



ECMA/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Notebooks and Tablets

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 * e-mail address	Lenovo Global Environmental Affairs Alvin L Carter alcarter@lenovo.com	Lenovo				
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	.html				
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 statemen	conforms to the statements given in this declaration.				
Type of product *	Notebook				
Commercial name *	Lenovo 500w Gen 3 Intel				
Model number *	82J3, 82J4				
Issue date *	2021/05/11				
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 *		82J3, 82J4	Logo	Long	21/0	
Issue date	e *	2021/05/11		Lend		тн
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1		ous substances and preparations				
P1.1*		s do comply with current European RoHS Directive. (See legal reference and NOTE	B1)	\boxtimes		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.		\boxtimes		
P1.3*		s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),		X	\Box	
	hydrobro trichloroe concentr	omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no m ration values.	naximum			
P1.4*	Products terpheny					
P1.5*	Products	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 th	ne 🔀		
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/wee	k 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	contact):			
P2	Batterie					
P2.1*		educt 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			
P2.2*	Batteries	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	nium. (See lega	al 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*	The prod The Dec	duct is CE-marked to show conformance with applicable legal requirements (see legal legal requirements) (see legal laration of Conformity can be requested at (add link or e-mail address): www.lenovo.com/us/en/compliance/eu-doc for EU and www.lenovo.com/us/en/compliance/uk-doc for UK	gal reference).			
P3.2*	The prod	duct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
	Required	d information is;				
P5		packaging				
P5.1*		ng and packaging components do not contain more than 0,01% lead, mercury	, cadmium a	nd 🔀		
	hexavale	ent chromium by weight of these together.				
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature e legal reference).				
P5.3*	(see lega	duct packaging material is free from ozone depleting substances as specified in the N al reference). nt: Legal reference has no maximum concentration values.	Montreal Protoc	ol 🔀		
P6		nt information				
P6.1*		on for recyclers/treatment facilities is available (see legal reference).		\boxtimes		

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 *	82J3, 82J4	Logo	Land		
Issue dat	te *	2021/05/11		Lenc		
Product	environ	mental attributes - Market requirements (See General NOTE GN	pelow)			
		onmental conscious design	,	Require	ment r	net
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7		Disassembly, recycling				
P7.1*		at have to be treated separately are easily separable			Ц_	<u>Ц</u>
P7.2*		naterials in covers/housing have no surface coating.				<u>Ц</u>
P7.3*	Plastic p					
P7.4*	Plastic p	\boxtimes				
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.					
P7.6*	Labels a					
	Product	lifetime				
P7.7*	Upgradir	ng can be done e.g. with processor, memory, cards or drives		\boxtimes		
P7.8*	Upgradir	ng can be done using commonly available tools		\boxtimes		
P7.9	Spare pa	arts are available after end of production for: 5 years				
P7.10	Service i	s available after end of production for: 5 years				
	Material	and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):				
	Material PC+ABS	type: Material type: Materia 5_ <u>15percent_Talc</u>	I type:			
P7.12	Insulatio	n materials of external electrical cables are PVC free.		\boxtimes		
P7.13	Insulatio	n materials of internal electrical cables are PVC free.			\boxtimes	
P7.14	weight (polyvinyl	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) br 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in an 25% post-consumer recycled content.	retardants, ar	nd		
P7.15		circuit boards, PCBs (without components) are low halogen: all ☐ PCBs > 25 g ⊠ ed in IEC 61249-2-21. (See 1NOTE B2)	are low haloge	en 🛚		
P7.16	Marking:					
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without co PA (additive), TBBPA (reactive) (See NOTE B3), Other: DOPO, CAS #: 2031 7-1				
	accordin	nemical specifications of flame retardants in printed circuit boards (without compone g ISO 1043-4:				
P7.18	concentr 1. Chem 2. Chem	ame retarded plastic parts > 25 g contain the following flame retardant substance: ations above 0,1%: ical name: , CAS #: (See NOTE B4) ical name: , CAS #: " ical name: , CAS #: "	s/preparations	in 🔲		
	Alt. 2: Cl	nemical specifications of flame retardants in plastic parts > 25 g according ISO 1043	3-4: <i>FR(40)</i>	\bowtie		
P7.19	In plastic	parts > 25 g, flame retardant substances/preparations above 0,1% are used which the following Risk phrases; and Hazard statements:				
	The soul	rce(s) for these classifications is/are found at (add URL(s)):	ee note B5)			
P7.20*	Postcons	sumer recycled plastic material content is used in the product (See Note B6):	,	\boxtimes		П

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.

Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as

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

If YES; at least one of the two alternatives below shall be answered;

a percentage of total plastic by weight) is 11.40%.

The weight of recycled material is 58.2 g.

or b)

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 *	82J3, 82J4	Logo	Lanova
Issue date *	2021/05/11		Leliovo

Product environmental attributes - Market requirements (continued)	Requir	remen	t met
Item	Yes	No	n.a.

	Material and sub	stance requirements	(continued)				
P7.21*			d in the product (See No	OTE B7):			
	If YES; at least or	ne of the two alternative ic parts' weight > 25 g,	es below shall be answe the biobased plastic m	ered;	ted as a percentage of		
	or b) The weight of	of the biobased plastic	material is g.				
P7.22*	Light sources are	free from mercury, i.e.	less than 0,1 mg/lamp.		. 🛛 🗀		
P8	Batteries	specify: Number of lar	mps: and maxim	um mercury content pe	r lamp: mg		
P8.1*		composition: Lithium I	on/Lithium Manganes	e Dioxide			
P9		otion (See NOTE B8)					
P9.1			ls or energy consumption	ons are reported:			
Energy mod		Power level at	Power level at	Power level at	Reference/Standard for energy		
D 1 (0		100 V AC	115 V AC	230 V AC	modes and test method *		
Peak (On-r	nax)	65 W	65 W	65 W	Full load		
Category	<u>/ 1</u>						
Short Idle Enabled	State - WOL	3.7 W	3.71 W	3.82 W	Use for ENERGY STAR V8 registration		
Long Idle S Enabled	State - WOL	2.27 W	2.32 W	2.35 W	Use for ENERGY STAR V8 registration		
Sleep (S3) - WOL Disabled		0.40 W	0.40 W	0.46 W	Use for ENERGY STAR V8 registration		
Off (S5) - V	VOL Disabled	0.40 W	0.40 W	0.43 W	Use for ErP		
EPS No-load (External power supply / charger plugged in the wall outlet but disconnected from the product.)		0.063 W	0.063 W	0.063 W			
PTEC *	ergy Consumption	1.57W	1.59W	1.65W			
TEC * Typical Ene	ergy Consumption	kWh/week	kWh/week	kWh/week			
ETEC * Annual Ene	ergy Consumption	13.78 kWh/year	13.85 kWh/year	14.43 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 + P_{sleep} \times 0.35 + P_{long_ldle} \times 0.10 + P_{short_ldle} \times 0.30)$		
	<u> </u>				d; Pidle: Idle State - WOL Enabled		
		,	I Efficiency Marking Pro	otocol) * : VI			
Display res	olution * : 1.049 m	egapixels			1366*768		
Default time	e to enter energy s	ave mode: 30 minutes					
P9.2*		0,	on is provided with the	product.			
P9.3	Energy efficiency	class (monitors only):				\boxtimes	
P10	Emissions		100,000,12	200			
D40.4			o ISO 9296 (See NOTE			D.)	
P10.1		Mode description * Idle mode		Statistical upper limit A-weighted sound power level, L _W * 1.7			
	Operation '	Operating (CPU)		* 1.7		Ħ	
			d pressure level (dB) $L_{p{ m Am}}$	16.1 (operator positi	ion desktop – idle)		
	Other mode	Declared A-weighted soun	d pressure level (dB) $L_{p{\sf Am}}$	16.5 (operator positi	16.5 (operator position desktop – operating)		
	Measured accord	ing to: 🔀 ISO 7779 🔀	ECMA-74	-			
		Other	(only if not covered by	ECMA-74)			

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 http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model nun	nber *	82J3, 82J4				Logo				
Issue date	*	2021/05/11					Lé	eno	VO	ы
Product 6	nvironn	nental attribu	tes - Market require	ements (cor	ntinued)		Re	quire	ment	met
Item				•	•			Yes	No	n.a.
	Electron	nagnetic emiss	sions							
P10.4	program	(s): MPR-II(3 pi	the requirement for lov in AC adapter only)	v frequency e	lectromagnetic field	s of the following vol	luntary			
P12			uting products							
P12.1*			rgonomic requirements					\boxtimes		
P12.2*	The phys	sical input devic	e meets the requirement	nts of ISO 999	95 and ISO 9241-41	0.		\boxtimes		
P13		ng and docum								
P13.1*	Product packaging material type(s): corrugated Product packaging material type(s): paper Product packaging material type(s): LDPE bag Product packaging material type(s): LDPE bag Product packaging material type(s): EPE cushion weight (kg): 0.050									
P13.2*	Product	plastic primary	packaging is free from F	PVC.				\boxtimes		
P13.3*			rrugated fiberboard pa er content: 80 %	ckaging, spe	cify the contained p	percentage of minin	num post-			
P13.4*		media for user a ronic, ⊠Paper	and product documentat Other	tion (tick box)	:					
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:					\boxtimes				
	•	hlorine-free al chlorine-free								
		ed chlorine-free						\vdash		
P14		ry programs								
P14.1			equirements of the follo	wing voluntar	ry program(s):					
	ENERGY	Y STAR® el: <i>EPEAT</i> el: <i>PCGL</i>	Criteria version: 8.0 Criteria version: IEEE Criteria version: Ver.1 Criteria version: Note	1680.1-2018 3	Date: 2021/3/23	Product category: Product category: Product category: Product category:	Notebook Notebook			
P15			(See NOTE B10)							
P9			of specific configuration							
	informati knowled	on contained in ge available at t here is approx	no representations, gua this document. All infor the time of completion, a mate and provided for i	mation providence of the matter of the matte	ded by supplier in the shall have no obligate	is document is provi tion to update such i	ided based of information.	on supp The inf	lier's ormat	ion
P9			ed Notebooks & Tablet ov/index.cfm?fuseaction)			

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
Regulation (EC) 1907/2006(REACH, 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 2013/56/EC (Battery and accumulators Directive) * * 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 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE 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
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

Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by 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 (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

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

Commercial name	Lenovo 500w Gen 3	Logo	
Model Number	82J3, 82J4		Lenovo
Issue Date	2021/05/11		Lenovo.
Additional information			

d)	year of manufacture:				2021
;)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with	n switchable graphics n	node with UMA driving	g the display.	
)	Etec value (kWh) per ErP Lot 3 Categor enable	ry and capability adjust	ments applied when a	all discrete graphics (cards (dGtx) are
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)
	Memory over base [GB]	8			
ents ting	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
ability a lied du	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
cap	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	N/A			
sults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	N/A			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled	N/A			
g)	Idle state power demand (Watts);	l			2.32
1)	Sleep mode power demand (Watts);				0.48
)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		n/a
)	Off mode power demand (Watts);				0.44
()	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		n/a
)	Internal power supply efficiency at 10 %,	, 20 %, 50 % and 100 °	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	age		
n)	external power supply efficiency (if appli	cable)*:			
	Average active efficiency: 84.97%	84.88% 84.07% 8	2.82%		
	*internal note: show values for all available external p				
o)	Minimum number of loading cycles that t	the batteries can withs	tand (applies only to r	otebook computers):	300 cycles
o-1)	Measurement methodology used to dete	ermine information mer	ntioned in points (I) – i	nternal PSU efficiency	:
o-2)	Measurement methodology used to dete	ermine information mer	ntioned in points (m) –	external PSU efficienc	CV.

(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: EN 61960 measurement methodology						
(p-4)		dology used to determine information mentioned in r Point P9.1 in the Product IT Eco Declaration: IEC 62623 / IEC EN50564:2011 measurement r	• • •				
(q)	Sequence of steps for	or achieving a stable condition with respect to power	demand::				
	IEC 62623 / IEC EN50564:2011 measurement methodology						
(r)	Description of how s	eep and/or off mode was selected or programmed:					
	refer to power man	agement, sleep mode: ACPI system level G1/S3 (ACPI system level G2/S5 ('soft off') s					
(s)	Sequence of events off mode:	required to reach the mode where the equipment au	tomatically changes to sleep and/or				
		er to power management, 30mins automatically re	eaches sleep mode				
(t)		te condition before the computer automatically rendered the applicable power demand requirement		30 mins			
(u)	Length of time after	r a period of user inactivity in which the compute ver power demand requirement than sleep mode (in	r automatically reaches a power	180 mins			
(v)		re the display sleep mode is set to activate after		10 mins			
(w)		nergy-saving potential of power management function		TO IIIIIIS			
	User information	n described in User Guide and Power Manager ur programs	nder LenovoVantage menu in all				
(x)	user information on h	now to enable the power management functionality:					
	User information	n described in User Guide and Power Manager un programs	nder LenovoVantage menu in all				
(z)		neasurements: — test voltage in V and frequency in tem, — information and documentation on the instruence. 230V, 50GHz, Total Harmonic Distortion	mentation, set-up and circuits used				
Addition	al Notebook Batter	y Information:					
Addition	al Notebook Batter	Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a			
		The battery[ies] in this product cannot be easily replaced by users themselves. 1)		1,4,2			
Internal/b	ouilt-in Battery						
External/	detachable Battery						
Bios Bac	kup Battery						
Other:							
Additiona	Additional information						
/ 'ha hattaniliaa'	Lin this product connet be a	asily replaced by users themselves					

Акумулаторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители.

Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios. Výměnu baterie/baterií v tomto výrobku by neměli provádět sami uživatelé.

Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.

Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden. Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada.

Η μπαταρία[-ες] στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες

La/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes. Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu.

La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente. Lietotăji paši nevar nomainīt šā ražojuma akumulatoru(-us). Šio gaminio baterijos [baterijų] pats vartotojas negali lengvai pakeisti.

A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni.

Il-batterija/batteriji f'dan il-prodott ma tistax/jistgħux tiġi/jiġu sostitwita/i mill-utenti stess. Batteriet [ene] i dette produktet kan ikke lett erstattes av brukerne selv.

De batterij(en) in dit product is (zijn) door de gebruiker niet gemakkelijk vervangbaar.

Użytkownik nie może sam w łatwy sposób wymienić baterii w tym produkcie. A ou as baterias deste produto não podem ser facilmente substituídas pelos próprios utilizadores.

Bateria (bateriile) din acest produs nu poate (pot) fi uşor înlocuită (înlocuite) de utilizatorii înşişi. Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ. Baterii/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati.

Tämän tuottéen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa.

Det är inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.