



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 *	Lenovo Global Environmental Affairs	Lenovo	
e-mail address	Alvin L Carter	LCHOVO	
	alcarter@lenovo.com		
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		

	based on product specification or test results based obtained from sample testing), that the product			
conforms to the statements given in this declaration.				
Type of product *	Notebook			
Commercial name *	Lenovo MIIX 320-10			
Model number *	80XF			
Issue date *	2017-1-11			
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 * Issue date *	80XF 2017-1-11	Logo	Lenovo.
Product environ	mental attributes - Legal requirements		Requirement met

Product	environmental attributes - Legal requirements	Require	men	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)			
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),	\boxtimes		
	hydrobromofluorocarbons (HBFC), 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	\boxtimes		
	terphenyl (PCT) 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 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 legal reference).			
P1.7*	Comment: Max limit in legal reference when tested according to EN1811:2011-5. REACH Article 33 information about substances in articles is available at (add URL or mail contact):		$\overline{}$	
F 1.7	http://www.lenovo.com/social_responsibility/us/en/environment.html	\boxtimes	Ш	Ш
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal	<u> </u>	_	
F2.1	symbol. Information on proper disposal is provided in user manual. (See legal reference)			Ш
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal	X		
	reference)			
P2.3*	Batteries and accumulators are readily removable. (See legal reference)	\boxtimes		
P3	Conformity verification & Eco design (ErP)			
P3.1*	The product is CE-marked to show conformance with applicable legal requirements (see legal reference).			
	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,		Ш	Ш
	available at (add URL):			
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0,01% lead, mercury, cadmium an hexavalent chromium by weight of these together.	d 🔀		
P5.2*	The packaging materials are marked with abbreviations and numbers indicating the nature of the material(s) <u>\</u>	_	
P5.2	used (see legal reference).	s) <u> </u>		Ш
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montrea	al 🔀		
	Protocol (see legal reference).	<u>~</u>		_
	Comment: Legal reference has no maximum concentration values.			
P6	Treatment information			
P6.1*	Information for recyclers/treatment 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 *	80XF	Logo	Lanova
Issue date *	2017-1-11		Lei IOVO,

Product	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	\square		
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: PC+25%GF Material type: PC+ABS 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 \(\subseteq PCBs > 25 g \) are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)	Ш		
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking:			
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components): TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: 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 P15			
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in			
	concentrations above 0,1%: 1. Chemical name: FR-P, CAS #: na (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):			
	If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of recycled material is g.			
	b) The weight of recycled material is g.			

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model nun	nber *	80XF				Logo	Longvo
Issue date	*	2017-1-1	11				Lenovo
Product e	environn	nental at	tributes - Market re	equirements (contin	ued)		Requirement met
Item							Yes No n.a.
			stance requirements				
P7.21*	Biobase	d plastic m	naterial content is used	in the product (See NC	OTE B7):		
	,			s below shall be answe			
					naterial content (calcula	ted as a percentaç	je
	or to	otal plastic	by weight) is %				
		weight of	f the biobased plastic n	naterial is g.			
P7.22*				less than 0,1 mg/lamp.			
Do		•	specify: Number of lan	nps: and maximu	m mercury content per	lamp: mg	
P8.1*	Battery		omposition: Lithium id	<u></u>			
P9	•		tion (See NOTE B8)	<i>/</i> //			
P9.1				s or energy consumptio	ns are reported:		
Energy mod			Power level at	Power level at		Reference/Standar	rd for energy
			100 V AC	115 V AC	230 V AC	modes and test me	ethod *
Peak (On-r	max)		W	W	W	Full load	
Category	v I2						
Short Idle Enabled	State - W	OL	5.59 W	5.57 W		Use for ENERGY registration (Pidle)	
Long Idle	State - W	OL	3.87 W	3.29 W	3.16 W	Use for ENERGY	
Enabled						registration (P _{idle})	
Sleep (S3)	- WOL E	nabled	1.04 W	1.06 W	1.10 W	Use for ENERGY	STAR V6
,					-	registration(P _{sleep} ,	
Sleep (S3)	- WOLD	isabled	1.03 W	1.05 W	1.10 W	Reference	
Off (S5) - V	VOL Enal	oled	0.05 W	0.05 W		Use for ENERGY registration(P _{off})	STAR V6
Off (S5) - V	VOL Disa	bled	0.05 W	0.05 W	0.09 W	Use for ErP	
EPS No-loa	nd		0.03 W	0.03 W	0.06 W		
(External power s	upply / charger	plugged in the	0.03 VV	0.03 VV	0.00 VV		
wall outlet but disc	connected from	the product.)	44.3 W	44.3 W	44.3 W		
Typical Ene	erav Cons	umption	44.5 VV	44.3 VV	44.3 VV		
ETEC *	<u> </u>		21.39 kWh/year	20.89 kWh/year	21.24 kWh/year	$E_{TEC} = (8760/1000)$) x (P _{off} x 0.25
Annual Ene	ergy Cons	umption				$+ P_{sleep} \times 0.35 + P_{l}$	ong_ldle X 0.10+
			P: Off Mode(\$5) - W(Ol Enabled: P : Sleen	Mode(S3) - WOL Enabled	P _{short_Idle} x 0.30)	Ol Enabled
External Po	ower Supr	lv Efficier		Efficiency Marking Pro		, Tidle. lule State - VV	OL Enabled
		•	00 megapixels		,		
			ive mode: 30 minutes				
P9.2*				on is provided with the p	product		
P9.3			class (monitors only):	on to provided with the p	Toddot.		
P10	Emissio		Jaco (monitors only).				
. 10			Declared according to	ISO 9296 (See NOTE	B9)		
P10.1	Mode		Mode description		Statistical upper limit	A-weighted sound p	power level, L _{WA,c} (B)
	Idle	*	HDD:Idle		* 2.7		
	Operatio		HDD:Operation		* 2.7		
	Other mo	ode C	Peclared A-weighted sound	d pressure level (dB) $L_{p{\sf Am}}$	(operator posit	tion desktop – idle)	
	Other mo			d pressure level (dB) $L_{p{\sf Am}}$	(operator posit	tion desktop – opera	ting)
	Measure		ng to: X ISO 7779	*	1		-

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

Other (only if not covered by ECMA-74)

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 nu	ımber *	80XF				Logo	Long	1/0	
Issue dat	e *	2017-1-11					Lenc	VO,	м
Product	environr	nental attributes	- Market require	ments (cor	ntinued)		Require	ment	met
Item							Yes	No	n.a.
	Electror	magnetic emission	ıs						
P10.4	Compute program	. ,	e requirement for low	frequency e	electromagnetic field	s of the following volunt	ary		
P12		mics for computin							
P12.1*	The disp	play meets the ergor	nomic requirements	of ISO 9241-	-307 for visual displa	y technologies.	\boxtimes		
P12.2*	The phys	sical input device m	eets the requiremen	ts of ISO 999	95 and ISO 9241-41	0.	\boxtimes		
P13		ing and document							
P13.1*	Product	packaging material packaging material packaging material	type(s): PE	weight (ko weight (ko weight (ko	g): 0.0095				
P13.2*	Product	plastic primary pacl	kaging is free from P	VC.			\boxtimes		
P13.3*		duct primary corruger recovered fiber co		kaging, spe	cify the contained p	percentage of minimum	n post-		
P13.4*		media for user and ronic, Paper,	product documentati Other	on (tick box)	:				
P13.5	Ùser and		tem if paper docume ation on paper medi						
	•	chlorine-free al chlorine-free							
	Process	ed chlorine-free							
P14	Volunta	ry programs							
P14.1	The prod	duct meets the requ	irements of the follow	wing voluntai	ry program(s):				
	Eco-labe	el:	Criteria version: 6 Criteria version: Criteria version:	.1	Date: 2017-1-11 Date: Date:	Product category: <i>12</i> Product category: Product category:			
P15		nal information (Se							
P9						tested product config			
	informati knowled	ion contained in this ge available at the t I here is approximat	document. All informatime of completion, a	mation provious and supplier s	ded by supplier in th shall have no obliga	es whether express or in is document is provided tion to update such info a Lenovo Account Repr	I based on support based on support in the incompart in t	olier's formati	ion
P9			Notebooks & Tablet (ndex.cfm?fuseaction			ion: 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 320-10	Logo	
Model Number	80XF		Lenovo
Issue Date	2017-1-11		reliovo"
Additional information			

l)	Year of manufacture:				
	roar or managacture.				2016
;)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with	switchable graphics n	node with UMA driving	g the display.	, ,
)	Etec value (kWh) per ErP Lot 3 Categor enable	y and capability adjust	ments applied when a	III discrete graphics o	cards (dGfx) are
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)
	Memory over base [GB]	2G			
ents ting	Additional internal storage	YES (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
ability a	Discrete Audio Card	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)
cap	Discrete graphics Card(s) [number / #]	NO #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)	Α			
esults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	16.33			
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled				
1)	Idle state power demand (Watts);	•		•	5.67
)	Sleep mode power demand (Watts);				1.10
	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		1.09
	Off mode power demand (Watts);				0.09
)	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		0.09
	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 °	% of rated output pow	er (if applicable):	
	10% 20% 50%	100% Avera	ige		
1)	External power supply efficiency (if appli	cable)*:			
	Average active efficiency: HOIOTO 84%	6			
	*internal note: show values for all available external po				
)	Minimum number of loading cycles that t	the batteries can withs	tand (applies only to n	otebook computers):	800
p-1)	Measurement methodology used to dete	ermine information mer	ntioned in points (I) – ii	nternal PSU efficiency:	

			determine information mentioned in perments for Single Voltage Externa Eligibility Criteria (Version 2.0)	ooints (m) – external PSU efficiency: I Ac-Dc and Ac-Ac Power Supplies	
(p-3)	Measurement metho	dology used to d	determine information mentioned in p ≥70% of Cmin	points (o) – loading cycles batteries:	
(p-4)			determine information mentioned in r Product IT Eco Declaration: IEC 62623	maximum, idle, sleep, off mode	
(q)	Sequence of steps for	•	able condition with respect to power		
(r)	Description of how sl	leep and/or off m	node was selected or programmed:		
(s)	off mode:	required to reach	nenu -> Power -> Select sleep or on the mode where the equipment autons-> Change Settings-> Restore	tomatically changes to sleep and/or	
(t)	Duration of idle sta	te condition be	fore the computer automatically re applicable power demand requirement	eaches sleep mode, or another	30min
(u)	Length of time after	r a period of use	er inactivity in which the compute and requirement than sleep mode (in	r automatically reaches a power	NA
(v)			sleep mode is set to activate after		10min
(w)			ential of power management functio na		
(x)	User information on l	how to enable th	e power management functionality: Refer to User Guide		
(z)	the electricity supply used for electrical test. Test voltage in V and	system, — infor sting: d frequency in Hz	— test voltage in V and frequency in mation and documentation on the in z 230V/50Hz ricity supply system ≤2%		
	Instrument		Range Used	Make and Model **	
	AC Power Source		5~300V;45~500HZ;500VA.	ALLPOWER APF-500W	
	Power Meter		0-1100V;0-90A	HITESTER HIOKI 3332	
A al al!4! -	nal Notebook Batter	v Information	:		
Addition	idi itotopooti Battoi				
Addition	iai iiotobook butto	Battery[ies] The battery[ies	not user replaceable in this product cannot be easily ers themselves. 1)	Battery[ies] user replaceable	n/a
	built-in Battery	Battery[ies] The battery[ies	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	n/a
Internal/l		Battery[ies] The battery[ies replaced by us	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	n/a
Internal/I	built-in Battery	Battery[ies] The battery[ies replaced by us	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	
Internal/I	built-in Battery /detachable Battery	Battery[ies] The battery[ies replaced by us	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	
Internal/I External/I Bios Bac Other:	built-in Battery /detachable Battery	Battery[ies] The battery[ies replaced by us	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	
Internal/I External/I Bios Bac Other:	built-in Battery /detachable Battery ckup Battery	Battery[ies] The battery[ies replaced by us	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	
Internal/I External/I Bios Bac Other:	built-in Battery /detachable Battery ckup Battery	Battery[ies] The battery[ies replaced by us	not user replaceable ightharpoonup in this product cannot be easily	Battery[ies] user replaceable	