



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 statemen	nts given in this declaration.
Type of product *	Portable Computer Tablet
Commercial name *	Lenovo TAB M8 FHD 2nd Gen
Model number *	ZA5F, ZA5G, ZA5H, ZA5J, ZA6L
Issue date *	2019.9.20
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other <i>Russia, Ukraine, Serbia</i>
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 nu	mber *	ZA5F, ZA5G, ZA5H, ZA5J, ZA6L	Logo	Long	27.16	
Issue dat	:e *	2019.9.20		Lend		J _{TM}
Product	environ	mental attributes - Legal requirements		Require	men	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 I	31)	\boxtimes		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.		\boxtimes		
P1.3*	hydrobro	s do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachlo		\boxtimes		
	concentr	ethane, methyl bromide (see legal reference). Comment: Legal reference has no ma ation values.				
P1.4*	terpheny	s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlo l (PCT) in preparations (see legal reference).				
P1.5*		s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbo ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	on atoms in the	e 🔀		
P1.6*	(see lega	th direct and prolonged skin contact do not release nickel in concentrations above 0,5 al reference).	5 μg/cm²/week			
P1.7*		nt: Max limit in legal reference when tested according to EN1811:2011-5. Article 33 information about substances in articles is available at (add URL or mail co	ontact):	\square	П	
	https://w	ww.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure				_
P2	Batterie	s				
P2.1*		oduct contains a battery or an accumulator, the battery/accumulator is labeled with th Information on proper disposal is provided in user manual. (See legal reference)	e disposal			
P2.2*	Batteries referenc	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmit e)	ım. (See legal	l 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*		duct is CE-marked to show conformance with applicable legal requirements (see legal laration of Conformity can be requested at: https://www.lenovo.com/us/en/complianc		\boxtimes		
P3.2*		duct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
		d information is; given in item P15 or added to this document,		\boxtimes		
Dr	David of	Zavanabio da inapon, minorio roto com del pinanco, co	o-declaration			
P5		packaging	and mirror an	٦ 🔽	_	
P5.1*	hexavale	ng and packaging components do not contain more than 0,01% lead, mercury, ent chromium by weight of these together.			<u> </u>	
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature of ee legal reference).	`	,		
P5.3*		luct packaging material is free from ozone depleting substances as specified in the Mo al reference).	ontreal Protoco	ol 🔀		
		nt: Legal reference has no maximum concentration values.				
P6	Treatme	nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).		X		

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.

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

Model number *	ZA5F, ZA5G, ZA5H, ZA5J, ZA6L	Logo	Lanava
Issue date *	2019.9.20		LEI IOVO.

Product	t 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	\boxtimes		
P7.2*	Plastic materials in covers/housing have no surface coating.			
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: 2 years			
P7.10	Service is available after end of production for: 2 years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum): Material type: PC+20%GF Material type: PC Material type: AL5252			
P7.12	Insulation materials of external electrical cables are PVC free.		\boxtimes	
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	d L		
D7.45	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 haloger as defined in IEC 61249-2-21. (See 1NOTE B2)	า 🔛		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: 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: DOPO, CAS #: 35948-25-5			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: FR(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: PX-200, CAS #: 139189-30-3 (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:>PC-GF20FR40<			
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been assigned the following Risk phrases; <i>R43</i> and Hazard statements: <i>H317;H411</i> The source(s) for these classifications is/are found at (add URL(s)):			
D7 00*	http://www.molbase.com/en/precursor_139189-30-3-moldata-67767.html, (See note B5)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):		\boxtimes	Ш
	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 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 number *	ZA5F, ZA5G, ZA5H, ZA5J, ZA6L	Logo	Lonovo
Issue date *	2019.9.20		LEI IOVO,

Product environmental attributes - Market requirements (continued)	Requi	remer	nt met
Item	Yes	No	n.a.

	Material and sub	stance requirements	(continued)		
P7.21*		<u> </u>	d in the product (See No	OTE B7):	
	If YES: at least or	ne of the two alternative	es below shall be answe	ered.	
				,	ated as a percentage of
	total plastic l	by weight) is %.	•	•	
	or b) The weight of	of the highered pleatic	matarialia a		
P7.22*	.,	of the biobased plastic	material is g. less than 0,1 mg/lamp.		
1 7.22	U	specify: Number of la	, , ,	um mercury content pe	er lamp: mg
P8	Batteries	,	'		, ,
P8.1*	Battery chemical	composition: Li-ion Po	lymer		
P9		ption (See NOTE B8)			
P9.1	For the product the		ls or energy consumption		
Energy mo	ode *	Power level at	Power level at	Power level at	Reference/Standard for energy
Peak (On-	may)	100 V AC	115 V AC	230 V AC	modes and test method *
· ·	-	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	T un roud
Categor	<u>y2</u>				
Short Idle	State - WOL	1.67 W	1.68 W	1.7 W	Use for ENERGY STAR V7.1
Enabled					registration (Pidle)
I ong Idle	State - WOL	0.16 W	0.15 W	0.18 W	Use for ENERGY STAR V7.1
Enabled	olule WOL	0.70 **	0.70 11	0.70 **	registration (P _{idle})
Sleep (S3)	- WOL Disabled	0.16 W	0.15 W	0.18 W	Reference
Off (S5) - I	WOL Disabled	0.15 W	0.15 W	0.17 W	Use for ErP
EPS No-loa	ad	0.026 W	0.026 W	0.04 W	
(External power s	supply / charger plugged in the sconnected from the product.)				
ETEC *	sconnected from the product.)	5.35 kWh/year	5.36 kWh/year	5.59 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25)$
Annual En	ergy Consumption				+ P _{sleep} x 0.35 + P _{long_Idle} x 0.10+
		D - Off M- 4-(Of) 14	OL Franklada B Olasa	M1-(02) MOL 5	P _{short_Idle} x 0.30)
External D	ower Supply Efficie		I Efficiency Marking Pro		ed; Pidle: Idle State - WOL Enabled
	solution * : 800*128	,	Liliciency Marking Fre	, VI	
		<u> </u>			
		ave mode: 1 minutes			
P9.2*		<u> </u>	ion is provided with the	product.	
P9.3		class (monitors only):			
P10	Emissions	Dealers I consulting t	. 100 0000 (0 - NOTE	. DO.	
P10.1		 Declared according to Mode description 	o ISO 9296 (See NOTE		it A-weighted sound power level, Lwa,c (B)
F 10.1	Idle	*		*	It A-weighted Sound power level, LWA,c (B)
	Operation	*		*	<u>\</u>
		Declared A-weighted sour	od pressure level (dB) L_{pAn}	/anavata :: ::	
					osition desktop – idle)
	Other mode	Declared A-weighted sour	ad pressure level (dB) $L_{p m An}$	(operator po	sition desktop – operating)
	Measured accord	ing to: SO 7779	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 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 nun	nber *	ZA5F, ZA5G, ZA5I	H, ZA5J, ZA6L		Logo	Lono	\/O	
Issue date	*	2019.9.20				Leno	VO,	
Product e	environn	nental attributes	- Market requirements	(continued)		Require	ment	met
Item			-			Yes	No	n.a.
		magnetic emissions						
P10.4	program	(s):	requirement for low frequer	ncy electromagnetic fields	of the following voluntary			
P12		mics for computing						
P12.1*	The disp	lay meets the ergon	omic requirements of ISO 9	9241-307 for visual display	y technologies.	\boxtimes		
P12.2*	The phys	sical input device me	ets the requirements of ISC	O 9995 and ISO 9241-410).	\boxtimes		
P13		ng and documenta						
P13.1*	Product		ype(s): box weight ype(s): paper(manual) ype(s): PE weight (kg): 0.0	ht (kg): 0.083 weight (kg): 0.106 016				
P13.2*	Product	plastic primary pack	aging is free from PVC.			\boxtimes		
P13.3*		duct primary corruga er recovered fiber co	nted fiberboard packaging, ntent: %	specify the contained p	ercentage of minimum po	st-		
P13.4*			roduct documentation (tick Other	box):				
P13.5	(Please	only complete this it	em 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 requi	rements of the following vol	untary program(s):				
	ENERGY Eco-labe Eco-labe		Criteria version: 7.1 Criteria version: Criteria version:	Date: 2018-11-18 Date: Date:	Product category: 2 Product category: Product category:			
P15		nal information (Sec	,					
P9			ecific configuration may v					
	informati knowled	ion contained in this ge available at the ti I here is approximate	presentations, guarantees, document. All information p me of completion, and supp and provided for information	provided by supplier in this plier shall have no obligati	s document is provided bas on to update such informa	sed on supp tion. The inf	lier's ormati	on
P9			otebooks & Tablet Computed dex.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 TAB M8	Logo	
Model Number	ZA5F, ZA5G, ZA5H, ZA5J, ZA6L		Longyo
Issue Date	2019.9.20		Lenovo
Additional information			

(d)	Year of manufacture:				2019
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 Categorenable	ry and capability adjust	ments applied when a	all discrete graphics o	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			
capability adjustments applied during testing	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
	Discrete television tuner	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
	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			
saults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	5.35			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
g)	Idle state power demand (Watts);		l	1	1.68
h)	Sleep mode power demand (Watts);				0.15
i)	Sleep mode with WOL enabled power d	emand (Watts) (where	enabled);		
j)	Off mode power demand (Watts);				0.15
k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		
l)	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: 73.6%				
	*internal note: show values for all available external p	ower supplies			
0)	Minimum number of loading cycles that		tand (applies only to n	otebook computers):	800cls , ≥70% o capacity
(p-1)	Measurement methodology used to dete	ermine information men	ntioned in points (I) – in	nternal PSU efficiency:	
p-2)	Measurement methodology used to dete	ermine information men	ntioned in points (m) -	external PSU efficience	

(p-3)	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 Final Test Method for Computers, Rev. Nov 2018				
(q)	Sequence of steps for achieving a stable condition with respect to power demand: ENERGY STAR Final Test Method for Computers, Rev. Nov 2018				
(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: refer to power management, 1mins automatically reaches sleep mode				
(t)	Duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes):				
(u)	Length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode (in minutes):				
(v)				1	
(w)	(w) Information on the energy-saving potential of power management functionality: refer to user manual				
(x)	User information on how to enable the power management functionality: refer to user manual				
(z) Test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing: 230V50HZ-2%-Edition 2.0, 2011-01, Section 4, IEC62301					
Additio	nal Notebook Batter	y Information:			
		Battery[ies] <u>not</u> user replaceable The battery[ies] in this product cannot be easily	Battery[ies] user replaceable	n/a	
		replaced by users themselves. 1)			
Internal/built-in Battery					
External/detachable Battery					
Bios Backup Battery					
Other:					
Addition	nal information				
1					
		asily replaced by users themselves. родукт не може да се замени[ат] песно от самите потребите:	nu		

Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios.

Výměnu baterie/baterií v tomto výrobku by neměli provádět sami užívatelé. 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. Il-batterija/batteriji f'dan il-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 uşor înlocuită (înlocuite) de utilizatorii înşişi. Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ.

Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa. Det är inte enkelt för kunden att själv byta ut batteriet/batterierna.

Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.