



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 statements given in this declaration.					
Type of product *	Notebook				
Commercial name *	ThinkPad Yoga 11e 5th Gen/ ThinkPad 11e 5th Gen				
Model number *	20LM, 20LN, 20LQ, 20LR				
Issue date *	2017/12/14				
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 * Issue date *		Error! Reference source not found.	Logo	Lon		
		2017/12/14		Lend	DVC) _{TM}
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1	Hazardo	ous substances and preparations				
P1.1*	Products	s do comply with current European RoHS Directive. (See legal reference and NOTE	EB1)			
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.					
P1.3*	P1.3* Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.					
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych l (PCT) in preparations (see legal reference).	lorinated			
P1.5*		s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 car ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	bon atoms in t	he 🔀		
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/wee (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:2011-5.					
P1.7*						
P2	Batterie	s				
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with Information on proper disposal is provided in user manual. (See legal reference)	the disposal			
P2.2*	Batteries	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadn	nium. (See leg	jal 🔀		

The product is CE-marked to show conformance with applicable legal requirements (see legal reference).

given in item P15 or added to this document,

Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and

The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s)

The product packaging material is free from ozone depleting substances as specified in the Montreal

Batteries and accumulators are readily removable. (See legal reference)

The Declaration of Conformity can be requested at (add link or e-mail address):

http://www.lenovo.com/social_responsibility/us/en/datasheets_notebooks/

Comment: Legal reference has no maximum concentration values.

Information for recyclers/treatment facilities is available (see legal reference).

The product complies with the Eco design requirements for energy-related products,

available at (add URL):

Conformity verification & Eco design (ErP)

hexavalent chromium by weight of these together.

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.

reference)

(see legal reference). Required information is;

Product packaging

used (see legal reference).

Treatment information

Protocol (see legal reference).

P2.3*

P3.2*

P5

P5.1

P5.2*

P5.3*

P6

P6.1*

P3

Model number *	20LM, 20LN, 20LQ, 20LR	Logo	Lonovo
Issue date *	Error! Reference source not found.		LEI IOVO"

Product environmental attributes - Market requirements (See General NOTE GN below)								
	- Environmental conscious design	Require	ment	met				
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.				
P7	Design, Disassembly, recycling							
P7.1*	Parts that have to be treated separately are easily separable	\boxtimes						
P7.2*	Plastic materials in covers/housing have no surface coating.	\boxtimes						
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	\boxtimes						
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\boxtimes						
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes						
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes						
	Product lifetime							
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		\boxtimes					
P7.8*	Upgrading can be done using commonly available tools	\boxtimes						
P7.9	Spare parts are available after end of production for: 5 years							
P7.10	Service is available after end of production for: 5 years							
	Material and substance requirements							
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):							
	Material type: PC/ABS Material type: Material type:							
P7.12	Insulation materials of external electrical cables are PVC free.							
P7.13	Insulation materials of internal electrical cables are PVC free.	\boxtimes						
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.							
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	\boxtimes						
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: FR(40)	\boxtimes						
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: Epoxy resin, CAS #: Confidential	\boxtimes						
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: <i>FR(40)</i>							
D7.40								
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in concentrations above 0,1%: 1. Chemical name: <i>TMB1615</i> , CAS #: 03-0647-03 (See NOTE B4) 2. Chemical name: , CAS #: "							
	3. Chemical name: , CAS #: " Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4: FR(40)	\square						
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been		H					
17.10	assigned the following Risk phrases; and Hazard statements:		Ш					
	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5)							
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):	\boxtimes						
	If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of recycled material is 18.9 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 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 nur	nber *	20LM, 20	OLN, 20LQ, 20LR			Logo	Lond		
Issue date	*	2017/12/	14				Lend	JVC	тн
Product	environn	nental at	tributes - Market re	equirements (conti	nued)		Require	emen	t met
Item				•	•		Yes	No	n.a.
			stance requirements						
P7.21*	Biobased	d plastic m	naterial content is used	in the product (See No	OTE B7):			\boxtimes	
				s below shall be answe					
					material content (calcul	lated as a percenta	ige		
	or	otai piastic	by weight) is %) .					
	b) The		the biobased plastic r						
P7.22*				less than 0,1 mg/lamp.			\boxtimes		
P8	Batteries		specify: Number of lan	ips: and maximi	um mercury content per	r lamp: mg			
P8.1*									
P9	P9 Energy consumption (See NOTE B8)								
P9.1		roduct the		s or energy consumption					
Energy mo	de *		Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standa modes and test m		ergy	
Peak (On-	тах)		65 W	65 W	65 W	Full load	104104		
Categor	<u>y 11</u>								
Short Idle	Short Idle State - WOL		5.328 W	5.712 W	5.976 W	ENERGY STAR	V6.1		
Enabled									
Long Idle Enabled	State - Wo	OL	3.012 W	3.216 W	3.408 W	ENERGY STAR	V6.1		
Lilabieu									
Sleep (S3)	- WOL Er	nabled	1.092 W	1.140 W	1.152 W	ENERGY STAR	V6.1		
Off (S5) - V		oled	1.020 W	1.008 W	1.032 W	ENERGY STAR	V6.1		
EPS No-loa		nlugged in the	W	W	W				
(External powers wall outlet but dis	connected from	the product.)							
PTEC * Typical Ene	eray Cons	umntion	2.53 W	2.57 W	2.79 W				\boxtimes
ETEC *	crgy cons	иприоп	22.22 kWh/year	22.53 kWh/year	24.48 kWh/year	$E_{TEC} = (8760/100)$	0) x (P _{off} x 0.	.25	\boxtimes
Annual Ene	ergy Consi	umption			-	$+ P_{sleep} \times 0.35 + F_{sleep}$	P _{long_ldle} x 0.1	0 +	
			Poff: Off Mode(\$5) - WO	 	Mode(S3) - WOL Enable	P _{short_Idle} x 0.30) d: P _{idle} : Idle State - V	VOL Enabled		
External Po	ower Supp	ly Efficien		Efficiency Marking Pro		l luier raic state :			
Display res		-	•	, ,	,				Ħ
		-	ve mode: 30 minutes						Ħ
P9.2*				on is provided with the	product.			П	Ħ
P9.3	Energy efficiency class (monitors only):								
P10	Emissio	ns							
	Noise er			ISO 9296 (See NOTE					
P10.1	Mode		Node description		Statistical upper limit	A-weighted sound	power level,	, L _{WA,c}	(B)
	Idle		Idle mode		* 2.6				Щ.
	Operation	n *	Operating (CPU)	d proceure level (dB)	* 2.6				
	Other mo	oae D	reciared A-weighted soun	d pressure level (dB) L_{pAm}	(operator pos	sition desktop – idle)			
	Other mo			d pressure level (dB) L_{pAm}	(operator pos	sition desktop – oper	rating)		
	Measure	d accordir	ng to: 🔀 ISO 7779 🔀	ECMA-74					

(only if not covered by ECMA-74)

NOTE B8 A Guidance document on Energy Efficiency is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

Other

NOTE B9 A Guidance document on Acoustic Noise is available; see 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

Model number *		20LM, 20LN, 20L	Q, 20LR			Logo	Leno	VO	
Issue dat	e *	2017/12/14					Lenc	VU	TM
Product	environn	nental attributes	- Market requirements	(continued)			Require	ment	met
Item							Yes	No	n.a.
		nagnetic emission							
P10.4		er display meets the (s): MPR-II	requirement for low frequer	ncy electromagnetic fields	s of the foll	owing voluntary			
P12		mics for computing							
P12.1*	-	· · · · · · · · · · · · · · · · · · ·	nomic requirements of ISO 9	•	-	gies.			\boxtimes
P12.2*	The phys	sical input device m	eets the requirements of ISC	O 9995 and ISO 9241-41	0.				\boxtimes
P13		ng and documenta							
P13.1*	Product packaging material type(s): Corrugated Cardboard weight (kg): 0.326 Product packaging material type(s): Molded Pulp weight (kg): 0.177 Product packaging material type(s): Polyethylene weight (kg): 0.059 Product packaging material type(s): Others (Plastic Bag) weight (kg): 0.0135								
P13.2*	Product	plastic primary pack	caging is free from PVC.				\boxtimes		
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 0 %								
P13.4*		_	product documentation (tick Other	box):					
P13.5	Ùser and		tem if paper documentation ation on paper media is chlo						
	Elementa	hlorine-free al chlorine-free ed chlorine-free							
P14	Voluntai	ry programs							
P14.1	The prod	luct meets the requ	irements of the following vol	untary program(s):					
	ENERGY Eco-labe Eco-labe		Criteria version: 6.1 Criteria version: Criteria version:	Date: Dec/2017 Date: Date:	Product	category: <i>I1</i> category: category:			
P15	Addition	nal information (Se	e NOTE B10)						
P9	Energy	consumption of s	pecific configuration may v	vary; description of the	tested pro	oduct configura	ation:		
	informati knowledg provided informati	on contained in this ge available at the t here is approximat on.	epresentations, guarantees, document. All information p ime of completion, and supp e and provided for information	provided by supplier in thi plier shall have no obligat onal purposes only. See	is documer ion to upda a Lenovo A	nt is provided ba ate such informa	sed on supp tion. The inf	olier's format	ion
P9			lotebooks & Tablet Compute ndex.cfm?fuseaction=find_a			code=CO			

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 Yoga 11e 5th Gen/ ThinkPad 11e 5th Gen	Logo	
Model Number	20LM, 20LN, 20LQ, 20LR		Longyo
Issue Date	2017/12/14		Lenovo.
Additional information			

(d)	Year of manufacture:				2018
e)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with				cards (dGfx) are
f)	Etec value (kWh) per ErP Lot 3 Categor enable	ry and capability adjust	ments applied when a	III discrete graphics (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]	8			
ents	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)
capa appl	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	N/A			
esults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	14.50			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled	N/A			
(g)	Idle state power demand (Watts);	<u> </u>			3.59
h)	Sleep mode power demand (Watts);				1.14
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		1.22
j)	Off mode power demand (Watts);				0.49
(k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		0.76
(I)	Internal power supply efficiency at 10 %,	, 20 %, 50 % and 100 °	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	ige		
(m)	External power supply efficiency (if appli	cable)*:			
	Average active efficiency: 45W: 87,98%	,88,63%,88,83%, 65W	/: 89,41%,88,62%,88,	96%	
	*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 n	otebook computers):	300 cycles
(p-1)	Measurement methodology used to dete	ermine information men	ntioned in points (I) – i	nternal PSU efficiency:	

(p-2)	Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage. External Ac-Dc and Ac-Ac Power Supplies" dated August 11, 2004						
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: IEC 61960 measurement methodology						
(p-4)	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: IEC 62623 / IEC EN 50564:2011 measurement methodology						
(q)	Sequence of steps for achieving a stable condition with respect to power demand:: IEC 62623 / IEC EN 50564:2011 measurement methodology						
(r)	Description of how sleep and/or off mode was selected or programmed: **Based on user manual** **Based on user manual**						
(s)	Sequence of events off mode:	required to reach the mode where the equipment aut Based on user manual	omatically changes to sleep and/or				
(t)		te condition before the computer automatically removed the applicable power demand requirement		30 mins			
(u)		a period of user inactivity in which the compute		180 mins			
(v)	mode that has a lower power demand requirement than sleep mode (in minutes): Length of time before the display sleep mode is set to activate after user inactivity (in minutes):						
(w)	Information on the er	nergy-saving potential of power management function Based on user manual	nality:				
(x)	User information on h	now to enable the power management functionality: **Based on user manual**					
(z)	Test parameters for r the electricity supply used for electrical tes	measurements: — test voltage in V and frequency in system, — information and documentation on the insting: 230V/50Hz	Hz, — total harmonic distortion of strumentation, set-up and circuits				
Addition	al Notebook Batter	y Information:					
		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. 1)					
Internal/b	uilt-in Battery						
External/	detachable Battery						
Bios Backup Battery							
Other:	Other:						
Additiona	l information						
1) The hatterylies	sl in this product cannot be	easily 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. Lietotāji 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. II-batterija/batteriji f'dan iI-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 ușor înlocuită (înlocuite) de utilizatorii înșiși.
Bateria (bateriile) v tomto výrobku nemôže vymieňat' používatef.
Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati.
Tämän tuotteen akku [akut] ei[văt] ole helposti käyttäjän vaihdettavissa.
Det är inte enkelt för kunden att själv byta ut batteriet/batterierna.

Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.