

Product environmental attributes - THE ECO DECLARATION

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable).

Additional information regarding each item may be found under P14.

Brand *	ThinkPad	Logo		
Company name *	Lenovo			
Contact information *	novo Global Environmental Affairs in L Carter 19 Think Place ididing 2 / 5F1 rrisville, North Carolina 27560 arter@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/social_responsibility/us/en/datasheets_	notebooks.html		

	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 *	lotebook				
Commercial name *	ThinkPad Edge E540				
Model number *	20C6				
Issue date *	2014-07-18				
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.

Quality	Quality Control F		
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration	\boxtimes	
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality control such as organized by IT-Företagen (see www.itecodeclaration.org).		

Model number *	ThinkPad Edge E540	MT:20C6			
Issue date *	2014-07-182014-07-18		Į.	Logo	lenovo.

Product	environmental attributes - Legal requirements	Require	ment	met
Item	<u> </u>	Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)			
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.			
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum			
D4 4*	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).		<u>Ц</u>	
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*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)			
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference).			\boxtimes
	Comment: Legal reference has no maximum concentration values.			
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5	\square		
	microgram/cm ² /week (see legal reference).		_	
D1 10*	Comment: Max limit in legal reference when tested according to EN1811:1998.		_	
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.lenovo.com/social_responsibility/us/en/materials.html	\boxtimes	Ш	Ш
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains	X	П	
	more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be			ш
	marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is			
Do ot	provided in user manual. (See legal reference)			
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\boxtimes	Ш	
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the	e 🔀		
	design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)			
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	X	П	
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).			
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).	S 🔀		
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).		П	
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).			\boxtimes
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			X
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the		\Box	
	product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).	_		
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*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	\boxtimes		
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montre: Protocol (see legal reference).	al 🔀		
	Comment: Legal reference has no maximum concentration values.			

Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

Model number *	ThinkPad Edge E540	MT:20C6		
Issue date *	2014-07-182014-07-18		Logo	lenovo.

Product	environmental attributes - Market requirements - Environmental conscious design Re	quire	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\boxtimes		
P7	Design Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable			$\overline{}$
P7.2*	Plastic materials in covers/housing have no surface coating.			\dashv
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.			∺
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		+	╫
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	$\overline{\mathbb{X}}$	-	
P7.6*	· · · · · · · · · · · · · · · · · · ·		+	₩
F7.0	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).			
P7.7*	Product lifetime Upgrading can be done e.g. with processor, memory, cards or drives			
P7.8*	Upgrading can be done using commonly available tools	$\overline{\mathbb{X}}$	+	╫
P7.9.				₩
P7.9.	Spare parts are available after end of production for: 5 years			井
P7.10	Service is available after end of production for: 5 years			
P7.11*	Material and substance requirements Product cover/housing material type:			
F7.11	Material type: PC+ABS-FR(40) Material type: Material type:			
P7.12	Electrical cable insulation materials of power cables are PVC free.		\square	
P7.13	Electrical cable insulation materials of signal cables are PVC free	Ħ	X	一一
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.			H
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See		∺	∺
	Note B2)			
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: FR(40)			
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive), TBBPA (reactive), Other; chemical name: <i>DOPO</i> , CAS #: <i>35948-25-5</i>			
	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: <i>FR(40)</i>			
P7.18	Alt. 1 Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%:			
	Comment: No legal limits exist, this is a market requirement. 1. Chemical name: FR 3002, CAS #: confidential			
	2. Chemical name: TMB1615, CAS #: confidential			
	3. Chemical name: <i>GC-1150</i> , CAS #: <i>confidential</i>			
	Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4: FR(40)			
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			
P7.20	Of total plastic parts' weight >25g, recycled material content is 9.9%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sources are free from mercury	\boxtimes		
P8	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg Batteries mg			
P8.1*	Battery chemical composition: <i>Lithium Ion</i>			
P8.2	Batteries meet the requirements of the following voluntary program/s: <i>US RBRC</i>			\dashv

Note B2: IEC61249-2--21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

Model number *	ThinkPad Edge E540	MT:20C6		
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	et environmental attributes - Market requirements (continued) Requirement met					
Item						n.a.
P9	Energy consumpti					
9.1	For the product the	following power leve				
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)	<i>65/90</i> W	<i>65/90</i> W	<i>65/90</i> W	Full load	
Categor	v I1	I.	l .			
	State - WOL Enable	ed 8.84 W	<i>8.95</i> W	9.16 W	Use for ENERGY STAR V6 registration (Pidle)	
Lona Idle	State - WOL Enable	d 4.99 W	5.04 W	<i>5.23</i> W	Use for ENERGY STAR V6 registration (Pidle)	Ħ
	- WOL Enabled	0.75 W	0.75 W	0.79 W	Use for ENERGY STAR V6 registration(P _{sleep})	+
	- WOL Disabled	0.73 W	0.74 W	0.78 W	Reference	+
	WOL Enabled	0.40 W	0.40 W	0.44 W	Use for ENERGY STAR V6 registration(P _{off})	旹
. ,	WOL Disabled	0.38 W	0.38 W	0.42 W	Use for EuP	\exists
Categor					<u>l</u>	
	State - WOL Enable	ed 8.99 W	8.99 W	9.14 W	Use for ENERGY STAR V6 registration(P _{idle})	\Box
Long Idle	State - WOL Enable	d 5.09 W	4.99 W	<i>5.28</i> W	Use for ENERGY STAR V6 registration(P _{idle})	౼
Sleep (S3)	- WOL Enabled	0.75 W	0.75 W	0.79 W	Use for ENERGY STAR V6 registration (P _{sleep})	Ħ
Sleep (S3)	- WOL Disabled	0.73 W	0.74 W	0.77 W	Reference	\equiv
Off (S5) - 1	WOL Enabled	0.40 W	0.40 W	0.44 W	Use for ENERGY STAR V6 registration(Poff)	\equiv
Off (S5) - 1	WOL Disabled	0.38 W	0.38 W	0.42 W	Use for EuP	
EPS No-loa	ad	<i>0.15</i> W	0.16 W	0.20 W		
plugged in	ower supply / charge the wall outlet but ed from the product.)					
PTEC * Typical End	ergy Consumption	W	W	W		
TEC * Typical End	ergy Consumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual Ene	ergy Consumption	33.20 kWh/year	32.04 kWh/year	31.26 kWh/year	E _{TEC} = (8760/1000) x (P _{off} x 0.25 + P _{sleep} x 0.35 + P _{long_idle} x 0.10+ P _{short_idle} x 0.30)	
		Poff: Off Mode(S	5) - WOL Enabled; I	P _{sleep} : Sleep Mode(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled	
Display res	solution* : 1366*768	/ 1920*1080 Megapix	els			
Print Speed	d* : Ima	ages per minute				
Default tim	e to enter energy sav	/e mode: min	utes			П
P9.2*	Information about th	ne energy save func	tion is provided wi	th the product.		
P9.3*		the energy requirem rersion: <i>Version 6.0</i>			gram/s: Product category: 11/13	
P10	Emissions					
		Declared according	to ISO 9296			
P10.1	Mode M	ode description		Declared A-weighted sound power level L_{WAd} (B) Operator position Bystander positions Desktop Coplus if product is not	
				1	operator attended)	
	Idle *	HDD:Idle		* 2.8	22	닏
	Operation * Other mode	HDD: Operating ODD operating		* 3.6 4.8	28 43	Ш
	Measured according		ECMA-74	4.0	45	
	weasured according	Other	_	red by ECMA-74	with L _{pAm} measurement distance m)	
P10.2						

Model number *	ThinkPad Edge E540	MT:20C6		
Issue date *	2014-07-182014-07-18		Logo	lenovo.

Product	environmental attributes - Market requirements (continued)	Require	ment	met
Item		Yes	No	n.a.
	Chemical emissions from printing products			
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard, other specify:			\boxtimes
P10.4	Typical emission rate (print phase) is (mg/h):			\boxtimes
	Dust Ozone Styrene Benzene TVOC			
P10.5	Chemical emission requirements of the following voluntary program/s are met for :			\boxtimes
	Dust Ozone Styrene Benzene TVOC			
	Electromagnetic emissions			
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s:			
P11	Consumable materials for printing products			
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).			\boxtimes
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.	of		\boxtimes
P11.3*	2-sided (duplex) printing/copying is an integrated product function.			\boxtimes
P12	Ergonomics for computing products			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	\boxtimes		
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	\boxtimes		
P13	Packaging and documentation			
P13.1*	Product packaging material type(s): carton & paper pad weight (kg): 0.542			
	Product packaging material type(s): <i>pulp mold</i> weight (kg): <i>0.230</i>			
P13.2*	Product packaging material type(s): <i>bag</i> weight (kg): <i>0.0175</i> Product plastic packaging is free from PVC.			$\overline{}$
P13.3*				井
P13.3	Specify media for user and product documentation (tick box): Electronic , Paper , Other			Ш
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled			
_	fiber: 80%			Ш
P14	Additional information (See Note B4)			
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implier information contained in this document. All information provided by supplier in this document is provided bas knowledge available at the time of completion, and supplier shall have no obligation to update such informati provided here is approximate and provided for informational purposes only. See a Lenovo Account Represer information.	ed on suppon. The in	olier's forma	
P9	See Energy Star Qualified Notebooks & Tablet Computers for the latest information: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CC	<u></u>		

Note B4: 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 B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2,3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19

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	ThinkPad Edge E540	Logo
Model Number	20C6	_
Issue Date	2014-07-18	lenovo.
Additional information		

P7.1.1	Product environmental attributes							
(d)	year of manufacture:	2013						
(e)	E TEC 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:							
	Category (according to ErP Lot 3): A Etec: 18.13							
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enabled:							
	Category (according to ErP Lot 3): B Etec: 18.55							
(g)	idle state power demand (Watts);	6.18						
(h)	sleep mode power demand (Watts);	0.76						
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	0.72						
(j)	off mode power demand (Watts);	0.36						
(k)	off mode with WOL enabled power demand (Watts) (where enabled);							
(l)	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):							
	10% 20% 50% 100% Average							
(m)	external power supply efficiency (if applicable):							
	10% 20% 50% 100% Average ;							
	or level: V							
(o)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):	500 cycles						
(p-1)	the measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency:							
(p-2)	the measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: Measuring the Energy Consumption of External Power Supplies, Appendix Z to 10 CFR Part 430.							
(p-3)	the measurement methodology used to determine information mentioned in points (o) – loadingcycles batteries:							
	0.5C Charge/Discharge							

(p-4) the 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:								
ENERGY STAR Test Method for Computers, Rev. Aug-2010								
(q) sequence (sequence of steps for achieving a stable condition with respect to power demand::							
	Boot the computer and wait until the operating system has fully loaded. If necessary, run the initial operating system setup and allow all preliminary file indexing and other one-time/periodic processes to complete.							
(r) description	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 off mode:	sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:							
refer to power management, 20mins automatically reaches sleep mode								
	the 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):							
	the 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) the length	the length of time before the display sleep mode is set to activate after user inactivity (in minutes):							
(w) information	on the energy-savi	ng poten	tial 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 electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing:								
230V, 50GHz-<0.5%-ENERGY STAR Test Method for Computers, Rev. Aug-2010								
Addition Notebook Ba	attery Information:							
Yes	No	n/a	This notebook computer is operated by battery/ies that can be accessed and a non-professional user.	replaced by				
(Battery not user replaceable)	ery not user (Battery user							
Additional information								