

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	Loge	0			
Company name *	Lenovo					
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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 *	Portable Computer Tablet						
Commercial name *	Lenovo TAB4 8						
Model number *	ZA2B, ZA2D						
Issue date *	2017.5.10						
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 *	ZA2B, ZA2D Logo			
Issue da	ate *	2017.5.10	Leng		ТМ
Produc	t environ	mental attributes - Legal requirements	Require	men	t met
Item			Yes	No	n.a.
P1	Hazardo	ous substances and preparations			
P1.1*	Product	s do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\square		
P1.2*	Comme	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*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated /I (PCT) in preparations (see legal reference).	\boxtimes		
P1.5*	Product	s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the intaining at least 48% per mass of chlorine in the SCCP (see legal reference).	e 🛛		
P1.6*	(see leg	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*	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	\square		
P2	Batterie	S			
P2.1*	If the pro 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)	\boxtimes		
P2.2*		s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal	\square		
P2.3*	Batterie	s and accumulators are readily removable. (See legal reference)	\square		
P3	Conform	nity verification & Eco design (ErP)			
P3.1*	The pro	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):	\square		
P3.2*		duct complies with the Eco design requirements for energy-related products,	\boxtimes		
	· ·	al reference).			
	Require	d information is; given in item P15 or added to this document,			
		available at (add URL):			
P5		t packaging			
P5.1*	hexaval	ng and packaging components do not contain more than 0,01% lead, mercury, cadmium an entry character and the se			
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature of the material(se legal reference).			
P5.3*	Protoco	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 🔀		
P6		ent 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 number *		ZA2B, ZA2D	Logo			
Issue da	te *	2017.5.10		Len	ovc	D _{TM}
Product	t environ	mental attributes - Market requirements (See General NOTE GN	below)			
	- Enviro	Require	ment	met		
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7	Design,					
P7.1*	Parts tha					
P7.2*	Plastic m		<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.				
P7.5		arts are free from metal inlays or have inlays that can be removed with commonly a	available tools.			
P7.6*	Labels a	re easily separable. (This requirement does not apply to safety/regulatory labels).				
	Product					
P7.7*		g can be done e.g. with processor, memory, cards or drives				
P7.8*		g can be done using commonly available tools			\boxtimes	
P7.9	Spare pa	irts are available after end of production for: 3 years				
P7.10	Service i	s available after end of production for: 1 years				
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum): type: PC+10%GF Material type: PC Materia	al type: SUS304			
P7.12	Insulatio	n materials of external electrical cables are PVC free.			\boxtimes	
P7.13	Insulatio	n materials of internal electrical cables are PVC free.				
P7.14	External weight (polyvinyl containin	d				
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	v 🖂		
P7.16	Marking:	tarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:		\square		
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without c A (additive), TBBPA (reactive) (See NOTE B3), Other: <i>chemical name</i> , CA				
	according	nemical specifications of flame retardants in printed circuit boards (without compon- g ISO 1043-4:		\boxtimes		
P7.18	concentr 1. Chemi 2. Chemi	ame retarded plastic parts > 25 g contain the following flame retardant substance ations above 0,1%: ical name: Potassium nonafluoro-1-butanesulfonate , CAS #: 29420-49-3 (state in the second sec		n 🖂		
		nemical specifications of flame retardants in plastic parts > 25 g according ISO 104		\square		
P7.19	assigned	parts > 25 g, flame retardant substances/preparations above 0,1% are used which the following Risk phrases; LOW and Hazard statements:				
			See note B5)			
P7.20*	lfYES;a a) Oft ape or	sumer recycled plastic material content is used in the product (See Note B6): t least one of the two alternatives below shall be answered; otal plastic parts' weight > 25 g, the postconsumer recycled plastic material conter ercentage of total plastic by weight) is %.	it (calculated as			
L	b) ITTE	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 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 *	ZA2B, Z	A2D			Logo				
Issue date * 2017.5.1		0			Lenovo.					
Product	environn	nental at	ttributes - Market ı	equirements (conti	nued)	Requirement met				
Item				•	•	Yes No n.a.				
			stance requirements							
P7.21*		•		d in the product (See N						
	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 total plastic by weight) is %.									
D7 00	b) The weight of the biobased plastic material is g. 22* Light sources are free from mercury, i.e. less than 0,1 mg/lamp. Image: Comparison of the biobased plastic material is									
P7.22*			specify: Number of la		num mercury content pe	r lamp: mg				
P8	Batterie		opeony. Humber of la		ian moreary content pe	ing				
P8.1*	Battery of	hemical c	composition: <i>Li-ion Po</i>	olymer						
P9			tion (See NOTE B8)							
P9.1 Energy mo		product the	e following power leve Power level at	ls or energy consumpti Power level at	ons are reported: Power level at	Reference/Standard for energy				
Lineigy ino			100 V AC	115 V AC	230 V AC	modes and test method *				
Peak (On-	max)		5 W	5 W	5 W	Full load				
Categor	yI3									
Short Idle		0	2.09 W	2.15 W	2.21 W	Use for ENERGY STAR V6				
Enabled	State - W	OL	2.09 VV	2.15 VV	2.21 VV	registration (P _{idle})				
Long Idle	State - W	01	1.18 W	1.18 W	1.24 W	Use for ENERGY STAR V6				
Enabled		-				registration (P _{idle})				
Sleep (S3)	- WOL EI	nabled	W	W	W	Use for ENERGY STAR V6 registration(P _{sieep})				
Sleep (S3)		in a blad	1.18 W	1.18 W	1.24 W	Reference				
Off (S5) - V	NOL Enal	bled	W	W	W	Use for ENERGY STAR V6 registration(P _{off})				
Off (S5) - V		blad	0.035 W	0.036 W	0.051 W	Use for ErP				
011 (33) - 1	NOL DISA	bied								
			W	W	W	Reference				
EPS No-loa			0.035 W	0.036 W	0.051 W					
(External power s wall outlet but dis	supply / charger connected from	plugged in the the product.)								
PTEC *		umption	W	W	W					
Typical Ene ETEC *	ergy Cons	umpuon	10.22 kWh/year	10.42 kWh/year	10.79 kWh/year	E _{TEC} = (8760/1000) x (P _{off} x 0.25				
Annual Ene	ergy Cons	umption				+ P _{sleep} x 0.35 + P _{long_ldle} x 0.10+				
			D : Off Mada (SE) 14	Ol Enchladi D Slaa	Mada(82) MOL Enable	P _{short_Idle} x 0.30)				
External Po	ower Supr	lv Efficien		al Efficiency Marking Pr		ed; P _{idle} : Idle State - WOL Enabled				
		•	0 megapixels							
			ave mode: 1 minutes							
P9.2*				ion is provided with the	product.					
P9.3										
P10	Emissio									
				o ISO 9296 (See NOTE						
P10.1	Mode Idle	N *	Node description		Statistical upper limi	t A-weighted sound power level, $L_{WA,c}$ (B)				
	-	n *			*					
	Operatio Other mo		eclared A-weighted sour	nd pressure level (dB) $L_{p{ m Al}}$	(oporator pa					
						sition desktop – idle)				
	Other mo			nd pressure level (dB) L_{pAl}	n (operator po	sition desktop – operating)				
	Measure	d accordi		ECMA-74						
			Other	(only if not covered by	/ ECMA-74 <mark>)</mark>					

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 http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model nu	ımber *	ZA2B, ZA2D					Logo			
Issue dat	te *	2017.5.10						Lenc		тм
Product	environ	mental attribut	es - Market require	ments (cor	ntinued)			Require	ment	met
Item								Yes	No	n.a
		magnetic emissi								
P10.4	Comput program		the requirement for low	frequency e	lectromagnetic field	s of the foll	lowing volunta	ry 🔀		
P12		mics for compu								
P12.1*	The disp	play meets the er	gonomic requirements o	of ISO 9241-	307 for visual displa	ay technolo	gies.	\boxtimes		
P12.2*	The phy	sical input device	meets the requirement	ts of ISO 999	95 and ISO 9241-41	0.		\boxtimes		
P13	Packaging and documentation									
P13.1*	Product		ial type(s): Box ial type(s): paper ial type(s): PE weight (weight (kợ weight (kợ (kg): 0.008						
P13.2*	Product	plastic primary p	ackaging is free from P	VC.				\boxtimes		
P13.3*		duct primary cor er recovered fibe	rugated fiberboard pac r content: %	kaging, spe	cify the contained	percentage	of minimum	post-		
P13.4*		media for user ar tronic, 🔀 Paper,	nd product documentatio	on (tick box)						
P13.5	Ùser an		is item if paper docume entation on paper media							
	Totally	chlorine-free						\square		
		al chlorine-free								
	Process	ed chlorine-free						H		
P14	Volunta	ry programs								
P14.1			quirements of the follow	wing volunta	ry program(s):					
	ENERG	Y STAR®	Criteria version: 6.	.1	Date: 2014-9-10	Product	category: 12			
	Eco-lab		Criteria version:		Date:		category:			
	Eco-lab		Criteria version:		Date:	Product	category:			
P15		nal information	· · · ·							
P9			f specific configuration							
	informat knowled provided informat	ion contained in t Ige available at th there is approxir ion.	o representations, guar this document. All inforr the time of completion, a nate and provided for in	mation provid and supplier s aformational	ded by supplier in th shall have no obliga purposes only. See	is documer tion to upda a Lenovo /	nt is provided b ate such inform	based on supp nation. The in	olier's format	tion
P9	See Ene http://ww	ergy Star Qualifie vw.energystar.go	d Notebooks & Tablet C v/index.cfm?fuseaction	Computers fo =find_a_proc	or the latest informat duct.showProductG	tion: roup&pgw_	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	Lenovo TAB4 8	Logo
Model Number	ZA2B, ZA2D	
Issue Date	2017.5.10	Lenovo
Additional information		

P7.1.1	Product environmental attributes										
(d)	Year of manufacture:				2016						
(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 D (according to ErP Lot 3)									
	Memory over base [GB]	3									
ients sting	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	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)						
cap app	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)	10.79									
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled										
(g)	Idle state power demand (Watts);	1	1		1.24						
(h)	Sleep mode power demand (Watts);				1.24						
(i)	Sleep mode with WOL enabled power d	emand (Watts) (where	enabled);								
(j)	Off mode power demand (Watts);				0.051						
(k)	Off mode with WOL enabled power dem	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	age								
(m)	External power supply efficiency (if appli	icable)*:									
	Average active efficiency: 72.39										
(0)	*internal note: show values for all available external power supplies Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): 300										
(p-1)	Measurement methodology used to dete		ntioned in points (I) – i	nternal PSU efficiency:							
		NA									
(p-2)	(p-2) Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: Measuring the Energy Consumption of External Power Supplies, Appendix Z to 10 CFR Part 430.										

(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)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:								
	refe	er to power management, 1mins automatically re	aches sleep mode						
(t)		e condition before the computer automatically re not exceed the applicable power demand requirement		1					
(u)	Length of time after mode that has a low	a period of user inactivity in which the computer ver power demand requirement than sleep mode (in	r automatically reaches a power minutes):	NA					
(v) (w)		re the display sleep mode is set to activate after the ergy-saving potential of power management function		1					
		refer to user manual							
(x)	User information on h	now to enable the power management functionality:							
		refer to user manual							
(z)		neasurements: — test voltage in V and frequency in system, — information and documentation on the ins ting: 230V50HZ-2%-Edition 2.0, 2011-01, Section 4	strumentation, set-up and circuits						
Addition	al Notebook Batter								
Addition	a Holebook Baller	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. $^{\mbox{\tiny 1)}}$							
Internal/b	uilt-in Battery								
External/c	letachable Battery								
Bios Back	up Battery								
Other:									
Additional	information								
1) The battery[ies] in this product cannot be easily replaced by users themselves. Arywynarophara[nre] 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. Jýménu baterie/bateri / tomto výrobku by neměli provádět sami uživatelé. Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt. Der Akku/die Akkus dieses Produkt kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden. Kasutajad ei saa selle toote akut/akusid ise hölpsasti asendada. 4 μπαταpid[-sc] oro mpoïóv αυτό δεν μποροῦν να ανικατασταθούν εύκολα από rouς jõiouç τους χρήστες .a/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes. Korisnik ne može lako zamijentil Bateriju sam u ovom proizvodu. .a batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente. .ietolāji paši nevar nomainīt šā ražojuma akumulatoru(-us). Sio gaminio baterijos [bateriju] pat vartotojas negai lengvai pakeisti. A termék akkumulátorati kumulátorati fa felhasznáti onem tudig egyedül egyszerűen kicserélni. I-batterija/batteriji fdan il-prodott ma tistax/jistghux tiġi/jigu sostitwita/i mill-utenti stess. Batterie [ene] i dette produktet kan ikke lett erstattes av brukerne selv. A ou as baterias deste produs no podo pode gevnuker niet gemakkelijk vervangbaar. Jzytkownik nie može sam w latwy sposób wymienić baterii w tym produkcie. A ou as baterias deste produs no pode pode mer facilmente substituidas pelos próprios utilizadores. Bateri (-lei) v tomto výrobku unozňače vymieňať používateľ. Sateri (-lei) v tomto výrobku unozňače vymieňať používateľ. Sateri (-lei) v tomto výrobku nemče vymieňať používateľ. Sateri (-lei) v tomto výrobku nemče vymieňať používateľ. Sateri (-lei) v tomto výrobku unozňače (pol) fi usor inlocuitá (Inlocuite) de utilizatorii Insişi. Sateri (-lei) v tomto výrobku nemče vymieňať použí									