



ENVIRONMENTAL DATA SHEET

PRODUCT: Optiplex 320 Desktop

Effective Date: 2006-11-6

Dell Inc.
www.dell.com

SYSTEM DIMENSION AND WEIGHT

Depth, cm	Width, cm	Height, cm	Weight, kg
39.9	36.1	11.4	9.07 depending on options installed

DECLARATIONS AND CERTIFICATIONS

This system received the following approvals and may be labeled with one or more of these marks depending on point of purchase:

Approvals	Certificate #	Yes / No / N/A
• USA: Energy Star capable	N/A	Yes
• Nordic: TCO'99	TBD	Yes
• Germany: Blue Angel	TBD	Yes
• China: China Energy Certification Program (CECP)	BG04-0175-2006	Yes

Through internal design controls and supply chain declarations, this system¹ has been verified to comply with the EU RoHS Directive². One or more components in this system may be available as factory installed options that do not meet EU RoHS requirements. For details, please see www.dell.com/rohsinfo.

PERFORMANCE DATA

System Configuration

The Energy Consumption and Declared Noise Emissions data is based on a configuration including an intel® P4 3.0GHz processor, 512MB of memory, 80GB hard drive, and a CDRW/DVD.

Energy Consumption³

Service Level	Energy Consumption (Wattage)	Description of Service Level
*Maximum	125.02	The data provided is the highest wattage reading while running the complete 3DMark 2003 Pro (Benchmark) suite of tests.
Idle	80.16	As specified by the EPA Computer spec 4.0 or system is sitting at the main Windows screen.
ACPI-S3 "Standby" mode	2.4	Suspend-to-RAM (low power mode)
ACPI-S4 "Hibernate" mode	1.87	Suspend-to-Disk (a lower power mode)
Off Low Power Mode disabled	1.88	The system is turned off with the Low power Mode feature disabled via the BIOS
Off Low Power Mode enabled	NA	The system is turned off with the Low power Mode feature enabled via the BIOS.
External Power Supply	NA	AC adapter is connected to mains with system detached otherwise known as "No-load" condition

*Maximum **Energy Consumption** results are based solely upon the laboratory testing of the **System Configuration** listed above.

¹ Options from Dell Custom Factory Integration (CFI), Software and Peripherals (S&P) and Customer Kits may not be RoHS compliant.

² EU Directive on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (2002/95/EC) dated January 27, 2003.

³ This document is informational only and reflects laboratory performance. Your product may perform differently, depending on the software, components and peripherals you ordered. Accordingly, the customer should not rely upon this information in making decisions about electrical tolerances or otherwise. No warranty as to accuracy or completeness is expressed or implied. The information in this document may change without notice; please note the revision number on the last page.



Declared Noise Emissions in accordance with ISO 9296

Service Level	Sound Power ($L_{WA,d}$, bels) (1 bel=10 decibels, re 10^{-12} Watts)	Sound Pressure Operator Position (L_{pAm} , decibels) (re 2×10^{-5} Pa)	Sound Pressure Bystander Position (L_{pAm} , decibels) (re 2×10^{-5} Pa)
Floppy Drive Accessing	4.9	35	31
Hard Drive Accessing	3.9	30	25
CD Drive Accessing	5.3	42	37
Idle	3.8	29	25

PRODUCT MATERIALS INFORMATION⁴

Restricted Substances

This Dell product does **NOT** contain any of the following substances (in concentrations exceeding legal threshold limits):

- Asbestos
- Azo dyes/colorants in components that come into direct contact with human skin
- Cadmium and its compounds (except for use in applications exempted by the EU RoHS Directive)
- Class I and Class II CFCs (chlorofluorocarbons) and HCFCs (hydrofluorocarbons)
- Chloroparaffins, short chained (10-13 carbon chain)
- Chromium VI and its compounds (except for use in applications exempted by the EU RoHS Directive)
- Halogenated dioxins or furans (i.e. polychlorinated dibenzodioxines, polychlorinated dibenzofurans)
- Lead and its compounds (except for use in applications exempted by the EU RoHS Directive)
- Mercury (except for use in applications exempted by the EU RoHS Directive)
- Nickel and its compounds in components that are likely to result in prolonged skin exposure
- PCBs (polychlorobiphenyls) or PCTs (polychloroterphenyls)
- PBBs (polybromobiphenyls) or PBDEs (polybrominated diphenylethers)
- PVC (polyvinyl chloride) in plastic parts greater than 25 grams
- Polychlorinated naphthalenes (PCNs)
- Tributyl tin (TBT) and triphenyl tin (TPT) compounds

For information on Japan RoHS (J-MOSS) chemical disclosures: www.dell.com/japan_rohs.

Additional Materials Information

- The cables may use PVC as an insulating material to ensure product safety
- The case material is PC+ABS and sheet metal
- Product may contain post-industrial recycled content (plastics, metal, glass)

Flame Retardants Used in Mechanical Plastic Parts > 25 grams, Keycaps, and Motherboards

Part	Flame Retardant	ISO 1043-4
Motherboard	TBBPA	FR(16)
Mechanical Plastic Parts > 25 grams PC+ABS	Triaryl phosphate ester	FR(40)
Mechanical Plastic Parts > 25 grams Nylon	Proprietary non-PBB/PBDE	FR(30)
Mechanical Plastic Parts > 25 grams ABS	N/A	N/A

Packaging

No CFCs (chlorofluorocarbons), HCFCs (hydrofluorocarbons) or other ozone depleting substances are used in packaging material. Chromium, lead, mercury, or cadmium are not intentionally added to packaging materials and are not present in a cumulative concentration greater than 100 ppm as incidental impurities. No halogenated plastics or polymers are used for packaging material. Dell complies with the EU Directive 94/62/EEC.

⁴ **Waste Handling.** Local regulations should be observed when disposing of this product due to the presence of the materials and substances as listed above.



Packaging Materials	Weight, kg
Corrugate cardboard	1.95
PE	0.20

Printed user documentation is bleached in a chlorine-free process. (Europe Only)

Batteries

Batteries in this product are not based on mercury, lead or cadmium technologies. The batteries used in this product are in compliance with EU Directive 91/ 157/ EEC, EU Directive 93/ 86/ EEC and EU Directive 98/ 101/ EEC.

The product documentation includes instructional information on the proper removal and disposal of the batteries used in this product. Below is a listing of batteries present in the product:

Battery Description – Internal Batteries	Battery Type
3-V CR2032 coin cell	Lithium

DESIGN FOR ENVIRONMENT

Longevity and Upgrading

Dell systems are, when applicable, designed for easy assembly, disassembly, and servicing. To extend the life of your system, you can install or upgrade certain system components (e.g., microprocessor, memory, expansion cards, and storage devices). Spare parts are available after the end of production for up to five years, or otherwise through the warranty period.

Recyclability

For recyclability, this system incorporates the following design guidelines:

- EU WEEE mark is applied to products sold in Europe, EU recycling information can be found at www.euro.dell.com/recycling
- Minimal use of non-separable connections, such as gluing and welding between different materials.
- Minimal use of composite structure materials.
- Mechanical plastic parts greater than 100 grams consist of one material or of easily separable materials.

RECYCLING/ END-OF-LIFE SERVICE INFORMATION

Take back and recycling services are offered for this product in certain countries. If you want to dispose of system components, contact Dell for instructions by emailing recycling_emea@dell.com or visit www.dell.com/recyclingworldwide and select the relevant country.

DELL CORPORATE ENVIRONMENTAL INFORMATION

Information on Dell's Environmental initiatives, policies, programs and goals can be found at www.dell.com/environment.