

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			Lenovo		
e-mail address	Alvin L Carter		LEIIUVU		
	alcarter@lenovo.com				
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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 *	Notebook			
Commercial name *	ThinkPad X1 Yoga 5th Gen			
Model number *	20UB, 20UC			
Issue date *	2020/2/20			
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 *	20UB, 20UC Logo				
lssue da	ite *	2020/2/20	Len	Lenovo		
Produc	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)				
P1.2*	Comme	s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.	\square			
P1.3*	hydrobro trichloro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), pmofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1, ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum ration values.	-			
P1.4*	Products terpheny	\boxtimes				
P1.5*	Products	s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms i ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	n the 🔀			
P1.6*	(see leg	th direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/v al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	veek 🔀			
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail contact): www.lenovo.com/social_responsibility/us/en/environment.html	\boxtimes			
P2	Batterie					
P2.1*	symbol.	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)				
P2.2*	Batteries	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See I e)	egal 🔀			
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)	\square			
P3	Conforr	nity verification & Eco design (ErP)				
P3.1*	The pro	duct is CE-marked to show conformance with applicable legal requirements (see legal referenc claration of Conformity can be requested at: https://www.lenovo.com/us/en/compliance/eu-doc	e). 🛛			
P3.2*	The pro	duct complies with the Eco design requirements for energy-related products, al reference).	\boxtimes			
	Require	d information is; given in item P15 or added to this document, available at: https://www.lenovo.com/us/en/compliance/eco-declaration	tion			
P5	Droduct	packaging	.1011			
P5.1*		, packaging ng and packaging components do not contain more than 0,01% lead, mercury, cadmium				
	hexaval	ent chromium by weight of these together.				
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature of the mater re legal reference).				
P5.3*	Protocol	duct packaging material is free from ozone depleting substances as specified in the Mor (see legal reference). nt: Legal reference has no maximum concentration values.	ntreal 🔀			
P6		nt information				
P6.1*		on for recyclers/treatment facilities is available (see legal reference).	\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 number * Issue date *		20UB, 20UC					
		2020/2/20		Len	enovo.		
Product		mental attributes - Market requirements (See General NOTE GN	· · · · ·				
		nmental conscious design		Require			
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.	
P7		mbly, recycling					
P7.1*	Parts that	t have to be treated separately are easily separable		\boxtimes			
P7.2*	Plastic m	aterials in covers/housing have no surface coating.				\boxtimes	
P7.3*	Plastic p	arts > 100 g consist of one material or of easily separable materials.				\times	
P7.4*	Plastic p				\times		
P7.5	Plastic p	\square					
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).						
	Product	lifetime					
P7.7*	Upgradin	g can be done e.g. with processor, memory, cards or drives		\boxtimes			
P7.8*	Upgradir	g can be done using commonly available tools		\square			
P7.9	Spare pa	rts are available after end of production for: 5 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): type: Mg-Al Material type: Materia	al tune:				
P7.12		n materials of external electrical cables are PVC free.	ai type.		\square		
P7.13		n materials of internal electrical cables are PVC free.				\dashv	
P7.14	External	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b					
	polyvinyl	1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) g more than 25% post-consumer recycled content.					
P7.15		circuit boards, PCBs (without components) are low halogen: all 🔀 PCBs >: as defined in IEC 61249-2-21. (See 1NOTE B2)	25 g 🗌 are lov	N 🖂			
P7.16	Marking:	tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:				\boxtimes	
P7.17	TBBF	nemical specifications of flame retardants in printed circuit boards > 25 g (without co A (additive), TBBPA (reactive) (See NOTE B3), Other: <i>Phosphorus Modifie</i> confidential		, 🛛			
	<u>Alt. 2: </u> Cł	nemical specifications of flame retardants in printed circuit boards (without compone g ISO 1043-4:	ents) > 25 g			\square	
P7.18	concentr	ame retarded plastic parts > 25 g contain the following flame retardant substance ations above 0,1%: cal name: , CAS #: (See NOTE B4)	es/preparations i	n		\boxtimes	
		nemical specifications of flame retardants in plastic parts > 25 g according ISO 104:	3-4:			\square	
P7.19	In plastic	parts > 25 g, flame retardant substances/preparations above 0,1% are used which	n have been			\boxtimes	
		the following Risk phrases; and Hazard statements: 3452S) (TEIJIN_GXV-3540UI)					
			See note B5)				
P7.20*	Postcons	sumer recycled plastic material content is used in the product (See Note B6):		\boxtimes			
	a) Of t a pe or	t least one of the two alternatives below shall be answered; otal plastic parts' weight > 25 g, the postconsumer recycled plastic material conten ercentage of total plastic by weight) is 11.8% . weight of recycled material is 16.4 g.	t (calculated 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 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 num	nber *	20UB, 20	OUC			Logo	
Issue date	*	2020/2/2	0				Lenovo
Product e	environm	nental at	tributes - Market	requirements (conti	nued)	•	Requirement met
Item					·····		Yes No n.a.
	Material	and subs	stance requirements	s (continued)			
P7.21*				ed in the product (See N	OTE B7):		
		-		es below shall be answe			
	a) Of to	otal plasti	c parts' weight > 25	g, the biobased plastic %.		ulated as a percent	age
			the biobased plastic				
P7.22*				. less than 0,1 mg/lamp			
D 0			specify: Number of la	imps: and maxim	um mercury content p	er lamp: mg	
P8.1*	Batteries		omposition: Li Ion				
-	-		omposition: <i>Li-ion</i>				
P9			tion (See NOTE B8)	- I			
P9.1 Energy mod		roduct the	Power level at	els or energy consumption Power level at	Power level at	Boforonoo/Stone	lard for energy
Energy mod	ue		100 V AC	115 V AC	230 V AC	modes and test	÷• 🗖
Peak (On-r	max)		65 W	65 W	65 W	Full load	nethod
						i un loud	
Category	<u>y -1-</u>						
Short Idle Enabled	State - WO	OL	4.57 W	5.34 W	4.36 W	Use for ENERG registration (P _{id}	
Long Idle S Enabled	State - WC	DL	1.33 W	1.27 W	1.32 W	Use for ENERG registration (P _{id}	
Sleep (S3)	- WOL En	abled	1.36 W	1.29 W	1.29 W	Use for ENERG registration (P _{sl}	
Off (S5) - V	VOL Enab	oled	0.34 W	0.34 W	0.34 W	Use for ENERG registration (Pol	
EPS No-loa (External power si wall outlet but disc	upply / charger p	blugged in the the product.)	0.095 W	0.096 W	0.117 W		
PTEC *	-		2.00W	2.16 W	1.91 W		
Typical Ene	ergy Consu	umption					
ETEC * Annual Ene	ergy Consu	umption	16.70 kWh/year	18.08 kWh/year	15.96 kWh/year	$E_{TEC} = (8760/100) + P_{sleep} \times 0.45 + P_{short_Idle} \times 0.25$	Plong_Idle x 0.05+
				VOL Enabled; Psleep: Sleep		ed; Pidle: Idle State -	WOL Enabled
			,	al Efficiency Marking Pro			
Display res		-	apixels ve mode: 10 minutes			3840*2160	
		÷.					
P9.2*				tion is provided with the	product.	1	
P9.3		-	class (monitors only):				
P10	Emissio						
D 10 1				to ISO 9296 (See NOTE			
P10.1	Mode		lode description			nit A-weighted sound	d power level, <i>L_{WA,c}</i> (B)
	Idle		* HDD idle * 2.5				
	Operation		Operating (HDD)		* 2.5		
	Others	*	Operating (CPU)	nd processes level (-ID)	* 2.7		
	Other mo	oue D	eciareo A-weignteo SOU	nd pressure level (dB) $L_{p{ m An}}$	15 (operator position		
	Other mo			nd pressure level (dB) L_{pAn}	15 (operator position 17 (operator position	n desktop – operating n desktop – operating	
	Measured	d accordir	ng to: 🔀 ISO 7779 🚺 Other	ECMA-74 (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 <u>http://www.ecma-international.org/publications/standards/Ecma-370.htm</u>

Model nu	mber * 20UB, 20	0UC Logo		
Issue dat	e * 2020/2/2	0	Len	OVO
Product met	environmental at	tributes - Market requirements (continued)	Requi	rement
Item			Yes	No n.a
	Electromagnetic e			
P10.4	program(s): MPR-I	meets the requirement for low frequency electromagnetic fields of the following volunt <i>II(3 pin AC adapter only)</i>	tary 🔀	
P12		computing products		
P12.1*		the ergonomic requirements of ISO 9241-307 for visual display technologies.	\square	
P12.2*		device meets the requirements of ISO 9995 and ISO 9241-410.	\square	
P13	Packaging and do			
P13.1*	Product packaging Product packaging Product packaging Product packaging	I material type(s): Cartonweight (kg): 301.6I material type(s): Acc Boxweight (kg): 63.2I material type(s): EPE cushionweight (kg): 59I material type(s): PE bag(NB)weight (kg): 6I material type(s): PE Bag(manual)weight (kg): 5I material type(s): Handleweight (kg): 7.23		
P13.2*	Product plastic prir	mary packaging is free from PVC.	\boxtimes	
P13.3*		ry corrugated fiberboard packaging, specify the contained percentage of minimum ed fiber content: 75 %	post-	
P13.4*	Specify media for u	user and product documentation (tick box): Paper, Other		
P13.5		elete this item if paper documentation used) documentation on paper media is chlorine-free: cify:		
	Totally chlorine-free Elemental chlorine	-free	\boxtimes	
	Processed chlorine	e-free		
P14	Voluntary program			
P14.1	The product meets	s the requirements of the following voluntary program(s):		
	ENERGY STAR® Eco-label: <i>EPEAT</i>	Criteria version: V8.0 Date: 2020/2/18 Product category: 1 Criteria version: IEEE 1680.1- Date: 2020/4/20 Product category: N 2018	otebook	
	Eco-label: TCO Eco-label: PCGL	Criteria version:NoteBook 8.0Date:2020/03/25Product category:ICriteria version:V13Date:2020/4/20Product category:I		
P15		ation (See NOTE B10)		
P9		tion of specific configuration may vary; description of the tested product config		
	information contain knowledge availab	akes no representations, guarantees, assurances or warranties whether express or in ned in this document. All information provided by supplier in this document is provided le at the time of completion, and supplier shall have no obligation to update such info oproximate and provided for informational purposes only. See a Lenovo Account Rep	based on su rmation. The	pplier's information
P9	See Energy Star Q http://www.energys	Qualified Notebooks & Tablet Computers for the latest information:		

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 X1 Yoga 5th Gen	Logo
Model Number	20UB, 20UC	
Issue Date	2020/2/20	Lenovo
Additional information		

	Product environmental attributes						
(d)	year of manufacture:				2020		
(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 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enable						
		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	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)	NA					
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 r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled	8.08					
(g)	Idle state power demand (Watts);				1.71		
(h)	Sleep mode power demand (Watts);				1.68		
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	e enabled);		1.70		
(j)	Off mode power demand (Watts);				0.38		
(k)	Off mode with WOL enabled power dem	. , .	,.		0.40		
(I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100	% of rated output pow	er (if applicable):			
	10% 20% 50%	100% Ave	age				
(m)	external power supply efficiency (if applied	cable)*:					
	Average active efficiency: 65W: 89.41%	5,88.62%,88.96%					
(0)	*internal note: show values for all available external po Minimum number of loading cycles that t		stand (applies only to p	otobook computero):			
(o)	Minimum number of loading cycles that t	The Datteries Carl With	stand (applies only to h	iolebook computers).	500 cycles		
(p-1)	Measurement methodology used to dete	rmine information me NA	ntioned in points (I) – i	nternal PSU efficiency:			
(p-2)	p-2) Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EN 50563:2011 measurement methodology						

(p-3) Measurement metho	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: EN 61960 measurement methodology					
	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: <i>EN</i> 62623:2013 measurement methodology					
(q) Sequence of steps for	Sequence of steps for achieving a stable condition with respect to power demand: EN 62623:2013 measurement methodology					
	Description of how sleep and/or off mode was selected or programmed: By selecting sleep and/or off mode thru Windows operating system					
(s) Sequence of events off mode:	required to reach the mode where the equipment au Automatically changes to sleep after 30 r					
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			
	r a period of user inactivity in which the compute wer power demand requirement than sleep mode (in		NA			
(v) Length of time befo	ore the display sleep mode is set to activate after	user inactivity (in minutes):	10			
	nergy-saving potential of power management function on described in User Guide and Power Manager u programs					
	now to enable the power management functionality: on described in User Guide and Power Manager u programs	nder ThinkVantage menu in all				
	neasurements: — test voltage in V and frequency in tem, — information and documentation on the instruction 230V/50HZ; Total Harmonic Distortion	mentation, set-up and circuits used				
Addition Notebook Battery			1			
	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⁾					
Internal/built-in Battery						
External/detachable Battery						
Bios Backup Battery						
Other:						
Additional information						
1) The battery[ies] in this product cannot be easily replaced by users themselves. Akywynarophara[wre] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители. Las baterias de este producto no pueden ser sustituidas fácilmente por los propios usuarios. Výmému baterie/baterii v tomto výrobku by neměli provádět sami uživatelé. Brugeren kan likke uden videre udskifte batterie/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 aku/dakusid ise hölpsasti asendada. H µrraropi(-ze] oro mpoi/ov auró šez µrupoviv va aurkaroard8oův súkoka amó rouç iðiouç rouç χρήστες La/les batterie(s présente(s) dans ce produit ne peuvent étre facilement remplacée(s) par les utilisateurs eux-mêmes. Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu. La batterial/e batterie in questo prodotto non puó/possono essere facilmente sostituita/e dall'utente. Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us). Šio gaminio baterijos (bateriju] pats vartojas negali lengvai pakeisti. A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni. Il-batterija/batteriji fdan il-prodott ma tistax/jistýnux tiği/jüg usostitivita/ mill-utenti stess. Batterie [ene] i dette produktet kan ikke lett erstattes av brukerne selv. De batteria/batteriji ne noże sam w latwy sposób wymienić bateri w tym produkcie. A ou as baterias deste produ on ön podem ser facilmente substituidas pelos próprios utilizadores. Bateria (bateriile) in dit product is (zijn) door de gebruiker niet gemakkeljk vervangbaar. Użytkownik nie może sam w latwy sposób wymienić baterii w tym produkcie. A ou as baterias deste produ on no pote (pot) fi uşor inlocutită (inlocuite) de utilizatorii înşişi. Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tamán tuottene atku [aku] elįvät] ole helposti käyttäjän vaihdettavissa. Bu ŭründeki batarya(lar) kullanuclar tara						