



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	LCHOVO
	alcarter@lenovo.com	
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	

	based on product specification or test results based obtained from sample testing), that the product
conforms to the statemen	nts given in this declaration.
Type of product *	Portable Computer Tablet
Commercial name *	Lenovo TAB4 10
Model number *	ZA2K, ZA2J, ZA34
Issue date *	2017.4.10
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 nur	mber * ZA2K, ZA2J, ZA34	Logo	Lend		
Issue date	e * 2017.4.10		Leik		<b>У</b> тн
Product (	environmental attributes - Legal requirements		Require	ment	met
Item			Yes	No	n.a.
P1	Hazardous substances and preparations			,	,
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOT	E B1)			

TTOUUCE	environmental attributes - Legal requirements	ixequire	IIICIII	illet
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	$\boxtimes$		
P1.2*	Products do not contain Asbestos (see legal reference).	$\boxtimes$		
	Comment: Legal reference has no maximum concentration value.			
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	$\boxtimes$		
	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*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated			
1 1.4	terphenyl (PCT) in preparations (see legal reference).		ш	
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the			
	chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).			
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week	$\boxtimes$		
	(see legal reference).			
D4 7*	Comment: 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): http://www.lenovo.com/social_responsibility/us/en/environment.html	$\boxtimes$		Ш
	<u> </u>			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal	$\boxtimes$		Ш
P2.2*	symbol. Information on proper disposal is provided in user manual. (See legal reference)  Batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal	<u> </u>		
F Z.Z	reference)		ш	Ш
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	$\boxtimes$		
P3	Conformity verification & Eco design (ErP)			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference).	$\boxtimes$		
	The Declaration of Conformity can be requested at (add link or e-mail address):			
P3.2*	The product complies with the Eco design requirements for energy-related products,	$\boxtimes$		
	(see legal reference).	_		_
	Required information is; 🔀 given in item P15 or added to this document,	$\boxtimes$		
	available at (add URL):			
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and	d 🔀		
D = 0.	hexavalent chromium by weight of these together.		_	
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s used (see legal reference).	) 🔀	Ш	Ш
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montrea	I 🔀		
	Protocol (see legal reference).		_	_
	Comment: Legal reference has no maximum concentration values.			
P6	Treatment information			
P6.1*	Information 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 *	ZA2K, ZA2J, ZA34	Logo	Lanava
Issue date *	2017.4.10		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):			
D7.40	Material type: PC + 20%GF Material type: PC Material type: C7701			
P7.12	Insulation materials of external electrical cables are PVC free.	<u> </u>		<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)	, 🔀		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4:  Marking: >PC-GF20<	$\boxtimes$		
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: DOPO, CAS #: 35948-25-5	$\boxtimes$		$\Box$
	•			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: ISO 1043-4: FR(40)			
<b>D</b> = 10	. , ,			
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: Potassium nonafluoro-1-butanesulfonate, CAS #: 29420-49-3 (See NOTE B4)		Ш	ш
	2. Chemical name: , CAS #: "			
	3. Chemical name: , CAS #: "			
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:>PC-GF20FR(25)<			
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been	$\boxtimes$		
	assigned the following Risk phrases; R36/37/38 and Hazard statements: \$26,\$36			
	The source(s) for these classifications is/are found at (add URL(s)):			
	http://www.chemicalbook.com/CASEN_29420-49-3.htm, (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 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.

Model nun	nber *	ZA2K, Z	A2J, ZA34			Logo
Issue date	*	2017.4.1	0			Lenovo.
Product e	environn	nental at	tributes - Market re	equirements (conti	nued)	Requirement met
Item				(		Yes No n.a.
	Material	and subs	stance requirements	(continued)		
P7.21*	Biobased	d plastic m	naterial content is used	I in the product (See No	OTE B7):	
				s below shall be answe		lated as a susception
			c parts weight > 25 g by weight) is		materiai content (caicu	llated as a percentage
	or	otal plaotic	oby worghly to	, <b>.</b>		
D7.00*			the biobased plastic r			
P7.22*			ree from mercury, i.e. specify: Number of lar	less than 0,1 mg/lamp.	um mercury content pe	er lamp: mg
P8	Batterie		opeony. Hamber of lar	npo. una maxim	ann moreary content pe	many.
P8.1*	Battery o	hemical c	omposition: Li-ion Po	lymer		
P9	Energy	consump	tion (See NOTE B8)			
P9.1		roduct the		s or energy consumption	ons are reported:	
Energy mo			Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference/Standard for energy modes and test method *
Peak (On-I	max)		10.4 W	10.4 W	10.4 W	Full load
Categor	yI3					
Short Idle	State - W	OL	3.42 W	3.46 W	3.59 W	Use for ENERGY STAR V6
Enabled						registration (P <sub>idle</sub> )
Long Idle	State - W	OL	1.24 W	<b>1.27</b> W	1.31 W	Use for ENERGY STAR V6
Ellabled						registration (P <sub>idle</sub> )
Sleep (S3)	- WOL E	nabled	W	W	W	Use for ENERGY STAR V6
01: (00)	14/01 5		4.04104	4.07.14	4.04.104	registration(P <sub>sleep</sub> )
Sleep (S3)			1.24 W	1.27 W	1.31 W	Reference
Off (S5) - V	NOL Enal	oled	W	W	W	Use for ENERGY STAR V6 registration(P <sub>off</sub> )
Off (S5) - V	<b>NOL Disa</b>	bled	<b>0.1</b> W	0.11 W	0.13 W	Use for ErP
			W	W	W	Reference
EPS No-loa	ad		0.035 W	0.038 W	0.071 W	
(External power s wall outlet but disc	supply / charger connected from	plugged in the the product.)				
PTEC *			W	W	W	
Typical Ene	ergy Cons	umption	14.09 kWh/year	14.34 kWh/year	<b>14.88</b> kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$
Annual Ene	ergy Cons	umption	14.03 KWII/yeai	14.04 KWIII year	14.00 KWIII/yeai	+ P <sub>sleep</sub> x 0.35 + P <sub>long_Idle</sub> x 0.10+ P <sub>short_Idle</sub> x 0.30)
						ed; P <sub>idle</sub> : Idle State - WOL Enabled
		•	` `	Efficiency Marking Pro	otocol) * : VI	
			megapixels			
			ve mode: 1 minutes			
P9.2*				on is provided with the	product.	
P9.3			class (monitors only):			
P10	Emissio		Doolared asserting to	NEO 0206 (Car NOTE	: P0)	
P10.1	Mode er		Declared according to lode description	ISO 9296 (See NOTE		t A-weighted sound power level, $L_{WA,c}$ (B)
	Idle	*			*	Weighted sound power level, L <sub>WA,c</sub> (B)
	Operatio	n *			*	
	Other mo		Peclared A-weighted soun	d pressure level (dB) $L_{pAn}$	(operator po	sition desktop – idle)
	Other mo			d pressure level (dB) $L_{pAn}$		sition desktop – operating)
		d accordir		ECMA-74	(=p-0.210) po	
	ivicasule	u accordii	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;  $see \ \underline{\text{http://www.ecma-international.org/publications/standards/Ecma-370.htm}}$ 

Model nu	mber *	ZA2K, ZA2J, ZA	4 <i>34</i>		Logo	Long	V/0	
Issue dat	e *	2017.4.10				Lenc	VO.	м
Product	environr	nental attribute	es - Market requirements	(continued)		Require	ment	met
Item						Yes	No	n.a.
		magnetic emissi						
P10.4			he requirement for low frequer	ncy electromagnetic fields	s of the following volunta	ary 🔀		
	program	· /						
P12		mics for comput		044 007 for viewal display				
P12.1*			onomic requirements of ISO 9		• •	<u> </u>		Щ
P12.2*		<u> </u>	meets the requirements of ISC	0 9995 and ISO 9241-41	0.	$\boxtimes$		
P13		ing and docume						
P13.1*		packaging materi		ht (kg): <b>0.254</b>				
			al type(s): <i>paper(manual)</i> al type(s): <i>PP</i> weight (kg): <i>0.0</i>	weight (kg): <b>0.03</b>				
P13.2*			ackaging is free from PVC.					
P13.3*		, .	ugated fiberboard packaging,	specify the contained r	porcontago of minimum			
F 13.3	consum	er recovered fiber	content: %		ercentage of millimum	posi-		
P13.4*			d product documentation (tick	box):				
	⊠Elect	ronic, 🔀 Paper, [	Other					
P13.5			s item if paper documentation			<b>5</b>		
			entation on paper media is chlo	rine-free:		$\boxtimes$		
	•	lease specify:				_		
	•	:hlorine-free				$\boxtimes$		
		al chlorine-free						
	Process	ed chlorine-free						
P14		ry programs						
P14.1	The prod	duct meets the red	quirements of the following vol	untary program(s):				
	ENEDO	Y STAR®	Criteria version: 6.1	Date: <b>2014-9-10</b>	Draduat aatagamu 12			
	Eco-labe		Criteria version:	Date: 2014-9-10	Product category: 12 Product category:			
	Eco-lab		Criteria version:	Date:	Product category:			
P15	Additio	nal information (	See NOTE B10)					
P9	Energy	consumption of	specific configuration may v	vary; description of the	tested product configu	uration:		
			representations, guarantees,					
			nis document. All information p					
			e time of completion, and suppliate and provided for information					on
	informat		iate and provided for information	onai purposes only. See	a Lenovo Account Repre	cocilialive IOI I	HOLE	
P9	See Ene	ergy Star Qualified	Notebooks & Tablet Computer	ers for the latest informati	on:			
	http://wv	vw.energystar.gov	//index.cfm?fuseaction=find_a	_product.showProductGr	oup&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 10	Logo	
Model Number	ZA2K, ZA2J, ZA34		Lenovo
Issue Date	2017.4.10		reliovo"
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 Categor enable	y and capability adjust	tments applied when a	all 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]	3			
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 (	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capa	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)	14.88			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
(g)	Idle state power demand (Watts);	1	1		1.31
(h)	Sleep mode power demand (Watts);				1.31
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		
(j)	Off mode power demand (Watts);				0.13
(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	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 r	notebook computers):	300
(p-1)	Measurement methodology used to dete	rmine information mer	ntioned in points (I) – i	nternal PSU efficiency	:
(p-2)	Measurement methodology used to dete				

i	0.5C Charge/Discharge	points (o) – loading cycles batteries:	
	odology used to determine information mentioned in r Point P9.1 in the Product IT Eco Declaration:	naximum, idle, sleep, off mode	
	ENERGY STAR Test Method for Computers, R	ev. Aug-2010	
(q) Sequence of steps f	or achieving a stable condition with respect to power	demand::	
	ENERGY STAR Test Method for Computers, R	ev. Aug-2010	
(r) Description of how s	sleep and/or off mode was selected or programmed:		
refer to power ma	nagement, sleep mode: ACPI system level G1/S3 ACPI system level G2/S5 ('soft off') s		
(s) Sequence of events off mode:	required to reach the mode where the equipment au	tomatically changes to sleep and/or	
re	fer to power management, 1mins automatically re	aches sleep mode	
	te condition before the computer automatically resolves not exceed the applicable power demand requirements		1
(u) Length of time after mode that has a lo	r a period of user inactivity in which the compute wer power demand requirement than sleep mode (in	r automatically reaches a power minutes):	NA
	ore the display sleep mode is set to activate after nergy-saving potential of power management functio		1
	refer to user manual		
(x) User information on	how to enable the power management functionality:		
	refer to user manual		
	measurements: — test voltage in V and frequency in v system, — information and documentation on the in sting:  230V50HZ-2%-Edition 2.0, 2011-01, Section 4	strumentation, set-up and circuits	
		, ILC02301	
A -1 -1 4 1 N - 4 - 1 1 - D - 44 -			
Additional Notebook Batte	ry Information:   Battery[ies] <u>not</u> user replaceable	Battery[ies] user replaceable	n/a
Additional Notebook Batte		Battery[ies] user replaceable	n/a
Additional Notebook Batte  Internal/built-in Battery	Battery[ies] <u>not</u> user replaceable  The battery[ies] in this product cannot be easily	Battery[ies] user replaceable	n/a
	Battery[ies] <u>not</u> user replaceable  The battery[ies] in this product cannot be easily	Battery[ies] user replaceable	n/a
Internal/built-in Battery	Battery[ies] <u>not</u> user replaceable  The battery[ies] in this product cannot be easily	Battery[ies] user replaceable	n/a
Internal/built-in Battery External/detachable Battery	Battery[ies] <u>not</u> user replaceable  The battery[ies] in this product cannot be easily	Battery[ies] user replaceable	n/a
Internal/built-in Battery  External/detachable Battery  Bios Backup Battery	Battery[ies] not user replaceable  The battery[ies] in this product cannot be easily replaced by users themselves. 1)	Battery[ies] user replaceable	n/a