

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	t.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 H500s				
Model number *	90AK; 10157				
Issue date *	2013-11-5				
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other				
Additional information	Energy Star Qualified Product				

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

Model number *	Lenovo H500s	MT: 90AK; 10157		
Issue date *	2013/11/5		Logo	lenovo.

Product	environmental attributes - Legal requirements	Require	men	t met
Item	V 1	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),	X		
	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)			
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as 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			$\overline{}$
	microgram/cm²/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): 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			
P2.3*	accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference) 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).		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).			
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).			\boxtimes
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.	d 🔀		
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).		Щ	
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montrea Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	al 🔀	П	Ш

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

Model number *	Lenovo H500s	MT: 90AK; 10157		
Issue date *	2013/11/5		Logo	lenovo.

Produc	t environmental attributes - Market requirements - Environmental conscious design Re	quire	men	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	X		П
P7.2*	Plastic materials in covers/housing have no surface coating.	Ħ	$\overline{\boxtimes}$	Ħ
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.			Ħ
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.			\Box
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).	\boxtimes		
	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	X		
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:			
	Material type: ABS Material type: PC+ABS Material type: PC			
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 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: <i>Epoxy Resin</i> , CAS #: <i>26265-08-7</i>			
	Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: <i>Brominated Epoxy Resin See P14</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: CAS #: , Supplier:			
	2. Chemical name: CAS #: , Supplier: 3. Chemical name: CAS #: , Supplier: Alt. 2			
	Chemical specifications of flame retardants in plastic part	П		\square
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 0%.			
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.			
P7.22	Light sources are free from mercury	\boxtimes		
Do	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg			
P8 P8.1*	Batteries Battery chemical composition: Lithium Manganese Dioxide			
P8.2	Batteries meet the requirements of the following voluntary program/s:			
1 0.2	Dationed most the requirements of the following voluntary program/s.			

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 *	Lenovo H500s	MT: 90AK; 10157		
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Product environmental attrib	outes - Market i	requirements (continued)	Requirement	
P9 Energy consumption	•			Yes No	n.a
9.1 For the product the fol		els or energy cons	umptions are re	ported: See P14	
<u> </u>	Power level at 100 V AC			-	
Peak (On-max)	W	W	W	Full load	
Category D2					
Short Idle State - WOL Enabled	20.73 W	21.27 W	22.61 W	Use for ENERGY STAR V6 registration(P _{idle})	
Long Idle State - WOL Enabled	20.25 W	20.38 W	20.62 W	Use for ENERGY STAR V6 registration(P _{idle})	
Sleep (S3) - WOL Enabled	0.72 W	0.72 W	0.78 W	Use for ENERGY STAR V6 registration (Psleep)	
Sleep (S3) - WOL Disabled	W	W	W	Reference	
Off (S5) - WOL Enabled	0.51 W	0.51 W	0.57 W	Use for ENERGY STAR V6 registration(Poff)	Ħ
Off (S5) - WOL Disabled	W	W	W	Use for EuP	
Category D1					
Short Idle State - WOL Enabled	21.65 W	21.63 W	21.96 W	Use for ENERGY STAR V6 registration(P _{idle})	
Long Idle State - WOL Enabled	21.07 W	21.10 W	21.20 W	Use for ENERGY STAR V6 registration(P _{idle})	
Sleep (S3) - WOL Enabled	<i>0.83</i> W	0.83 W	<i>0.90</i> W	Use for ENERGY STAR V6 registration (P _{sleep})	
Sleep (S3) - WOL Disabled	W	W	W	Reference	
Off (S5) - WOL Enabled	0.17 W	0.18 W	0.24 W	Use for ENERGY STAR V6 registration(Poff)	
Off (S5) - WOL Disabled	W	W	W	Use for EuP	
Category I3					
Short Idle State - WOL Enabled	14.32 W	15.14W	14.56W	Use for ENERGY STAR V6 registration(P _{idle})	
Long Idle State - WOL Enabled	13.86 W	13.90 W	13.89W	Use for ENERGY STAR V6 registration(P _{idle})	
Sleep (S3) - WOL Enabled	0.72 W	0.72 W	<i>0.78</i> W	Use for ENERGY STAR V6 registration (P _{sleep})	
Sleep (S3) - WOL Disabled	W	W	W	Reference	
Off (S5) - WOL Enabled	0.51 W	0.51 W	0.57 W	Use for ENERGY STAR V6 registration(Pott)	
Off (S5) - WOL Disabled	W	W	W	Use for EuP	
Category 0					
Short Idle State - WOL Enabled	22.79 W	20.65W	22.99W	Use for ENERGY STAR V6 registration(Pidle)	
Long Idle State - WOL Enabled	20.33W	20.25W	20.74W	Use for ENERGY STAR V6 registration(Pidle)	
Sleep (S3) - WOL Enabled	1.02 W	1.03 W	1.08 W	Use for ENERGY STAR V6 registration (P _{sleep})	$\overline{\Box}$
Sleep (S3) - WOL Disabled	W	W	W	Reference	
Off (S5) - WOL Enabled	0.55 W	0.55 W	0.60 W	Use for ENERGY STAR V6 registration(P _{off})	
Off (S5) - WOL Disabled	W	W	W	Use for EuP	
Category I1					
Short Idle State - WOL Enabled	15.01 W	15.31W	15.52W	Use for ENERGY STAR V6 registration(P _{idle})	П
Long Idle State - WOL Enabled	14.39 W	14.52W	14.56W	Use for ENERGY STAR V6 registration(P _{idle})	〒
Sleep (S3) - WOL Enabled	0.83 W	0.84 W	0.90 W	Use for ENERGY STAR V6 registration (P _{sleep})	H
Sleep (S3) - WOL Disabled	W	W	W	Reference	
Off (S5) - WOL Enabled	0.17 W	0.18 W	0.24 W	Use for ENERGY STAR V6 registration(P _{off})	
Off (S5) - WOL Disabled	W W	W	W W	Use for EuP	
	W	W	W	OSC IOI EUF	
EPS No-load PTEC *	VV	VV	VV		
Typical Energy Consumption	kWh/week	kWh/week	kWh/week		
TEC * Typical Energy Consumption	kWh/week	kWh/week	kWh/week		
ETEC *	D2:92.49	D2:94.32	D2:99.01	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.45 + P_{sleep} \times 0.05)$	
Annual Energy Consumption	D1: 95.17	D1: 95.12	D1: 96.53	+ P _{ShortIdle} x 0.35 +P _{LongIdle} x 0.15)	
	13: 64.49 11: 65.95	I3: 67.01 I1: 67.10	13: 65.78 11: 68.06		
	(kWh/year)	(kWh/year)	(kWh/year)	S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled	

Display res	solution* : Megap	pixels					\boxtimes
Print Speed	d * :	Images per minute					
Default time	e to enter energy	save mode: 25 minutes					$\overline{\Box}$
P9.2*	0,	It the energy save function is provided with	the product.	<u> </u>	\boxtimes		\exists
P9.3*		ets the energy requirements of the following		m/e·			
1 3.3				Desktop Computer	\square		
P10	Emissions						
		- Declared according to ISO 9296					
P10.1	Mode	Mode description	Declared A-weighted	Declared A-weighted sound pressure level $L_{p{\sf Ar}}$			
			sound power level L_{WAd} (B)	Operator position Bystan	der posit	tions	
			level E _{WAd} (B)	Desktop X			
				or Dock side (only if p			
	Idle	* HDD:Idle	4.1		tor atten	aea)	
	Operation	* HDD: Operating	4.1	30			H
	Other mode	11221 Operating					ш
		ding to: X ISO7779 X ECMA-74	•				
			d by ECMA-74 wit	h L _{pAm} measurement distance	m)		
P10.2	The product mee	ets the acoustic noise requirements of the f					\boxtimes
	Chemical emiss	sions from printing products					
P10.3*	Test performed a	according to ECMA-328 (ISO/IEC 28360) si	tandard 🔀, other	specify:	\boxtimes		
P10.4	Typical emission	rate (print phase) is (mg/h):					X
D. (0 =	Dust		zene TV0				<u> </u>
P10.5		on requirements of the following voluntary		are met for :	Ш	Ш	\boxtimes
	Dust	Ozone Styrene Styrene	Benzene	TVOC			
P10.6		y meets the requirement for low frequency	electromagnetic fi	elds of the following voluntary	$\overline{}$	\square	
	program/s:						ш
P11		aterials for printing products					
P11.1*		neet (SDS) is available for the ink/toner pre			Щ_	Щ	\boxtimes
P11.2*	Paper containing EN12281.	g post-consumer recycled fibers can be u	used, provided tha	at it meets the requirements of		Ш	
P11.3*	2-sided (duplex)	printing/copying is an integrated product fu	nction.				\boxtimes
P12		computing products					
P12.1*		ts the ergonomic requirements of ISO 9241				\boxtimes	
P12.2*	. , .	ut device meets the requirements of ISO 99	995 and ISO 9241	-410.		\boxtimes	
P13	Packaging and						
P13.1*		3. ()	weight (kg): 0. 215				
		31 ()	weight (kg):1.3 weight (kg): 0.09				
			weight (kg): 0. 042				
			weight (kg): 0. 025				
		ng material type(s): PAD-Tray cover	weight (kg): 0.842				
P13.2*		ackaging is free from PVC.			\boxtimes		
P13.3*	Electronic X, F	or user and product documentation (tick box Paper \square , Other \square					
P13.4*	For paper user a fiber: 0%	nd product documentation, please specify	contained percenta	age of post-consumer recycled			
P14		mation (See Note B4)					
	NOTE: Supplier	makes no representations, guarantees, ass ained in this document. All information prov	surances or warrar	nties whether express or implied, r	egarding	g the	
	knowledge availa	able at the time of completion, and supplier approximate and provided for informational	shall have no obli	gation to update such information	. The info	ormat	ion
	information.	0 10 10 10 10 10 10 10 10 10 10 10 10 10					
P 9		r Qualified Notebooks & Tablet Compute rgystar.gov/index.cfm?fuseaction=find_					

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 H500s	Logo
Model Number	90AK; 10157	
Issue Date	2013.11.5	lenovo.
Additional information	ES 6.0 qualified	

P7.1.1	Product environmental attributes	
(d)	Year of manufacture:	ilible 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 55.93 Cat. C 67.83 Cat. D 69.31	
(f)	E TEC value (kWh) and capability adjustments applied when all discrete graphics cards (dGfx) are enabled: Cat. B 72.89 Cat. C 69.83 Cat. D 70.85	
(g)	idle state power demand (Watts);	19.77
(h)	sleep mode power demand (Watts);	1.10
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	1.10
(j)	off mode power demand (Watts);	0.78
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	0.78
(l)	Internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):	N/A
	10% 20% 50% 100%	
(m)	External power supply efficiency (if applicable):	
	10% 20% 50% 100% Average ;	
(o)	or Level: V 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 in V and frequency in Hz 230V/50Hz Total harmonic distortion of the electricity supply system \$2% Information and documentation on the instrumentation, set-up and circuits used for electrical testing Instrument Range Used	
	Type Or *** Make and Model **	

		AC Powe	er Source	1~280VAC;1~550HZ;1000V A.	NF;EC1000S; SN:9152124		
		Digital	Watch	Full range	CASIO; HS-70W; SN:208Q08R		
		Power	r Meter	0~600V;0~20A	YOKOGAWA;WT210;SN:91M94456 0		
	-	Hygrothe	ermograph	15~35℃/15~90%	testo; 608-H1,SN:1034895602		
	T		nemometer	0~20m/s,-20~70°C	Testo;425;SN:02591883		
		Light M	easuring	1°;1-300cd/ m ²	Konica Minolta;LS-110;		
(p-1)	The measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency: 80 PLUS® Program						
(p-2)	The measurement methodology used to determine information mentioned in points (m) – external PSU efficiency:						
	IV/A						
(p-3)	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 62301							
(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:							
Begin menu -> Power -> Select sleep or off mode							
(s)	s) Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:						
Control Panel->Power Options-> Change Settings-> Restore default settings for this plan							
(t)	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): 25 minutes						
(u)	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): 40 minutes						
(v)	The length of time before the display sleep mode is set to activate after user inactivity (in minutes): 10 minutes						
(w) Information on the energy-saving potential of power management functionality:							
N/A							
(x) User information on how to enable the power management functionality:							
Refer to User Guide							
Addition Notebook Battery Information:							
Yes	No	n/a	This notebook user.	computer is operated by batter	y/ies that cannot be accessed and replaced I	oy a non-professional	
			The battery	/[ies] in this product can	not be easily replaced by users the	emselves	
Additional information							
Addition	ai iiiiUiI						