



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	conforms to the statements given in this declaration.					
Type of product *	Notebook					
Commercial name *	ThinkBook 14 2nd Gen, Lenovo Prestige 6 14, Zhaoyang E4/K4e					
Model number *	20VD, 82F1, 82F6, 82F8					
Issue date *	2020/8/28					
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 *		20VD, 82F1, 82F6, 82F8	Logo	Lon		
Issue dat	e *	2020/8/28		Lend) _{TM}
Product	environ	mental attributes - Legal requirements		Require	men	t 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	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), omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no m ration values.				
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych l (PCT) in preparations (see legal reference).	lorinated			
P1.5*		odo not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 cart ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	oon atoms in th			
P1.6*	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	,5 μg/cm²/weel	k 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail own.lenovo.com/social_responsibility/us/en/environment.html	contact):			
P2	Batterie	s				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with t Information on proper disposal is provided in user manual. (See legal reference)	he disposal			
P2.2*	Batteries referenc	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	ium. (See lega	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 requirements) laration of Conformity can be requested at: https://www.lenovo.com/us/en/complian		\boxtimes		
P3.2*		fluct 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, available at: https://www.lenovo.com/us/en/compliance/e	eco-declaration			
P5	Product	packaging				
P5.1*	Packagii	ng and packaging components do not contain more than 0,01% lead, mercury ant chromium by weight of these together.	y, cadmium an	nd 🔀		
P5.2*	The pack used (se	caging materials are marked with abbreviations and numbers indicating the nature of elegal reference).	,	, 2		
P5.3*	(see lega	luct packaging material is free from ozone depleting substances as specified in the Nal reference). In the standard of the sta	nontreal Protoc	ol 🔀		
P6		nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).		M	\Box	

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 *	20VD, 82F1, 82F6, 82F8	Logo	Lonovo
Issue date *	2020/8/28		LEI IOVO"

Produc	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			
P7.2*	Plastic materials in covers/housing have no surface coating.		\boxtimes	
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.	\boxtimes		
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	\boxtimes		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	\boxtimes		
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\boxtimes		
P7.8*	Upgrading can be done using commonly available tools	\boxtimes		
P7.9	Spare parts are available after end of production for: 5 years			
P7.10	Service is available after end of production for: 5 years			
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
	Material type: Aluminum 5052 Material type: Covestro FR3008 Material type: Covest	o FR3021	<u> </u>	
P7.12	Insulation materials of external electrical cables are PVC free.		\boxtimes	
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%			
	weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, an			
	polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containin more than 25% post-consumer recycled content.	g		
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low haloge	n 🖂		
	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:	\boxtimes		
D7.47	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: , CAS #:		Ш	
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g			
	according ISO 1043-4:			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations i	n _		
	concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4)			
	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:			
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been	-		╫
' ' ' ' '	assigned the following Risk phrases; 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):	\square		
			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 2.15%. 			
	or			
	b) The weight of recycled material is 11.5 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 *	20VD, 82F1, 82F6, 82F8	Logo	Lonovo
Issue date *	2020/8/28		Lei IOVO"

Product environmental attributes - Market requirements (continued)	Requi	Requirement m	
Item	Yes	No	n.a.

		tance requirements			
			in the product (See No	,	
		ree from mercury, i.e. specify: Number of lan	less than 0,1 mg/lamp. nps: and maxim	um mercury content pe	r lamp: mg
	atteries				
P8.1* Ba	attery chemical co	omposition: <i>Li-polyme</i>	er		
		tion (See NOTE B8)			
			s or energy consumption		
Energy mode	*	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-max	x)	65 W	65 W	65 W	Full load
Category -	<u>1</u>				
Short Idle Sta Enabled	ate - WOL	6.95 W	6.48 W	6.95 W	Use for ENERGY STAR V8 registration (P _{idle})
Long Idle Sta Enabled	nte - WOL	1.39 W	1.37 W	1.45 W	Use for ENERGY STAR V8 registration (P _{idle})
Sleep (S3) - V	VOL Enabled	1.39 W	1.37 W	1.45 W	Use for ENERGY STAR V8 registration (Psleep)
Off (S5) - WO	L Enabled	0.43 W	0.42 W	0.48 W	Use for ENERGY STAR V8 registration (P _{off})
Off (S5) - WO	L Disabled	0.43 W	0.42 W	0.48 W	Use for ErP
Category -	<u>2</u>				
Short Idle Sta Enabled	ate - WOL	7.83 W	7.70 W	7.92 W	Use for ENERGY STAR V8 registration
Long Idle Sta Enabled	nte - WOL	1.45 W	1.44 W	1.50 W	Use for ENERGY STAR V8 registration
Sleep (S3) - V	VOL Enabled	1.45 W	1.44 W	1.50 W	Use for ENERGY STAR V8 registration
Off (S5) - WO	L Enabled	0.42 W	0.42 W	0.46 W	Use for ENERGY STAR V8 registration
Off (S5) - WO	L Disabled	W	W	W	Use for ErP
EPS No-load (External power supply wall outlet but disconne	y / charger plugged in the ected from the product.)	0.023 W	0.031 W	0.08 W	
PTEC * Typical Energy	y Consumption	W	W	W	
ETEC *	y Consumption	24.42 kWh/year	24.09 kWh/year	24.92 kWh/year	ETEC = (8760/1000) x (Poff x 0.25 + Psleep x 0.35 + Plong_idle x 0.10+ Pshort_idle x 0.30)
					d; P _{idle} : Idle State - WOL Enabled
External Power	er Supply Efficien	cy Level (International	Efficiency Marking Pro	otocol) * : VI	
Display resolu	ition * : 1920*108	0 megapixels			
Default time to	enter energy sa	ve mode: 25 minutes			
			on is provided with the	product.	
		lass (monitors only):		•	
	missions				
		Declared according to	ISO 9296 (See NOTE	B9)	
		lode description			: A-weighted sound power level, $L_{WA,c}$ (B)

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

Idle	* Idle	* 2.8	
Operation	* CPU Operating	* 3.3	
Other mode	Declared A-weighted sound pressure level (dB) $L_{p m Am}$	21.6 (operator position desktop – idle)	
Other mode	Declared A-weighted sound pressure level (dB) $L_{p m Am}$	29.3 (operator position desktop – operating)	
Measured accor	ding to: 🔀 ISO 7779 🔀 ECMA-74		
	Other (only if not covered by E	ECMA-74)	

Model nu	mber *	20VD, 82F1, 82	F6, 82F8		Logo	П	000	1/0	
Issue dat	e *	2020/8/28				L	eno	VO,	
Product	environr	mental attribute	es - Market requirements (continued)		R	equire	ment	met
Item							Yes	No	n.a.
		nagnetic emission							
P10.4	Compute program		he requirement for low frequenc	cy electromagnetic fields	of the following volu	intary			\boxtimes
P12	Ergonoi	nics for comput	ing products						
P12.1*	The disp	lay meets the erg	onomic requirements of ISO 92	241-307 for visual display	y technologies.			\boxtimes	
P12.2*	The phys	sical input device	meets the requirements of ISO	9995 and ISO 9241-410).			\boxtimes	
P13		ng and docume							
P13.1*	Product		al type(s): <i>EPE cushion</i> weight	t (kg): 0.016 t (kg): 0.087 t (kg): 0.307					
P13.2*	Product	plastic primary pa	ckaging is free from PVC.				\boxtimes		
P13.3*		duct primary corre	ugated fiberboard packaging, s	specify the contained p	ercentage of minimu	um post-			
P13.4*		media for user an ronic, ⊠Paper, [d product documentation (tick b Other	oox):					
P13.5	Ùser and		s item if paper documentation u ntation on paper media is chlor						
	•	hlorine-free al chlorine-free							
	Process	ed chlorine-free					┌		
P14	Volunta	ry programs							
P14.1	The prod	duct meets the red	quirements of the following volu	ntary program(s):					
	ENERG` Eco-labe Eco-labe		Criteria version: 8.0 Criteria version: Criteria version:	Date: 2020/09/18 Date: Date:	Product category: 1 Product category: Product category:	1&2			
P15		nal information (
P9			specific configuration may va						
	informati knowled provided informati	ion contained in the ge available at the I here is approxime ion.	representations, guarantees, and supplies document. All information protestime of completion, and supplies at and provided for information	ovided by supplier in this ier shall have no obligati nal purposes only. See a	s document is provid on to update such in a Lenovo Account Re	ed based formation	on support on the interest of the support of the su	olier's formati	on
P9			Notebooks & Tablet Computer /index.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	ThinkBook 14 G2 ITL,Lenovo 威 6 14 ITL,昭阳E4-ITL,昭阳K4e-ITL, Lenovo K4e-ITL	Logo
Model Number	20VD, 82F1, 82F6, 82F8	Lonovo
Issue Date	2020/8/28	Lenovo.
Additional information		

(d)	Year of manufacture:						
(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 Categorienable	ry and capability adjus	tments applied when a	II 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		
Test results capability adjustments applied during testing	Memory over base [GB]	40	40 \				
	Additional internal storage	Yes (Yes / No)	Yes (Yes / No)	(Yes / No)	(Yes / No)		
	Discrete television tuner	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)		
	Discrete Audio Card	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)		
	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	Yes #: GeForce MX450 (Yes / No)	#: (Yes / No)	#: (Yes / No)		
	Category of discrete graphics Card(s)						
	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	14.76	15.7				
	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled	14.76	15.7				
(g)	Idle state power demand (Watts);				4.17&4.57		
(h)	Sleep mode power demand (Watts);						
(i)	Sleep mode with WOL enabled power demand (Watts) (where enabled);						
(j)	Off mode power demand (Watts); 0.48&0.44						
(k)	Off mode with WOL enabled power demand (Watts) (where enabled); 0.488						
(l)	Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):						
	10% 20% 50%	100% Avera	age				
(m)	External power supply efficiency (if applicable)*:						
	Average active efficiency: 90.4%						
(o)	*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 determine information mentioned in points (I) – internal PSU efficiency:						

(p-2)	Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: ENERGY STAR® Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies Eligibility Criteria (Version 2.0)						
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: ≥70% of Cmin						
(p-4)	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: IEC 62623						
(q)	Sequence of steps for achieving a stable condition with respect to power demand: **Power on -> Wait 5 minutes -> Stable condition**						
(r)	Description of how sleep and/or off mode was selected or programmed: **Begin menu -> Power -> Select sleep or off mode**						
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: **Energy-star requirement**						
(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)	Length of time before the display sleep mode is set to activate after user inactivity (in minutes):						
(w)	Length of time before the display sleep mode is set to activate after user inactivity (in minutes): Information on the energy-saving potential of power management functionality: Refer to User Guide						
(x)	User information on how to enable the power management functionality: **Refer to User Guide**						
(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: ENERGY STAR® Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies Eligibility Criteria (Version 2.0)						
Additio	nal Notebook Batter	v Information:					
, taaitio	na Holobook Batto.	Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a			
		The battery[ies] in this product cannot be easily replaced by users themselves. 1)					
Internal/built-in Battery							
External/detachable Battery							
Bios Backup Battery							
Other:							
Addition	al information						
<u> </u>							

The battery[ies] in this product cannot be easily replaced by users themselves.

Акумулаторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители.

Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios. Výměnu baterie/baterií v tomto výrobku by neměli provádět sami uživatelé.

Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.

Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden.

Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada.

Η μπαταρία[-ες] στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες La/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes. Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu.

La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente.

Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us). Šio gaminio baterijos [bateriju] 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.