



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	<u> </u>
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 *	Lenovo 300e Chromebook 2nd Gen MTK					
Model number *	81QC					
Issue date *	2019-01-29					
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 nu	ımber *	81QC	Logo	Lon		
Issue dat	:e *	2019-01-29		Lend) _{TM}
Product	environ	mental attributes - Legal requirements		Require	ment	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.		\boxtimes		
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 metation values.				
P1.4*		s do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychl d (PCT) in preparations (see legal reference).	orinated	\boxtimes		
P1.5*	Products	s do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carb ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	on atoms in th	e 🔀		
P1.6*	(see lega	th 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/week	< 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail ow.lenovo.com/social_responsibility/us/en/environment.html	contact):			
P2	Batterie	s				
P2.1*		oduct 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	s or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadm e)	ium. (See lega	I 🔀		
P2.3*	Batteries	s and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conform	nity verification & Eco design (ErP)				
P3.1*	The prod	duct is CE-marked to show conformance with applicable legal requirements (see legal legal requirements): laration of Conformity can be requested at (add link or e-mail address): www.lenovo.com/social_responsibility/us/en/ec_doc_notebooks/	jal reference).			
P3.2*	The prod	duct complies with the Eco design requirements for energy-related products,				
		al reference). d information is;				
	httn://w	ww.lenovo.com/social_responsibility/us/en/datasheets_notebooks/				
P5		packaging				
P5.1*	Packagii	ng and packaging components do not contain more than 0,01% lead, mercury ent chromium by weight of these together.	, cadmium an	nd 🔀		
P5.2*	The pac	kaging materials are marked with abbreviations and numbers indicating the nature of the legal reference).	of the material(s	s) 🔀		
P5.3*	The prod	duct packaging material is free from ozone depleting substances as specified in the N al reference).	Iontreal Protoc	ol 🔀		
De		nt: Legal reference has no maximum concentration values.				_
P6.1*		nt information on for recyclers/treatment facilities is available (see legal reference).				
1 0.1	miloimali	on for recyclers/freathlent facilities is available (see legal reference).				

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 *	81QC	Logo	Lonovo
Issue date *	2019-01-29		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.	\boxtimes		
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.			
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			
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			
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: PC/ABS Material type: Material type:			
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, an 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.	d 🖳		
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)	n 🗌		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: >PC+ABS-TD15FR(40)<			
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: Brominated epoxy resin. CAS #: 26265-08-7			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: FR(16)			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations is concentrations above 0,1%: 1. Chemical name: BPADP, CAS #: 181028-79-5 (See NOTE B4) 2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "	n 🔲		
	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):	\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 3.6%. or b) The weight of recycled material is 17.6271g. 			

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 *	81QC	Logo	Lanava
Issue date *	2019-01-29		Lei IOVO"

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

		ostance requirements			
P7.21*	Biobased plastic	material content is used	d in the product (See No	OTE B7):	
	 a) Of total plas total plastic 	ne of the two alternative tic parts' weight > 25 g, by weight) is %.			ted as a percentage of
	or	of the highered plactic r	matarial ia a		
P7.22*		of the biobased plastic refree from mercury, i.e.			
F1.22		d specify: Number of lar		um mercury content pe	r lamp: mg
P8	Batteries				
P8.1*	Battery chemical	composition: Lithium i	on		
P9		ption (See NOTE B8)			
P9.1		he following power level	s or energy consumption	ons are reported:	
Energy mo	de *	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)	14.9 W	14.6 W	15.56 W	Full load
Categor	<u>y I1-</u>				
Short Idle Enabled	State - WOL	3.8 W	3.8 W	3.9 W	Use for ENERGY STAR V6 registration (Pidle)
Long Idle Enabled	State - WOL	1.8 W	1.8 W	1.9 W	Use for ENERGY STAR V6 registration (P _{idle})
Sleep (S3)	- WOL Disabled	0.7 W	0.6 W	0.6 W	Reference
Off (S5) - V	WOL Disabled	0.3 W	0.3 W	0.3 W	Use for ErP
EPS No-loa	ad	0.02 W	0.02 W	0.07 W	
(External powers	supply / charger plugged in the connected from the product.)	e			
PTEC *	connected from the product.)	22.71 W	22.71 W	22.71 W	
Typical En	ergy Consumption				
ETEC *	ergy Consumption	13.97 kWh/year	14.32 kWh/year	14.06 kWh/year	ETEC = (8760/1000) x (Poff x 0.25 + Psleep x 0.35 + Plong_idle x 0.10+ Pshort_idle x 0.30)
		Poff: Off Mode(S5) - Wo	OL Enabled; Psleep: Sleep	Mode(S3) - WOL Enable	d; P _{idle} : Idle State - WOL Enabled
External Po	ower Supply Efficie	ency Level (International	Efficiency Marking Pro	otocol) * :	
Display res	solution * : 1366*7	68megapixels			
Default tim	e to enter energy s	save mode: 30 minutes			
P9.2*		t the energy save functi	on is provided with the	product.	
P9.3	Energy efficiency	class (monitors only):			
P10	Emissions				
	Noise emission	 Declared according to 	ISO 9296 (See NOTE	B9)	
P10.1	Mode	Mode description			t A-weighted sound power level, L _{WA,c} (B)
	Idle	* System Idle		* 17.4	
	Operation	* CPU;Operation		* 17.5	
	Other mode	Declared A-weighted soun	d pressure level (dB) $L_{p m Am}$	(operator pos	sition desktop – idle)
	Other mode	Declared A-weighted soun	d pressure level (dB) $L_{p m Am}$	(operator pos	sition desktop – operating)
	Measured accord	ling to: 🔀 ISO 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 *	81QC				Logo	Leno		
Issue date	*	2019-01-29					Leno	VU	н
Product 6	environn	nental attributes	- Market requirem	ents (con	ntinued)		Require	ment	met
Item							Yes	No	n.a.
	Electron	nagnetic emissions							
P10.4	Compute program(requirement for low fr	requency el	lectromagnetic fields	of the following voluntary			
P12		nics for computing							
P12.1*	The disp	lay meets the ergono	omic requirements of	ISO 9241-	307 for visual display	technologies.	\boxtimes		
P12.2*	The phys	sical input device me	ets the requirements	of ISO 999	95 and ISO 9241-410).	\boxtimes		
P13		ng and documentat							
P13.1*	Product	oackaging material ty oackaging material ty oackaging material ty	ype(s): <i>paper</i>	weight (kg weight (kg weight (kg	j): 0.008				
P13.2*	Product	olastic primary packa	aging is free from PV	C.			\boxtimes		
P13.3*		uct primary corruga r recovered fiber co		aging, spec	cify the contained p	ercentage of minimum pos	t-		
P13.4*			roduct documentatior Other	n (tick box):					
P13.5	Ùser and		em if paper document tion on paper media						
	Totally cl	nlorine-free							
	Elementa	al chlorine-free							
	Processe	ed chlorine-free							
P14	Voluntar	y programs							
P14.1	The prod	uct meets the requir	ements of the followi	ng voluntar	y program(s):				
	ENERGY Eco-labe Eco-labe		Criteria version: 7.1 Criteria version: Criteria version:		Date: 2018-12-20 Date: Date:	Product category: I1 Product category: Product category:			
P15	Addition	al information (See	NOTE B10)						
P9					•	tested product configurati			
	information knowledge provided information	on contained in this ge available at the tir here is approximate on.	document. All information of completion, and and provided for info	ation provid d supplier s ormational p	led by supplier in this hall have no obligation purposes only. See a	whether express or implied document is provided base on to update such information Lenovo Account Represen	ed on supp on. The inf	lier's ormat	ion
P9			otebooks & Tablet Co dex.cfm?fuseaction=f						

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 300e Chromebook 2nd Gen MTK	Logo	
Model Number	81QC		Lonovo
Issue Date	2019-01-29		Lenovo.
Additional information			

(d)	Year of manufacture:				2018
e) f)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with Etec value (kWh) per ErP Lot 3 Categor	switchable graphics n	node with UMA driving	the display.	` ,
1)	enable			iii discrete grapinos t	cards (dGix) 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]	8GB	(docording to En Ect o)	(dosording to En Est o)	(decording to En Lore
ents	Additional internal storage	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
djustm ring tes	Discrete television tuner	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete Audio Card	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
cap; app	Discrete graphics Card(s) [number / #]	NO #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)				
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)	14.15			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
g)	Idle state power demand (Watts);	1	1	1	3.8
h)	Sleep mode power demand (Watts);				1.9
i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		
j)	Off mode power demand (Watts);				0.3
k)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		
l)	Internal power supply efficiency at 10 %,	, 20 %, 50 % and 100 S	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	ige		
m)	External power supply efficiency (if appli	cable)*:			
	Average active efficiency: 89.42%,88.7	7%,89.44%,88.37%,87	7.49%,88.45%		
0)	*internal note: show values for all available external policy Minimum number of loading cycles that t		tand (applies only to n	otebook computers):	300
(p-1)	Measurement methodology used to dete	rmine information men	ntioned in points (I) — in	nternal PSI Lefficiency	

(p-2)	Measurement methodology used to determine information mentioned in ENERGY STAR® Program Requirements for Single Voltage Externa 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** **Begin menu ->			
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:			
		NA		
(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):			NA
(v)	Length of time before the display sleep mode is set to activate after user inactivity (in minutes):			10min
(w)	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:			
		230V50HZ-2%-Edition 2.0, 2011-01, Section 4	4, IEC62301	
Additio	onal 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/built-in Battery				
External/detachable Battery				
Bios Backup Battery				
Other:				
Addition	nal information			
)	<u> </u>	-	<u> </u>	

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 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.

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