



Product Compliance Datasheet

MARKETING NAME.....: Alienware Aurora R8

REGULATORY MODEL.....: D23M

REGULATORY TYPE.....: D23M002

EMC EMISSIONS CLASS.....: B

EFFECTIVE DATE.....: November 19, 2018

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I. Statement of Compliance

This product has been determined to be compliant with the applicable standards, regulations, and directives for the countries where the product is marketed. The product is affixed with regulatory marking and text as necessary for the country/agency. Dell manufacturers and markets Multimedia Equipment (MME), Information Technology Equipment (ITE), Audio Visual Equipment (A/V), Industrial, Scientific, Medical Equipment (ISM) or combinations of these. Generally, products Electromagnetic Compatibility (EMC) and Product Safety compliance is based on International IEC and CISPR standards and their national equivalent along with national standards for Radio (wireless), Telecommunications (Modem) and Energy. Dell products have been verified to comply with the Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU of the European Parliament and the Council. Dell product does not contain any of the restricted substances in concentrations and applications not permitted by the RoHS Directive.

EMC Emissions Class refers to one of the following use environments:

- EMC Class B product is intended for use in residential/domestic environments but may also be used in nonresidential/non-domestic environments.
- EMC Class A product is intended for use in non-residential/non-domestic environments. Class A product may also be utilized in residential/domestic environments but may cause interference and require the user to take adequate corrective measures.

For Product Safety and EMC compliance, this product has been assigned a unique regulatory model and regulatory type that is imprinted on the product regulatory 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. Dell products with the CE marking have been verified to comply with Energy Related Products (ErP) Directive 2009/125/EC of the European Parliament and of the Council.. REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), Regulation (EC) 1907/2006 of the European Parliament and of the Council is the European Union's (EU) chemical substances regulatory framework. Dell complies with the REACH regulation. For information on SVHC (Substances of Very High Concern), see www.dell.com/REACH. This products compliance documentation, such as this datasheet and the European Union Declaration of Conformity are available on the product support page, manuals tab <http://www.dell.com/support>. Additional compliance documentation for the product is available upon email request to product_compliance@dell.com. Please include product identifiers such as marketing name, regulatory model, regulatory type and country that compliance information is needed in the email request.



II. NFPA 99 Conformity

Select Dell systems have been tested and found to comply with the touch current requirements as defined in 10.3.5 of National Fire Protection Association standard NFPA 99:2012. The touch current does not exceed 100 μ A with ground wire intact (if a ground wire is provided) and 500 μ A with ground disconnected at 127 V AC, 60 Hz when tested in accordance with 10.3.5 of NFPA 99: 2012. To determine if this product complies with the above requirements, send a request to Product_Compliance@Dell.com. Please include product identifiers such as marketing name, regulatory type and country for which compliance information is needed.

III. Declaration of Similarity

Object of the Declaration	
Product Type	Desktops
Regulatory Model Number	D23M
Regulatory Type Number	D23M002
Trade Name/ Trade Mark	DELL
Marketing Name(s)	Alienware Aurora R8

Dell Inc. hereby declares that the products identified by the product designations listed in this declaration are strictly identical in design (shape, opening, etc.) components, materials, manufacturing process, and markings except for product designation – Trade Name and/or Trade Mark as specified in this declaration.

The products may have very minor differences which do not impact the level of conformity. All products identified by the product designations in this declaration have the same level of conformity according to the certificate(s) provided.

The Trade Name / Trade Mark and/or Marketing Name(s) are the property of Dell Inc.
Any differences in the product designation are for marketing purposes only.

Date of Issue	Nov. 13 th , 2018	Signature on behalf of Dell Inc.	Dell Inc. Dell Global Product Compliance and Environmental Affairs
Title	Dell Global Product Compliance and Environmental Affairs		

IV. PowPower 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. Trade (Import/Export) Compliance Data

For any questions related to importing & exporting classification of Dell products, please obtain information from the following link: <http://www.dell.com/learn/us/en/uscorp1/import-export> or send email request to WW_Export_Compliance@dell.com. Please include product identifiers such as marketing name, regulatory model, regulatory type and country that compliance information is needed in the email request.

VI. Product Dimensions and Weight

Depth, mm/cm	Width, mm/cm	Height, mm/cm	Weight, kg
357mm	199mm	472.5mm	13.219 Kg (depending upon installed options)

For Display, Imaging products please refer to the user manual for weight and dimension information.

VII. Performance Data

ErP Lot 3 & Lot 26 information is located in section XIV Appendix A and B

For additional information on ENERGY STAR models refer to the following databases:

<http://www.dell.com/learn/us/en/uscorp1/dell-environment-energy-efficiency?c=us&l=en&s=corp&cs=uscop1>

USA: <https://www.energystar.gov/productfinder/>

Computers:



Service Level	Energy Consumption (Wattage)	BTU Calculation	Description of Service Level
*Maximum	292.04	998.78	The system is running programs to maximize the power consumption.
Idle Mode	38.63	132.10	As specified EPA Energy Star Computer mode.
S3 "Sleep" Mode	1.46	4.99	Suspend-to-RAM (low-power/sleep mode)
Off	0.38	1.29	System is turned off but still connected to its AC power source. If the product is a computer, the Low Power Mode feature is enabled via BIOS if available.

* **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.

Energy Consumption*

Energy efficiency benefits the environment and lowers the total cost of equipment ownership by reducing power consumption. Dell offers energy calculators that help estimate power needs, potential emissions avoidance and potential cost savings. Click [here](#) for Dell's Client Energy Savings Calculator, Data Center Capacity Planner, and Monitor Power Savings Calculator. Information on Energy Efficiency is available [here](#)

* 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.

For more details visit www.dell.com/environmental_information



VIII. Product Materials Information

Information on Dell's material use is available [here](#).

Dell's Restricted Material for Use guidance document is available [here](#).

- The case material is, >PC+ABS< , >ABS<
- This product contains 0% post-consumer recycled plastic/closed loop recycled plastics
(Measured as a percentage of total amount of plastic (by weight) in the product as per guidance in EPEAT standard as applies to plastics parts)

Mechanical plastic parts ¹ > 25 g are BFR/PVC free	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Marking of plastics parts greater than 25 grams is in accordance with ISO 11469 (see below)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Printed circuit boards (without components) >25g are BFR PVC free ²	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Insulation materials of external electrical cables are PVC free	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Insulation materials of internal electrical cables are PVC free	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Product is BFR/PVC Free (Accessories & Options may not be BFR/PVC-Free, refer to spec ENV0199)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Flame Retardants Used in Motherboard

Part	Flame Retardant
Motherboard	Brominated epoxy resin

¹ Mechanical plastic part: plastic parts that do not internally carry an electrical signal such as housings, brackets, bezels, latches, etc. that form the basic structure of the product and/or have mechanical functions. Plastic parts such as fans, connectors, printer fuser assemblies, etc. are not considered "mechanical plastic parts" in the context of this specification. Plastics parts do not contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and polyvinyl chloride (Per Dell Spec ENV0424)

² Dell will adopt the BFR/CFR/PVC-free definition as set forth in the "iNEMI Position Statement on the Definition of 'Low-Halogen' Electronics (BFR/CFR/PVC-Free)." Plastic parts contain <1000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1000 ppm (0.1 percent) of chlorine if the Cl source is from CFRs, PVC or PVC copolymers. All printed circuit board (PCB) and substrate laminates contain bromine/chlorine totaling less than 1,500 ppm (0.15 percent), with maximum chlorine of 900 ppm (0.09 percent) and maximum bromine of 900 ppm (0.09 percent)



Flame Retardants Used in Mechanical Plastic Parts > 25 grams

Resin Material Name	Marking per ISO 11469:2016	Flame Retardant Marking per ISO 1043-4 (i.e. FR(16), FR(40), etc.)	Flame Retardant (i.e. TBBPA, triaryl phosphate ester, etc.)	List applicable R-Phrase(s) or Hazard Statement(s) per EU Directive 67/548/EEG or 1272/2008
FR3005	>PC+ABS- FR(40)<	FR(40)	Organo Phosphate	N/A
PA757	>ABS<	N/A	N/A	N/A

Mercury Information

Number of bulbs	Average per bulb
0	N/A

Additional information:

- RoHS and REACH declaration - see product material information section at: www.dell.com/environmental_information
- Products MSDS (Material Safety Data Sheets):
Batteries: [Battery MSDS Documentation and Declaration](#)
Printer Toner and Ink: [MSDS Documentation](#)



IX. Packaging

Information on Dell's sustainable packaging effort available [here](#).

Additional materials restricted in Packaging as per Dell's Restricted Material Guidance document found [here](#).

Packaging Materials	Total Weight, (kg)	Sustainable Material Content ³ (e.g. Recycled content *, bio-based, Sustainable Forested materials)	% Sustainable Material		
			APJ region	DAO region	EMEA region
Corrugated Fiberboard	9.37	Recycled Content	Min 50%	Min 50%	Min 50%
LDPE (Including EPE Foam)	NA	Recycled Content	0-80%	0-80%	0%
Molded paper pulp	NA	Recycled content	100%	100%	100%
HDPE (including thermoformed) *	NA	Recycled Content	0-80%	0-80%	0%
Molded Bamboo	NA	Non-wood, biobased material	100%	100%	100%
Wheat Straw	NA	Non-wood, biobased material	100%	100%	100%
Mushroom	0.62	Non-wood, biobased material	100%	100%	100%
LDPE Bags	NA	NA	0%	0%	0%
EPS	NA	NA	0%	0%	0%
Other, please specify	NA				

X. Batteries

Below is a listing of batteries that could be present in the product:

Battery Description – Batteries	Battery Type	Battery Weight (kg)
CR-2032 coin cell	Lithium	0.0032

XI. Design for Environment

³ Non-wood, biobased material may include, but is not limited to: bagasse, bamboo, mushroom, straw, agricultural waste or byproduct.

* Recycled content in packaging material is supplier dependent.



Dell systems are, when applicable, designed for easy assembly, disassembly, and servicing.
For more information on product Recyclability please visit www.dell.com/environmental_information

XII. Recycling / End-of-Life Service Information

Dell systems are, when applicable, designed for easy assembly, disassembly, and servicing.
For more information on product Recyclability please visit www.dell.com/environmental_information

XIII. Helpful Links

- **Environmental Policy**
<http://i.dell.com/sites/content/corporate/corp-comm/en/Documents/dell-global-environmental-policy.pdf>
- **Environment Website**
www.dell.com/environmental_information
- **Corporate Sustainability Report**
<http://www.dell.com/Learn/us/en/uscorp1/report?c=us&l=en&s=corp&delphi:gr=true>
- **ISO 14001 Certification**
<http://i.dell.com/sites/content/corporate/corp-comm/en/Documents/dell-iso14001-worldwide.pdf>
- **Materials Restricted for Use**
http://www.dell.com/downloads/global/corporate/environ/restricted_materials_guid.pdf
- **Chemical Use Policy**
<http://i.dell.com/sites/doccontent/corporate/environment/en/Documents/chemical-use-policy.pdf>
- **Product Carbon Footprint**
http://content.dell.com/us/en/corp/d/corp-comm/environment_carbon_footprint_products
- **RoHS Compliance**
www.dell.com/rohsinfo
- **REACH Compliance**
www.dell.com/REACH
- **Recycling Information**
www.dell.com/recycling
- **Supplier Responsibility**
<http://content.dell.com/us/en/corp/d/corp-comm/standards-for-suppliers.aspx>



A Appendix A: ErP Lot 3 Product Energy Consumption Information

European Union (EU) ErP Lot 3 (Commission Regulation (EC) No. 617/2013)

The ErP Lot 3 regulation includes requirements for certain product specific information to be provided by the manufacturer. This is applicable to Desktops, Integrated Desktops (All-in-One), Notebooks, Tablets, Slates, Notebook Thin Clients, Desktop Thin Clients, Workstations, Mobile Workstations, Computer Servers, and Small Scale Servers.

ErP Lot 3 provides certain exclusions based upon product type, screen size, and/or the amount of power consumed in idle mode. Product energy and acoustic information might be reported for products that are out of scope of ErP Lot 3 for informational purposes only.

Category	Category D
Processor Speed in GHz	3.6
Number of Cores	8
Total Installed System Memory in GB	8
Graphics	G7
WOL enabled in "Sleep" Mode	No
WOL enabled in "Off" Mode	No
As Tested: Lowest Power State	0.38
As Tested: Poff(W) WOL Disabled	0.38
As Tested: Poff(W) WOL Enabled	
As Tested: Psleep(W) WOL Disabled	1.46
As Tested: Psleep(W) WOL Enabled	
As Tested: Pidle(W)	39.27
Base TEC Limit (kWh)	150.00
TEC Adders Limit (kWh)	151.00
Base + Adders TEC Limit (kWh)	301.00
Results TEC	140.07

Power Supply Model #	Internal or External	Link to efficiency report
AC460AM-01	Internal	NA
D460AM-03	Internal	NA
HU460AM-01	Internal	NA
AC460EM-01	Internal	http://www.plugloadsolutions.com/psu_reports/DELL%20INC_AC460EM-01_460W_ECOS%204489_Report.pdf
D460EM-00	Internal	http://www.plugloadsolutions.com/psu_reports/DELL%20INC_D460EM-00_460W_ECOS%204509_Report.pdf
D850EF-00	Internal	http://www.plugloadsolutions.com/psu_reports/DELL,INC_D850EF-00_850W_ECOS%203949_Report.pdf



HU850EF-00	Internal	http://www.plugloadsolutions.com/psu_reports/DELL%20INC._(DELL)HU850EF-00_850W_ECOS%203978_Report.pdf
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Internal Power Supplies (not tested by ECOVA)

Computer servers all single output (AC-DC) power supplies with rated output of not more than 500 W

Power Supply Model #	20% Load		50% Load		100% Load	
	Efficiency	Power Factor	Efficiency	Power Factor	Efficiency	Power Factor
AC460AM-00	NA	NA	NA	NA	80.56%	0.9808
D460AM-03	NA	NA	NA	NA	79.90%	0.9727
HU460AM-01	NA	NA	NA	NA	81.42%	0.9359

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

Computers Category D (460W):

Service Level	Sound Power (L_{WAd} , bels) (1 bel=10 decibels, re 10^{-12} Watts)	Sound Pressure Bystander Position (L_{pAm} , decibels) (re 2×10^{-5} Pa)
Hard Drive Accessing	4.0	23.5
Optical Drive Accessing	4.7	32.5
Idle	3.9	22.8



Computers Category D (850W):

Service Level	Sound Power (L_{WAd} , bels) (1 bel=10 decibels, re 10^{-12} Watts)	Sound Pressure Bystander Position (L_{pAm} , decibels) (re 2×10^{-5} Pa)
Hard Drive Accessing	3.9	23.7
Optical Drive Accessing	5.2	32.2
Idle	3.9	23.7



B Appendix B: ErP Lot 26 Network Standby Energy Consumption Information

European Union (EU) ErP Lot 26 (Commission Regulation (EC) No 801/2013)

The ErP Lot 26 regulation includes Network Standby power requirements to be provided by the manufacturer. This is applicable to multiple product categories. If no information is reported, it's assumed it is out of scope of ErP Lot 26.



Revisions

Date	Revision	Description	PCO Number
7/17/03	A01	Initial Release	PCO00522
5/27/04	A01-01	Updating revision with new version	PCO00888
6/23/04	A01-02	Addition of TCO '03 Field	PCO00911
2/6/07	A02-00	Update of contact names; added new datasheet field requirements	PCO08551
4/30/10	A03-00	Updated links to support GPP activity and transitioned to the word format	PCO20373
7/13/11	A04-00	Updated header, fonts, color codes, spacing, hyperlinks, energy limits to 2 digits, updated MSDS section, others	PCO20951
7/20/11	A05-00	Added guidance documents to assist RCEs with edits	PCO20965
8/2/11	A06-00	Removed Aus & SK MEPS, updated energy section for audio & projectors, fixed shading and fonts	PCO20999
5/1/12	A07-00	Added packaging declaration table for enterprise products and peripherals, Adapter Certification and Declaration, moved declarations and links to regulatory compliance webpage. Added Statement of Compliance. Removed EMC and Product Safety Certification table. Updated Trade Compliance to reference website	PCO21733
12/12/12	A08-00	Changed to the EU RoHS Directive No., Acoustics section, Added: NRCan, ErP Lot 7 Tier II, CEC Battery Charger in environmental certification, updated NFPA 99 CONFORMITY information. Helpful links. Moved MSDS under Materials section	PCO23445
9/4/13	A09-00	Added – India RoHS, Energy Consumption statement, ErP Lot3	PCO25142
3/25/14	A10-00	BFR/PVC Free and Replaceable statement Modified ErP Lot3 in Appendix A	PCO25296
10/14/14	A11-00	Update links to new website locations	PCO27791
3/21/17	A12-00	Statement of Compliance: Changed to reflect changes to CISPR 22/EN 55022, updated TCO in Section I: Added clarification on the PCR calculation methodology in Section VIII , Modified packaging table in Section IX. Minor updates to Section XII and XIII, Added links to EU and US ENERGY STAR in section VII. Updated Section VIII BFR/PVC free	PCO35058
5/22/18	A13-00	Updates Section II Global Environmental Information table on page 3. This is needed so that the 14G platforms can update the EDS to add EPEAT for Servers. There are other changes to this table based on changes to the program offerings and to drive consistency. Removal of reference to EU ENERGY STAR Other minor updates.	PCO39249



7/17/18	A14-00	Updates: added "Declaration of Similarity" section. "Power Cords and User Documentation correct from copy of "Trade (Import/Export) Compliance Data. Hyperlinks updated throughout.	PCO39844
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