

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 *	Lenovo Global Environmental Affairs		$\Delta D \Delta V \Delta$		
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Additional information	The latest version of this document can be found at:				
	http://www.lenovo.com/ecodeclaration				

The company declares (	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						
Commercial name *	ThinkPad X13 Yoga Gen 2 Intel						
Model number *	20W8, 20W9						
Issue date *	2021/2/5						
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 n	umber *	20W8, 20W9; Logo	Lon		
lssue da	ite *	2021/2/5	Leng	Lenovo	
Product	t environ	mental attributes - Legal requirements	Require		t 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 B1)	$\square$		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.	$\boxtimes$		
P1.3*	hydrobro trichloro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), pmofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1- ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum ration values.			
P1.4*	Products terpheny	$\boxtimes$			
P1.5*	Products chain co				
P1.6*	Parts wi (see leg Comme	k 🛛			
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail contact): www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	$\boxtimes$		
P2	Batterie				
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with the disposal Information on proper disposal is provided in user manual. (See legal reference)	$\boxtimes$		
P2.2*	Batteries referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See lega e)	ıl 🖂		
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)	$\boxtimes$		
P3	Conform	nity verification & Eco design (ErP)			
P3.1*	The Dec	duct is CE-marked to show conformance with applicable legal requirements (see legal reference). claration of Conformity can be requested at (add link or e-mail address): www.lenovo.com/us/en/compliance/eu-doc			
P3.2*	The proc	duct complies with the Eco design requirements for energy-related products, al reference).	$\boxtimes$		
	Require	d information is; available at (add URL): www.lenovo.com/us/en/compliance/eco-declaration			
P5		packaging			
P5.1*	Packagi	ng and packaging components do not contain more than 0,01% lead, mercury, cadmium ar ant chromium by weight of these together.	nd 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of the material( ee legal reference).	s) 🔀		
P5.3*	(see leg	duct packaging material is free from ozone depleting substances as specified in the Montreal Protoc al reference). nt: Legal reference has no maximum concentration values.	ol 🔀		
P6		nt information			

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 *	20W8, 20W9;	Logo	Long		
Issue dat	te *	2021/2/5		Lend	ovo	Эн
Product	environ	mental attributes - Market requirements (See General NOTE GN	below)			
		onmental conscious design		Require	ment	met
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7.1*		Disassembly, recycling				
		at have to be treated separately are easily separable				Щ_
P7.2*		naterials in covers/housing have no surface coating.				<u> </u>
P7.3*		arts > 100 g consist of one material or of easily separable materials.				
P7.4*		arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.		$\square$		
P7.5	•	arts are free from metal inlays or have inlays that can be removed with commonly a	available tools	. 🛛		
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).		$\square$		
	Product					
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	Spare pa	arts are available after end of production for: <b>5</b> years				
P7.10	Service i	s available after end of production for: <b>5</b> years				
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):				
P7.12		type: Aluminum Material type: PC/ABS Materia n materials of external electrical cables are PVC free.	al type: PA+G	lass Fiber		
						Щ_
P7.13		n materials of internal electrical cables are PVC free.			<u> </u>	<u> </u>
P7.14	weight (* polyvinyl	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 chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine i in 25% post-consumer recycled content.	e retardants,	and 🗖		
P7.15	Printed c	ircuit boards, PCBs (without components) are low halogen: all  □ PCBs > 25 g ⊠ ad in IEC 61249-2-21. (See 1NOTE B2)	are low halo	gen 🔀		
P7.16		tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:		$\boxtimes$		
P7.17	<u>Alt. 1: Cł</u>	nemical specifications of flame retardants in printed circuit boards > 25 g (without ca PA (additive),TBBPA (reactive) (See NOTE B3), 🔀 Other: <b>DOPO</b> , CAS #: 359				
		nemical specifications of flame retardants in printed circuit boards (without compone g ISO 1043-4: Brominated Epoxy Resin See P15	ents) > 25 g			
P7.18		ame retarded plastic parts > 25 g contain the following flame retardant substance ations above 0.1%:	es/preparation	s in		
	1. Chem 2. Chem	ical name: , CAS #: (See NOTE B4) ical name: , CAS #: " ical name: , CAS #: "				
		nemical specifications of flame retardants in plastic parts > 25 g according ISO 104		$\square$		
P7.19		: parts > 25 g, flame retardant substances/preparations above 0,1% are used which I the following Risk phrases; and Hazard statements:	n have been		$\boxtimes$	
	0	<b>o</b>	See note B5)			
P7.20*		sumer recycled plastic material content is used in the product (See Note B6):				
r1.20	lfYES;a a) Oft ape or	sumer recycled plastic material content is used in the product (see Note B6): it least one of the two alternatives below shall be answered; iotal plastic parts' weight > 25 g, the postconsumer recycled plastic material content ercentage of total plastic by weight) is $3.7\%$ .	t (calculated a	as		

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 <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

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 nu	umber * 20W9	), 20W8;			Logo		
Issue dat	te * 2021/	/2/5				Lenovo.	
Product	environmenta	l attributes - Market	requirements (cont	inued)		Requirement met	
Item						Yes No n.a.	
	Material and s	ubstance requirements	(continued)				
P7.21*		c material content is use		NOTE B7):			
	If YES; at least	one of the two alternativ	es below shall be ansv	vered;			
		astic parts' weight > 25 g	, the biobased plastic r	naterial content (calcula	ated as a percent	age of	
	total plasti or	c by weight) is %.					
		t of the biobased plastic	material is g.				
P7.22*		re free from mercury, i.e.					
P8	Batteries	ed specify: Number of la	mps: and maxin	num mercury content p	er lamp: n	ng	
P8.1*		al composition: Lithium	Ion/Lithium Mangane	se Dioxide			
P9	Energy consu	mption (See NOTE B8)					
P9.1		the following power leve			1		
Energy mo	de *	Power level at <b>100</b> V AC	Power level at <b>115</b> V AC	Power level at 230 V AC	Reference/Sta modes and te	andard for energy	
Peak (On-	max)	65 W	65 W	65W	Full load		
Categor	<u>y                                    </u>						
	State - WOL	3.17W	3.23W	3.64W		RGY STAR V8.0	
Enabled					registration (	P <sub>idle</sub> )	
	State - WOL	0.78W	0.73W	0.78W		RGY STAR V8.0	
Enabled					registration (	P <sub>idle</sub> )	
	- WOL Enabled	/ 0.78W	0.73W	0.78W		RGY STAR V8.0	
Disabled					registration (	P <sub>sleep</sub> )	
	NOL Enabled /	0.24W	0.25W	0.30W		RGY STAR V8.0	
Disabled					registration,	ErP (P <sub>off</sub> )	
EPS No-lo		0.08 W	0.09 W	0.08 W			
	supply / charger plugged in connected from the produc						
PTEC *	ergy Consumptic	W	W	W		$\boxtimes$	
	ergy consumptio	""					
ETEC *		11.93kWh/year	11.92kWh/year	13.29kWh/year	E <sub>TEC</sub> = (8760/	1000) x (P <sub>off</sub> x 0.25 +	
Annual En	ergy Consumptio	n				Plong_idle x 0.10+	
					P <sub>short_Idle</sub> x 0.3		
External Pr	ower Supply Effic	Poff: Off Mode(S5) - W iency Level (Internationa		p Mode(S3) - WOL Enabl rotocol) * · VI	ea; P <sub>idle</sub> : Idle Stat	e - wUL Enabled	
	solution * : 8.294	•					
		v save mode: 10 minutes					
P9.2*		out the energy save funct		e product.			
P9.3		cy class (monitors only):		-			
P10	Emissions						
	1	n – Declared according t	to ISO 9296 (See NOT				
P10.1	Mode	Mode description			it A-weighted so	und power level, <i>L<sub>WA,c</sub></i> (B)	
	Idle Operation	* Idle mode * Operating (CPU)		* 2.6			
	Operation Other mode	Declared A-weighted sound	pressure level (dB) .	4.1 15 (operator position	on dockton idle)		
					<u> </u>		
	Other mode	Declared A-weighted sound		29 (operator position	on desktop – oper	ating)	
	Measured acco	rding to: 🔀 ISO 7779 🛛					
<u> </u>	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 <a href="http://www.ecma-international.org/publications/standards/Ecma-370.htm">http://www.ecma-international.org/publications/standards/Ecma-370.htm</a>

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

Model nur	nber *	20W8, 20W9				Logo	Long		
Issue date	*	2021/2/5					Lenc		
Product	environr	nental attribu	utes - Market require	ments (cor	ntinued)		Require	ment	met
Item							Yes	No	n.a.
		nagnetic emis							
P10.4	program	(s): <b>MPŔ-II(3 p</b>	in AC adapter only)	v frequency e	lectromagnetic fiel	ds of the following voluntar	у 🖂		
P12	Ergono	nics for comp	uting products						
P12.1*			ergonomic requirements			-	$\boxtimes$		
P12.2*	The phy	sical input devi	ce meets the requiremer	nts of ISO 999	95 and ISO 9241-4	10.	$\boxtimes$		
P13		ng and docum							
P13.1*	Product	, packaging mat	erial type(s): <i>carton</i> erial type(s): <i>paper</i> erial type(s): <i>LDPE</i>	weight (kg weight (kg weight (kg	g): <b>0.06</b>				
P13.2*	Product	plastic primary	packaging is free from F	PVC.			$\boxtimes$		
P13.3*	For proc	luct primary co er recovered fib	orrugated fiberboard pac er content: <b>65</b> %	ckaging, spec	cify the contained	percentage of minimum p	oost-		
P13.4*		nedia for user : ronic, 🔀Paper	and product documentat <sup>-</sup> , Other	ion (tick box):	:				
P13.5	Ùser and		his item if paper docume nentation on paper med						
	Element	hlorine-free al chlorine-free							
D//		ed chlorine-free	)						
P14 P14.1		ry programs	requirements of the follo		a program(a);				
F 14.1	ENERG	Y STAR® el: <b>EPEAT</b> el: <b>PCGL</b>	Criteria version: V8 Criteria version: IEEE Criteria version: 13.0 Criteria version: 8.0	U	Date: 2021/2/5	Product category: 2 Product category: notel Product category: notel Product category: notel	book		
P15			n (See NOTE B10)						
P9						e tested product configu			
	informati knowled provided informati	on contained ir ge available at here is approx on.	n this document. All infor the time of completion, a imate and provided for i	mation provid and supplier s nformational	led by supplier in t shall have no obliga purposes only. See	es whether express or imp his document is provided b ation to update such inform e a Lenovo Account Repres	ased on supp ation. The in	olier's format	ion
P9			ied Notebooks & Tablet jov/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	ThinkPad X13 Yoga Gen 2 Intel	Logo		
Model Number	20W8,20W9			
Issue Date	2021/2/5	Lenovo		
Additional information				

d)	year of manufacture:				2021			
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.							
F)	Etec value (kWh) per ErP Lot 3 Categor enable	y and capability adjust	ments applied when <b>a</b>	all discrete graphics of	cards (dGfx) 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]	16						
ents sting	Additional internal storage	Yes (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)			
capa app	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	# <u>:</u> (Yes / No)	#: (Yes / No)	#: (Yes / No)			
	Category of discrete graphics Card(s)							
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)	4.49						
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled	N/A						
g)	Idle state power demand (Watts);				0.77			
h)	Sleep mode power demand (Watts);				0.77			
i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		0.77			
i)	Off mode power demand (Watts);				0.34			
k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		0.34			
I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 %	% of rated output pow	er (if applicable):				
	10% 20% 50%	100% Avera	age					
m)	external power supply efficiency (if appli	cable)*:						
	Average active efficiency: 65W: 88.48%	6, <mark>87.89%,88.12%,89.7</mark>	3%					
	*internal note: show values for all available external p							
o)	Minimum number of loading cycles that t	ne patteries can withs	tand (applies only to n	ютероок computers):	300 cycles			
p-1)	Measurement methodology used to dete	rmine information mer NA	itioned in points (I) – ii	nternal PSU efficiency	:			
p-2)	Measurement methodology used to dete	rmine information mer		external PSU efficiend	cy:			

(p-3)	Measurement metho	dology used to determine information mentioned in p EN 61960 measurement methodolog					
(p-4)		dology used to determine information mentioned in r Point P9.1 in the Product IT Eco Declaration:	naximum, idle, sleep, off mode				
		EN 62623:2013 measurement methodo	blogy				
(q)	Sequence of steps for	or achieving a stable condition with respect to power	demand::				
		EN 62623:2013 measurement methodo	blogy				
(r)	Description of how sl	leep and/or off mode was selected or programmed:					
		Based on user manual					
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:						
		Based on user manual					
(t)	condition which does	te condition before the computer automatically re- s not exceed the applicable power demand requirement	ents for sleep mode (in minutes):	10 mins			
(u)		r a period of user inactivity in which the compute ver power demand requirement than sleep mode (in		N/A			
(v) (w)	Length of time befo	re the display sleep mode is set to activate after nergy-saving potential of power management functio	user inactivity (in minutes):	10 mins			
()		Based on user manual					
(x)	user information on h	now to enable the power management functionality:					
(X)		Based on user manual					
(z)		neasurements: — test voltage in V and frequency in tem, — information and documentation on the instru 230V, 50GHz, Total Harmonic Distortion	mentation, set-up and circuits used				
Addition	nal Notebook Batter		1 ~ 2 %				
Auditio	nal Notebook Batter	Battery[ies] <u>not</u> user replaceable	Battery[ies] user replaceable	n/a			
		The battery[ies] in this product cannot be easily replaced by users themselves. <sup>1)</sup>					
Internal/	built-in Battery						
External	/detachable Battery						
Bios Bao	ckup Battery	$\boxtimes$					
Other:							
Addition	al information						
kymynaτopha as baterías d ýměnu bateri rugeren kan er Akku/die Å asutajad ei s a/les batterie orisnik ne mc a batteria/le b etotāji paši n io gaminio ba etotāji paši n io gaminio ba termék akku batterija/batt atteriet [ene] e batterij(en) žytkownik nia	ara[μτe] δατερμя[μ] в този η le este producto no pueden s ic/bateri / tomto v/robku by ikke uden videre udskifte bat Akkus dieses Produkts kann/ aa selle toote akut/akusid ise cj στο προϊόν αυτό δεν μπορ (s présente(s) dans ce produ oze lako zamijeniti Bateriju sa batterie in questo prodotto no revar nomainīt šā ražojuma a aterijos [bateriju] pats vartotoj mulátorát/akkumulátorait a fa teriji fdan il-prodott ma tistax/ i dette produktet kan ikke let i ndit product is (zijn) door di	ούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες it ne peuvent être facilement remplacée(s) par les utilisateurs eu am u ovom proizvodu. n può/possono essere facilmente sostituita/e dall'utente. kumulatoru(-us). jas negali lengvai pakeisti. elhasználó nem tudja egyedül egyszerűen kicserélni. ijistgħux tiġi/jiġu sostitwita/i mill-utenti stess. t erstattes av brukerne selv. e gebruiker niet gemakkelijk vervangbaar. wymienić baterii w tym produkcie.	verden.				

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