



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	Log	0		
Company name *	Lenovo				
Contact information *	Lenovo Global Environmental Affairs		ODOVO		
e-mail address	Alvin L Carter		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 statemen	conforms to the statements given in this declaration.					
Type of product *	Notebook					
Commercial name *	ThinkBook 16p G2 ACH					
Model number *	20YM					
Issue date *	2021-3-30					
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 *		20YM	Logo	Long	2016	
Issue dat	e *	2021-3-30		Lend	JVC) _{TH}
Product environmental attributes - Legal requ		mental attributes - Legal requirements	<u> </u>	Require	ment	met
Item				Yes	No	n.a.
P1	Hazardo	ous substances and preparations				
P1.1*		do comply with current European RoHS Directive. (See legal reference and NOT	E B1)	\boxtimes		
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3*	hydrobro trichloro	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), omofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetractethane, methyl bromide (see legal reference). Comment: Legal reference has no nation values.				
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych rl (PCT) in preparations (see legal reference).	nlorinated			
P1.5*	Products chain co	odo not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 car ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).				
P1.6*	(see lega	th direct and prolonged skin contact do not release nickel in concentrations above (al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.	0,5 μg/cm²/wee	k 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail www.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	contact):			
P2	Batterie	s				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with Information on proper disposal is provided in user manual. (See legal reference)	the disposal	\boxtimes		
P2.2*		or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadr	nium. (See lega	al 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conform	nity verification & Eco design (ErP)				
P3.1*	The Dec	duct is CE-marked to show conformance with applicable legal requirements (see le laration of Conformity can be requested at (add link or e-mail address): www.lenovo.com/us/en/compliance/eu-doc	gal reference).			
P3.2*	The prod	duct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
	Required	d information is; given in item P15 or added to this document, available at (add URL): www.lenovo.com/us/en/compliance/eco-declaration				
P5		packaging				
P5.1*		ng and packaging components do not contain more than 0,01% lead, mercur	v cadmium ar	nd 🔽		
	hexavale	ent chromium by weight of these together.				
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature legal reference).		,		
P5.3*	Protocol	duct packaging material is free from ozone depleting substances as specified (see legal reference). nt: Legal reference has no maximum concentration values.	in the Montre	al 🔀		
P6	Treatme	nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).		\boxtimes		

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.

woder number *		20YM	Logo	Len	01/0	•
Issue dat	te *	2021-3-30		Len		TH.
Product	- Enviro	mental attributes - Market requirements (See General NOTE GN onmental conscious design	below)	Require	ment r	net
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P7		Disassembly, recycling				
P7.1*	Parts tha	at have to be treated separately are easily separable		\boxtimes		
P7.2*	Plastic m	naterials in covers/housing have no surface coating.		\boxtimes		
P7.3*	Plastic p	arts > 100 g consist of one material or of easily separable materials.		\boxtimes		
P7.4*	Plastic p	\boxtimes				
P7.5	Plastic p	\boxtimes				
P7.6*	Labels a	re easily separable. (This requirement does not apply to safety/regulatory labels).		\boxtimes		
		lifetime				
P7.7*	Upgradir	ng can be done e.g. with processor, memory, cards or drives		\boxtimes		
P7.8*	Upgradir	ng can be done using commonly available tools		\boxtimes		
P7.9	Spare pa	arts are available after end of production for: 5 years				
P7.10	Service i	s available after end of production for: 5 years				
		and substance requirements				
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):				
P7.12		type: PC/ABS Material type: metals Material numbers Material of external electrical cables are PVC free.	al type:		\square	$\overline{}$
P7.12		n materials of external electrical cables are PVC free.				+
P7.13			in 0.41	2/	<u> </u>	
P7.14	weight (polyvinyl	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) ag more than 25% post-consumer recycled content.	e retardants, ar	nd		
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 lo	w		
P7.16	Marking:					
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without co				
	TBBF 26265-0	PA (additive), TBBPA (reactive) (See NOTE B3), Other: Brominated epoxy 8-7	resin. CAS #:			
		nemical specifications of flame retardants in printed circuit boards (without compone g ISO 1043-4: <i>FR(16)</i>	ents) > 25 g			
P7.18	concentr 1. Chem 2. Chem	ame retarded plastic parts > 25 g contain the following flame retardant substance rations above 0,1%: ical name:, CAS #: (See NOTE B4) ical name: , CAS #: "	s/preparations	in		
		ical name: , CAS #: nemical specifications of flame retardants in plastic parts > 25 g according ISO 104:	3-4:			
P7.19	In plastic	parts > 25 g, flame retardant substances/preparations above 0,1% are used which	n have been		Ħ	$\overline{\boxtimes}$
	-	If the following Risk phrases; and Hazard statements:				<u></u> V
	The sour	rce(s) for these classifications is/are found at (add URL(s)):	see note B5)			
P7.20*	Postcons	sumer recycled plastic material content is used in the product (See Note B6):		\boxtimes		
	a) Of t	at least one of the two alternatives below shall be answered; total plastic parts' weight > 25 g, the postconsumer recycled plastic material content ercentage of total plastic by weight) is 0%. The weight of recycled material is 0 g.	t (calculated as			

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 nun	nber *	20YM				Logo	Lonovo
Issue date	ssue date * 2021-3-30		30				Lenovo
Product 6	environn	nental a	ttributes - Market r	equirements (contir	nued)		Requirement met
Item				,			Yes No n.a.
			stance requirements				
P7.21*	Biobase	d plastic n	naterial content is use	d in the product (See NO	OTE B7):		
				es below shall be answe			
				g, the biobased plastic r	naterial content (calcula	ated as a percenta	ge
	or	otai piasti	c by weight) is	6 .			
		weight o	f the biobased plastic	material is g.			
P7.22*				less than 0,1 mg/lamp.			
			specify: Number of la	mps: and maximu	ım mercury content per	lamp: mg	
P8	Batterie		anamanitian, Lithium				
P8.1*			composition: Lithium	on			
P9.1			tion (See NOTE B8)	ls or energy consumption	ons are reported:		
Energy mo		noddot tin	Power level at	Power level at	Power level at	Reference/Standa	rd for energy
			100 V AC	115 V AC	230 V AC	modes and test m	
Peak (On-i	nax)		230 W	230 W	230 W	Full load	
Category	<u>/ I1-</u>						
Short Idle	State - W	OL	8.57 W	8.53 W	8.61 W	Use for ENERGY	STAR V8.0
Enabled	**	J _				registration (P _{idle} ,	
Long Idle	Stato - W	01	4.78 W	4.76 W	4.60 W	Use for ENERGY	STAP V8 0
Enabled	state - vv	OL .	4.70 **	4.70 **	4.00 11	registration (P _{idle}	
Sleep (S3)	- WOL E	nabled	0.91 W	0.91 W	0.91 W	Use for ENERGY	
						registration (P _{slee}	p)
Sleep (S3)	- WOL D	isabled	0.91 W	0.91 W	0.91 W	Use for ENERGY	STAR V8.0
						registration	
Off (S5) - V	VOL Enal	bled	0.31 W	0.31 W	0.30 W	Use for ENERGY	
						registration, ErP	(P _{off})
EPS No-loa			0.02 W	0.02 W	0.07 W		
(External power s wall outlet but disc	upply / charger connected from	plugged in the the product.)					
PTEC *			W	W	W		\boxtimes
Typical Ene	ergy Cons	umption	30.18 kWh/year	30.06 kWh/year	30.1 kWh/year	$E_{TEC} = (8760/1000)$)) y (P y 0 25
Annual Ene	ergy Cons	umption	NVIII/year	NVVII/year	VVIII year	$+ P_{sleep} \times 0.35 + P$	long Idle X 0.10+
		•				P _{short Idle} x 0.30)	
Extornal D	NAVOR COURT	du Efficien		OL Enabled; Psleep: Sleep		l; P _{idle} : Idle State - W	/OL Enabled
		-		al Efficiency Marking Pro	iocoi) . VI		
			00megapixels				<u> </u>
			ave mode: 30 minutes	ion io provide duvith the	product		
P9.2*				ion is provided with the p	product.	<u> </u>	
P9.3	<u> </u>		class (monitors only):				
P10	Emissio Noise er		- Declared according t	o ISO 9296 (See NOTE	R9)		
P10.1	Mode		Mode description	0 100 0200 (066 NOTE	Statistical upper limit	A-weighted sound	power level, L _{WA c} (B)
	Idle	*	System Idle		* 2.3	J	, -m, (-)
	Operatio		CPU;Operation		* 2.3		
	Other mo		Declared A-weighted sour	nd pressure level (dB) $L_{p{\sf Am}}$	17.8 (operator position	on desktop – idle)	
	Other mo			ad pressure level (dB) $L_{p m Am}$	17.5 (operator position		ing)
	Measure	d accordi		ECMA-74	1	<u> </u>	-
	ModSuit	a accordi	Other	(only if not covered by	FCMA-74)		
Model nun	nber *	20YM	30101	(S.II) II HOL OUVERED BY		Logo	
		20110				5	anovo

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

Issue dat	te *	2021-3-30								
Product	environi	mental attribute	s - Market requirem	ents (cor	itinued)			Require	ment	met
Item								Yes	No	n.a.
		magnetic emissio								
P10.4	program	ı(s):	ne requirement for low f	requency e	ectromagnetic field	s of the followin	ig voluntary			
P12	Ergono	mics for computi	ng products							
P12.1*	The disp	olay meets the erg	onomic requirements of	ISO 9241-	307 for visual displa	y technologies.	•	\boxtimes		
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.							\boxtimes		
P13	Packag	ing and documen	tation							
P13.1*	Product Product Product	packaging materia packaging materia packaging materia packaging materia packaging materia	al type(s): <i>EPE</i> al type(s): <i>PE</i>	weight (kg weight (kg weight (kg weight (kg weight (kg)):					
P13.2*			ckaging is free from PV		<u>,,, </u>			\boxtimes		\Box
P13.3*	For prod		igated fiberboard pack		cify the contained p	percentage of r	minimum pos			
P13.4*	Specify		d product documentation Other	n (tick box):						
P13.5	Ùser an		item if paper documen ntation on paper media							
	,	chlorine-free cal chlorine-free								
	Process	ed chlorine-free								
P14	Volunta	ry programs								
P14.1			uirements of the followi	ng voluntar	y program(s):					
	Eco-labe	el:	Criteria version: 8.0 Criteria version: Criteria version:)	Date: 2021-3-17 Date: Date:	Product cate Product cate Product cate	gory:			
P15		nal information (S								
P9			specific configuration							
	informat knowled provided informat	ion contained in th ge available at the I here is approximation.	representations, guara is document. All informa time of completion, an- ate and provided for info	ation provid d supplier s ormational p	led by supplier in th hall have no obligat ourposes only. See	is document is tion to update s a Lenovo Acco	provided base uch informatie	ed on supp on. The inf	olier's format	
P9			Notebooks & Tablet Co /index.cfm?fuseaction=							

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 16p G2 ACH	Logo		
Model Number	20YM		Lenovo	
Issue Date	2021-3-30		Leliovo.	
Additional information				

(d)	Year of manufacture:				2021
e)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with	switchable graphics r	mode with UMA driving	g the display.	` ,
f)	Etec value (kWh) per ErP Lot 3 Categor enable	ry and capability adjus	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]			16	
ents	Additional internal storage	(Yes / No)	(Yes / No)	NO (Yes / No)	(Yes / No)
adjustm ring tes	Discrete television tuner	(Yes / No)	(Yes / No)	NO (Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete Audio Card	(Yes / No)	(Yes / No)	NO (Yes / No)	(Yes / No)
cap	Discrete graphics Card(s) [number / #]	#: (Yes / No)	#: (Yes / No)	YES #: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)				
sults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)			27.48	
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
g)	Idle state power demand (Watts);		I		9.48
h)	Sleep mode power demand (Watts);				0.88
i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		
j)	Off mode power demand (Watts);				0.33
k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		
1)	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: 230W:92.19	9%, 91.58%, 91.72%			
0)	*internal note: show values for all available external policy Minimum number of loading cycles that the state of the state		tand (applies only to n	otebook computers):	300
(p-1)	Measurement methodology used to dete	ermine information mer	ntioned in points (I) – in	nternal 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 metho	dology used to determine information mentioned in p ≥70% of Cmin	oints (o) – loading cycles batteries:			
(p-4)		dology used to determine information mentioned in n Point P9.1 in the Product IT Eco Declaration:	naximum, idle, sleep, off mode			
		IEC 62623				
(q)	Sequence of steps for	r achieving a stable condition with respect to power	demand::			
		Power on -> Wait 5 minutes -> Stable cor	ndition			
(r)	Description of how sl	eep and/or off mode was selected or programmed:				
		Begin menu -> Power -> Select sleep or o	ff mode			
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: NA					
(t)		te condition before the computer automatically re not exceed the applicable power demand requirement		30min		
(u)	Length of time after	a period of user inactivity in which the compute ver power demand requirement than sleep mode (in	r automatically reaches a power	NA		
(v)	Length of time befo	re the display sleep mode is set to activate after	user inactivity (in minutes):	10min		
(w)	Information on the er	nergy-saving potential of power management function	nality: <i>Refer to User Guid</i> e			
(x)	User information on I	now to enable the power management functionality:	Refer to User Guide			
(z)		neasurements: — test voltage in V and frequency in system, — information and documentation on the institution.				
		230V50HZ-2%-Edition 2.0, 2011-01, Section 4	I, IEC62301			
Additiona	al Notebook Batter	y Information:				
		Battery[ies] <u>not</u> user replaceable	Battery[ies] user replaceable	n/a		
		The battery[ies] in this product cannot be easily replaced by users themselves. 1)				
Internal/b	uilt-in Battery					
External/o	letachable Battery					
Bios Back	up Battery					
Other:	Other:					
Additional	information					
4)						
1)						

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 [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 ușor înlocuită (înlocuite) de utilizatorii înșiși.

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.