

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			
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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 *	III-in-One Desktop PC				
Commercial name *	Lenovo C460				
Model number *	10149; F0AD				
Issue date *	14/05/2014				
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 *	Lenovo C460	MT:10149; F0AD		
Issue date *	14/05/2014		Logo	lenovo

Product	environmental attributes - Legal requirements	Require	ment	met
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.	\boxtimes		
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			
P1.4*	concentration values. Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated			
1 1.4	terphenyl (PCT) in preparations (see legal reference).		Ш	
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),			X
	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 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/cm²/week (see legal reference).		Ш	Ш
D4 40*	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
DO	_ ; ;			
P2.1*	Batteries If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains		$\overline{}$	
1 2.1	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			
P2.2*	provided in user manual. (See legal reference) Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or	$\overline{}$		\square
	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 design of the product). Exception: Batteries that are permanently installed for safety, performance, medical and the product of the product	Ш	Ш	
P3	or data integrity reasons do not have to be "easily removable". (See legal reference) Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).		$\overline{}$	
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).		Ш	
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).		<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 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 Montrea 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 %.

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Issue date *	14/05/2014		Logo	lenovo.

Product	t environmental attributes - Market requirements - Environmental conscious design Re	quire	men	t 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	\boxtimes		
P7.2*	Plastic materials in covers/housing have no surface coating.	П	X	$\overline{\Box}$
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.			
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).			
	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	\boxtimes		
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:			
P7.12	Material type: ABS Material type: Material type:	_		_
	Electrical cable insulation materials of power cables are PVC free.	ᆚ		_ <u></u>
P7.13	Electrical cable insulation materials of signal cables are PVC free	<u>Ц</u>	\boxtimes	_ <u>_</u> _
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: , CAS #:			
	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 #: 2. Chemical name: , CAS #:			
	3. Chemical name: , CAS #:			
	Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:	\square		
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45,			
D7.66	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 75%.			
P7.21 P7.22	Of total plastic parts' weight >25g, biobased material content is 0%. Light sources are free from mercury			
1 1.22	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg		Ш	Ш
P8	Batteries			
P8.1*	Battery chemical composition:			
P8.2	Batteries meet the requirements of the following voluntary program/s:			$\overline{\Box}$

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 C460	MT:10149; F0AD		
Issue date *	14/05/2014		Logo	lenovo.

	t environmental attributes - Market requirements (continued) Requirement me					
Item Francisco	ia m				Yes No	n.a.
P9 Energy consumpt9.1 For the product the		ole or operay cone	umptions are re-	norted: Con P14		
·	following power leve					
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference / Standard for er method *	ergy modes and test	Ш
Peak (On-max)	70.197 W	70.167 W	70.237 W	Full load		
Category I1	I					
Short Idle State - WOL Enable	ed 40.372 W	40.416 W	40.711 W	Use for ENERGY STAR V6	registration (P _{idle})	ПП
Long Idle State - WOL Enable	ed 25.165 W	25.217 W	25.427 W	Use for ENERGY STAR V		Ħ
Sleep (S3) - WOL Enabled	1.6093 W	1.6288 W	1.6269 W	Use for ENERGY STAR V6		Ħ
Sleep (S3) - WOL Disabled	1.5822 W	1.5641 W	1.55 W	Reference		Ħ
Off (S5) - WOL Enabled	1.3065 W	1.3217 W	1.3332 W	Use for ENERGY STAR V6	registration(P _{off})	盲
Off (S5) - WOL Disabled	1.2841 W	1.3102 W	1.3277 W	Use for EuP		
Category I2		l				
Short Idle State - WOL Enable	ed W	W	W	Use for ENERGY STAR VE	registration(P _{idle})	П
Long Idle State - WOL Enable	ed W	W	W	Use for ENERGY STAR V6	registration(P _{idle})	
Sleep (S3) - WOL Enabled	W	W	W	Use for ENERGY STAR V	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)	
Category I3						
Short Idle State - WOL Enable	ed W	W	W	Use for ENERGY STAR V	registration(P _{idle})	
Long Idle State - WOL Enable	ed W	W	W	Use for ENERGY STAR V		
Sleep (S3) - WOL Enabled	W	W	W	Use for ENERGY STAR VE	registration (P _{sleep})	
Sleep (S3) - WOL Disabled	W	W	W	Reference		
Off (S5) - WOL Enabled	W	W	W	Use for ENERGY STAR VE	registration(P _{off})	
Off (S5) - WOL Disabled	W	W	W	Use for EuP		Щ
EPS No-load PTEC *	0.1862 W N/A W	0.1881 W N/A W	0.2270 W N/A W			
TEC * Typical Energy Consumption	Cat I1: 95.18 kWh/week	Cat I1: 95.44 kWh/week	Cat I1: 96.23 kWh/week			
ETEC * Annual Energy Consumption	Cat I1: 95.18 kWh/year	Cat I1: 95.44 kWh/year	Cat I1: 96.23 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times P_{ShortIdle} \times 0.35 + P_{LongIdle} \times 0.35 + P_{Lon$		
Annual Energy Consumption	•	-		(S3) - WOL Enabled; P _{idle} : Idle S		+
Display resolution* : 1600*9		o) - WOL Enabled, I	sieep. Olecp Wode	(00) - WOL Linabled, Titale. Idie	State - WOL Litablea	\Box
Print Speed * : N/A	Images per minute					
Default time to enter energy sa		utes				
	he energy save func		th the product			片
	the energy requirem		·	aram/s:		
•	version: Version 6.0		oduct category:	,		
P10 Emissions						
Noise emission –	Declared according	to ISO 9296				
P10.1 Mode N	Node description		Declared	Declared A-	•	
			A-weighted sound power		vel L_{pAm} (dB)	
			level L_{WAd} (Bystander positions	1
			WAd	Desktop X	(only if product is not	
				or Desk side	operator attended)	
	Idle		* 3.7 Bel(A)	32 dB	• •	
	CPU stress loading	80%	* 4.4 Bel(A)	39 dB	(A)	
Other mode]
Measured according	· <mark>=</mark>	ECMA-74				
	Other			with L _{pAm} measurement dista	ance m)	<u> Ц</u>
P10.2 The product meets	the acoustic noise re	equirements of the	tollowing volunt	ary program/s:		\boxtimes

Model number *	Lenovo C460	MT:10149; F0AD		
Issue date *	14/05/2014		Logo	lenovo.

Product	environmental attributes - Market requirements (continued)	Requirer	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.	f		\boxtimes
P11.3*	2-sided (duplex) printing/copying is an integrated product function.			X
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): paper weight (kg): 1.07			
	Product packaging material type(s): PE weight (kg): 0.32			
	Product packaging material type(s): HDPE weight (kg): 0.006			
P13.2*	Product plastic packaging is free from PVC.	\boxtimes		
P13.3*	Specify media for user and product documentation (tick box):			
	Electronic , Paper , Other			
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 0%			
P14	Additional information (See Note B4)			
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied,			
	information contained in this document. All information provided by supplier in this document is provided based			
	knowledge available at the time of completion, and supplier shall have no obligation to update such information provided here is approximate and provided for informational purposes only. See a Lenovo Account Represent			OH
	information.	auve IUI II	IIUIE	
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=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.

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	C460	Logo
Model Number	1049/F0AD	
Issue Date	14/05/2014	lenovo.
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 131	
(f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics calenabled: Cat. B 177	ds (dGfx) are
(g)	idle state power demand (Watts);	25.43
(h)	sleep mode power demand (Watts);	1.55
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);	1.63
(j)	off mode power demand (Watts);	1.33
(k)	off mode with WOL enabled power demand (Watts) (where enabled);	1.33
(I)	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable): 10% 80.77% 20% 87.00% 50% 89.90% 100% 90.59% Average 87.07%	
(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	
(o)	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	

	Test	Setup:		
			e EUT to suitably calibrated AC source, power meter and electronic load.	
			t least 30 minutes at 100% of nameplate current output.	
			nall be tested at 100%, 75%, 50%, 25% of nameplate output current and no load	
	cond		an be tested at 100%, 73%, 30%, 23% of hameplate output current and no load	
	□ Ме	easure th	e relative parameters required from test record.	
	□ Th	ne input te	est voltage shall be used 230V/50HZ.	
	□ Ar	nbient tei	mperature: 23 +/-5 °C.	
	· No	o-Load m	ode: Not connection to a product or any other load.	
	• Те	st proced	dure following Test Method for Calculating the Energy Efficiency of single-voltage	
			External AC-DC and AC-AC Power Supplies and "IEC 62301"	
(p-2)	the n		ent methodology used to determine information mentioned in points (m) - external PSU	
			N/A	
(p-3)	the n batte		ent methodology used to determine information mentioned in points (o) - loadingcycles	
			N/A	
(p-4)	powe		ent methodology used to determine information mentioned in maximum, idle, sleep, off mode ed in Point P9.1 in the Product IT Eco Declaration:	
			e: Measure Panel brightness 150cd/m2	
			le: Turn off the display: after 10minutes Jurn In Mode(Driver: Burn In Pro 7.1 Build 1017)	
			C Setting go to Sleep	
			Setting to Shut down	
(q)	seque	ence of ste	eps for achieving a stable condition with respect to power demand:: N/A	
(r)	descr	ription of h	now sleep and/or off mode was selected or programmed:	
	Slaar	o Mode		
			Shut down or sign out	
	Step	2. Select		
	Off N		Shut down or sign out	
			Shut down	
(s)	seque	ence of ev	vents required to reach the mode where the equipment automatically changes to sleep and/or	
	off me			
		o Mode 1. Select	control panel	
	Step	2. Select	Power Options	
			Choose when to turn off the display	
	Off N		Turn off the display	
	Step	1. Select	Shut down or sign out	
/ + \			Shut down f idle state condition before the computer automatically reaches sleep mode, or another	
(t)			n does not exceed the applicable power demand requirements for sleep mode (in minutes):	25 minutes
(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
(v)	the le	ength of ti	ime before the display sleep mode is set to activate after user inactivity (in minutes):	10 minutes
(w)	inforn	nation on	the energy-saving potential of power management functionality:	
	Pres	s F1 Butte	on to BIOS Setting:	
(x)			Enhanced Power Saving Mode(ErP) n on how to enable the power management functionality:	
(^)	Pres	s F1 Butte	on to BIOS Setting:	
			Automatic Power on	
(z)			Wake on LAN s for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the	
` ´	electr	ricity supp	ly system, — information and documentation on the instrumentation, set-up and circuits used	
		ectrical tes	sting: 230V-50HZ	
		Equipme		
	Digita	al Power	Meter: Chroma 66202	
			Test fixture : Chroma A662003 winstek ASP-9102	
Additio			y Information:	
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be accessed and replaced by a	non-professional
	1			

			user.		
				The battery[ies] in this product cannot be easily replaced by users themselves	
Additional information					
N/A					
		•	•		