



PRODUCT: Laser Printer 2230d
REGULATORY MODEL: 2230d
EFFECTIVE DATE: June 29, 2009

Dell Inc.
www.dell.com

TABLE OF CONTENTS FOR PRODUCT SAFETY, EMC & ENVIRONMENTAL DATASHEET

Regulatory

- I. [Product Safety](#)
- II. [Electromagnetic Compatibility](#)
- III. [Ergonomics, Acoustics, and Hygienics](#)
- IV. [Power Cords and User Documentation](#)
- V. [Datasheet Responsible Party Name and Address](#)

Environmental

- VI. [System Dimension and Weight](#)
- VII. [Declarations and Certifications](#)
- VIII. [Performance Data](#)
- IX. [Product Materials Information](#)
- X. [Packaging](#)
- XI. [Design for Environment](#)
- XII. [Recycling/End-of-Life Service Information](#)
- XIII. [Dell Corporate Environmental Information](#)

I. PRODUCT SAFETY¹

The product has been certified and bears the Mark, as applicable, of the Product Safety authorities as indicated below.

Country/Region	Authority or Mark
Argentina	TUV-IRAM
Canada	SCC
China	CNCA or CCC
European Union	CE
Germany	TUV
Mexico	NYCE or NOM
Norway	NEMKO
Russia	GOST
Saudi Arabia	KSA ICCP
Singapore	Safety Registration Scheme
South Africa	NRCS
United States	NRTL

II. ELECTROMAGNETIC COMPATIBILITY²

The product has been certified and bears the Mark, as applicable, of the EMC authorities as indicated below.

Country/Region	Authority or Mark	Class
Australia / New Zealand	ACMA or C-Tick	Class B
Canada	ICES	Class B
China	CNCA or CCC	Class B
European Union	CE	Class B
Japan	VCCI	Class B
Russia	GOST	Class B
South Africa	SABS	Class B
United States	FCC	Class B

¹ The above-listed Product Safety certifications may vary depending upon the location of the Dell factory and specific product configuration. Certification marks may not be applied on products for countries outside the purchaser's country.

² The above-listed EMC certifications may vary depending upon the location of the Dell factory and specific product configuration. Certification marks may not be applied on products for countries outside the purchaser's country.



III. ERGONOMICS, ACOUSTICS AND HYGIENICS³

The product has been certified and bears the Mark, as applicable, of the Ergonomics, Acoustics and Hygienics authorities as indicated below.

Country/Region	Authority or Mark
Germany	GS
Russia	GOST

IV. POWER CORDS AND USER DOCUMENTATION

Dell products are provided with the power cord and user documentation suitable for the intended country of delivery. Products that are relocated to other countries should use nationally certified power cords and plugs to ensure safe operation of the product. Contact Dell to determine if alternate power cords or user documentation in other languages is available for your market.

V. DATASHEET RESPONSIBLE PARTY NAME AND ADDRESS

Dell Inc.
Department: Global Regulations and Standards
MS: PS4-30
Round Rock, Texas 78682, USA
512-338-4400
Regulatory_Compliance@Dell.com

VI. SYSTEM DIMENSION AND WEIGHT

Depth, cm	Width, cm	Height, cm	Weight, kg
36.9	40.6	26	13.53

VII. 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
Germany: TUV GS	S 72090564	Yes
Germany: Blue Angel	19243 / 19244	Yes

Through internal design controls and supply chain declarations, this system has been verified to comply with the EU RoHS Directive. For more details, please see www.dell.com/rohsinfo.

All Dell products shipping directly into China which are manufactured on or after March 1st, 2007, will be China RoHS compliant. For more details, please see www.dell.com/rohs.

³ The above-listed Ergonomics, Acoustics and Hygienics certifications may vary depending upon the location of the Dell factory and specific product configuration. Certification marks may not be applied on products for countries outside the purchaser's country.



VIII. PERFORMANCE DATA

Energy Consumption⁴

Service Level	Energy Consumption (Wattage)	Description of Service Level
*Printing	470	The system is printing.
Ready Mode	12	The system is in a ready waiting mode waiting for instruction.
Sleep 1	11	The system is in a low-power sleep mode (setting range: 15 – 45 minutes).
Sleep 2	11	The system is in a low-power sleep mode (setting range: 30 – 90 minutes).
Off	0.0	The system is turned off but is still connected to its AC power source.

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

Declared Noise Emissions in accordance with ISO 9296 (tested in accordance with ISO 7779)

Service Level	Sound Power ($L_{WA,d}$, bels) (1 bel=10 decibels, re 10^{-12} Watts)	Sound Pressure Bystander Position (L_{pAm} , decibels) (re 2×10^{-5} Pa)
Printing	6.7B	53dB
Idle	Silent	Silent

⁴ 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.



IX. PRODUCT MATERIALS INFORMATION⁵

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 ABS and PC
- 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	FR-4	>FR(4)<
Mechanical Plastic Parts > 25 grams	ABS	HB
Mechanical Plastic Parts > 25 grams	HIPS	HB
Mechanical Plastic Parts > 25 grams	PC/ABS	FR(40)

⁵ **Waste Handling.** Local regulations should be observed when disposing of this product due to the presence of the materials and substances as listed above.



X. 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.

Packaging Materials	Weight, kg
Corrugated Box	1.529
Polyurethan Foam	0.01
EPS	0.263
PE Bag, Printer - HDPE	0.086

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

XI. 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.

XII. 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.

XIII. DELL CORPORATE ENVIRONMENTAL INFORMATION

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

Product Safety, EMC and Environmental Datasheets for Dell products are located at: www.dell.com/regulatory_compliance_datasheets