

## 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 *	All-in-One Desktop PC					
Commercial name *	Lenovo H50-50					
Model number *	<i>90B6, 10183, 90B7, 10184</i>					
Issue date *	2014/07/14					
Intended market *	🛛 Global 🛛 Europe 🖾 Asia, Pacific & Japan 🖾 Americas 🗌 Other					
Additional information	90B6, 10183 are ES qualified; 90B7,10184 are non- ES qualified					

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

Quality	Quality Control Re				
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 contro such as organized by IT-Företagen (see www.itecodeclaration.org).				

Model r	number *	Lenovo H50-50				
Issue da	ate *	2014/07/14	Logo	lend	DVO.	
Produc	ct environ	mental attributes - Legal requirements		Require	ement	met
Item				Yes	No	n.a.
P1	Hazardo	ous 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	s do not contain Asbestos (see legal reference).		$\boxtimes$		

	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),	$\square$		
	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	$\square$		
	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	$\square$		
	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),			$\square$
	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			$\boxtimes$
	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			$\square$
	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	$\boxtimes$		
	microgram/cm <sup>2</sup> /week (see legal reference).			
	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):	$\bowtie$		
	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	$\square$		
	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	$\boxtimes$		
	accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)			
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the	$\boxtimes$		
	design of the product). Exception: Batteries that are permanently installed for safety, performance, medical			
<b>D</b> 0	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).	$\square$		
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal	$\square$		
	reference).			
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies	$\square$		
	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).	$\boxtimes$		
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			$\boxtimes$
	legal reference and Note B1).			<u> </u>
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	Ē	Ħ	
	product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these			
	requirements is available (see legal reference).			
P5	Product packaging			
	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and			
P5.1*	Fackaging and packaging components do not contain more than 0.01% lead. mercury, caumium and			
	hexavalent chromium by weight of these together.			
P5.1* P5.2*	hexavalent chromium by weight of these together. Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).			
P5.1*	hexavalent chromium by weight of these together.			

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

Model n	umber *	Lenovo H50-50			
Issue da	ite *	2014/07/14 Logo	len	ovo	
Produc	t enviror	mental attributes - Market requirements - Environmental conscious design	Requir	emen	t met
Item		atory to fill in. Additional information regarding each item may be found under P14.	Yes		n.a.
P6	Treatme	ent information			
P6.1*	Informat	tion for recyclers/treatment facilities is available (see legal reference).	X		
P7	Design				
		embly, recycling			
P7.1*		at have to be treated separately are easily separable	$\boxtimes$		
P7.2*		naterials in covers/housing have no surface coating.		$\square$	
P7.3*	Plastic p	parts >100g consist of one material or of easily separable materials.	$\square$		
P7.4*	Plastic p	parts >25g have material codes according to ISO 11469 referring ISO 1043.	$\boxtimes$		
P7.5	Plastic p	parts are free from metal inlays or have inlays that can be removed with commonly available tools	s. 🛛 🕅		
P7.6*	Labels a	are easily separable. (This requirement does not apply to safety/regulatory labels).	$\boxtimes$		
	Product	t lifetime			
P7.7*	Upgradi	ng can be done e.g. with processor, memory, cards or drives	$\boxtimes$		
P7.8*	Upgradi	ng can be done using commonly available tools	$\boxtimes$		
P7.9.	Spare p	arts are available after end of production for: 5 years			Ē
P7.10		is available after end of production for: 5 years			Ē
		I and substance requirements			
P7.11*		cover/housing material type:			
		type: ABS Material type: PC+ABS Material type: PC			
P7.12	Electrica	al cable insulation materials of power cables are PVC free.		$\boxtimes$	
P7.13	Electrica	al cable insulation materials of signal cables are PVC free		$\boxtimes$	
P7.14	All cove	r/housing plastic parts >25g are free from chlorine and bromine.	$\boxtimes$		
P7.15	All printe Note B2	ed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (§ )	See	$\boxtimes$	
P7.16	Flame re Marking	tarded plastic parts >25g in covers / housings are marked according ISO 1043-4: :	$\square$		
P7.17	Alt. 1				
		al specifications of flame retardants in printed circuit boards >25g (without components): (additive) , TBBPA (reactive) , Other; chemical name: <i>Epoxy Resin</i> , CAS #: 79-94-7	$\bowtie$		
	Alt. 2 Chemica ISO 104	al specifications of flame retardants in printed circuit boards (without components) >25g accordin 3-4:	g 🛛		
P7.18	Alt. 1 Flame	retarded plastic parts >25g contain the following flame retardant substances/preparations rations above 0.1%:	in 🔲		
	1. Cherr	ent: No legal limits exist, this is a market requirement. nical name: CAS #: , Supplier: nical name: CAS #: , Supplier:			
	3. Cherr Alt. 2	nical name: CAS #: , Supplier:			
	Chemica	I specifications of flame retardants in plastic part			
P7.19		parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, 6, 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 27%.			
P7.21	Of total	plastic parts' weight >25g, biobased material content is 0%.			
P7.22	If mercu	urces are free from mercury ry is used specify: Number of lamps: and max. mercury content per lamp: mg	$\square$		
P8	Batterie				
P8.1*	-	chemical composition: Lithium Manganese Dioxide			
P8.2	Batterie	s meet the requirements of the following voluntary program/s:			$\boxtimes$

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.

Product environmental attrik         Product environmental attrik         Point       Energy consumption         0.1       For the product the foil         Energy mode *       F         Peak (On-max)       F	1	r <mark>equirements (</mark>	continued)			
Energy consumption           9         Energy consumption           1.1         For the product the foll           Energy mode *         F	1				Requirement	me
For the product the fol			•		Yes No	n.a
Energy mode * F	llowing power leve					
eak (On-max)	100 V AC	115 V AC	230 V AC	Reference / Standard for ene method *	rgy modes and test	
	W	W	W	Full load		$\geq$
Category D2						_
Short Idle State - WOL Enabled		18.02 W	19.27 W	Use for ENERGY STAR V6		
ong Idle State - WOL Enabled	15.57 W	17.51 W	17.90 W	Use for ENERGY STAR V6	•	
Sleep (S3) - WOL Enabled	0.90 W	0.90 W	0.98 W	Use for ENERGY STAR V6	registration (P <sub>sleep</sub> )	
Sleep (S3) - WOL Disabled	W	W	W	Reference		$\mathbb{X}$
Off (S5) - WOL Enabled	0.59 W	0.59 W	0.66 W	Use for ENERGY STAR V6	registration(P <sub>off</sub> )	
Off (S5) - WOL Disabled	W	W	W	Use for EuP		$\geq$
Category D1						_
Short Idle State - WOL Enabled	17.93 W	17.81 W	18.58 W	Use for ENERGY STAR V6		
ong Idle State - WOL Enabled	17.31 W	17.37 W	<b>18.02</b> W	Use for ENERGY STAR V6	•	
Sleep (S3) - WOL Enabled	0.92 W	0.92 W	0.98 W	Use for ENERGY STAR V6	registration (P <sub>skeep</sub> )	
Sleep (S3) - WOL Disabled	W	W	W	Reference		$\triangleright$
Off (S5) - WOL Enabled	0.60 W	0.60 W	0.67 W	Use for ENERGY STAR V6	registration(P <sub>off</sub> )	
Off (S5) - WOL Disabled	W	W	W	Use for EuP		$\geq$
Category 13			I.			
Short Idle State - WOL Enabled	12.95 W	12.59 W	12.77W	Use for ENERGY STAR V6	registration(Pidle)	
ong Idle State - WOL Enabled	11.99W	12.41W	11.90W	Use for ENERGY STAR V6	registration(P <sub>idle</sub> )	
Sleep (S3) - WOL Enabled	0.79 W	<b>0.79</b> W	0.86 W	Use for ENERGY STAR V6	registration (P <sub>sleep</sub> )	
Sleep (S3) - WOL Disabled	W	W	W	Reference		
Off (S5) - WOL Enabled	0.50 W	0.50 W	0.57 W	Use for ENERGY STAR V6	registration(Poff)	
Off (S5) - WOL Disabled	W	W	W	Use for EuP	•	
Category I1	W					
Short Idle State - WOL Enabled	12.43 W	12.37W	12.51W	Use for ENERGY STAR V6	registration(Pidlo)	
.ong Idle State - WOL Enabled	11.80W	11.78W	11.89W	Use for ENERGY STAR V6	-	
Sleep (S3) - WOL Enabled	0.79 W	0.80 W	0.87 W	Use for ENERGY STAR V6		
Sleep (S3) - WOL Disabled	W	W	W	Reference	registration (r sleep/	
Off (S5) - WOL Enabled	0.50 W	0.51 W	0.58 W	Use for ENERGY STAR V6	registration/P	
Off (S5) - WOL Disabled	W	W	W	Use for EuP		
PS No-load	W	W	W	Use for Eur		
External power supply / charger lugged in the wall outlet but lisconnected from the product.)	v	v	v			
PTEC * Typical Energy Consumption	kWh/week	kWh/week	kWh/week			
EC * Typical Energy Consumption	kWh/week	kWh/week	kWh/week			$\square$
TEC *	D2 : 80.88	D2 : 80.98	D2:85.63	$E_{TEC} = (8760/1000) \times (P_{off} \times 10^{-1})$	0.45 + P <sub>sleep</sub> x 0.05	
Annual Energy Consumption	D1: 80.49	D1: 80.20	D1: 83.72	+ P <sub>ShortIdle</sub> x 0.35 +P <sub>LongIdle</sub> x		
	13: 54.38	I3: 60.00	13: 53.90			l
	13: 54.38 11: 57.78	l1:57.23	l1: 57.41			
	(kWh/year)	(kWh/year)	(kWh/year)			
	Poff: Off Mode(St	i) - WOL Enabled; I	P <sub>sleep</sub> : Sleep Mode(	S3) - WOL Enabled; P <sub>idle</sub> : Idle Sta	ate - WOL Enabled	

Print Spee	ed * :	Images per minute					
•		v save mode: 25 minutes					
P9.2*	0,	ut the energy save function is provided with	the product			┥┝	
P9.3*		ets the energy requirements of the following	•	m/s:			
	ENERGY STAR Others specify:			Desktop Computer			
P10	Emissions						
P10.1	Noise emission Mode	n – Declared according to ISO 9296 Mode description	Declared	Declared A-weighted		- T	
F10.1	wode	Mode description	Declared A-weighted	v			
			sound power	sound pressure level $L_{pAr}$			
			level $L_{WAd}$ (B)	Operator position 🔀 Bystand	der positio	ns	
				Desktop 🔀	, a duat ia u		
					roduct is r tor attende		
	Idle	* HDD:Idle	3.8	26	of attende		
	Operation	* HDD: Operating	3.8	23		ΗH	
	Other mode						
	Measured accor	rding to: 🔀 ISO7779 🔀 ECMA-74					
	Measured accor		d by FCMA-74 wit	h L <sub>pAm</sub> measurement distance	m)		
P10.2	The product me	ets the acoustic noise requirements of the f					
		sions from printing products		P 3			
P10.3*		according to ECMA-328 (ISO/IEC 28360) s	tandard 🔀, other	specify: will be tested at July			
	2014			opeony. In be teeted at easy			
P10.4	Typical emission	n rate (print phase) is (mg/h):				$\square$	
	Dust		nzene TV				
P10.5		sion requirements of the following voluntary		are met for :	LLL		
	Dust	Ozone Styrene	Benzene	TVOC			
P10.6	Electromagnet	IC emissions ay meets the requirement for low frequency	olootromagnotio fi	olds of the following voluntary			
F 10.0	program/s:	ay meets the requirement for low nequency	electromagnetic in	eius of the following voluntary			
P11	Consumable m	naterials for printing products					
P11.1*		Sheet (SDS) is available for the ink/toner pre					
P11.2*	EN12281.	ng post-consumer recycled fibers can be	·	at it meets the requirements of			
P11.3*	2-sided (duplex)	) printing/copying is an integrated product fu	unction.			$\Box$	
P12		r computing products					
P12.1*		ets the ergonomic requirements of ISO 924					
P12.2*	The physical inp	out device meets the requirements of ISO 9	995 and ISO 9241	-410.			
P13		documentation					
P13.1*			(g): <b>180</b>				
	1 0	ing material type(s): <b>PAPER</b> weight ing material type(s): weight	(g): <b>1200</b>				
	i ioduot puolidgi	ing material type(s). weight	(9).				
P13.2*	Product plastic	packaging is free from PVC.					
P13.3*	Specify media for user and product documentation (tick box):						
		Paper , Other					
P13.4*	For paper user a fiber: 0%	and product documentation, please specify	contained percent	age of post-consumer recycled			
P14		rmation (See Note B4)					
	information cont knowledge avail	makes no representations, guarantees, as tained in this document. All information prov lable at the time of completion, and supplier approximate and provided for informationa	vided by supplier ir r shall have no obli	this document is provided based gation to update such information.	on supplie . The infor	er's mation	
P9		ar Qualified Notebooks & Tablet Comput					
	http://www.ene	ergystar.gov/index.cfm?fuseaction=find_	a_product.showl	ProductGroup&pgw_code=CO			

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.

## 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 H50-50	Logo
Model Number	90B6, 10183, 90B7, 10184	_
Issue Date	2014.07.14	lenovo
Additional information		

(al)	Year of manufacture:	
(d)	Year of manufacture: Availibl	le on product label
(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 83.23	
	Cat. C 120.38	
(1)	Cat. D 117.64	
(f)	E TEC value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx)	
	are enabled: Cat. B 127.49	
	Cat. C 116.34	
	Cat. D 119.06	
(g)	idle state power demand (Watts);	33.17
		33.17
(h)	sleep mode power demand (Watts);	
		1.27
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	
(.)		1.27
(1)	off and a manual demand (Mathew)	
(j)	off mode power demand (Watts);	0.47
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	0.47
		0.47
(I)	Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):	
	20% <i>84.02%</i> 50% <i>86.51%</i> 100% <i>83.02%</i>	
(m)	External power supply efficiency (if applicable):	NA
(111)		
	10% 20% 50% 100% Average ;	
	and much	
(0)	or Level: The minimum number of loading cycles that the batteries can withstand (applies only to notebook	
(0)	computers):	N/A
	computers).	N/A
(f)	Test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of	
(1)	the electricity supply system, — information and documentation on the instrumentation, set-up and circuits	
	used for electrical testing:	
	Test voltage in V and frequency in Hz 230V/50Hz	
	Total harmonic distortion of the electricity supply system $\leq 2\%$	
	Information and documentation on the instrumentation, set-up and circuits used for electrical testing	

		last	u una a sat	Densis Lload		
			rument Type	Range Used Or ***	Make and Model **	
			ver Source	1~280VAC;1~550HZ;1000V A.	NF;EC1000S; SN:9152124	
		Digita	al Watch	Full range	CASIO; HS-70W; SN:208Q08R	
		Powe	er Meter	0~600V;0~20A	YOKOGAWA;WT210;SN:91M94456 0	
		Hvaroth	ermograph	15~35℃/15~90%	testo; 608-H1,SN:1034895602	
			anemometer	<b>0~20m/s,-20~70</b> ℃	Testo;425;SN:02591883	
			leasuring	1°;1-300cd/ m <sup>2</sup>	Konica Minolta:LS-110;	
(p-1)		<u> </u>	<u> </u>		ation mentioned in points (I) - internal	I PSU
	onio	ionoy.		80 PLUS® Progra	am	
(p-2)		measure	ment methodolo	gy used to determine information	tion mentioned in points (m) - externa	I PSU
				N/A		
(p-3)		measure eries:	ment methodolo		tion mentioned in points (o) - loading	cycles
				N/A		
(p-4)	The pow	measurer er as defir	nent methodolog ned in Point P9.1	y used to determine information in the Product IT Eco Declaration	mentioned in maximum, idle, sleep, off r on:	node
				IEC 62301		
(q)	Seq	uence of s	steps for achievin	g a stable condition with respec	t to power demand::	
				Power on -> Wait 5 minutes ->		
(r)	Des	cription of	how sleep and/o	r off mode was selected or prog	rammed:	
			Be	egin menu -> Power -> Select	sleep or off mode	
(s)		uence of e node:	events required to	p reach the mode where the equ	ipment automatically changes to sleep a	nd/or
		Contro	ol Panel->Power	Options-> Change Settings->	Restore default settings for this plan	
(t)					utomatically reaches sleep mode, or ar I requirements for sleep mode (in minute	
(u)				riod of user inactivity in which r power demand requirement th	the computer automatically reaches a an sleep mode (in minutes):	40 minutes
(v)	The	length of	time before the	e display sleep mode is set to	activate after user inactivity (in minutes):	10 minutes
(w)	Infor	mation or	the energy-savi	ng potential of power managem	ent functionality:	
				N/A		
(x)	Use	r informati	on on how to ena	able the power management fun	ctionality:	
				Refer to User Gu	ide	
	1	1	ry Information:	computer is operated by better	y/ies that cannot be accessed and repla	ood by a non professional
Yes	No	n/a	user.	computer is operated by batter	yries that cannot be accessed and repla	ced by a non-professional
		$\boxtimes$	The battery	[ies] in this product can	not be easily replaced by users	s themselves
- ندناه ام	nal infor	motion				
Additio		mation				