*	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: Metal (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.	-H		-
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1%	<u> </u>	$\overline{\Box}$	-
	weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, an		ш	ш
	polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing	g		
P7.15	more than 25% post-consumer recycled content.			
F1.13	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 🔲		Ш
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:		$\overline{}$	
1 7.10	Marking:		ш	
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:			\bowtie
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations i	n		
	concentrations above 0,1%:			\boxtimes
	1. Chemical name: , CAS #: (See NOTE B4) 2. Chemical name: , CAS #: "			
	3. Chemical name: , CAS #: "			
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:			\square
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):		\boxtimes	
	If VES; at least one of the two alternatives below shall be answered:			
	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 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 *	4619, 4617, 4599, 4588	Logo	Lonovo
Issue date *	01/15/2020		LEI IOVO.

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

	Material and su	bstance requirements	(continued)						
P7.21*		material content is used		OTE B7):			1 🛛		
	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								
	b) The weight of the biobased plastic material is g.								
P7.22*		e free from mercury, i.e.							
D7.00*	If mercury is used specify: Number of lamps: and maximum mercury content per lamp: mg								
P7.23*	If product includes an integral display, the total mercury content in the integrated display: mg								
P8	Batteries Battery chemical composition:								
P8.1*									
P9		ption (See NOTE B8)	:						
P9.1 Energy mo		he following power level Power level at	s or energy consumption Power level at	Power level at	Deference/Standard	for opera			
Energy mo	ue	100 V AC	115 V AC	230 V AC	Reference/Standard modes and test meth		у 🔀		
Peak (On-	max)	W	496 W	485 W	Full load	<u>ou</u>			
· ·									
Categor									
EPS No-loa		W	W	W					
	ower supply /								
	gged in the wall lisconnected from								
the produc									
PTEC *	/	W	W	W			\boxtimes		
Typical En	ergy Consumption								
ETEC *		kWh/year	kWh/year	kWh/year			\boxtimes		
	ergy Consumption								
		ency Level (International	Efficiency Marking Pro	tocol) * :			\boxtimes		
Display res		megapixels					\boxtimes		
Default tim	e to enter energy:	save mode: minu	tes				\boxtimes		
P9.2*	Information abou	t the energy save functi	on is provided with the p	product.	•				
P9.3	Energy efficiency	class (monitors only):					X		
P10	Emissions	<u> </u>							
	Noise emission	- Declared according to	ISO 9296 (See NOTE	B9)					
P10.1	Mode	Mode description			it A-weighted sound por	wer level, Lи	/A,c (B)		
Idle * Idle			* 8.0						
	Operation	* Typical loading		* 8.0					
Other mode Declared A-weighted sound pressure level (dB) L_{pAm} 68 (operator position desktop – idle)									
	Other mode Declared A-weighted sound pressure level (dB) L_{pAm} 68 (operator position desktop – operating)								
	Measured accord	ding to: 🗵 ISO 7779 🗌	ECMA-74	1					
		Other	(only if not covered by	ECMA-74)					
_	Electromagneti								
P10.4		y meets the requiremen	t for low frequency elec	tromagnetic fields of the	ne following voluntary				
	program(s):								

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

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;

Model number *	4619, 4617, 4599, 4588	Logo	Lenovo
Issue date *	01/15/2020		Lei IOVO.
Product environr	nental attributes - Market requirements (continued)		Requirement met

Product 6	environmental attributes - Market requirements (continued)	Require	ment	met		
Item		Yes	No	N/A		
P12	Ergonomics for computing products					
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.			X		
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.			\boxtimes		
P13	Packaging and documentation					
P13.1*	Product packaging material type(s): Corrugate Product packaging material type(s): LDPE Product packaging material type(s): EPE weight (kg): 3.72 weight (kg): 0.05 weight (kg): 1.2					
P13.2*	Product plastic primary packaging is free from PVC.					
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 22%					
P13.4*	Specify media for user and product documentation (tick box): Electronic, Paper, Other					
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:					
	Totally chlorine-free Elemental chlorine-free					
	Processed chlorine-free					
P14	Voluntary programs					
P14.1	The product meets the requirements of the following voluntary program(s):					
	ENERGY STAR® Criteria version: Date: Product category: Eco-label: Date: Product category:					
P15	Additional information (See NOTE B10)					
P9	Energy consumption of computer products; description of the tested product configuration:					
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or it the information contained in this document. All information provided by supplier in this document is pupplier's knowledge available at the time of completion, and supplier shall have no obligation to updatinformation. The information provided here is approximate and provided for informational purposes or Account Representative for more information.	rovided inte	based	on		
P9	See Energy Star Qualified Enterprise Servers for the latest information: https://www.energystar.gov/products/data_center_equipment/enterprise_servers					

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.

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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Genera	Lini	torm	ation

Commercial name (3.1 (b))	DS6200, DS4200, DS2200, DS LFF/SFF EXP	Logo	
Contact Address (3.1 (b))			_
Model Number (3.1 (c))	4619, 4617, 4599, 4588		Lenovo
Issue Date	01/15/2020		TH TH
Additional information			

Product 6	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 un scope out of scope, product is out of scope as:			
1.b	Server type Rack Server High Performance Computing (HPC)			
(3.1 (a))	Tower Server Multi Node Server			
	Blade Server Data Storage product (Please go to "DATA STORAGE PRODUCTS" section			
1.c	Year of manufacture:			
(3.1 (d))				
1.d (3.1 (p))	Product model part of a server product family?			
(3.1 (μ))	List of all model configurations that are represented by the model:			
1.e	Information on the secure data deletion functionality			
(3.1 (n))	(a) instructions on how to use the functionality:			
	(b) techniques used:			
	(c) supported secure data deletion standard (if any):			
4.6	OR - Reference to other information:			
1.f (3.1 (o))	Blade servers? No Yes			
	list of recommended combinations with compatible chassis:			
Recycling				
2.a	Indicative weight range at component level, of the (a) Cobalt in the batteries (b) Neodymium in the HDDs			
(3.3 (a))	following critical raw materials:			
	□ between 5 g and 25 g □ between 5 g and 25 g			
	above 25 g above 25 g			
2.b	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:			
2.c	Firmware			
Reference to information on last available firmware:				
Additional information				

DATA STORAGE PRODUCTS

271171 01 01 01 01 01 01 01 01 01 01 01 01 01			
Commercial name (3.2 (b))	DS6200, DS4200, DS2200, DS LFF/SFF EXP	Logo	
Contact Address (3.2 (b))	Lenovo DCG Storage Development Rick Lin Lenovo Taiwan Branch 8F., No. 66, Sanchong Rd., Nangang Dist., Taipei City, Zipcode: 11502 Rlin12@lenovo.com	Lenovo	
Model Number (3.2 (c))	4619, 4617, 4599, 4588		
Issue Date	01/15/2020		
Additional information			

Product e	Product environmental attributes (EU) 2019/424 – Annex II points 3.2 and 3.3				
A.1	Is the product consider to be in scope of ErP Lot 9 🔀 in scope 🗌 out of scope Product is out of scope as:				
A.2	Data Storage type				
(3.2 (a))	Large Data Storage Product Other:				
A.3 (3.2 (d))	Year of manufacture: 2016				
A.4	PSU efficiency at 10 % (if applicable), 20 %, 50 % and 100 % of rated output power				
(3.2 (e))	(expressed in % and rounded to the first decimal place): : Multi-output Single-output 10% 20% 88.7 50% 92.1 100% 90.6 Average				
A.5 (3.2 (f))	Power factor at 50 % of the rated load level (rounded to three decimal places)				
A.6 (3.2 (g))	Operating condition class (as defined in Table 6 or ErP lot 9)				
	Exception comments				
	This product has been tested in order to verify that it will function within the boundaries (such as temperature and humidity) of the declared operating condition class.				
A.6	Information on the secure data deletion tool(s)				
(3.2 (h))	(a) instructions on how to use the functionality:				
	Follow Storage Manager Guide chapter 3 of repurposing the system and secure deletion steps: https://datacentersupport.lenovo.com/tw/zh/products/storage/lenovo-storage/thinksystem-				
	ds6200/4619/documentation/userguide				
	(b) techniques used: Using INIT (Initialization process), Linear mode with RAID 1 to Zero out the drives				
	(c) supported secure data deletion standard (if any):				
	OR - Reference to other information:				
RECYCL	LING DATA				
B.1	Indicative weight range at component (a) Cobalt in the batteries (b) Neodymium in the HDDs				
(3.3 (a))	level, of the following critical raw				
	materials: Sess than 5 g less than 5 g				
	between 5 g and 25 g between 5 g and 25 g				
B.2	□ above 25				
(3.3 (b))	(a) the type of operation; Refer to the installation guide, use reverse process.				
	https://datacentersupport.lenovo.com/us/en/products/storage/lenovo-storage/thinksystem-				
	ds6200/4619/documentation/userguide (b) the type and number of fastening technique(s) to be unlocked; Refer to the installation guide.				
	(c) the tool(s) required. <i>Phillips screwdriver, Flat blade screw driver, Hex driver, Torx driver, and Allen wrenches of</i>				
	appropriate size				
	OR - Reference to other information:				
B.3	Firmware				
	Defended to the control of the contr				
	Reference to information on last available firmware: https://datacentersupport.lenovo.com/uu/en/products/storage/lenovo-storage/d1212/4619, 4617, 4599, 4588/downloads/driver-				
	list/				
	After EOL'ed, firmware would be available at: https://download.lenovo.com/eol/index.html				
	The state of the s				
Additional information					
Additional	Information				
Additional	Information				
Additional	I information				