



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 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 alcarter@lenovo.com	Lenovo
Internet site *	www.lenovo.com	
Additional information		

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 declaration.					
Type of product *	Notebook				
Commercial name *	Lenovo E41-20				
Model number *	81FT				
Issue date *	2017/11/20				
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 *	81FT	Logo	Lanava
Issue date *	2017/11/20		Lei IOVO

Product	environmental attributes - Legal requirements	equire	men	t met
Item	on montal dansato 20ga roquiomonto	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). Comment: Legal reference has no maximum concentration value.	\boxtimes		
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 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 $0.5 \mu g/cm^2/week$ (see 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):			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, the battery/accumulator is labeled with the disposal symbol. Information on proper disposal is provided in user manual. (See legal reference)	\boxtimes		
P2.2*	Batteries or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadmium. (See legal reference)	\boxtimes		
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).	\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, (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 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 (see legal reference).			
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see 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).			

Model number *	81FT	Logo	Lanava
Issue date *	2017/11/20		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	\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.	$\overline{\boxtimes}$					
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	$\overline{\boxtimes}$					
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.						
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		$\overline{\Box}$				
	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):						
P7.12	Material type: plastics Material type: Material type: Insulation materials of external electrical cables are PVC free.		_				
	Insulation materials of external electrical cables are PVC free.		<u> </u>				
P7.13			 				
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		Ш				
	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 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: >PC+ABS-TD15FR(40)<	\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: TBBPA, CAS #: 79-94-7	\boxtimes	ш	Ш			
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g according ISO 1043-4: FR(16)	\boxtimes					
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in						
	concentrations above 0,1%:	\boxtimes					
	1. Chemical name: <i>confidential</i> ,, CAS #: <i>confidential</i> , (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: >PC+ABS-						
	TD15FR(40)<		ш				
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been	\boxtimes					
	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	Ш				
	If YES; at least one of the two alternatives below shall be answered;						
	a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as						
	a percentage of total plastic by weight) is 5.9%.						
	or 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 nur	nber *	81FT				Logo	Lonovo
Issue date	*	2017/11/	20				Lenovo
Product environmental a			tributes - Market re	equirements (conti	nued)		Requirement met
Item							Yes No n.a.
	Material	and subs	tance requirements	(continued)			
P7.21*	Biobased	d plastic m	aterial content is used	in the product (See No	OTE B7):		
	 If YES; at least one of the two alternatives below shall be answered; a) Of total plastic parts' weight > 25 g, the biobased plastic material content (calculated as a percentage of total plastic by weight) is %. or b) The weight of the biobased plastic material is g. 						ge
P7.22*	Light sou	ırces are f		less than 0,1 mg/lamp.	um mercury content pe	· lamp: mg	
P8	Batteries						
P8.1*			omposition: Li-ion Pol	lvmer			
P9			tion (See NOTE B8)	,			
P9.1				s or energy consumption	ons are reported:		
Energy mo			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 me	ethod *
Peak (On-	max)		45 W	45 W	45 W	Full load	
Categor	<u>y 11</u>						
Short Idle Enabled	State - W	OL	5.831 W	5.547 W	5.987 W	Reference	
Long Idle State - WOL Enabled		OL	4.173 W	4.851 W	4.584 W	Reference	
Sleep (S3)	- WOL E	nabled	0.617 W	0.599 W	0.629 W	Reference	
Sleep (S3)			0.582 W	0.582 W	0.626 W	Reference	
Off (S5) - I	NOL Enal	oled	0.283 W	0.284 W	0.321 W	Reference	
Off (S5) - I	NOL Disa	bled	0.286 W	0.286 W	0.324 W	Reference	
EPS No-loa (External powers	supply / charger	plugged in the	W	W	W		
wall outlet but dis PTEC * Typical End			W	W	W		
ETEC *			20.96 kWh/year	21.285 kWh/year	22.381 kWh/year		
Annual Ene			ı cy Level (International	L Efficiency Marking Pro	otocol) * : <i>VI</i>		
Display res	olution * :	13668*76	8 megapixels	<u></u>			
Default tim				ies			
P9.2*				on is provided with the	product.		
P9.3	Information about the energy save function is provided with the product.						
P10	Emissio		, , , , , , , , , , , , , , , , , , , ,				
	Noise emission – Declared according to ISO 9296 (See NOTE B9)						
P10.1	Mode	N	lode description	,	Statistical upper limit	A-weighted sound	power level, L _{WA,c} (B)
	Idle	*	Idle		* 2.7		
	Operatio	n *	CPU Operating		* 4.2		
	Other mo	ode					
	Measure	d accordir	ng 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 $\frac{\text{http://www.ecma-international.org/publications/standards/Ecma-370.htm}}{\text{NOTE B9}}$

Model number *		81F I				Lo	go	lono	VO	
Issue date *		2017/11/20						Leno	VO.	м
Product e	nvironn	nental attributes	s - Market requirem	ents (con	ntinued)			Require	nent	met
Item			-	•	•			Yes	No	n.a.
	Electron	nagnetic emissior	ıs							
	Compute program(e requirement for low fi	requency el	ectromagnetic fields	of the following	ng voluntary			
		nics for computin								
P12.1*	The disp	lay meets the ergo	nomic requirements of	ISO 9241-3	307 for visual displa	y technologies				
P12.2*	The phys	sical input device m	eets the requirements	of ISO 999	95 and ISO 9241-410	0.		\boxtimes		
P13	Packagi	ng and document	ation							
	Product packaging material type(s): PAPER weight (kg): 358.8g Product packaging material type(s): EPE weight (kg): 68.8g Product packaging material type(s): LDPE +PP weight (kg): 20g									
P13.2*	Product plastic primary packaging is free from PVC.									
	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 80 %									
P13.4*			product documentation Other	n (tick box):						
	Ùser and		tem if paper document tation on paper media							
	Elementa	nlorine-free al chlorine-free ed chlorine-free								
P14	Voluntar	y programs								
		<i>,</i> , , , , , , , , , , , , , , , , , ,	irements of the followi	ng voluntar	y program(s):					
	ENERGY Eco-labe Eco-labe		Criteria version: <i>6.1</i> Criteria version: Criteria version:		Date: 2017/12/19 Date: Date:	Product cate Product cate Product cate	gory:			
P15	Addition	al information (So	ee NOTE B10)							
P9	Energy o	consumption of s	pecific configuration	may vary;	description of the	tested produc	ct configurat	ion:		

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 E41-20	Logo	
Model Number	81FT		Lenovo
Issue Date	2017/11/20		reliovo"
Additional information			

	Product environmental attributes						
d)	year of manufacture:				2017		
e)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are disabled and if the system is tested with switchable graphics mode with UMA driving the display. Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are						
f)	enable	у апо саравшу абјоѕ	inenis applied when a	in discrete graphics (cards (dGrx) 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]	20					
ents	Additional internal storage	No (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 lied du	Discrete Audio Card	No (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)		
caps	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)		
	Category of discrete graphics Card(s)	No					
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)	12.64					
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled						
g)	Idle state power demand (Watts);				3.99		
ר)	Sleep mode power demand (Watts);				0.528		
)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		0.501		
)	Off mode power demand (Watts);				0.320		
()	Off mode with WOL enabled power dem	and (Watts) (where en	abled);		0.319		
)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 °	% of rated output pow	er (if applicable):			
	10% 20% 50%	100% Avera	ige				
n)	external power supply efficiency (if applie	cable)*:					
	Average active efficiency: 45W:89.23%	;88.11%;87.60%;88.3	2%;87.58%				
p)	*internal note: show values for all available external power supplies Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): 300						
o-1)	Measurement methodology used to dete	rmine information men	ntioned in points (I) – in	nternal PSU efficiency	:		

(p-2)	Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EPA "Test Method for Calculating the Energy Efficiency of Single-voltage External AC-DC and AC-AC Power Supplies" dated August 11, 2004							
(p-3)	Measurement method	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 bower as defined in Point P9.1 in the Product IT Eco Declaration: IEC 62623/IEC EN50564:2011 measurement methodology						
(d)	Sequence of steps for	Sequence of steps for achieving a stable condition with respect to power demand:: IEC 62623/IEC EN50564:2011 measurement methodology						
(r)	Description of how sl	eep and/or off mode was selected or programmed: Energy-star requirement						
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: Energy-star requirement							
(t)	condition which does	te condition before the computer automatically runot exceed the applicable power demand requirement	ents for sleep mode (in minutes):	30				
(u)		a period of user inactivity in which the compute ver power demand requirement than sleep mode (in		NA				
(v)	Length of time befo	re the display sleep mode is set to activate after	user inactivity (in minutes):	10				
(w)		nergy-saving potential of power management function Based on user manual						
(x)		now to enable the power management functionality: **Based on user manual** **Based on user man						
(z)		neasurements: — test voltage in V and frequency in tem, — information and documentation on the instru	mentation, set-up and circuits used					
A al al :4: a .a	Notabaak Dattami	230V/50Hz, Total Harmonic Distortion	~2 //					
Addition	Notebook Battery		I =					
		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/b	uilt-in Battery							
External/o	detachable Battery							
Bios Backup Battery								
Other:	Other:							
Additional information								
1)								
T́he battery[ies Акумулаторна Las baterías d Výměnu bateri	ата[ите] батерия[и] в този і e este producto no pueden ie/baterií v tomto výrobku by	easily replaced by users themselves. продукт не може да се замени[ят] лесно от самите потребите ser sustituidas fácilmente por los propios usuarios. / neměli provádět sami uživatelé. ltterist/batterierne i dette produkt	ели.					

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

H μπαταρία[-ες] στο προίον 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 akkumulatorat/akkumulatorati a felhasználó nem tudja egyedül egyszerűen kicserélni. Lietotāji/hattoriii felan il prodott ma tieta/lietofliv kortivita/li mill.utenti etes.

II-batterija/batteriji f'dan iI-prodott ma tistax/jistgħux tiģi/jiģu 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 latwy 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.