

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 * | ThinkCentre | Logo | | |
|------------------------|--|--------|--|--|
| Company name * | Lenovo | | | |
| Contact information * | Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5J3 Morrisville, North Carolina 27560 alcarter@lenovo.com | lenovo | | |
| Internet site * | ttp://www.lenovo.com/social_responsibility/us/en/environment.html | | | |
| Additional information | | | | |

| | 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 * | Personal Computer | | | | | |
| Commercial name * | ThinkCentre M81 Tower/SFF | | | | | |
| Model number * | Tower - 5069, 7517, 4166, 4169, 5030, 5034, 5037, 5048, 1730, 0268 SFF - 5070, 7518, 4167, 5025, 5032, 5035, 4164, 5049, 0385, 0267 | | | | | |
| Issue date * | 2011.02.08 | | | | | |
| Intended market * | ☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other | | | | | |
| Additional information | ENERGY STAR® Qualified (select models); EPEAT Gold Rating, GREENGUARD Certification | | | | | |

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

| Quality | Quality Control | | |
|---------|--|-------------|----|
| 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 * | ThinkCentre M81 Tower/SFF | | |
|----------------|--|------|--------|
| | TW - 5069, 7517, 4166, 4169, 5030, 5034, 5037, 5048, 1730, 0268 | | |
| | SFF - 5070, 7518, 4167, 5025, 5032, 5035, 4164, 5049, 0385, 0267 | | |
| Issue date * | 2011.02.08 | Logo | lenovo |

| Product | oduct environmental attributes - Legal requirements | | | 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. | | | |
| P1.3* | Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), | \boxtimes | П | |
| | 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 | <u> </u> | $\overline{}$ | |
| | terphenyl (PCT) in preparations (see legal reference). | | <u> </u> | |
| 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). | | Ш | |
| 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. | | | \boxtimes |
| 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). | | | |
| | 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 | |
| D1 10* | 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/ThinkGreen_products.html#environment | | <u>Ц</u> | |
| 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) | | | |
| 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). | | \Box | |
| P3.2* | The product complies with legally required standards for electromagnetic compatibility (see legal reference). | | 一 | $\overline{\Box}$ |
| P3.3* | If product is intended for connection to a public telecom network or contains a radio transmitter, it complies | | | |
| P3.4* | with legally required standards for radio and telecommunication devices (see legal reference). The product is labeled to show conformance with applicable legal requirements (see legal reference). | $\overline{\square}$ | $\overline{}$ | $\overline{}$ |
| 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). | | $\overline{}$ | $\overline{\square}$ |
| P4.3* | If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the | - | + | |
| F4.5 | product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference). | | Ш | |
| 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. | l 🔀 | | |
| P5.2* | Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference). | \square | | |
| 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 %.

| Model number * | ThinkCentre M81 Tower/SFF | | | | |
|----------------|--|------|--------|--|--|
| | TW - 5069, 7517, 4166, 4169, 5030, 5034, 5037, 5048, 1730, 0268 | | | | |
| | SFF - 5070, 7518, 4167, 5025, 5032, 5035, 4164, 5049, 0385, 0267 | | | | |
| Issue date * | 2011.02.08 | Logo | lenovo | | |

| Product | t environmental attributes - Market requirements - Environmental conscious design Re | quire | ement | 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). | | Ш | Ш |
| 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. | | \boxtimes | |
| P7.3* | Plastic parts >100g consist of one material or of easily separable materials. | | \Box | T |
| P7.4* | Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043. | X | 市 | $\overline{}$ |
| P7.5 | Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools. | | Ħ | \blacksquare |
| P7.6* | Labels are easily separable. (This requirement does not apply to safety/regulatory labels). | | 一一 | \pm |
| | Product lifetime | | | |
| P7.7* | Upgrading can be done e.g. with processor, memory, cards or drives | \square | | \Box |
| P7.8* | Upgrading can be done using commonly available tools | | ╁ | ∺ |
| P7.9. | Spare parts are available after end of production for: 5 years | | | \dashv |
| P7.10 | Service is available after end of production for: 5 years | | | \blacksquare |
| | Material and substance requirements | | | |
| P7.11* | Product cover/housing material type: | | | |
| | Material type: ABS Material type: PC/ABS Material type: Steel | | | |
| 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. | | | T |
| 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. Provide a list of all used flame retardants including MSDS for each flame retardant. The list must contain complete chemical name, CAS number and supplier. 1. Chemical name: , CAS #: , Supplier: 2. Chemical name: , CAS #: , Supplier: | | | |
| | 3. Chemical name: , CAS #: , Supplier: 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, 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 <i>Tower: 42.1%, SFF: 37.6%</i> | | | |
| P7.21 | Of total plastic parts' weight >25g, biobased material content is 0%. | | | |
| P7.22 | Light sources are free from mercury | | | |
| P8 | Batteries | | | |
| P8.1* | Battery chemical composition: | | | \boxtimes |
| P8.2 | Batteries 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.

| Model number * | ThinkCentre M81 Tower/SFF | | | | |
|----------------|--|------|--------|--|--|
| | TW - 5069, 7517, 4166, 4169, 5030, 5034, 5037, 5048, 1730, 0268 | | | | |
| | SFF - 5070, 7518, 4167, 5025, 5032, 5035, 4164, 5049, 0385, 0267 | | | | |
| Issue date * | 2011.02.08 | Logo | lenovo | | |

| Product environmental attributes - Market requirements (continued) Requirement met | | | | | net | | |
|--|---|--|---|--|-----------|--|--|
| Item | tem Yes No n. | | | | | | |
| P9 Energy consumption | | | | | | | |
| | e following power lev oped w/ WOL Enable | | mptions are reported | d: See <i>P14</i> | | | |
| Energy mode * | Power level at 100 V AC | Power level at 115 V AC | Power level at 230 V AC | Reference / Standard for energy modes and test method * | | | |
| Category D | | | | | | | |
| Idle State - WOL Enabled | 52.58W | 51.93 W | 52.71 W | Use for Energy Star V5 registration(P _{idle}) | | | |
| Sleep (S3) - WOL Enabled | 1.64W | 1.90 W | 2.00 W | Use for Energy Star V5 registration(P _{sleep}) | T | | |
| Off (S5) - WOL Enabled | 0.72W | 0.73W | 0.83 W | Use for Energy Star V5 registration(Poff) | = | | |
| Peak (On-max) | 88.60 W | 88.40 w | 86.91 w | Full load | | | |
| Category C | I | | | | | | |
| Idle State - WOL Enabled | 41.79W | 41.77 W | 39.81 W | Use for Energy Star V5 registration(P _{idle}) | \neg | | |
| Sleep (S3) - WOL Enabled | 1.77 W | 1.76 W | 1.96 W | Use for Energy Star V5 registration(P _{sleep}) | 干 | | |
| Off (S5) - WOL Enabled | 0.98 W | 0.92W | 0.98 W | Use for Energy Star V5 registration(P _{off}) | = | | |
| Peak (On-max) | 155.25 W | 154.50W | 160.24W | Full load | \exists | | |
| Category B | | | | | _ | | |
| Idle State - WOL Enabled | 49.33 W | 48.86W | 49.84 W | Use for Energy Star V5 registration(P _{idle}) | \neg | | |
| Sleep (S3) - WOL Enabled | 1.46 W | 1.47 W | 1.63 W | Use for Energy Star V5 registration(P _{sleep}) | 一 | | |
| Off (S5) - WOL Enabled | 0.72W | 0.73 W | 0.80 W | Use for Energy Star V5 registration(P _{off}) | = | | |
| Peak (On-max) | 157.05 W | 147.68 W | 147.46 W | Full load | 一 | | |
| Category A | | | | | _ | | |
| Idle State - WOL Enabled | 46.57W | 46.21W | 45.68W | Use for Energy Star V5 registration(P _{idle}) | \neg | | |
| Sleep (S3) - WOL Enabled | 1.47 W | 1.45 W | 1.42 W | Use for Energy Star V5 registration(P _{sleep}) | Ŧ | | |
| Off (S5) - WOL Enabled | 0.72W | 0.71W | 0.81W | Use for Energy Star V5 registration(P _{off}) | = | | |
| Peak (On-max) | 119.68W | 116.36W | 112.60 W | Full load | | | |
| | | | | | | | |
| EPS No-load | W | W | W | Г | \neg | | |
| (External power supply / charger plugged in the wall outlet but disconnected from | | | | | | | |
| TEC Typical Energy Consumption | kWh/week | kWh/week | kWh/week | | X | | |
| ETEC * Annual Energy Consumption | Cat D: 188.43; Cat C:151.69; Cat B: 176.96; Cat A: 167.29; kWh/year | Cat D: 186.31; Cat C: 151.97; Cat B: 175.37; Cat A: 165.98; kWh/year | Cat D: 189.57; Cat C: 145.07; Cat B: 179.21; Cat A: 164.59 kWh/year | $E_{TEC} = (8760/1000) \times (P_{off} \times 0.6 + P_{sleep} \times 0.1 + P_{idle} \times 0.3)$ | | | |
| P _{off} : Off Mode(S5) - WOL Enabled; P _{sleep} : Sleep Mode(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled | | | | | | | |
| Display resolution : Me | Display resolution : Megapixels | | | | | | |
| Print Speed : | Images per minu | te | | | X | | |
| Default time to enter energy sa | Default time to enter energy save mode: 30 minutes | | | | | | |
| P9.2* Information about t | P9.2* Information about the energy save function is provided with the product. | | | | | | |
| P9.3* The product meets the energy requirements of the following voluntary program/s: ENERGY STAR® version: Version 5.2 Product category: A,B,C,D Others specify: Apply to ENERGY STAR Model: Tower- 5048, 1730, 0268; SFF: 5049, 0385, 0267 | | | | | | | |

| Model number * | ThinkCentre M81 Tower/SFF | | | | |
|----------------|--|------|--------|--|--|
| | TW - 5069, 7517, 4166, 4169, 5030, 5034, 5037, 5048, 1730, 0268 | | | | |
| | SFF - 5070, 7518, 4167, 5025, 5032, 5035, 4164, 5049, 0385, 0267 | | | | |
| Issue date * | 2011.02.08 | Logo | lenovo | | |

| P10 | Emissions | | | | | | |
|--------|---|--|---|--|-------------|---------------|-------------|
| | Noise emissio | n – Declared according to ISO 9296 | | | | | |
| P10.1 | Mode | Mode description | Declared | Declared A-weighted | t | | |
| | | · | A-weighted | sound pressure level $L_{p{\sf A}}$ | m (dB) | | |
| | | | sound power | | der pos | itions | |
| | | | level L_{WAd} (B) | operator position 2 | uei pos | | |
| | | | | Desktop (only if p | oroduct i | is not | |
| | | | | | tor atter | | |
| | Idle | * HDD: Idle | * Tower: 3.5 | Tower: 24 | | | |
| | On a ration | * UDD: 0 = === f === | SFF: 3.3 | SFF:24 | | | |
| | Operation | * HDD: Operating | * Tower: 3.8 SFF: 3.5 | Tower: 26 SFF: 26 | | | Ш |
| | Other mode | | 011.0.0 | 377.20 | | | _ |
| | | ording to: X ISO7779 ECMA-74 | | | | | |
| | ivieasureu acco | _ | ed by ECMA-74 wit | th L _{pAm} measurement distance | m) | | |
| P10.2 | The product me | eets the acoustic noise requirements of the f | | • | m) | $\overline{}$ | |
| | | I attributes - Market requirements (co | , | | equire | mont | |
| Item | environmenta | attributes - Market requirements (CC | Jillilueu) | K | Yes | No | n.a. |
| Itom | Chemical emis | ssions from printing products | | | 103 | 140 | m.a. |
| P10.3* | | according to ECMA-328 (ISO/IEC 28360) s | tandard other | specify: | | $\overline{}$ | |
| P10.4 | | on rate (print phase) is (mg/h): | taridara, ourier | opeony. | | | X |
| | Dust | , , , , , , | nzene TVC | OC . | | | |
| P10.5 | | | | | | X | |
| | Dust | Ozone Styrene | Benzene | TVOC | ш | | |
| | Electromagne | | | | | | • |
| P10.6 | program/s: | ay meets the requirement for low frequency | electromagnetic fie | elds of the following voluntary | | | |
| P11 | | materials for printing products | | | | | |
| P11.1* | | Sheet (SDS) is available for the ink/toner pre | | | | | \boxtimes |
| P11.2* | Paper containi EN12281. | ng post-consumer recycled fibers can be | used, provided that | at it meets the requirements of | | | |
| P11.3* | 2-sided (duplex | () printing/copying is an integrated product fu | ınction. | | | | \boxtimes |
| P12 | | or computing products | | | | | |
| P12.1* | The display me | eets the ergonomic requirements of ISO 924 | 1-307 for visual dis | play technologies. | \boxtimes | | |
| P12.2* | The physical in | put device meets the requirements of ISO 99 | 995 and ISO 9241- | 410. | \boxtimes | | |
| P13 | | d documentation | | | | | |
| P13.1* | | ging material type(s): Corrugated paper we | | | | | |
| | | , , , | eight (kg): <i>Tower</i> – eight (kg): | 0.30, SFF – 0.18 | | | |
| P13.2* | | packaging is free from PVC. | eigitt (kg). | | \boxtimes | \neg | |
| P13.3* | • | for user and product documentation (tick box | (): | | | | ∺ |
| | Electronic , Paper , Other | | | | | | |
| P13.4* | | and product documentation, please specify | contained percenta | age of post-consumer recycled | - | | |
| | fiber: 0% (Jap | | | | | | |
| P14 | | ormation (See Note B4) | | | | | |
| | | er makes no representations, guarantees, as atained in this document. All information prov | | | | | ! |
| | knowledge ava | ilable at the time of completion, and supplier | shall have no obli | gation to update such information. | The inf | ormat | ion |
| | | s approximate and provided for informationa | | | | | |
| | information. | | | | | | |
| P7.17 | | not contain free TBBPA in printed circuit | | omponents)>25g. | | | |
| P9 | See Energy Star Qualified Computers for the latest information: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.ShowProductGroup&pgw_code=CO | | | | | | |

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 |