



PRODUCT: Dell/EMC AX4-5F
REGULATORY MODEL: MPE
EFFECTIVE DATE: March 15, 2011

Dell Inc.
www.dell.com

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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
Canada	SCC
European Union	CE
Germany	TUV
IECEE	IECEE CB
Israel	SII
Kenya	KEBS
Mexico	NYCE or NOM
Nigeria	SONCAP
Russia	GOST
South Africa	NRCS
Taiwan	BSMI
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 A
Canada	ICES	Class A
European Union	CE	Class A
Israel	SII	Class A
Japan	VCCI	Class A
Russia	GOST	Class A
South Africa	SABS	Class A
South Korea	KCC	Class A
Taiwan	BSMI	Class A
United States	FCC	Class A

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
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. PRODUCT MATERIALS INFORMATION⁴

Dell is a member of the Electronic Industry Citizenship Coalition (<http://www.eicc.info/>)

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

All Dell products shipping to South Korea are compliant with South Korea RoHS requirements, declarations [here](#).

Information on Japan RoHS (J-MOSS) chemical disclosures is available [here](#).

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, see www.dell.com/REACH

Dell's Energy Star qualified products are listed on the EPA website [here](#)

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.

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.



Restricted Materials List

Dell provides a detailed restricted materials guidance document at: [Restricted Materials Guide](#). Below is a subset of those materials. Dell products do 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

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 stubstances/preparations above 0.1% classified as R45/46, R50/51/53, and R60/61.
- More information can be viewed at: [Halogen Position](#).

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

Part	Flame Retardant	ISO 1043-4
Motherboard	TBBA	FR (16)
Mechanical Plastic Parts > 25 grams: PC+ABS	Triaryl Phosphate	FR (40)



VII. ENERGY AND ACOUSTICS DATA

Dell now offers an online tool to help Enterprise customers predict realistic values for system heat, power consumption, acoustic sound power level (per ISO9298), total weight, total current, flow rate, air temperature rise, and other performance data. Because these measurements are highly dependant on configuration, the tool allows the user to specify processor types, speeds, memory, PCI cards, HDDs, and power supplies.

Energy consumption is measured using the industry standard SPECjbb2005 benchmark at 100% utilization for baseline power measurements. Customers can also change the application loads by selecting 'idle' or 'scientific' under the edit tab. The 'scientific' reading is a more realistic measurement for processor intensive applications or cluster systems.

Please visit: <http://www.dell.com/calc> for the datacenter calculator tool. Also visit <http://www.dell.com/energy> for information on Dell's other energy initiatives.

VIII. 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.
- Mechanical plastic parts greater than 100 grams consist of one material or of easily separable materials.
- 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.

IX. 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 worldwide. EU recycling information can be found at www.euro.dell.com/recycling.



X. 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.

User and product documentation do not contain chlorine bleached paper (Europe Only).

XI. 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.

XII. 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