

# 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			
	8F., No. 66, Sanchong Rd.,			
	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 *	Data Storage			
Commercial name *	Lenovo Storage D1212, D1224			
Model number *	4587			
Issue date *	11/18/2022			
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 nu	mber *	4587	Logo	Long		
Issue dat	e *	11/18/2022		Leng		<b>)</b> <sub>m</sub>
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	N/A
P1		ous substances and preparations				
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE	E B1)	$\boxtimes$		
P1.2*	Products	s do not contain Asbestos (see legal reference).				
	Commer	nt: Legal reference has no maximum concentration value.				
P1.3*		s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),		$\boxtimes$		
		omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach				
		ethane, methyl bromide (see legal reference). Comment: Legal reference has no m	naximum			
		ration values.	1			
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych /l (PCT) in preparations (see legal reference).	liorinated	$\square$		
P1.5*	Products	s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 car	bon atoms in th	e 🔀		
	chain co	ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).				
P1.6*		th direct and prolonged skin contact do not release nickel in concentrations above (	),5 μg/cm²/weel	K 🖂		
		al reference).				
		nt: Max limit in legal reference when tested according to EN1811:2011-5.	+ + ) -			
P1.7*		Article 33 information about substances in articles is available at (add URL or mail www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	contact):	$\boxtimes$		
50						
P2.1*	Batterie	<b>s</b> oduct contains a battery or an accumulator, the battery/accumulator is labeled with t	the dispess			
P2.1		Information on proper disposal is provided in user manual. (See legal reference)	une disposai			$\bowtie$
P2.2*	Batteries referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadn	nium. (See lega	I 🗌		$\square$
P2.3*		s and accumulators are readily removable. (See legal reference)				
P2.4*	Docume	ntation includes the number of cycles the (secondary) battery can withstand. (See I	egal reference)			$\boxtimes$
P2.5*	When in	ternal batteries of a notebook computer cannot be "accessed and replaced by a no	nprofessional			$\overline{\mathbf{X}}$
	user", th	e related text is present and legible on the external packaging (see legal reference)				
P3		nity verification & Eco design (ErP)				
P3.1*		duct is CE-marked to show conformance with applicable legal requirements (see leg	gal reference).	$\square$		
		laration of Conformity can be requested at:				
		vww.lenovo.com/us/en/compliance/eu-doc for EU vww.lenovo.com/us/en/compliance/uk-doc for UK				
P3.2*		duct complies with the Eco design requirements for energy-related products,				
F J.2		al reference).				
	· •	d information is; given in item P15 or added to this document,				
	Required	a wailable at: <i>https://www.lenovo.com/us/en/complian</i>	co/oco-			
	declarat		ce/eco-			
P5		packaging				
P5.1*		ng and packaging components do not contain more than 0,01% lead, mercur	y, cadmium ar	id 🔀		
		ent chromium by weight of these together.	,, u			
P5.2*		kaging materials are marked with abbreviations and numbers indicating the nature	of the material(	s) 🔀		
	used (se	e legal reference).			<u> </u>	
P5.3*		duct packaging material is free from ozone depleting substances as specified in the N	Montreal Protoc	ol 🔀		
		al reference).				
De		nt: Legal reference has no maximum concentration values.				
P6.1*		nt information on for recyclers/treatment facilities is available (see legal reference).				
1-0.1	mormali	$\mathbf{O}$		$\square$		

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 nu	ımber *	4587	Logo	Lon		
Issue date * 11/18/2022			Len	ovo	794	
Product		mental attributes - Market requirements (See General NOTE GN	below)			
		onmental conscious design		Require		
Item		tory to fill in. Additional information regarding each item may be found under P14. <b>Disassembly, recycling</b>		Yes	No	N/A
<b>P7</b> P7.1*		at have to be treated separately are easily separable		$\square$		
P7.2*		naterials in covers/housing have no surface coating.			<u>+</u>	┝┝
					<u> </u>	ᆜ
P7.3*		arts > 100 g consist of one material or of easily separable materials.			<u> </u>	<u> </u>
P7.4*		arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			<u>Ц</u>	Ц_
P7.5		arts are free from metal inlays or have inlays that can be removed with commonly	available tools.			
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).		$\square$		
		lifetime				
P7.7*		ng can be done e.g. with processor, memory, cards or drives				
P7.8*		ng can be done using commonly available tools		$\square$		
P7.9		arts are available after end of production for: <b>5</b> years				
P7.10	Service i	s available after end of production for: 5 years				
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):	-1.4			
P7.12		type: Metal (Steel) Material type: PC ABS Materia n materials of external electrical cables are PVC free.	al type:			
P7.12				<u> </u>		╧
		n materials of internal electrical cables are PVC free.				
P7.14	weight (	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame	e retardants, and			
		chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine i an 25% post-consumer recycled content.	n parts containing			
P7.15		sircuit boards, PCBs (without components) are low halogen: all $\Box$ PCBs > 25 g $\Box$ and in IEC 61249-2-21. (See <sup>5</sup> NOTE B2)	are low halogen		$\square$	
P7.16		tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:				$\boxtimes$
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without c	omponents):			
		(additive), TBBPA (reactive) (See NOTE B3), Other: chemical name:	, CAS #:	$\bowtie$		
		nemical specifications of flame retardants in printed circuit boards (without compon		_	_	_
		g ISO 1043-4:	cm3) = 20 g	$\bowtie$		
P7.18		ame retarded plastic parts > 25 g contain the following flame retardant substance	s/preparations in			
17.10		ations above 0,1%:				$\boxtimes$
		ical name: , CAS #: (See NOTE B4)				
		ical name: , CAS #: "				
		ical name: , CAS #: "				
	<u>Alt. 2: </u> Cl	nemical specifications of flame retardants in plastic parts > 25 g according ISO 104	3-4:			$\boxtimes$
P7.19	In plastic	c parts > 25 g, flame retardant substances/preparations above 0,1% are used which	h have been			$\boxtimes$
	0	the following Risk phrases; and Hazard statements:				
			See note B5)			
P7.20*	Postcons	sumer recycled plastic material content is used in the product (See Note B6):			$\bowtie$	
	If YES; a	at least one of the two alternatives below shall be answered;				
		total plastic parts' weight > 25 g, the postconsumer recycled plastic material conter	nt (calculated as			
	•	ercentage of total plastic by weight) is %.				
	or b) The	e 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 <u>http://www.ecma-international.org/publications/standards/Ecma-370.htm</u>.

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 *	4587	Logo	Lenovo	
Issue date *	11/18/2022			
Product environmental attributes - Market requirements (continued) Requirement me				

Item

Requirement metYesNoN/A

	Material and s	ubstance requirements	(continued)					
P7.21*		c material content is use		OTE B7):				
	If YES: at least	f 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 weigh	t of the highered plactic	motorial in a					
P7.22*	b) The weight of the biobased plastic material is g. Light sources are free from mercury, i.e. less than 0,1 mg/lamp.							
F 7.22		ed specify: Number of la		um mercury conten	t per lamp: mg			
P7.23*	If product includes an integral display, the total mercury content in the integrated display: mg							
P8	Batteries							
P8.1*	Battery chemica	al composition:			$\boxtimes$			
P9		mption (See NOTE B8)						
P9.1		the following power leve						
Energy mo	ode *	Power level at	Power level at	Power level at	······································			
Deek (On		100 V AC W	115 V AC	230 V AC	Full load			
Peak (On-	max)	VV	<b>496</b> W	<b>485</b> W	Full load			
Categor	<u>v</u>							
EPS No-lo		W	W	W				
	ower supply /							
	ugged in the wall disconnected fron							
the produc								
PTEC *	,	W	W	w				
Typical En	ergy Consumptio							
ETEC *		kWh/year	kWh/year	kWh/year				
	ergy Consumptio			( ) * ·				
		ciency Level (Internationa	I Efficiency Marking Pro	otocol) " :				
1 2	solution * :	megapixels						
	ne to enter energy							
P9.2*		out the energy save funct	on is provided with the	product.				
P9.3	Energy efficience	cy class (monitors only):						
P10	Emissions							
P10.1	Noise emissio Mode	n – Declared according to	0 ISO 9296 (See NOTE		limit A weighted cound newer level / (P)			
P10.1	Idle	Mode description * Idle		* 6.5	limit A-weighted sound power level, L <sub>WA,c</sub> (B)			
	Operation	* Typical loading		* 6.5				
	Other mode	•••	d pressure level (dB) $L_{pAm}$		sition deskton – idle)			
			1					
	Other mode Declared A-weighted sound pressure level (dB) $L_{pAm}$ 54 (operator position desktop – operating)							
	Measured according to: X ISO 7779 ECMA-74							
		Other	(only if not covered by	ECMA-74)				
	Electromagne	tic emissions		,				
P10.4		ay meets the requiremer	t for low frequency elec	tromagnetic 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 <u>http://www.ecma-international.org/publications/standards/Ecma-370.htm</u>

NOTE B9 A Guidance document on Acoustic Noise is available; see <u>http://www.ecma-international.org/publications/standards/Ecma-370.htm</u>

Model nu	mber *	4587				Logo			
ssue dat	e *	11/18/2022					Leno	VO	
Product	environr	nental attribut	es - Market requirem	nents (continued)			Require	ment	met
tem							Yes	No	N/A
P12	Ergono	mics for comput	ing products						
P12.1*	The disp	lay meets the er	gonomic requirements of	f ISO 9241-307 for visua	l display technolo	gies.			$\boxtimes$
P12.2*	The phy	sical input device	meets the requirements	s of ISO 9995 and ISO 9	241-410.				$\boxtimes$
P13	Packagi	ing and docume	ntation						
P13.1*	Product		ial type(s): <b>Corrugate</b> ial type(s): <b>LDPE</b> ial type(s): <b>EPE</b>	weight (kg): <b>3.72</b> weight (kg): <b>0.05</b> weight (kg): <b>1.2</b>					
P13.2*	Product	plastic primary pa	ackaging is free from PV	′C.			$\boxtimes$		
P13.3*		duct primary corr er recovered fiber		aging, specify the conta	ained percentage	of minimum (	post-		
P13.4*		media for user an ronic, 🔀 Paper,	d product documentatio Other	n (tick box):					
P13.5	Ùser and		s item if paper documen entation on paper media						
		hlorine-free al chlorine-free							
		ed chlorine-free					님		
P14									
P14.1		<b>ry programs</b> duct meets the re	quirements of the follow	ing voluntary program(s)	:				
	Eco-labe Eco-labe	el:	Criteria version: Criteria version: Criteria version:	Date: Date: Date:	Product	category: category: category:			
P15		nal information (							
P9	NOTE: S the info supplied informa Accoun	Supplier makes I rmation contain r's knowledge av tion. The inform t Representative	no representations, gu ed in this document. A vailable at the time of c ation provided here is e for more information.		or warranties wh I by supplier in t er shall have no ided for informat	ether express his document obligation to (	is provided l update such	based	lon
P9				for the latest information nter equipment/enterp					

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

General information					
Commercial name (3.1 (b))	Lenovo Storage D1212, D1224	Logo			
Contact Address (3.1 (b))					
Model Number (3.1 (c) )	4587		Lenovo		
Issue Date	11/18/2022				
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)         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:
1.d (3.1 (p))	Product model part of a server product family?
1.e (3.1 (n))	<ul> <li>Information on the secure data deletion functionality         <ul> <li>(a) instructions on how to use the functionality:</li> <li>(b) techniques used:</li> <li>(c) supported secure data deletion standard (if any):</li> </ul> </li> <li>OR - Reference to other information:</li> </ul>
1.f (3.1 (o))	Blade servers? No Yes list of recommended combinations with compatible chassis:
Recyclin	g Data
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         Image: Second
2.b (3.3 (b))	Instructions on the disassembly operations         (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:
Additiona	I information

## DATA STORAGE PRODUCTS

Commercial name (3.2 (b) )	Lenovo Storage D1212, D1224	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) )	4587	
Issue Date	11/18/2022	
Additional information		

Product e	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 🛛 Online Data Storage Product 🗌 Small Data Storage Product
(3.2 (a) )	Large Data Storage Product 🗌 Other:
A.3 (3.2 (d))	Year of manufacture: 2022
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% 92.6 50% 94.5 100% 93.4 Average
A.5 (3.2 (f) )	Power factor at 50 % of the rated load level (rounded to three decimal places) 0.980
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 (3.2 (h))	Information on the secure data deletion tool(s)
(0.2 (1))	<ul> <li>(a) instructions on how to use the functionality:</li> <li>2 methods are provided to use the functionality.</li> </ul>
	1) 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
	<ul> <li>2) Use BoMC to create a full functions bootable media, start the media and choose secure erase from the text menu.</li> </ul>
	https://datacentersupport.lenovo.com/us/en/solutions/Invo-center
	(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: https://datacentersupport.lenovo.com/us/en/solutions/Invo-center
RECYCL	ING 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:
	between 5 g and 25 g between 5 g and 25 g above 25
B.2	Instructions on the disassembly operations
(3.3 (b) )	(a) the type of operation; <b>Refer to the installation guide, use reverse process.</b>
	https://datacentersupport.lenovo.com/uu/en/products/storage/lenovo-storage/d1212/4587/documentation
	<ul> <li>(b) the type and number of fastening technique(s) to be unlocked; <i>Refer to the installation guide.</i></li> <li>(c) the tool(s) required. <i>Phillips screwdriver, Flat blade screw driver, Hex driver, Torx driver, and Allen wrenches of</i></li> </ul>
	appropriate size
	OR - Reference to other information:
B.3	Firmware
	Reference to information on last available firmware:
	https://datacentersupport.lenovo.com/uu/en/products/storage/lenovo-storage/d1212/4587/downloads/driver-list/
	After EOL'ed, firmware would be available at:
	https://download.lenovo.com/eol/index.html
Additional	information