

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	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/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 *	Desktop Computer				
Commercial name *	ThinkCentre Chromebox				
Model number *	10H2, 10H3, 10H4, 10H5, 10H6, 10H7, 10H8, 10H9				
Issue date *	2015-04-22				
Intended market *	🔀 Global 📃 Europe 📃 Asia, Pacific & Japan 📃 Americas 📃 Other				
Additional information	Energy Star 6.1 Qualified; GreenGuard; EPEAT Gold				

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

Quality	Control F	Requireme	ent 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).	\square	

Model number * 10H2, 10H3, 10H4, 10H5, 10H6, 10H7, 10H8, 10H9 Issue date * 2015-04-22 Logo

lenovo

Produc	t environmental attributes - Legal requirements	Require	men	t met
ltem		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.	\boxtimes		
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 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).	\boxtimes		
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).	\boxtimes		
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)			\boxtimes
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference). 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 microgram/cm ² /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.	\square		
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	\square		
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 accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\square		
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 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).	\boxtimes		
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	\boxtimes		
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).	\square		
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\boxtimes		
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).			\square
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 P5.1*	Product packaging 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).			
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol		H	H

The product packaging material is free from ozone depleting subst (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 %.

Issue da	te *	10H2, 10H3, 10H4, 10H5, 10H6, 10H7, 10H8, 10H9 2015-04-22	lena		
10000 00			enu	NO.	
Produc	t enviror	mental attributes - Market requirements - Environmental conscious design	equire	ment	met
ltem		atory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P6		ent information			
P6.1*		on for recyclers/treatment facilities is available (see legal reference).			
P7	Design				
P7.1*		mbly, recycling at have to be treated separately are easily separable			
P7.2*		naterials in covers/housing have no surface coating.			- H
P7.3*		arts >100g consist of one material or of easily separable materials.	<u> </u>		
				<u> </u>	
P7.4*		arts >25g have material codes according to ISO 11469 referring ISO 1043.		_님	┶
P7.5		arts are free from metal inlays or have inlays that can be removed with commonly available tools.		<u> </u>	
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).	\square		
D-7 -1	Product				
P7.7*		ng can be done e.g. with processor, memory, cards or drives		<u> </u>	
P7.8*		ng can be done using commonly available tools	\boxtimes		
P7.9.	Spare pa	arts are available after end of production for: 5 years			
P7.10	Service i	s available after end of production for: 5 years			
		and substance requirements			
P7.11*		cover/housing material type:			
P7.12	Floctrico	type: ABS+PMMA Material type: ABS Material type: PC I cable insulation materials of power cables are PVC free. Item 1 Item 2 Item 2 <t< td=""><td></td><td></td><td>_</td></t<>			_
P7.12			<u> </u>		
-		I cable insulation materials of signal cables are PVC free	<u> </u>		
P7.14		/housing plastic parts >25g are free from chlorine and bromine.		<u> </u>	
P7.15	All printe B2)	d circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See Note			
P7.16		tarded plastic parts >25g in covers / housings are marked according ISO 1043-4: rear cover >ABSABS+PMMA<			\mathbf{X}
P7.17	TBBPA	al specifications of flame retardants in printed circuit boards >25g (without components): (additive), TBBPA (reactive) 💭, Other; chemical name: <i>Brominated Epoxy Resin 溴化环氧树脂</i> 26265-08-7			
	1043-4:	I specifications of flame retardants in printed circuit boards (without components) >25g according ISO <i>FR</i> (16)			
P7.18	concentr	retarded plastic parts >25g contain the following flame retardant substances/preparations in ations above 0.1%: ent: No legal limits exist, this is a market requirement.			
	1. Chemi 2. Chem 3. Chem Alt. 2	ical name: , CAS #: , Supplier: ical name: , CAS #: ical name: , CAS #:			
		Il specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
P7.19	R46, R4	arts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, 8, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			
P7.20		plastic parts' weight >25g, recycled material content is 0%. (Note: Post-consumer)			
97.21		plastic parts' weight >25g, biobased material content is 0%.			
7.22	If mercu	rces are free from mercury ry is used specify: Number of lamps: and max. mercury content per lamp: mg			
28 28.1*	Batterie	s hemical composition: Lithium Manganese Dioxide			

Annex B of ECMA-370 4th edition, June 2009

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.

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Product environmental attri	butes - Market r	equirements (continued)	Requiremen	t
Item				Yes No	n.a.
P9 Energy consumption					
9.1 For the product the follo		or energy consump	tions are repo	orted: See P14]
The product is shipped			<u> </u>		
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level 230 V AC		
Category 0					
Short Idle State - WOL Enabled	4.104 W	4.008 W	4.200 W	Use for ENERGY STAR V6 registration (P _{idle})	
Long Idle State - WOL Enabled	3.612 W	3.840 W	3.684 W	Use for ENERGY STAR V6 registration (P _{idle})	
Sleep (S3) - WOL Enabled	0.768 W	0.768 W	0.792 W	Use for ENERGY STAR V6 registration(P _{sleep})	
Sleep (S3) - WOL Disabled	W	W	W	Reference	\square
Off (S5) - WOL Enabled	W	W	W	Use for ENERGY STAR V6 registration(Poff)	\square
Off (S5) - WOL Disabled	0.168 W	0.180 W	0.216 W	Use for EuP	
Category I1	I	1		l	
Short Idle State - WOL Enabled	6.072 W	5.952 W	5.844 W	Use for Energy Star V6.0 registration(P _{Shortdale})	
Long Idle State - WOL Enabled	5.784 W	5.652 W	5.772 W	Use for Energy Star V6.0 registration (P _{Longldle})	
Sleep (S3) - WOL Enabled	0.516 W	0.516 W	0.552 W	Use for Energy Star V6.0 registration (P _{sleep})	
Sleep (S3) - WOL Disabled	W	W	W	Reference	\square
Off (S5) - WOL Enabled	W	W	W	Use for Energy Star V6.0 registration (Poff)	
Off (S5) - WOL Disabled	0.180 W	0.180 W	0.228 W	Use for EuP	
EPS No-load	0.13 W	0.13 W	0.13 W		
(External power supply / charger plugged in the wall outlet but disconnected from the product.)					
TEC Typical Energy Consumption	kWh/week	kWh/week	kWh/week		
ETEC * Annual Energy Consumption	Cat 0: 18.33; Cat I1: 27.15 kWh/year	Cat 0: 18.38; Cat I2: 26.61 kWh/year	0: 18.92; 11:26.64 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.45 + P_{sleep} \times 0.05 + P_{shortldle} \times 0.35 + P_{Longidie} \times 0.15)$	·
Display resolution : Mega		- WOL Enabled; P _s	_{leep} : Sleep Mod	e(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled	
Print Speed :	Images per minute				
Default time to enter energy save m	5 1				
P9.2* Information about the e		is provided with th	e product.		
P9.3* The product meets the ENERGY STAR® vers	energy requirement	ts of the following v	oluntary progra		
Others specify:					

P10	Emissions					
	Noise emission	n – Declared according to ISO 9296				
P10.1	Mode	Mode description	Declared A-weighted sound power	Declared A sound pressure I Operator position	0	-
			level L_{WAd} (B)	Desktop Operator Desk side	(only if product is not operator attended)	
	Idle	* HDD: Idle	* 2.9	2	20	
	Operation	* HDD: Operating	* 2.9	2	20	
	Other mode					1
	Measured acco	rding to: 🔼 ISO7779 🗌 ECMA-74				
		Other (only if not cove	ered by ECMA-74 with	n L _{pAm} measurement dista	ance m)	
P10.2	The product me	ets the acoustic noise requirements of the f	ollowing voluntary pro	gram/s:		\square

Model nu	mber *	10H2, 10H3, 10H4, 10H	5, 10H6, 1	0H7, 10H8,	10H9			
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D						<u> </u>		
met	environr	ental attributes - Market requireme	ents (continued	1)		Require	ment	
Item						Yes	No	n.a.
	Chemica	emissions from printing products						
P10.3*		rmed according to ECMA-328 (ISO/IEC 283	360) standard,	other specify:				\square
P10.4		hission rate (print phase) is (mg/h):	,					
		ust Ozone Styrene	Benzene	TVOC				
P10.5		emission requirements of the following volur ustOzoneStyrene		are met for :	TVOC			\square
	Electron	agnetic emissions						
P10.6	Compute	display meets the requirement for low frequ : MPR-II (3 pin AC adapter only)	ency electromagne	tic fields of the follow	ing voluntary	\square		
P11		ble materials for printing products						
P11.1*	A Safety	Data Sheet (SDS) is available for the ink/tone	er preparation, ever	if not legally require	d (see P4.3).			\boxtimes
P11.2*	Paper co EN1228	ntaining post-consumer recycled fibers c	an be used, prov	ided that it meets	the requirements	of 🗌		\square
P11.3*	2-sided (uplex) printing/copying is an integrated prod	luct function.					\boxtimes
P12	Ergonor	ics for computing products						
P12.1*	The disp	y meets the ergonomic requirements of ISC) 9241-307 for visu	al display technologie	es.			\boxtimes
P12.2*	The phys	cal input device meets the requirements of I	SO 9995 and ISO 9	9241-410.				\boxtimes
P13		g and documentation						
P13.1*	Product	ackaging material type(s): Corrugated Card ackaging material type(s): Recycled Polyet ackaging material type(s): Others (Plastic	thylene(RLDPE)	kg): 0.667 weight (kg): 0.096 weight (kg): 0.02				
P13.2*		astic packaging is free from PVC.				\square		
P13.3*		edia for user and product documentation (tic \mathbf{X} , Paper \mathbf{X} , Other $\mathbf{\Box}$	ck box):					
P13.4*		user and product documentation, please sp	ecify contained per	centage of post-cons	umer recycled fiber	:		
P14		I information (See Note B4)						
	informati available	pplier makes no representations, guarantee n contained in this document. All informatior t the time of completion, and supplier shall h te and provided for informational purposes of	n provided by suppl have no obligation to	er in this document i o update such inform	s provided based of ation. The informat	n supplier's	s know	
P9	See Ene	gy Star Qualified Notebooks & Tablet Co w.energystar.gov/index.cfm?fuseaction	omputers for the la	atest information:				

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	ThinkCentre Chromebox	Logo
Model Number	10H2, 10H3, 10H4, 10H5, 10H6, 10H7, 10H8, 10H9	lenovo
Issue Date	2015.04.22	
Additional information		

(d)	Year of manufacture):					Availible on product labe
(e)						raphics cards (dGfx) are IA driving the display:	N/A
(f)	E TEC value (kWh) enabled:) and capability a	adjustments app	lied when all	discrete g	raphics cards (dGfx) are	
	Category B Category Category	Etec26.6 Etec Etec	4				
(g)	idle state power dem	nand (Watts);					5.772
(h)	sleep mode power d	sleep mode power demand (Watts);					0.552
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);					0.552	
(j)	off mode power demand (Watts);					0.228	
(k)	off mode with WOL	enabled power	demand (Watts)	(where enabl	ed);		N/A
(I)	Internal power suppl	ly efficiency at 1	0 %, 20 %, 50 %	6 and 100 %	of rated out	tput power (if applicable):	
	10% 20%	50%	100%				N/A
(m)	External power supp	oly efficiency (if a	applicable):				
	10% 20%	50%	100%	Average	ə ;		
	or Level: V						
(0)		er of loading cy	cles that the batt	eries can with	nstand (app	blies only to notebook comp	uters): N/A
(f)	electricity supply sys electrical testing: Test voltage in V and Total harmonic disto	stem, — informa d frequency in H prtion of the elec	ition and docum Iz 230V/50Hz tricity supply sys	entation on the stem $\leq 2\%$	e instrume	r, — total harmonic distortic ntation, set-up and circuits sed for electrical testing	
	Instrumer		Range U	sed		Make and Model **	
	Туре		Or ***				

	AC Power Source	Input:110V,20A(max)/220V,1 0A(max);50HZ/60HZ;. Output:0~150V,9.2A(max)/0~ 300V,4.6A(max)	EXTECH 6910;				
	Power Meter	0~600V;0~20A	YOKOGAWA;WT210				
(p-1)	The measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency: N/A						
(p-2)	The measurement methodolog	y used to determine information men NRCan	ntioned in points (m) – external PSU effic	iency:			

(p-3)	The r	The measurement methodology used to determine information mentioned in points (o) – loadingcycles batteries: N/A						
(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:							
			IEC 62623					
(q)	q) Sequence of steps for achieving a stable condition with respect to power demand::							
			Power on ->Wait 5 minutes -> Stable condition					
(r)	Description of how sleep and/or off mode was selected or programmed:							
			Power on ->Wait 30 minutes -> Sleep mode Power on ->Power -> Select off mode					
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:							
mode: N/A								
(t)		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): 30 minutes						
(u)		The length of time after a period of user inactivity in which the computer automatically reaches a powermode that has a lower power demand requirement than sleep mode (in minutes):30 minutes						
(v)	The I	The length of time before the display sleep mode is set to activate after user inactivity (in minutes): 8 minutes						
(w)	Information on the energy-saving potential of power management functionality:							
			N/A					
(x)	User	informatio	on on how to enable the power management functionality:					
			Refer to User Guide					
Additic	n Notebo	ok Batter	ry Information:					
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be accessed and replaced by a non-pr	ofessional user.				
			- The battery[ies] in this product cannot be easily replaced by users them	iselves				
Additio	nal inforr	nation						
Auditio		nation						