

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 *	Lenovo	Logo		
Company name *	Lenovo			
Contact information *	Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 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/social_responsibility/us/en/datasheets_l	The latest version of this document can be found at		

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 *	AIO-PC			
Commercial name *	Lenovo S400z			
Model number *	10HB, 10K2			
Issue date *	2015-08-13			
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	Control	Requireme	nt met
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).	ol 🔀	

Model number *	10HB, 10K2			
Issue date *	2015-08-13	Logo	ı	enovo

Product	environmental attributes - Legal requirements	Requirement me		
Item		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),	\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*	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			\boxtimes
	pentachlorophenol and derivatives (see legal reference).			
P1.9*	Comment: Legal reference has no maximum concentration values. Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5			
F1.9	microgram/cm²/week (see legal reference).			Ш
P1.10*	Comment: Max limit in legal reference when tested according to EN1811:1998. REACH Article 33 information about substances in articles is available at (add URL or mail contact):			
F 1.10	http://www.lenovo.com/social_responsibility/us/en/materials.html			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be			
	marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is 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		\square	
1 2.2	accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	ш		ш
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the design of the product). Exception: Batteries that are permanently installed for safety, performance, medical		\boxtimes	
	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).			
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).			
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\square		
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).			
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).			\boxtimes
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the 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 and hexavalent chromium by weight of these together.			
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 Montreal Protocol (see legal reference).			
	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 *	10HB, 10K2		
Issue date *	2015-08-13	Logo	Lenovo

Product	environmental attributes - Market requirements - Environmental conscious design R	equire	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	$oxed{oxed}$	
P7	Design Picacambhy regualing			
P7.1*	Disassembly, recycling Parts that have to be treated separately are easily separable		$\overline{}$	
P7.2*	Plastic materials in covers/housing have no surface coating.			-
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.		+	$-\frac{\square}{\square}$
P7.4*	Plastic parts > 100g consist of one material of of easily separable materials. Plastic parts > 25g have material codes according to ISO 11469 referring ISO 1043.	$\overline{\mathbb{X}}$	₩	-
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).		∺	\dashv
1 1.0	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		$\overline{}$	П
P7.8*	Upgrading can be done using commonly available tools	$\overline{\mathbb{X}}$	〒	Ħ
P7.9.	Spare parts are available after end of production for: 5 years			Ħ
P7.10	Service is available after end of production for: 5 years			H
	Material and substance requirements			
P7.11*	Product cover/housing material type:			
	Material type: ABS Material type: Material type:			
P7.12	Electrical cable insulation materials of power cables are PVC free.		\boxtimes	
P7.13	Electrical cable insulation materials of signal cables are PVC free		\boxtimes	
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.	\boxtimes		
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See		\boxtimes	
	Note B2)			
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking:			
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive) , TBBPA (reactive) , Other; chemical name: , CAS #:			
	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: Brominated Epoxy Resin See P14			
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: , CAS #: 2. Chemical name: , CAS #:			
	3. Chemical name: , CAS #:			
	Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,	$\frac{\square}{\square}$	쓔	井
	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 0 %.			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sources are free from mercury If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg		Ш	
P8	Batteries and max. mercury content per lamp.			
P8.1*	Battery chemical composition:			
P8.2	Batteries meet the requirements of the following voluntary program/s:			T

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 *	10HB, 10K2		
Issue date *	2015-08-13	Logo	Lenovo

Product environmental attributes - Market requirements (continued) Item							
P9 Energy consumption	n .			1 65 110	n.a.		
9.1 For the product the fo		els or energy cons	umptions are re	ported: See P14			
	Power level at 100 V AC						
Peak (On-max)	53.477 W	53.760 W	55.222 W	Full load			
Category 0			I		Į.		
Short Idle State - WOL Enabled	y W	W	W	Use for ENERGY STAR V6 registration (P _{idle})			
Long Idle State - WOL Enabled	, W	W	W	Use for ENERGY STAR V6 registration (P _{idle})			
Sleep (S3) - WOL Enabled	W	W	W	Use for ENERGY STAR V6 registration(P _{sleep})			
Sleep (S3) - WOL Disabled	W	W	W	Reference			
Off (S5) - WOL Enabled	W	W	W	Use for ENERGY STAR V6 registration(Poff)			
Off (S5) - WOL Disabled	W	W	W	Use for EuP			
Category I1							
Short Idle State - WOL Enabled	30.171 W	31.077 W	31.563 W	Use for ENERGY STAR V6 registration(Pidle)			
Long Idle State - WOL Enabled	13.209 W	13.470 W	15.303 W	Use for ENERGY STAR V6 registration(P _{idle})	\Box		
Sleep (S3) - WOL Enabled	1.1580 W	1.1340 W	1.1130 W	Use for ENERGY STAR V6 registration (P _{sleep})			
Sleep (S3) - WOL Disabled	1.1510 W	1.1210 W	0.0710 W	Reference			
Off (S5) - WOL Enabled	0.6510 W	0.6360 W	0.6390 W	Use for ENERGY STAR V6 registration(P _{off})	$\overline{\Box}$		
Off (S5) - WOL Disabled	0.6080 W	0.5936 W	0.5970 W	Use for EuP			
Category I3							
Short Idle State - WOL Enabled	w W	W	W	Use for ENERGY STAR V6 registration(Pidle)			
Long Idle State - WOL Enabled	W	W	W	Use for ENERGY STAR V6 registration(P _{idle})	\Box		
Sleep (S3) - WOL Enabled	W	W	W	Use for ENERGY STAR V6 registration (P _{sleep})			
Sleep (S3) - WOL Disabled	W	W	W	Reference	\Box		
Off (S5) - WOL Enabled	W	W	W	Use for ENERGY STAR V6 registration(Poff)	\Box		
Off (S5) - WOL Disabled	W	W	W	Use for EuP			
EPS No-load	W	W	W				
(External power supply / charger plugged in the wall outlet but disconnected from the product.)							
PTEC * Typical Energy Consumption	N/A W	N/A W	N/A W				
TEC * Typical Energy Consumption	N/A kWh/week	N/A kWh/week	N/A kWh/week		\boxtimes		
ETEC * Annual Energy Consumption 每年的能源消耗	E Catl1: 112.93 kWh/year	Catl1: 115.99 kWh/year	Catl1: 119.89 kWh/year	E _{TEC} = (8760/1000) x (P _{off} x 0.45 + P _{sleep} x 0.05 + P _{ShortIdle} x 0.35 + P _{LongIdle} x 0.15)			
P _{off} : Off Mode(S5) - WOL Enabled; P _{sleep} : Sleep Mode(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled							
Display resolution*: 1920*1080 Megapixels							
Print Speed * : N/A Imag	ges per minute						
Default time to enter energy save	e mode: 25 minute	es					
P9.2* Information about the	e energy save funct	ion is provided wi	th the product.				
P9.3* The product meets the energy requirements of the following voluntary program/s: ENERGY STAR® version: Version 6.1 Tier: Product category: Others specify:							

P10	Emissions	Emissions					
	Noise emissio	n – Declared according to ISO 9296					
P10.1	Mode	Mode description	Declared A-weighted sound power		A-weighted level $L_{p m Am}$ (dB)		
			level $L_{WAd}(B)$	Operator position Desktop Or Desk side	Bystander positions (only if product is not operator attended)		
	Idle	* Idle	* 3.7 Bel(A)	32 d	IB(A)		
	Operation	* CPU stress loading 80%	* 4.4 Bel(A)	39 d	IB(A)		
	Other mode						
	Measured according to: ISO7779 ECMA-74 Other (only if not covered by ECMA-74 with L _{pAm} measurement distance m)						
P10.2	The product me	eets the acoustic noise requirements of				\boxtimes	

Model nu		10HB, 10K2					
Issue date	e *	2015-08-13	Logo	Leno	VO.		
Product	environn	nental attributes - Market requirements (continued)		Require	ment	met	
Item				Yes	No	n.a.	
	Chemica	al emissions from printing products					
P10.3*	Test per	formed according to ECMA-328 (ISO/IEC 28360) standard, other specify:				\boxtimes	
P10.4	Typical e	emission rate (print phase) is (mg/h):				X	
		Dust Ozone Styrene Benzene TVOC					
P10.5	Chemica	al emission requirements of the following voluntary program/s are met for :				\boxtimes	
			TVOC				
		magnetic emissions					
P10.6	Compute program	er display meets the requirement for low frequency electromagnetic fields of the follo/s:	owing voluntar	y 🔀			
P11	Consum	nable materials for printing products					
P11.1*	A Safety	Data Sheet (SDS) is available for the ink/toner preparation, even if not legally requ	ired (see P4.3)).		\boxtimes	
P11.2*	Paper co	ontaining post-consumer recycled fibers can be used, provided that it meets that.	e requirement	ts of		\boxtimes	
P11.3*	2-sided ((duplex) printing/copying is an integrated product function.				X	
P12	Ergonor	mics for computing products					
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technology	gies.	\boxtimes			
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.						
P13	Packagi	ng and documentation					
P13.1*	Product	packaging material type(s): paper weight (kg): 1.26 packaging material type(s): LDPE weight (kg): 0.39 packaging material type(s): HDPE weight (kg): 0.003					
P13.2*	Product	plastic packaging is free from PVC.		\boxtimes			
P13.3*		media for user and product documentation (tick box): ic \boxtimes , Paper \boxtimes , Other \square					
P13.4*		er user and product documentation, please specify contained percentage of post-co	nsumer recycle	ed			
P14	Addition	nal information (See Note B4)					
	NOTE: S informati knowled provided informati	Supplier makes no representations, guarantees, assurances or warranties whether contained in this document. All information provided by supplier in this documer ge available at the time of completion, and supplier shall have no obligation to updat here is approximate and provided for informational purposes only. See a Lenovo Action.	it is provided b ite such inform	ased on suppation. The inf	olier's format	ion	
P9		ergy Star Qualified Notebooks & Tablet Computers for the latest information: ww.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup	%pgw_code=	со			

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	Lenovo S400z	Logo
Model Number	10HB, 10K2	Lenovo
Issue Date	2015-08-13	Lei IOVO.
Additional information	N/A	

(d)		f manufacturing- see product name plate
(e)	E TEC value (kWh) 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: Cat. B 139 Cat. C N/A Cat. D N/A	
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics carenabled: Cat. B 156 Cat. C N/A Cat. D N/A	ds (dGfx) are
(g)	idle state power demand (Watts);	15.303
(h)	sleep mode power demand (Watts);	1.1130
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	0.0710
(j)	off mode power demand (Watts);	0.6390
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	0.3810
(I)	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable): 10% 81.31% 20% 85.37% 50% 90.57% 100% 91.39% Average 87.16%	
(m)	external power supply efficiency (if applicable): 10% N/A 20% N/A 50% N/A 100% N/A Average N/A ; or Level: N/A	
(0)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):	N/A
(f)	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: Test Voltage: 230V-50HZ Test Equipment: Digital Power Meter: Chroma 66202 Measurement Test fixture: Chroma A662003 AC Source: Gwinstek ASP-9102	
(p-1)	the measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency: Test Equipment: AC Source CHROMA: 6430/643000000908 Electronic Load CHROMA: 63030/6300006368 Power Meter CHROMA: 66202/662022003033	

		Setup:			
			the EUT to suitably calibrated AC source, power meter and electronic load.		
			at least 30 minutes at 100% of nameplate current output.		
	cond		shall be tested at 100%, 75%, 50%, 25% of nameplate output current and no load		
			the relative parameters required from test record.		
			test voltage shall be used 230V/50HZ.		
			temperature: 23 +/-5 °C.		
			mode: Not connection to a product or any other load.		
			edure following Test Method for Calculating the Energy Efficiency of single-voltage		
	•	001 p. 00	External AC-DC and AC-AC Power Supplies and "IEC 62301"		
(p-2)	the n	neasurem	nent methodology used to determine information mentioned in points (m) - external PSU		
	efficie	ency:			
			N/A		
(p-3)			nent methodology used to determine information mentioned in points (o) - loadingcycles		
	batte	ies:	N/A		
(p-4)	the m	easurem	ent methodology used to determine information mentioned in maximum, idle, sleep, off mode		
(p-4)			ed in Point P9.1 in the Product IT Eco Declaration:		
		Conditio			
			e: Measure Panel brightness 150cd/m2		
			de: Turn off the display: after 10minutes		
			Burn In Mode(Driver: Burn In Pro 7.1 Build 1017) C Setting go to Sleep		
			Setting to Shut down		
(q)			eps for achieving a stable condition with respect to power demand::		
(4)			N/A		
(r)	descr	iption of h	now sleep and/or off mode was selected or programmed:		
		Mode	Chut dawn au ainn aut		
	Sten	1. Select 2. Select	Shut down or sign out		
	Off N		5,556		
	Step	1. Select	Shut down or sign out		
	Step	2. Select	Shut down		
(-)					
(s)	off m		vents required to reach the mode where the equipment automatically changes to sleep and/or		
		Mode			
	Step	1. Select	control panel		
			Power Options		
			Choose when to turn off the display		
	Off N		Turn off the display		
			Shut down or sign out		
			Shut down		
(t)			f idle state condition before the computer automatically reaches sleep mode, or another		
	condi	tion which	n does not exceed the applicable power demand requirements for sleep mode (in minutes):	25 minutes	
()	the le	nath of t	ima aftar a naviad of usar inpetivity in which the computer automatically reaches a		
(u)			ime after a period of user inactivity in which the computer automatically reaches a hat has a lower power demand requirement than sleep mode (in minutes):	25 minutes	
	powe	i illoue t	nat has a lower power demand requirement than sleep mode (in minutes).	20 minutes	
(v)	the le	ngth of t	ime before the display sleep mode is set to activate after user inactivity (in minutes):	40	
. ,				10 minutes	
(w)			the energy-saving potential of power management functionality:		
		Press F1 Button to BIOS Setting:			
(24)	Step1. Select Enhanced Power Saving Mode(ErP) user information on how to enable the power management functionality:				
(x)			on to BIOS Setting:		
			Automatic Power on		
			Wake on LAN		
(z)			s for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the		
		,	ly system, — information and documentation on the instrumentation, set-up and circuits used		
		ectrical te	sting: 230V-50HZ		
		vonaye. Equipme			
			Meter: Chroma 66202		
	Meas	urement	Test fixture : Chroma A662003		
A			winstek ASP-9102		
			ry Information:	non professional	
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be accessed and replaced by a user.	non-professional	
<u> </u>			4		
		\boxtimes	The battery[ies] in this product cannot be easily replaced by users them	selves	