

# **Product Compliance Datasheet**

MARKETING NAME.....Alienware Aurora R7

REGULATORY MODEL.....D23M

REGULATORY TYPE......D23M002

EMC EMISSIONS CLASS......B

EFFECTIVE DATE.....October 20, 2017

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# I. Statement of Compliance

This equipment has been determined to be compliant with the applicable standards, regulations, and directives for the countries where the equipment is marketed. The equipment 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, equipment Safety and EMC compliance is based on International IEC and CISPR standards and their national equivalent along with national standards for Radio (wireless), and Energy. Dell products have been verified to comply with the EU RoHS Directive 2011/65/EU. Dell equipment 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 equipment is intended for use in residential/domestic environments but may also be used in nonresidential/non-domestic environments.
- EMC Class A equipment is intended for use in non-residential/non-domestic environments. Class A equipment may also be utilized in residential/domestic environments but may cause interference and require the user to take adequate corrective measures.

For Safety and EMC compliance, this equipment has been assigned a unique regulatory model and regulatory type that is imprinted on the equipment regulatory labeling to provide traceability to the regulatory approvals noted on this datasheet. This datasheet applies to any equipment that utilizes the assigned regulatory model and type including marketing names other than those listed on this datasheet. ErP compliance is tied to the CE mark. REACH (Registration, Evaluation, Authorization and Restriction of Chemicals, 1907/2006) is the European Union's (EU) chemical substances regulatory framework. Dell complies with the REACH directive. For information on SVHC (Substances of Very High Concern), see www.dell.com/REACH. Compliance documentation, such as certification or Declaration of Compliance for the equipment is available upon request to <a href="mailto:product\_compliance@dell.com">product\_compliance@dell.com</a>. Please include equipment identifiers such as marketing name, regulatory model, regulatory type and country that compliance information is needed in 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  $100 \,\mu\text{A}$  with ground wire intact (if a ground wire is provided) and  $500 \,\mu\text{A}$  with ground disconnected at  $127 \,\text{V}$  AC,  $60 \,\text{Hz}$  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. 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.

# IV. Trade (Import/Export) Compliance Data

For any questions related to importing & exporting classification of Dell products, please obtain information from the following link: www.dell.com/import\_export\_compliance or send request to <a href="https://www.texport\_compliance@dell.com">www\_texport\_compliance@dell.com</a>.

# V. Product Dimensions and Weight

Depth,	Width,	Height,	Weight, kg
mm/cm	mm/cm	mm/cm	
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.

### VI. Performance Data

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

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

http://www.dell.com/en-us/work/learn/power-and-cooling-energy-star

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

EU: http://www.eu-energystar.org/db-currentlists.htm

### **System Configuration**

The Energy Consumption data is based on a configuration including:

Processor	Intel Core i5 3.6GHz
Hard Drive(s)	9000GB
Memory	64GB
Video Card	Discrete Card / NVIDIA GeForce GTX1080
RMSD / Optical Drive	DVDRW
Power Supply (Internal or External)	Internal
Power Supply Size in Watts	850W



### Computers:

Service Level	Energy Consumption (Wattage)	BTU Calculation  Description of Service Level		
*Maximum	289.04	988.52	The system is running programs to maximize the power consumption.	
Idle Mode	38.29	130.94	As specified EPA Energy Star Computer mode.	
S3 "Sleep" Mode	<b>63 "Sleep" Mode</b> 1.76 <b>6.02</b>		Suspend-to-RAM (low-power/sleep mode)	
Off 0.38 1.30		1.30	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.	

<sup>\*</sup> **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 <a href="here">here</a> for Dell's Client Energy Savings Calculator, Data Center Capacity Planner, and Monitor Power Savings Calculator. Information on Energy Efficiency is available here

# VII. Product Materials Information

Information on Dell's material use is available here.

Dell's Restricted Material for Use guidance document is available <u>here</u>.

- The case material is, >PC+ABS<, >ABS<</li>
- 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 <sup>1</sup> > 25 g are BFR/PVC fre	e ⊠ Yes □ No □ NA
Marking of plastics parts greater than 25 grams is	in accordance with ISO 11469 X Yes INO INA
(see below)	
Printed circuit boards (without components) >25g	are BFR PVC free <sup>2</sup>

<sup>&</sup>lt;sup>2</sup> 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 CI 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)



<sup>\*</sup> 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

<sup>1</sup> 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)

Insulation materials of external electrical cables are PVC free	☐ Yes ☒ No ☐ NA				
Insulation materials of internal electrical cables are PVC free	☐ Yes ☒ No ☐ NA				
Product is BFR/PVC Free (Accessories & Options may not be BFR/PVC-Free,	☐ Yes  ☒ No				
refer to spec ENV0199)					

#### Flame Retardants Used in Motherboard

Part	Flame Retardant
Motherboard	CAS NO. 26265-08-7

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

#### Additional information:

RoHS and REACH declaration - see product material information section at: <a href="https://www.dell.com/environmental">www.dell.com/environmental</a> information

Products MSDS (Material Safety Data Sheets):
 Batteries: <u>Battery MSDS Documentation and Declaration</u>

Printer Toner and Ink: MSDS Documentation



# VIII. 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.

ricalitational materials results to	Total	Sustainable Material Content <sup>3</sup>		<u>accamont</u>	iodiid <u>itere</u> .
Packaging Materials	Weight, (kg)	(e.g Recycled content *,bio-	% Sustainable Material		
r dokaging waterials		based, Sustainable Forested	APJ	DAO	EMEA
	(9)	materials)	region	region	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				

# IX. 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



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

<sup>\*</sup> Recycled content in packaging material is supplier dependent.

# X. Design for Environment

Dell systems are, when applicable, designed for easy assembly, disassembly, and servicing. For more information on product Recyclability please visit <a href="https://www.dell.com/environmental\_information">www.dell.com/environmental\_information</a>

# XI. 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, please visit <a href="https://www.dell.com/recyclingworldwide">www.dell.com/recyclingworldwide</a> and select the relevant country.

### XII. 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

### ErP Lot 3 (EU 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	Category D
Processor Speed in GHz	3.6	3.6
Number of Cores	6	6
Total Installed System Memory in GB	64	64
Graphics	Integrated	G7
WOL enabled in "Sleep" Mode	No	No
WOL enabled in "Off" Mode	No	No
As Tested: Lowest Power State	0.36	0.38
As Tested: Poff(W) WOL Disabled	0.36	0.38
As Tested: Poff(W) WOL Enabled		
As Tested: Psleep(W) WOL Disabled	1.71	1.76
As Tested: Psleep(W) WOL Enabled		
As Tested: Pidle(W)	17.59	38.09
Base TEC Limit (kWh)	150.00	150.00
TEC Adders Limit (kWh)	85.00	279.00
Base + Adders TEC Limit (kWh)	235.00	429.00
Results TEC	64.12	136.06

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%20INCD460EM-00_460W_ECOS%204509_Report.pdf	
D850EF-00	Internal	http://www.plugloadsolutions.com/psu_reports/DELL,INC_D850EF-	
D030L1 00	memai	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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For more details visit <u>www.dell.com/environmental\_information</u>

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	Supply 20% Load		50% Load		100% Load	
Model #	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:** 

Service Level	Sound Power (LwAd, bels) (1 bel=10 decibels, re 10 <sup>-12</sup> Watts)	Sound Pressure Bystander Position (L <sub>pAm</sub> , decibels) (re 2x10 <sup>-5</sup> Pa)	
Hard Drive Accessing	3.3	20.1	
Optical Drive Accessing	4.8	32.6	
Idle	3.6	19.9	



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

### ErP Lot 26 (EU 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.

