



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 *	https://www.lenovo.com/us/en/sustainability-resources/			
Additional information	on 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 *	Notebook Computer			
Commercial name *	ThinkBook 14 G5 IRL / Lenovo X5-14 IRP / Zhaoyang X5-15 IRP			
Model number *	21JC,83B8			
Issue date *	2023/02/24			
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 *		21JC,83B8	Logo	Lone)//O	
Issue date	e *	2023/02/24		Lend)VO,	н
	environ	mental attributes - Legal requirements		Require	ment ı	met
Item				Yes	No	n.a.
P1	Hazardo	ous substances and preparations				
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE	B1)			
P1.2*		do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	Products	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),		\boxtimes		
		emofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no m				
P1.4*	concentration values. Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT) in preparations (see legal reference).					
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).					
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see legal reference).					
		al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.				
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact):					
		vww.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure				
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)	ne disposal	\boxtimes	Ш	Ш
P2.2*		or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadm	ium (See lega	al 🔀		
	reference		num (eee lege	an 🔼	ш	ш
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*		luct is CE-marked to show conformance with applicable legal requirements (see leg	al reference).	\boxtimes		
		laration of Conformity can be requested at (add link or e-mail address):				
		vww.lenovo.com/us/en/compliance/eu-doc for EU;				
P3.2*		www.lenovo.com/us/en/compliance/uk-doc for UK fluct complies with the Eco design requirements for energy-related products,				
F J.Z	(see lega	al reference).		\boxtimes	Ш	ш
	-	d information is; Silven in item P15 or added to this document,		\boxtimes		
		available at (add URL):				
		www.lenovo.com/us/en/compliance/eco-declaration				
P5		packaging			_	
P5.1*		ng and packaging components do not contain more than 0,01% lead, mercury ent chromium by weight of these together.	, cadmium ai	nd 🔀	Ш	
P5.2*		raging materials are marked with abbreviations and numbers indicating the nature of	of the material	(s) X		
_	used (se	e legal reference).		, ,		
P5.3*		luct packaging material is free from ozone depleting substances as specified in the N al reference).	Iontreal Protoc	col 🔀		
		nt: Legal reference has no maximum concentration values.				
P6		nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).				

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.

Wodel number *		21JC,83B8	Logo	Len	01/0	
Issue dat	e *	2023/02/24		Leii		тн
- Envir		mental attributes - Market requirements (See General NOTE GN onmental conscious design		Require		
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7	<u> </u>	Disassembly, recycling		<u> </u>		
P7.1*		at have to be treated separately are easily separable			Щ.	<u>Щ</u>
P7.2*		naterials in covers/housing have no surface coating.				
P7.3*	7 1				\boxtimes	
P7.4*	4.					
P7.5 Plastic		arts are free from metal inlays or have inlays that can be removed with commonly a	vailable tools.	\boxtimes		
P7.6* Labels		abels are easily separable. (This requirement does not apply to safety/regulatory labels).				
Produc		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		X		
P7.9					Ħ	
P7.10	· · ·					Ħ
	Material and substance requirements					
P7.11*	Product	cover/housing material type (e.g. plastics, metal, aluminum):	al type: PC+ABS +	-TPU		
P7.12	Insulation	n materials of external electrical cables are PVC free.			\boxtimes	
P7.13	Insulation	n materials of internal electrical cables are PVC free.		Ħ	X	Ħ
P7.14	weight (*polyvinyl	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bi 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, and			
P7.15	Printed o	ircuit boards, PCBs (without components) are low halogen: all 🔲 PCBs > 25 g 🔀 ed in IEC 61249-2-21. (See 1NOTE B2)	are low halogen			
P7.16	Marking:	etarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: >PC+ABS-TD15FR(40)<				
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 #: _3594	. ,			
		nemical specifications of flame retardants in printed circuit boards (without compone g ISO 1043-4: $FR(40)$	ents) > 25 g			
P7.18	concentr 1. Chem 2. Chem	ame retarded plastic parts > 25 g contain the following flame retardant substance rations above 0,1%: ical name: Oligomeric phosphorous compound, CAS #: Confidential (See NOT ical name: , CAS #: " ical name: , CAS #: "				
		nemical specifications of flame retardants in plastic parts > 25 g according ISO 1043		\boxtimes		
P7.19	assigned	e parts > 25 g, flame retardant substances/preparations above 0,1% are used which it the following Risk phrases; and Hazard statements:				
P7.20*		rce(s) for these classifications is/are found at (add URL(s)): (See Note B6):	ee note B5)			
r 7 . ZU	If YES; a a) or	It least one of the two alternatives below shall be answered; Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material control (calculated as a percentage of total plastic by weight) is 11.82%. Exweight of recycled material is 31.89 g.	ontent			

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 *	21JC,83B8	Logo	Lenovo
Issue date *	2023/02/24		Lei IOVO.
Product environr	mental attributes - Market requirements (continued)		Requirement met
Item			Yes No n.a.

		stance requirements							
P7.21*	Biobased plastic m	naterial content is use	d in the product (See N	NOTE B7):					
	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								
	or	the biobased plastic	material is α						
P7.22*			less than 0.1 mg/lami	D.		_			
	If mercury is used	specify: Number of la	mps: and maxir	num mercury content p	er lamp: mg				
P8	Batteries								
P8.1*	Battery chemical c	omposition: <i>Li-polym</i>	ier						
P9		tion (See NOTE B8)							
P9.1			els or energy consumpt						
Energy mo		Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for energy modes and test method *				
Peak (On-	·max)	65 W	65 W	65 W	Full load				
Categor									
Short Idle Enabled	State - WOL	5.93 W	6.05 W	5.93 W	ENERGY STAR Computers V8 (P _{idle})				
Long Idle Enabled	State - WOL	1.83 W	1.77 W	1.72 W	ENERGY STAR Computers V8 (P _{idle})				
Sleep (S3)) - WOL Enabled	1.83W	1.77 W	1.72 W	ENERGY STAR Computers V8 (P _{idle})				
Off (S5) -	WOL Enabled	0.34 W	0.33W	0.34 W	ENERGY STAR Computers V8 (P _{idle})				
Categor	<u>y 1</u>								
Short Idle Enabled	State - WOL	6.16 W	6.14 W	5.78 W	ENERGY STAR Computers V8				
Long Idle Enabled	State - WOL	1.11 W	1.09 W	1.07 W	ENERGY STAR Computers V8				
Sleep (S3)) - WOL Enabled	1.11 W	1.09 W	1.07 W	ENERGY STAR Computers V8	_			
Off (S5) -	WOL Enabled	0.28 W	0.28 W	0.29 W	ENERGY STAR Computers V8				
EPS No-Io (External power wall outlet but dis	supply / charger plugged in the sconnected from the product.)	0.028 W	0.033 W	0.077 W					
PTEC *	, ,	Cat2: 21.75 W	Cat2: 21.72;	Cat2: 21.26;	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 +$				
,.	ergy Consumption		kWh/year	kWh/year	P _{sleep} x 0.35 + P _{long_Idle} x 0.10+ P _{short_Idle} x 0.30)				
ETEC *		Cat1:	Cat1: 18.83	Cat1: 17.98	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$				
Annual En	ergy Consumption	18.97 kWh/year	kWh/year	kWh/year	+ P _{sleep} x 0.35 + P _{long_idle} x 0.10+ P _{short_idle} x 0.30)				
	0 =(::				led; P _{idle} : Idle State - WOL Enabled				
		•	al Efficiency Marking P	rotocol) * : VI					
	solution * : 1920*108								
Default tim	ne to enter energy sa	ve mode: 5 minutes				_			
P9.2*	Information about t	the energy save funct	ion is provided with the	e product.					
P9.3	Energy efficiency of	class (monitors only):				_			

NOTE B8 A Guidance document on Energy Efficiency is available;

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

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

P10	Emissions							
	Noise emission	Noise emission – Declared according to ISO 9296 (See NOTE B9)						
P10.1	Mode	Mode description	Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)					
Ì	Idle	* Idle	* 2.7					
ĺ	Operation	* CPU operatng	* 3.4					
	Other mode	Declared A-weighted sound pressure level (dB) $L_{p m Am}$						
	Other mode	Declared A-weighted sound pressure level (dB) $L_{p m Am}$	29 (operator position desktop – operating)					
	Measured acco	ording to: ISO 7779 ECMA-74						
		Other (only if not covered by E	ECMA-74)					



Model number *		21JC,83B8			Logo	Lenovo.	
Issue date *		2023/02/24				Lei IOVO"	
Product er	vironn	nental attributes - Mark		Requirement			
met			·	•		·	
Item						Yes No r	n.
		nagnetic emissions					
	Compute program(. ,	ment for low frequency e	lectromagnetic fields of the foll	owing voluntary		
		nics for computing produ					
P12.1* 1	The disp	lay meets the ergonomic re	quirements of ISO 9241-	307 for visual display technolo	gies.		
P12.2*	The phys	sical input device meets the	requirements of ISO 999	95 and ISO 9241-410.			
		ng and documentation					
F F F F	Product p Product p Product p Product p Product p	packaging material type(s): packaging material type(s): packaging material type(s): packaging material type(s): packaging material type(s):	single layer corrugated Tracing paper Ocean-bound plastic b polyethylene cushion Coated Paper		g): 0.275 g): 0.0279		
P13.2* F	Product p	plastic primary packaging is	free from PVC.				
		luct primary corrugated fiber recovered fiber content:		cify the contained percentage	of minimum po	st-	\Box
P13.4* \$	Specify r	media for user and product ronic, ⊠Paper, ⊡Other		:			
į	Jser and	only complete this item if pa I product documentation on lease specify:					
1	Totally cl	hlorine-free					
E	Elementa	al chlorine-free					
F	Processe	ed chlorine-free				П	
P14 \	/oluntar	ry programs					
P14.1	The prod	luct meets the requirement	s of the following voluntar	ry program(s):			
E	Eco-labe	el: ENERGY STAR ®	Criteria version: 8.0	Date: 2023.02.24	Product cate	gory: Category1&2	2
		el: EPEAT 2018	Criteria version: 2018	Date: 2023.02.24		gory: Notebook	
	Eco-labe		Criteria version:	Date:	Product cate	gory:	
	Criteria v			Product category:			_
		nal information (See NOTE				41	
P9 I	energy o	consumption of specific (configuration may vary;	description of the tested pro assurances or warranties wh	other express	UOΠ: «implied "cock-!!»	_
t s i	the infor supplier informat	rmation contained in this 's knowledge available at	document. All informat the time of completion vided here is approxima	assurances or warranties whi ion provided by supplier in to , and supplier shall have no ate and provided for informat	his document is obligation to up	provided based of date such	'n
P9 5	See Ene	ergy Star Qualified Notebo	ooks & Tablet Computer	rs for the latest information: _product.showProductGroup	o&pgw_code=C	0	
							_

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.

Annex B1 of ECMA-370 5th edition

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	ThinkBook 14 G5 IRL / Lenovo X5-14 IRP / Zhaoyang X5-14 IRP	Logo	
Model Number	21JC,83B8		Longvo
Issue Date	2023/02/24		Lenovo.
Additional information			

	P7.1.1 Product environmental attributes							
	(d) Year of manufacture: 2023 (e) Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are disabled							
\	and if the system is tested with switchable graphics mode with UMA driving the display.							
	Category A (according to ErP Lot 3)							
		Memory over base [GB]	48	(Least-amg to any	(======================================	(assessing as an asses,		
nents	Additional internal storage		Yes (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)		
adjustn	2	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)		
ability a	Discrete television tuner Discrete television tuner No					(Yes / No)		
capa	Discrete graphics Card(s) [number / #] No #: (Yes / No) (Yes / No) (#: (Yes / No)	#: (Yes / No)				
		Category of discrete graphics Card(s)	No					
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)							
Test re		Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled						
(g) I	dle	state power demand (Watts);				3.23		
(h) S	Sle	ep mode power demand (Watts);						
()		ep mode with WOL enabled power demand	(Watts) (where enable	d);		1.16		
(j) (Off	mode power demand (Watts);						
` ′		mode with WOL enabled power demand (W	,,			0.36		
(1) 1	nte	rnal power supply efficiency at 10 %, 20 %,	50 % and 100 % of rat	ted output power (if ap	plicable):			
1	10%	6 20% 50% 100%	Average					
) /	٩ve	ernal power supply efficiency (if applicable)*: erage active efficiency: <i>Liteon</i> : 90.85%; Chi mal note: show values for all available external power supp	icony: 91.73% ;Delta:	92.29% ;Acebel: 89.	65%			
		imum number of loading cycles that the batt		pplies only to noteboo	k computers):	300		
(p- N 1)	Меа	asurement methodology used to determine in	nformation mentioned NA	in points (I) – internal	PSU efficiency:			
(p- N	(p- Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency:							
\·	Иe	asurement methodology used to determine in			cycles batteries:			
3)	3) EN 61960 measurement methodology							

(p- 4)	Measurement methodology defined in Point P9.1 in the	used to determine information mentioned in maximu Product IT Eco Declaration:	m, idle, sleep, off mode power as				
		EN 61960 measurement methodology					
(q)	Sequence of steps for achie	ving a stable condition with respect to power deman	d::				
		EN 61960 measurement methodology					
(r)	Description of how sleep an	d/or off mode was selected or programmed:					
		Begin menu -> Power -> Select sleep or off n	node				
(s)	Sequence of events require mode:	base on User Guide					
(t)		base on User Guide uration of idle state condition before the computer automatically reaches sleep mode, or another condition nich does not exceed the applicable power demand requirements for sleep mode (in minutes): singth of time after a period of user inactivity in which the computer automatically reaches a power mode					
(u)				NA NA			
that has a lower power demand requirement than sleep mode (in minutes):							
(w)	Information on the energy-s	aving potential of power management functionality:					
(14)	Heavinformation on house	Refer to User Guide					
(x)	oser information on now to	enable the power management functionality:					
(7)	Test parameters for massing	Refer to User Guide rements: — test voltage in V and frequency in Hz, —	total harmonic distortion of the				
(z)	electricity supply system, — electrical testing:	information and documentation on the instrumentat	ion, set-up and circuits used for				
A 4.	ditional Notabook Patter	230V, 50Hz, Total Haemonic Distortion <2	%				
Au	ditional 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)	71. 1				
Inte	ernal/built-in Battery						
Ext	ernal/detachable Battery						
Bio	s Backup Battery						
Oth	ner:						
Add	ditional information						
		asily replaced by users themselves.					
as bat	erías de este producto no pueden s	родукт не може да се замени[ят] лесно от самите потребител er sustituidas fácilmente por los propios usuarios.	ли.				
	u baterie/baterií v tomto výrobku by en kan ikke uden videre udskifte bat						
	ku/die Akkus dieses Produkts kann/ jad ei saa selle toote akut/akusid ise	können nicht ohne weiteres vom Benutzer selbst ausgetauscht v e hõlpsasti asendada.	verden.				
μπατ	αρία[-ες] στο προϊόν αυτό δεν μπορ	ούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες iit ne peuvent être facilement remplacée(s) par les utilisateurs eu	ıx-mêmes				
orisnil	k ne može lako zamijeniti Bateriju sa						
ietotāj	i paši nevar nomainīt šā ražojuma a ninio baterijos [baterijų] pats vartoto	kumulatoru(-us).					
terme	ek akkumulátorát/akkumulátorait a fe	elhasználó nem tudja egyedül egyszerűen kicserélni.					
atterie	et [ene] i dette produktet kan ikke let						
	erij(en) in dit product is (zijn) door d wnik nie może sam w łatwy sposób	e gebruiker niet gemakkelijk vervangbaar. wymienić baterii w tym produkcie.					
ou as	s baterias deste produto não podem	ser facilmente substituídas pelos próprios utilizadores. e (pot) fi usor înlocuită (înlocuite) de utilizatorii înșiși.					
atériu	(-ie) v tomto výrobku nemôže vymie baterije v tem izdelku uporabniki sai	ňať používateľ.					
ämän	tuotteen akku [akut] ei[vät] ole help	osti käyttäjän vaihdettavissa.					
	nte enkelt för kunden att själv byta ı ndeki batarya(lar) kullanıcılar tarafır						