



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 *	Portable Computer Tablet				
Commercial name *	Lenovo TAB4				
Model number *	ZA3H				
Issue date *	2018.1.19				
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 *		ZA3H Logo	Lon		
Issue dat	e *	2018.1.19	Lend	JV	<b>O</b> <sub>tm</sub>
Product	environ	mental attributes - Legal requirements	Require	men	t met
Item			Yes	No	n.a.
P1	Hazardo	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.			
P1.3*	hydrobro trichloro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), comofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-ethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum ration values.			
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated // (PCT) in preparations (see legal reference).			
P1.5*		s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the entaining at least 48% per mass of chlorine in the SCCP (see legal reference).			
P1.6*	(see lega	th direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.			
P1.7*		Article 33 information about substances in articles is available at (add URL or mail contact): ww.lenovo.com/social_responsibility/us/en/environment.html			
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)			
P2.2*	Batteries referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal e)			
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)	X		
P3	Conform	nity verification & Eco design (ErP)			
P3.1*	The prod	duct is CE-marked to show conformance with applicable legal requirements (see legal reference).	$\square$	$\Box$	
	The Dec	claration of Conformity can be requested at (add link or e-mail address):	_		_
P3.2*		duct complies with the Eco design requirements for energy-related products, al reference).			
	Required	d information is;  given in item P15 or added to this document,			
		available at (add URL):			
P5	Product	t packaging			
P5.1*		ng and packaging components do not contain more than 0,01% lead, mercury, cadmium and ent chromium by weight of these together.	d 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of the material(see legal reference).	;)		
P5.3*	Protocol	duct packaging material is free from ozone depleting substances as specified in the Montrea (see legal reference). nt: Legal reference has no maximum concentration values.	al 🔀		

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.

Treatment information

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

P6.1\*

Model number *	ZA3H	Logo	Lopovo	
Issue date *	2018.1.19		LEI IOVO"	

Product	environmental attributes - Market requirements (See General NOTE GN below)			
	·	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			
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: 3 years			
P7.10	Service is available after end of production for: 1 years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
	Material type: PC Material type: PC+20%GF Material type: SUS304			
P7.12	Insulation materials of external electrical cables are PVC free.	<u></u> _		
P7.13	Insulation materials of internal electrical cables are PVC free.			
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1%		$\boxtimes$	
	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)	<i>,</i> $\boxtimes$		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:		П	$\boxtimes$
	Marking:			
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: <i>chemical name</i> , CAS #:	$\boxtimes$	Ш	
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g	_	_	
	according ISO 1043-4:	$\boxtimes$	Ш	
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in	1		
	concentrations above 0,1%:			$\boxtimes$
	1. Chemical name: , CAS #: (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:	$\boxtimes$	П	
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been	X	$\overline{\Box}$	
	assigned the following Risk phrases; <b>LOW</b> and Hazard statements:			
	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 VEC, at least one of the true alternatives below shall be a recovered.	<del></del>		
	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 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 <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.

wodel nun		ZA3H				Logo	Lenov	0
Issue date	*	2018.1.1	9					TH
Product 6	environn	nental at	tributes - Market re	equirements (contir	nued)		Requireme	ent met
Item				•	•		Yes No	n.a.
	Material	and subs	stance requirements	(continued)				
P7.21*	Biobasec	l plastic m	naterial content is used	in the product (See NO	OTE B7):			
	If YES: a	t least one	e of the two alternative	s below shall be answe	ered:			
					naterial content (calcula	ited as a percen	tage	
		otal plastic	by weight) is %					
	or b) The	woight of	the biobased plactic n	notorial in a				
P7.22*			the biobased plastic n	naterial is g. less than 0,1 mg/lamp.				
1 7.22			specify: Number of lan		um mercury content per	lamp: mg		І Ш
P8	Batteries					_		
P8.1*			omposition: Li-ion Pol	ymer				
P9			tion (See NOTE B8)					
P9.1		roduct the		s or energy consumption		- · · · ·		
Energy mod	de *		Power level at 100 V AC	Power level at 115 V AC		modes and test	dard for energy method *	/
Peak (On-r	nax)		10.4 W	10.4 W	10.4 W	Full load		
Category								
Short Idle Enabled	State - W	OL	3.214 W	3.8 W		Use for ENERG registration (Pi		
Long Idle S Enabled	State - WO	DL	0.2166 W	0.3 W	0.3 W	Use for ENERG registration (Pi		
Sleep (S3)	- WOL Er	nabled	W	W	W	Use for ENERG registration(Psi		
Sleep (S3)	- WOL Di	sabled	0.2166 W	0.3 W	0.3 W	Reference		
Off (S5) - V	VOL Enab	oled	W	W		Use for ENERG registration(Poi		
Off (S5) - V	VOL Disa	bled	<b>0.221</b> W	0.3 W	0.3 W	Use for ErP		
			W	W	W	Reference		
EPS No-loa (External power s wall outlet but disc	upply / charger i	plugged in the	0.035 W	0.036 W	0.051 W			
PTEC *			W	W	W			
Typical Ene	ergy Consi	umption		44 - 1110	40.41100.4			
ETEC * Annual Ene	ergy Const	umption	9.78 kWh/year	<b>11.7</b> kWh/year	·	+ P <sub>sleep</sub> x 0.35 + P <sub>short_idle</sub> x 0.30)	00) x (P <sub>off</sub> x 0.25 P <sub>long_ldle</sub> x 0.10+	
External D		l., <b>⊏</b> #:-:- :			Mode(S3) - WOL Enabled,	; P <sub>idle</sub> : Idle State -	WOL Enabled	
	- ''	,	, ,	Efficiency Marking Pro	ilocol) " : VI			<u> Ц</u>
			00 megapixels					<u>Ц</u>
			ve mode: 1 minutes					<u> </u>
P9.2*				on is provided with the p	product.			
P9.3	0,		class (monitors only):					$\boxtimes$
P10	Emission			100 0000 /5				
D10 1				ISO 9296 (See NOTE		\ woighted ac:	d nower level	, (D)
P10.1	Mode Idle	IV	Mode description		Statistical upper limit /	weignted soun	iu power ievel, <i>Lw</i>	,
		2 *			*			
	Operation		Octored A-weighted com	d proceura laval (dD) -	(- · ·	#	-1	
	Other mo	oue D	eciareu A-weighted Soun	d pressure level (dB) $L_{p{\sf Am}}$	(operator posit	tion desktop – idl		
	Other mo	ode D	Peclared A-weighted soun	d pressure level (dB) $L_{p{ m Am}}$	(operator posit	tion desktop – op	erating)	
	Measure	d accordir	_	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 <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 number *		ZA3H			Logo	Long	1/0	
Issue dat	:e *	2018.1.19				Leno		•
Product	environr	mental attributes	- Market requirements	(continued)		Require	ment	met
Item						Yes	No	n.a.
	Electron	magnetic emission	s					
P10.4	Compute program	. ,	requirement for low frequer	ncy electromagnetic fields	s of the following volunta	ary 🔀		
P12		mics for computing						
P12.1*	The disp	play meets the ergor	nomic requirements of ISO 9	9241-307 for visual displa	y technologies.	$\boxtimes$		
P12.2*	The phy	sical input device m	eets the requirements of ISC	O 9995 and ISO 9241-41	0.			
P13		ing and documenta						
P13.1*	Product		type(s): <b>box</b> weig type(s): <b>paper(manual)</b> type(s): <b>PP</b> weight (kg): <b>0.0</b>	ht (kg): <b>0.254</b> weight (kg): <b>0.03</b> <b>008</b>				
P13.2*	Product	plastic primary pack	aging is free from PVC.			$\boxtimes$		
P13.3*		duct primary corruger recovered fiber co	ated fiberboard packaging, ontent: %	specify the contained p	percentage of minimum	post-		
P13.4*		media for user and <sub>l</sub> ronic, ⊠Paper, □	oroduct documentation (tick Other	box):				
P13.5	Ùser and		tem if paper documentation ation on paper media is chlo					
	Element	hlorine-free al chlorine-free ed chlorine-free						
P14	Volunta	ry programs						
P14.1	The prod	duct meets the requ	irements of the following vol	untary program(s):				
	ENERG` Eco-labe Eco-labe		Criteria version: 6.1 Criteria version: Criteria version:	Date: <b>2014-9-10</b> Date: Date:	Product category: <i>I2</i> Product category: Product category:			
P15		nal information (Se	,					
P9			pecific configuration may					
	informat knowled	ion contained in this ge available at the t I here is approximat	epresentations, guarantees, document. All information p ime of completion, and supp e and provided for informati	provided by supplier in thi plier shall have no obligat	s document is provided ion to update such inform	based on supp mation. The inf	olier's formati	on
P9	See Ene	ergy Star Qualified N	lotebooks & Tablet Computendex.cfm?fuseaction=find_a					

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 TAB4	Logo
Model Number	ZA3H	Lenovo
Issue Date	2018.1.19	Lenovo.
Additional information		

	Product environmental attributes						
(d)	Year of manufacture:				2016		
(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 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]	2					
ents	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)		
adjustm ring tes	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)		
capability adjustments applied during testing	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)		
	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)		
	Category of discrete graphics Card(s)	No					
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)	10.4					
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled						
(g)	Idle state power demand (Watts);	1	1	1	3.59		
(h)	Sleep mode power demand (Watts);				0.3		
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);				
(j)	Off mode power demand (Watts);				0.3		
(k)	Off mode with WOL enabled power dema	and (Watts) (where en	abled);				
(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: 79.18						
	*internal note: show values for all available external po						
(o)	Minimum number of loading cycles that t	he batteries can withs	tand (applies only to n	notebook computers):	300		
(p-1)	Measurement methodology used to dete	rmine information mer	itioned in points (I) – ii	nternal PSU efficiency	:		
(p-2)	Measurement methodology used to dete						

(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries:  0.5C Charge/Discharge					
(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:  ENERGY STAR Test Method for Computers, Rev. Aug-2010					
(q)	Sequence of steps for achieving a stable condition with respect to power demand::  ENERGY STAR Test Method for Computers, Rev. Aug-2010					
(r)	Description of how sleep and/or off mode was selected or programmed:  refer to power management, sleep mode: ACPI system level G1/S3 (suspend to RAM) state; off mode:  ACPI system level G2/S5 ('soft off') state					
(s)	off mode:	required to reach the mode where the equipment au	, , ,			
(t)	condition which does	te condition before the computer automatically rendered the applicable power demand requirement	ents for sleep mode (in minutes):	1		
(u)		a period of user inactivity in which the compute ver power demand requirement than sleep mode (in		NA		
(v)		re the display sleep mode is set to activate after		1		
(w)	Information on the er	nergy-saving potential of power management functionergy-saving power functionergy-saving power functionergy-saving power functionergy-saving power functionergy-saving power functionergy-saving functionergy-saving power functionergy-saving functi	nality:			
(x)	User information on I	now to enable the power management functionality:  refer to user manual				
(z)		measurements: — test voltage in V and frequency in system, — information and documentation on the in sting:  230V50HZ-2%-Edition 2.0, 2011-01, Section 4	strumentation, set-up and circuits			
Addition	nal 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/I	built-in Battery					
External	/detachable Battery					
Bios Bac	ckup Battery					
Other:						
Additiona	al information					
Akymynatopi Las baterías Výměnu bate Brugeren kar Der Akku/die Kasutajad ei H μπαταρία[- Lal/les batteria/les Lietotāji paši Šio gaminio t A termék akk ILietotāji paši Šio gaminio t A termék akk Ilabatterija/ba Batteriet (ene De batterij/ene Užytkownik n A ou as bate Bateria (bate Baterij/baterij/ Baterij/baterij/ Baterij/baterij/ Tämän tuotte Det är inte er	ната[ите] батерия[и] в този de este producto no pueden rierle/baterií v tomto výrobku by nikke uden videre udskifte be Akkus dieses Produkts kanr saa selle toote akut/akusid is Ec] στο προϊόν αυτό δεν μπο e(s présente(s) dans ce produce lako zamijeniti Bateriju se batterie in questo produto nevar nomainīt šā ražojuma baterijos [bateriju] pats vartot kumulátorát/akkumulátorait a tetriji f dan il-prodott ma tistæ] i dette produktet kan ikke len) in dit product is (zijn) door nie može sam w latwy sposóť rias deste produto não poder riile) din acest produs nu poæt tomto výrobku nemôže vymi je v tem izdelku uporabniki se en akku [akut] ei[vät] ole heļakelt för kunden att själv byta	ρούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες uit ne peuvent être facilement remplacée(s) par les utilisateurs esam u ovom proizvodu. on può/possono essere facilmente sostituita/e dall'utente. akumulatoru(-us). ojas negali lengvai pakeisti. felhasználó nem tudja egyedül egyszerűen kicserélni.  //jistgħux tiġi/jiġu sostitwita/i mill-utenti stess. stt erstattes av brukerne selv. de gebruiker niet gemakkelijk vervangbaar. o wymienić baterii w tym produkcie. n ser facilmente substituídas pelos próprios utilizadores. tte (pot) fi uşor înlocuită (înlocuite) de utilizatorii înşişi. eñat používatef. ami ne morejo zlatka zamenjati. oosti käyttäjän vaihdettavissa.	werden.			