



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			
statements given in this decl	aration.		
Type of product *	Notebook		
Commercial name *	Lenovo MIIX 520-12IKB		
Model number *	81CG,20M3,20M4		
Issue date *	2017.09.07		
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 *	81CG,20M3,20M4	Logo	Lanava
Issue date *	2017.09.07		Lei Iovo

Product	environmental attributes - Legal requirements	Require	ment	met
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do comply with current European RoHS Directive. (See legal reference and NOTE B1)	\boxtimes		
P1.2*	Products do not contain Asbestos (see legal reference).	\boxtimes		
	Comment: Legal reference has no maximum concentration value.			
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC),	\boxtimes		
	hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal			
	reference). Comment: Legal reference has no maximum concentration values.			
P1.4*	Products do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychlorinated terphenyl (PCT)	\boxtimes		
	in preparations (see legal reference).			
P1.5*	Products do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain	\boxtimes		
	containing at least 48% per mass of chlorine in the SCCP (see legal reference).			
P1.6*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0,5 μg/cm²/week (see	\boxtimes		
	legal reference).			
	Comment: Max limit in legal reference when tested according to EN1811:2011-5.			
P1.7*	REACH Article 33 information about substances in articles is available at (add URL or mail contact):	\boxtimes		
	http://www.lenovo.com/social_responsibility/us/en/environment.html			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol.	\boxtimes		
	Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference) 🔀		
P2.3*	Batteries and accumulators are readily removable. (See legal reference)			
P3	Conformity verification & Eco design (ErP)			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference).	\boxtimes		
	The Declaration of Conformity can be requested at (add link or e-mail address):			
P3.2*	The product complies with the Eco design requirements for energy-related products,	\boxtimes		
	(see legal reference).			
	Required information is; given in item P15 or added to this document,			
	available at (add URL):			
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium and hexavalent	\boxtimes		
	chromium by weight of these together.			
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) used	\boxtimes		
	(see legal reference).			
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see	\boxtimes		
	legal reference).			
	Comment: Legal reference has no maximum concentration values.			
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\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.

Model number *	81CG,20M3,20M4	Logo	Lonovo
Issue date *	2017.09.07		LEI IOVO.

Product	environmental attributes - Market requirements (See General NOTE GN below)			
		equirer	nent	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		<u>Ц</u>	
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.			
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			
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: Mg-Al 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, and polyvinyl			
	chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containing more than 25% post-consumer recycled content.			
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low halogen as		\square	
	defined in IEC 61249-2-21. (See 1NOTE B2)			
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:			\boxtimes
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components):			
	TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: chemical name, CAS #:			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO			
	1043-4: Brominated Epoxy Resin See P14			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in			\boxtimes
	concentrations above 0,1%:			
	1. Chemical name: , CAS #: (See NOTE B4)			
	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	П		X
	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):			

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 *	81CG,20	0M3,20M4			Logo
Issue date *	2017.09.				Lenovo
Product environn	nental at	tributes - Market r	equirements (conti	nued)	Requirement met
Item			•	•	Yes No n.a.
Material	and substa	ince requirements (cont	tinued)		
P7.21* Biobased	plastic ma	terial content is used in	the product (See NOTE B	37):	
•		e from mercury, i.e. less pecify: Number of lamps	. • .	ercury content per lamp:	mg
P8 Batteries					
P8.1* Battery c	hemical co	mposition: <i>Li-ion</i>			
P9 Energy co	onsumption	n (See NOTE B8)			
P9.1 For the p	product the	e following power leve	ls or energy consumpti	ons are reported:	
Energy mode *		Power level at	Power level at	Power level at	Reference/Standard for energy
		100 V AC	115 V AC	230 V AC	modes and test method *
Peak (On-max)		45 W	45 W	45 W	Full load
Category I1					
Short Idle State - WOL	Enabled	8.431 W	8.798 W	9.342 W	Use for ENERGY STAR V6
					registration (P _{idle})
Long Idle State - WOL	Enabled	4.311 W	4.422 W	4.567 W	Use for ENERGY STAR V6
					registration (P _{idle})
Sleep (S3) - WOL Enab	led	NA W	NA W	NA W	Use for ENERGY STAR V6
					registration(P _{sleep})
Sleep (S3) - WOL Disab	oled	0.420 W	0.410 W	0.460 W	Reference
Off (S5) - WOL Enabled	d	NA W	<i>NA</i> W	NA W	Use for ENERGY STAR V6
					registration(P _{off})
Off (S5) - WOL Disable	d	0.340 W	0.350 W	0.390 W	Use for ErP
		NA W	NA W	NA W	Reference
C-+					
Category I2					
Short Idle State - WOL		9.613 W	9.503 W	10.130 W	Reference
Long Idle State - WOL	Enabled	4.756 W	4.465 W	5.087 W	Reference
Sleep (S3) - WOL Enab	led	NA W	NA W	NA W	Reference
Sleep (S3) - WOL Disab	oled	0.420 W	0.410 W	0.460 W	Reference
Off (S5) - WOL Enabled	d	NA W	NA W	NA W	Reference
Off (S5) - WOL Disable	d	0.340 W	<i>0.350</i> W	0.390 W	Reference
		NA W	NA W	NA W	Reference
EPS No-load		0.05 W	0.05 W	0.07 W	
(External power supply / charger plu outlet but disconnected from the pr					
ETEC *		31.46 kWh/year	30.91 kWh/year	33.34 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 +$
Annual Energy Consum	nption				P _{sleep} x 0.35 + P _{long_Idle} x 0.10+ P _{short_Idle}
		P + Off Mode/S5) - WOL	Enabled; P _{sleep} : Sleep Mod	a(S2) - WOL Engblade D	x 0.30) Idle State - WOL Enabled
External Power Supply	Efficiency	·	ciency Marking Protocol)		Indic State - WOL Ellablea
		·	series ivialking F10t0col)	. *1	
Display resolution *		megapixels			<u> </u>
Default time to enter e					
P9.2* Informati	on about t	he energy save function	is provided with the pro	duct.	
P9.3 Energy ef	ficiency cla	iss (monitors only):			

NOTE B7	The following is to b	e excluded from	the calculation	n of percentage:	printed circui	it boards, lak	pels, cables, o	connectors and
electronic	components and nos	tronsumer recyc	led plastic					

(only if not covered by ECMA-74)

P10

P10.1

Emissions

Operation
Other mode

Mode

Idle

Noise emission – Declared according to ISO 9296 (See NOTE B9)

Other

* Declared A-weighted sound pressure level (dB)

* Declared A-weighted sound pressure level (dB)

Mode description

Measured according to: ISO 7779 ECMA-74

Statistical upper limit A-weighted sound power level, $L_{WA,c}$ (B)

* 2.6 (operator position desktop – idle)

4.0 (operator position desktop – operating)

NOTE B8 A Guidance document on Energy Efficiency is available;

 $see \ \underline{http://www.ecma-international.org/publications/standards/Ecma-370.htm}$

NOTE B9 A Guidance document on Acoustic Noise is available;

see http://www.ecma-international.org/publications/standards/Ecma-370.htm

	mber *	81CG,20M3,20M4				Lenc	WO	
Issue date	*	2017.09.07				Leik	, V O	ТМ
Product	environn	nental attributes	s - Market requirements	s (continued)		Require	ment	me
Item						Yes	No	n.a
		agnetic emissions						
P10.4	Compute program(equirement for low frequency	electromagnetic fields of th	ne following voluntary			\boxtimes
P12	Ergonom	ics for computing pr	oducts					
P12.1*	The displa	ay meets the ergono	mic requirements of ISO 9241	-307 for visual display techr	ologies.			
P12.2*	The physi	cal input device mee	ets the requirements of ISO 99	95 and ISO 9241-410.		\boxtimes		
P13	Packagin	g and documentatio	n					
P13.1*	Product p	ackaging material ty						
P13.2*	Product p	lastic primary packa	ging is free from PVC.					
P13.3*		ict primary corrugated fiber content:	ed fiberboard packaging, spec %	ify the contained percentage	e of minimum post-consum	er		X
P13.4*			oduct documentation (tick bo Other	x):				
P13.5	User and If Yes, ple		m if paper documentation use tion on paper media is chlorin					
		l chlorine-free				H		
		d chlorine-free				H		
P14								
P14.1		programs	ements of the following volun	tary program(s):				
1 14.1	THE PIOU	act meets the requir	ements of the following volun	itary program(s).				
	ENERGY S	STAR®	Criteria version: 6.1	Date: 2016.12.1	Product category: I1, I2			
	Eco-label		Criteria version:	Date:	Product category:			
	Eco-label		Criteria version:	Date:	Product category:			
P15	Addition	al information (See N	NOTE B10)					
P9			ic configuration may vary; de					
	contained time of co	I in this document. A morphism of the completion, and suppletion.	esentations, guarantees, assu Il information provided by su lier shall have no obligation to rposes only. See a Lenovo Acc	pplier in this document is pr update such information. T	ovided based on supplier's line information provided he	knowledge ava	ilable a	at the
P9			ebooks & Tablet Computers fondex.cfm?fuseaction=find_		roup&pgw_code=CO			
	•		_					

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Lenovo ErP Lot3 Information Sheet

- PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo MIIX 520-12IKB	Logo				
Model Number	81CG,20M3,20M4	Lenovo				
Issue Date	2017.09.07	Leliovo.				
Additional information						
D7.4.4 Broduct environmental ettributes						
P7.1.1 Product environmental attributes						
(d) Year of manufacture:						

P7.1.1	Product environmental attributes				
(d)	Year of manufacture:				2017
(e) (f)	Etec value (kWh) per ErP Lot 3 Category a system is tested with switchable graphics m Etec value (kWh) per ErP Lot 3 Category and	ode with UMA driving th	he display.		fx) are disabled and if the are enable
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C	Category D (according to ErP Lot 3)
	Memory over base [GB]	8			,
ents ing	Additional internal storage	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
djustme ing test	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)
cape	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)		,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	33.67			
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
(g)	Idle state power demand (Watts);	•	•		6.25
h)	Sleep mode power demand (Watts);				0.53
(i)	Sleep mode with WOL enabled power dema	and (Watts) (where enab	oled);		NA
j)	Off mode power demand (Watts);	1/14/ 11 1 1 1 1 1	11		0.41
(k) (l)	Off mode with WOL enabled power demanders of the state of	%, 50 % and 100 % of ra		oplicable):	NA NA
(m)	External power supply efficiency (if applical Average active efficiency: 45W:88.40%;86 *internal note: show values for all available external power.	8.64%;88.53%;			
(o)	Minimum number of loading cycles that the	batteries can withstand	d (applies only to notebo	ook computers):	500
(p-1)	Measurement methodology used to determ	nine information mentio <i>NA</i>	ned in points (I) – intern	al PSU efficiency:	

(p-2) Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EPA "Test Method for Calculating the Energy of Single-Voltage External AC-DC and AC-AC Power Supplies" dated August 11, 2014				
(p-3)	Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: IEC 61960 measurement methodology			
(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 /IEC EN50564:2011 measurement methodology			
(q)	Sequence of steps for achieving a stable condition with respect to power demand:: IEC 62623 /IEC EN50564:2011 measurement methodology			
(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, 30mins 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):			30
(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):			10
(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				
(2)	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			
Additiona	I Notebook Battery I		7) 1202301	
		Battery[ies] <u>not</u> user replaceable The battery[ies] in this product cannot be easily replaced by users themselves. 1)	Battery[ies] user replaceable	n/a
Internal/built-in Battery				
External/detachable Battery				
Bios Backup Battery				
Other:				
Additional	information			
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 tuottéen 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.