**MARKING NAME\*: Dell Precision™ R5400**
**REGULATORY MODEL: WMTE01**
**REGULATORY TYPE: 08107**
**EFFECTIVE DATE: November 11, 2010**

**Dell Inc.**
**www.dell.com**

## TABLE OF CONTENTS FOR PRODUCT SAFETY, EMC & ENVIRONMENTAL DATASHEET

## I.      PRODUCT SAFETY[1]

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 | IRAM |
| Belarus | BELLIS |
| Cambodia | ISC |
| Canada | SCC |
| China | CNCA or CCC |
| Croatia | KONCAR |
| European Union | CE |
| Germany | TUV |
| IECEE | IECEE  CB |
| Israel | SII |
| Kazakhstan | OTAN – CKT |
| Kenya | KEBS |
| Mexico | NYCE or NOM |
| Moldova | INSM |
| Nigeria | SONCAP |
| Norway | NEMKO |
| Russia | GOST |
| Saudi Arabia | KSA ICCP |
| Singapore | Safety Registration Scheme |
| South Africa | NRCS |
| Taiwan | BSMI |
| Ukraine | UKRTEST or UKRSERTCOMPUTER |
| United States | NRTL |
| Uzbekistan | STZ |

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\* Notice:  This product has been assigned a unique regulatory model and regulatory type that is imprinted on the product shipping invoice and product labeling to provide traceability to the regulatory approvals noted on this datasheet.  This datasheet applies to any product that utilizes the assigned regulatory model and type including marketing names other than those listed on this datasheet.  Requests for specific information on product regulatory approvals should reference the assigned product regulatory model and type.

[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.

## II. ELECTROMAGNETIC COMPATIBILITY[2]

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 A |
| Belarus | BELLIS | Class A |
| Bosnia & Herzegovina, Montenegro, Serbia | KVALITET | Class A |
| Canada | ICES | Class A |
| China | CNCA or CCC | Class A |
| Croatia | KONCAR | Class A |
| European Union | CE | Class A |
| Israel | SII | Class A |
| Japan | VCCI | Class A |
| Kazakhstan | OTAN – CKT | Class A |
| Moldova | INSM | Class A |
| Norway | NEMKO | Class A |
| Russia | GOST | Class A |
| South Africa | SABS | Class A |
| South Korea | KCC | Class A |
| Taiwan | BSMI | Class A |
| Ukraine | UKRTEST or UKRSERTCOMPUTER | Class A |
| United States | FCC | Class A |
| Uzbekistan | STZ | Class A |
| Vietnam | ICT | Class A |

## III. ERGONOMICS, ACOUSTICS AND HYGIENICS[3]

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.

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[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.
[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.

## 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. TRADE (IMPORT/EXPORT) COMPLIANCE DATA

| | |
|---|---|
| System US Harmonized Tariff System (USHTS) Number | 8471.50.0150 |
| System US Export Control Classification Number (ECCN) | 4A994 |

For additional questions regarding importing & exporting classification of Dell products, please send an e-mail to:
US_Export_Classification@Dell.com

## VII. PRODUCT MATERIALS INFORMATION[4]

Dell's vision is to avoid the use of substances in its products that could seriously harm the environment or human health and to ensure that we act responsibly and with caution.  Dell's material restrictions are based on consideration for world-wide legal requirements, international treaties and conventions, and specific market requirements. These restrictions apply to use in Dell products and in the manufacture of Dell products and their components within specified thresholds. Dell enforces these restrictions through robust compliance assurance processes throughout the entire supply chain.

### Material Declarations and Certifications

The list of world-wide legal and market requirements is constantly changing and too lengthy to list in this data sheet. However, here are several of the more commonly requested declarations and certifications.

**EU RoHS**: The Restriction of Hazardous Substances Directive is a European Union directive. Dell has voluntarily adopted the requirements of the directive globally to help eliminate waste, conserve energy and reduce environmentally sensitive materials. Through internal design controls and supply chain declarations, this system[5] has been verified to comply with the EU RoHS Directive[6].  For more details, please see RoHS Guidance.

**China RoHS:** China RoHS restricts the same six substances as the EU version. In addition, producers must also properly label and disclose RoHS information for applicable EIP (Electronic and Information Products) and parts sold in China.  All Dell products shipping directly into China which were manufactured on or after March 1st, 2007, are China RoHS compliant.

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals, EC 1907/2006) is the European Union's (EU) chemical substances regulatory framework. Dell complies with the Reach directive. For more details, please see www.dell.com/REACH

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[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.
[5] Options from Dell Custom Factory Integration (CFI), Software and Peripherals (S&P), and Customer Kits may not be RoHS compliant.
[6] EU Directive on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (2002/95/EC) dated January 27, 2003.

## Restricted Substances

Dell provides a detailed restricted materials guidance document at: Restricted Materials Guide. Below is a subset of those materials. Dell products <u>do</u> <u>not</u> 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

## Flame Retardants

Flame retardants are occasionally needed to meet strict fire safety codes. Dell avoids the use of Brominated Flame Retardants (BFRs) when possible by using plastics that can be flame retarded with non-halogenated compounds and by using design strategies that reduce the need to use flame retarded plastics all together. Through industry partnerships Dell is actively working to evaluate the viability of halogen-free alternatives and to help establish supply chain capability and capacity.

- Dell currently prohibits the use of PBBs and PDBEs (including DecaBDE) for all applications.
- Dell currently prohibits the use of all other BFRs (including TBBP-A and HBCD) in plastics parts for many products including desktops, notebooks, and servers.
- Power and signal electrical cable may use PVC as an insulating material to ensure product safety.
- All cover/housing plastics > 25 grams are halogen free.
- Printed circuit boards with components are not all halogen free.
- Plastic parts > 25 grams are free from flame retardant substances/preparations above 0.1% classified as R45/46, R50/51/53, and R60/61.
- More information can be viewed at: Halogen Position.

| Part | Flame Retardant | ISO 1043-4 |
|---|---|---|
| Motherboard | TBBPA | FR16 |
| Mechanical Plastic Parts > 25 grams PC+ABS | Triaryl Phosphate Ester | FR40 |
| Mechanical Plastic Parts >25 grams PC-GF | Triaryl Phosphate Ester | |

## VIII.  ENERGY DATA

### System Configuration

The Energy Consumption and Declared Noise Emissions data is based on a configuration including:

| | |
|---|---|
| Processor/Memory | 1 Intel® 2.66Ghz Quad Core / 4Gb |
| Hard Drive(s) | 2 x 160 GB SATA |
| CD-ROM | CDRW/DVD |
| FDD | No |
| Power Supply(ies) | Qty 1 Wattage 750 Efficiency 80+% EPA |

### Energy Consumption[7]

| Service Level | Energy Consumption (Wattage) | BTU Calculation | Description of Service Level |
|---|---|---|---|
| *Maximum | 310.6 | 1062.25 | The data provided is the highest wattage reading while running an Industry Benchmark suite of tests. |
| Idle | 148.32 | 507.25 | As specified by the EPA Computer spec 4.0 or system is sitting at the main Windows screen. |
| ACPI-S3 "Standby" Mode | 13.77 | 47.1 | Suspend-to-RAM (Low Power Mode). |
| Off Low Power Mode Disabled | 11.7 | 40.01 | System is turned off with the Low power Mode feature disabled via the BIOS. |

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

Energy consumption is tested at 230 Volts / 50 Hz. Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour. Off data is not meant to show compliance to US Executive Order 13221. When applicable, Dell product information related to US Executive Order 13221 may be obtained at: http://oahu.lbl.gov/index.html.

### Declared Noise Emissions in accordance with ISO 9296 (tested in accordance with ISO 7779) for a typical/common configuration.

| Service Level | Sound Power (LWAd, bels) (1 bel=10 decibels, re 10-12 Watts) |
|---|---|
| CD Drive Accessing | 5.5 |
| Hard Drive Accessing | 5.4 |
| Idle | 5.4 |

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[7] 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.

## IX.   PACKAGING AND PRINTING

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.  Halogenated plastics and/or polymers may be used for packaging material.  Dell complies with the EU Directive 94/62/EEC.

| Packaging Materials | Weight, kg |
|---|---|
| PE | 0.54 |
| Corrugated Cardboard | 5.28 |

User and product documentation do not contain chlorine bleached paper (Europe Only).
Some packaging does contain at least 25% post consumer recycled content.

## X.   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, EU Directive 98/ 101/ EEC, and EU Battery Directive 2006/66/EC.

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 Ion |
| 4.1-V RAID Battery (optional) | Lithium Ion |

** Other batteries may be delivered in this system, depending on customer options. The optional internal batteries are either Lithium or Nickel Metal Hydride.

## XI.   DESIGN FOR ENVIRONMENT

### Longevity and Upgrading
To extend the life of your system, you can install or upgrade certain system components (e.g., microprocessor, memory, expansion cards, and storage devices).   Upgrading can be done with commonly available tools.  Spare parts are available after the end of production for up to **five** years, or otherwise through the warranty period.

### Design for Recyclability
- Minimal use of composite structure material.
- Minimal use of non-separable connections, such as gluing and welding between different materials.
- Plastic materials in covers/housing have no surface coating.
- Plastic parts > 25 grams have materials codes according to ISO 11469 referring ISO 1043.
- Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.
- Labels are easily separable.

## 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, visit www.dell.com/recyclingworldwide and select the relevant country.

**EU WEEE:** Dell is dedicated to meeting the requirements of the European Union's WEEE (Waste from Electrical and Electronic Equipment) Directive and is engaged in the development of country-specific implementation schemes to comply with the national WEEE laws. The directive aims to reduce the waste arising from electrical and electronic equipment, and improve the environmental performance of everything involved in the life cycle of electrical and electronic equipment. The EU WEEE mark is applied to products sold in Europe and many products world wide.  EU recycling information can be found at www.euro.dell.com/recycling.

## 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