Janet M. Bawcom
Senior Vice President &
Assistant Secretary

Dell Inc.
One Dell Way
Round Rock, TX 78682
DellTechnologies.com

To whom it may concern

Letter of confirmation

Hereby Dell Inc., a company registered in the USA, with company number 2141541 and whose registered office is 2711 Centerville Road, Ste. 400, Wilmington, DE 19808 ("Dell");

Confirms that

LLC Dell Ukraine, whose registered office is located at 30 Spaska Street, letter "A", Kyiv 04070, Ukraine, may initiate and proceed with all actions needed to conduct Product Conformity Certification and/or declaration process, including but not limited to

-        Prepare, sign, present, receive, etc. documents and products for certification and/or declaration process; and
-        Sign Manufacturer's Authorization Forms;
-        Provide upon request information regarding existing network of Dell's Authorized Channel partners and service organizations.

It is further confirmed that LLC Dell Ukraine as local affiliate of Dell group of companies is able to process and further take over responsibility for Product compliance, as prescribed by Ukrainian regulatory requirements.

On behalf of Dell Inc.

Name: Janet M. Bawcom
Position: Senior Vice President and Assistant Secretary

Signature:

Date: May 21, 2018

№ П06 от «10» апреля 2019г

Компания MUK, официальный дистрибьютор Dell на территории Республики Молдова, информирует Вас о том, что компания Reliable Solutions Distributor является официальным партнером Dell в Молдове и авторизована производителем оборудования Dell для поставки и обслуживания на территории Республики Молдова оборудования и программного обеспечения Dell.

С уважением,
Директор   В. Валихметов

Product Compliance Datasheet

MARKETING NAME…………: **Vostro 3580; Vostro 3583**

REGULATORY MODEL…..….: **P75F**

REGULATORY TYPE……...…: **P75F010**

EMC EMISSIONS CLASS…...: **B**

EFFECTIVE DATE………..…...: **January 7, 2019**

Table of contents

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. Global Environmental Information

Environmental (Voluntary Marks)		
Country	**Approval**	**Compliance**
Global	ENERGY STAR (Configuration Dependent)	*7.1*
China	CECP	Yes
China	CEC	Yes
Japan	Green PC Label	Yes
Varies by Country See EPEAT.net	EPEAT (Configuration Dependent)	Refer to EPEAT.net for specific registration levels and countries

III. Declaration of Similarity

Object of the Declaration	
Product Type	Portable Computer
Regulatory Model Number	P75F
Regulatory Type Number	P75F010
Trade Name/ Trade Mark	DELL
Marketing Name(s)	Vostro 3580 (2sp); Vostro 3583 (1sp)

Dell Inc. herby 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	January 7, 2019	Signature on behalf of Dell Inc.	Dell Inc. Dell Global Product Compliance and Environmental Affairs
Title	Dell Global Product Compliance and Environmental Affairs		

Product Compliance Datasheet | ENV0023 | A14
Dell, Inc. www.dell.com

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. 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
		Front	Rear	
380 mm	258 mm	1sp: 19.89 mm 2sp: 20.66 mm	1sp: 20.0 mm 2sp: 22.7 mm	1sp: 2.00 Kg 2sp: 2.28 Kg

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 XIII 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=uscorp1

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

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, Cover/log low: >PC+ABS-TD15FR(40)<; bezel: >PC+ABS-FR(40)<; log up: >PC+ABS-TD15FR(40)(REC)<
    - This product contains 4% 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	☒ Yes ☐ No ☐ NA
Marking of plastics parts greater than 25 grams is in accordance with ISO 11469 (see below)	☒ Yes ☐ No ☐ NA
Printed circuit boards (without components) >25g are BFR PVC free [2]	☐ Yes ☒ No ☐ NA
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, refer to spec ENV0199)	☐ Yes ☒ No

Flame Retardants Used in Motherboard

Part	Flame Retardant
Motherboard	Brominated epoxy resin 21-42% TBBPA<15%

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[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
LCD_COVER	>PC+ABS-TD15FR(40)<	FR(40)	Halogen-free organic phosphorus compounds	NA
LCD_BEZEL	>PC+ABS-FR(40)<	FR(40)	Halogen-free organic phosphorus compounds	NA
LOG_UP	>PC+ABS-TD15FR(40)(REC)<	FR(40)	Halogen-free organic phosphorus compounds	NA
LOG_LOW	>PC+ABS-TD15FR(40)<	FR(40)	Halogen-free organic phosphorus compounds	NA

Mercury Information

Number of bulbs	Average per bulb
0	NA

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, (g)	Sustainable Material Content[1] (e.g Recycled content *,bio-based, Sustainable Forested materials)	% Sustainable Material		
			APJ region	DAO region	EMEA region
Corrugated Fiberboard	421	Recycled Content	Min 35%	Min 35%	Min 35%
LDPE (Including EPE Foam)	1.1	Recycled Content	0-80%	0-80%	0%
Molded paper pulp	190	Recycled content	100%	100%	100%
HDPE (including thermoformed) *	0	Recycled Content	0-80%	0-80%	0%
Molded Bamboo	0	Non-wood, biobased material	100%	100%	100%
Wheat Straw	0	Non-wood, biobased material	100%	100%	100%
Mushroom	0	Non-wood, biobased material	100%	100%	100%
LDPE Bags	0	Recycled content	0%	0%	0%
EPS	0	Recycled content	0%	0%	0%
PET	0	Recycled content	0%	0%	0%
Polypropylene	0	Recycled content	0%	0%	0%
Other, Non woven bag (80%PP+20%PE)	15				

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 (Panasonic)	Lithium	0.005 (Max)
CR-2032 coin cell (DBV)	Lithium	0.005 (Max)
CR-2032 coin cell (KTS)	Lithium	0.005 (Max)
CR-2032 coin cell (JHT)	Lithium	0.005 (Max)
CR-2032 coin cell (EVE)	Lithium	0.005 (Max)
CR-2032 coin cell (TIANQIU)	Lithium	0.005 (Max)
Rechargeable Battery 3 cell 42Wh (Simplo, Y3F7Y)	Lithium Ion	0.185 (Max)
Rechargeable Battery 3 cell 42Wh (SDI, CYMGM)	Lithium Ion	0.185 (Max)
Rechargeable Battery 3 cell 42Wh (BYD, FW8KR)	Lithium Ion	0.185 (Max)
Rechargeable Battery 3 cell 42Wh (SDI, 0FJMK)	Lithium Ion	0.190 (Max)
Rechargeable Battery 3 cell 42Wh (LGC, FDRHM)	Lithium Ion	0.190 (Max)
Rechargeable Battery 3 cell 42Wh (Simplo, VM732)	Lithium Ion	0.190 (Max)
Rechargeable Battery 3 cell 42Wh (BYD, 1VX1H)	Lithium Ion	0.190 (Max)
Rechargeable Battery 3 cell 42Wh (SWD, WJPC4)	Lithium Ion	0.190 (Max)

XI.   Design for Environment

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.

XIII. APPENDIX A: ErP Lot 3 Product (Energy Consumption) Information

Processor Speed in GHz	1.8	1.8	
Number of Cores	4	4	
Total Installed System Memory in GB	16	16	
Graphics	Integrated	G2	Select
Category	**Category A**	**Category B**	
Total Installed Memory in GB	16	16	
Memory Adder	4.8	4.8	
'Additional Internal Storage' means any and all internal storage devices, including hard disk drives (HDD), solid state drives (SSD) and hybrid hard drives (HHD), included within a computer beyond the first;			
Additional Internal Storage?	No	No	Select
Storage Adder	0.00	0.00	
1st Discrete Graphics Card?	Integrated	G2	Select
1st Discrete Graphics Adder	0.00	11.00	
2nd Discrete Graphics Card?	N/A	N/A	Select
2nd Discrete Graphics Adder	0.00	0.00	
'Television tuner' means a discrete internal component that allows a computer to receive television signals;			
Discrete Television Turner Card?	No	No	Select
Discrete TV Turner Card Adder	0.00	0.00	
Category	Category A	Category B	
Processor Speed in GHz	1.8	1.8	
Number of Cores	4	4	
Total Installed System Memory in GB	16	16	
Graphics	Integrated	G2	
WOL enabled in "Sleep" Mode	No	No	No
WOL enabled in "Off" Mode	No	No	No
As Tested: Lowest Power State	0.27	0.25	
As Tested: Poff(W) WOL Disabled	0.27	0.25	
As Tested: Poff(W) WOL Enabled			
As Tested: Psleep(W) WOL Disabled	0.45	0.44	
As Tested: Psleep(W) WOL Enabled	0.51	0.44	
As Tested: Pidle(W)	2.70	2.82	
Base TEC Limit (kWh)	27	36	0
TEC Adders Limit (kWh)	4.80	15.80	0.00
Base + Adders TEC Limit (kWh)	31.80	51.80	0.00
Results TEC	8.92	9.13	0.00

Power Supply Model #	Internal or External	Link to efficiency report
HA65NS5-00	External	http://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.formHandler&operation=details-details&ref=5470487&appliance=EPS&nr=1
LA65NS2-01	External	http://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.formHandler&operation=details-details&ref=5485275&appliance=EPS&nr=1
HA45NM140	External	http://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.formHandler&operation=details-details&ref=9873972&appliance=EPS&nr=1
HA45NM140	External	http://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.formHandler&operation=details-details&ref=9873972&appliance=EPS&nr=1
LA45NM140	External	http://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.formHandler&operation=details-details&ref=10012818&appliance=EPS&nr=1
LA45NM140	External	http://oee.nrcan.gc.ca/pml-lmp/index.cfm?action=app.formHandler&operation=details-details&ref=10012818&appliance=EPS&nr=1

* **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 product 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

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

Computers Category A:

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	2.7	15.6
Optical Drive Accessing	5.4	34.9
Idle	2.7	15.0

Computers Category B:

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	2.9	15.3
Optical Drive Accessing	4.9	36.0
Idle	2.7	15.2

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.

Network Standby Classification	LoNA
Off/Standby – Watts	0.252
Network Standby – Watts	0.438
Number of Network Ports	1
Location of 'Physical' Network Ports	Side
Network Port Type	Ethernet - RJ45
Network Port(s) Activated or Deactivated	Network Port(s) "Activated"
Network Port Maximum Performance in GB/s	1000 Mbps
Communication protocol used by equipment	Ethernet - TCPIP
Description of how to assert Network Standby Mode	Information available @ www.dell.com/regulatory_compliance and/or www.dell.com/support
Sequence of events to trigger automatic assertion of Network Standby Mode	
Notes regarding operation of the equipment EX: how the user switches the equipment into network standby	
Default time for PM function to switch equipment into this mode	
Inactivity time required to enter Network Standby	
Re-activation trigger	
Measurement Method	

EU DECLARATION OF CONFORMITY

Name and Address of the manufacturer:	Name and address of the authorised representative:
Dell Inc.	**Dell Products Europe BV**
One Dell Way	**Raheen Business Park**
MS: PS4-30	**Limerick, Ireland**
Round Rock, Texas USA 78682	**Email** product.compliance@dell.com

This declaration of conformity is issued under the sole responsibility of Dell, Inc.

OBJECT OF THE DECLARATION

Type of Object……………:	**Portable Computer**
Regulatory Model………...:	**P75F**
Regulatory Type[1]………...:	**P75F010**
Trade/Manufacturer name.:	**DELL**

The object of the declaration described above is in conformity with the following Directives:

- DIRECTIVE 2014/53/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC
- DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment and
- DIRECTIVE 2009/125/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products

The object of the declaration described above has been assessed by the Notified Body Notified Body TÜV Rheinland LGA Products GmbH with identification number 0197 against the essential requirements in Clause 3.2 of 2014/53/EU, and the Type Examination Certificate Number RT 60128602 001, 60128472 001 was issued.

The object of the declaration is in compliance with the following European standards, regulations, and technical references:

SAFETY: EN 60950-1:2006 +A1:2010 +A2:2013 +A11:2009 +A12:2011/IEC 60950-1:2005 ed2 +A1:2009 +A2:2013
EN62311:2008

EMC: EN 55032:2012/CISPR 32:2012
EN 55032:2015/CISPR 32:2015
EN 55024:2010 +A1:2015/CISPR 24:2010 +A1:2015
EN 61000-3-2:2014/IEC 61000-3-2:2014 (Class D)
EN 61000-3-3:2013/IEC 61000-3-3:2013
DRAFT EN 301 489-1 V2.2.0
DRAFT EN 301 489-17 V3.2.0

ENERGY: EN 50564:2011/IEC 62301:2011
EN 62623:2013/IEC 62623:2012
Commission Regulation (EC) No. 1275/2008
Commission Regulation (EU) No. 801/2013
Commission Regulation (EU) No. 617/2013
Commission Regulation (EC) No. 278/2009

RoHS: EN 50581:2012

RADIO: **WLAN/Bluetooth**
EN 300 328 V2.1.1
EN 301 893 V2.1.1
EN 300 440 V2.1.1

SUPPLEMENTARY INFORMATION: The object of this declaration has been tested and found to comply with the electromagnetic compatibility (EMC) limits for a **Class B** digital device pursuant to the listed directives, regulations and standards. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential or business environment. Optional devices, such as radios, conform to the noted standard when the Dell Inc. provided devices are installed in the product. The equipment was tested in a typical configuration.

Round Rock, Texas, USA	Signed for and on behalf of Dell Inc.
Place of Issue	
Jan. 03, 2019	**Maurice Wu**
Date of Issue	Full Printed Name
CDP75F010	**Senior Manager, Dell Global Product Compliance and Environmental Affairs**
Dell Document Control Tracking Number	Position/Title

[1] Regulatory Type uniquely identifies the product, radio, apparatus and EEE which is the object of this DoC.

RQFxxxx

Certificate of Registration
of Quality Management System
to ISO 9001:2015

The National Standards Authority of Ireland certifies that:

Dell Inc.
One Dell Way
Round Rock, TX 78682
USA

has been assessed and deemed to comply with the requirements of the above standard in respect of the scope of operations given below:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Additional sites covered under this multi-site certification are listed on the Annex (File No. 19.5000)

Approved by:
Geraldine LarkinChief
Executive Officer

Approved by:
Lisa Greenleaf
Operations Manager

Registration Number: 19.5000
Certification Granted: Jan 25, 2011
Effective Date: Jan 24, 2019
Expiry Date: Jan 24, 2020

National Standards Authority of Ireland, 20 Trafalgar Square, Nashua, New Hampshire, NH 03063, USA T +1 603 882 4412

Scope of Registration:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Central Function, Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales, Service, Take-Back & Recycling, Refurbishment, Supporting Functions	Dell Inc. One Dell Way Round Rock, TX 78682 USA File No.: 19.5000
Manufacture, Fulfillment, Delivery, Refurbishment, Service, Support	Dell Computadores do Brazil Ltda. BRH1 Facility Av da. Emancipação, 5000 Hortolândia, SP 13.184-654 Brazil File No.: 19.5000/R1/A
Service, Support, Sales	Dell Computadores do Brazil Ltda. Avenida Industrial Belgraf, 400 (Service and Support, Sales/Marketing and CC) Bairro Medianeira Eldorado do Sul – CEP 92990-000 Brazil File No.: 19.5000/R1/B
Service, Support, Sales	Dell Inc. Park Plaza Tower 1 Javier Barros Sierra 540, 10th Floor Santa Fe, Del. Alvaro Obregon Mexico City, C.P. 01210 Mexico File No.: 19.5000/R1/C

Scope of Registration:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Service, Support, Sales	Dell Inc. Area Especial Economica Panama – Pacifico Avenida Bryant Building No. 255, Arraijan Panama City Panama File No.: 19.5000/R1/D
Design, Development, Delivery, Sales, Fulfillment, Service, Support	Dell Inc. One Dell Way Round Rock, Texas 78682 USA File No.: 19.5000/R1/E
Sales, Service	Dell Inc. Federal Systems, L.P. One Dell Way Round Rock, Texas 78682 USA File No.: 19.5000/R1/F
Design, Development	Dell Inc. Nashua 1 – EqualLogic 300 Innovative Way Suite 301 Nashua, New Hampshire 03062 USA File No.: 19.5000/R1/K
Fulfillment, Delivery, Sales, Service, Support	Dell Inc. One Dell Parkway Nashville, Tennessee 37217 USA File No.: 19.5000/R1/L

NSAI

Annex to Certificate Number: 19.5000

Scope of Registration:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Service, Support, Sales	Dell Inc. Oklahoma Business Center - A & B 3501 S.W. 15th Street Buildings A, B Oklahoma City, Oklahoma 73108 USA File No.: 19.5000/R1/M
Service, Support, Sales, Marketing	Dell Canada 155 Gordon Baker Road Suite 501 North York, Ontario M2H 3N5 Canada File No.: 19.5000/R1/Q
Design, Development, Support	Dell International Services India, Pvt. Ltd. Dell Networking Research and Development 8th & 9th Floor Altius/Fortius Block Olympia Tech Park, Plot No:1 SIDCO Industrial Estate Guindy, Chennai Tamil Nadu 600032 India File No.: 19.5000/R1/T3

Annex to Certificate Number: 19.5000

Scope of Registration:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Design, Development, Sales, Support, Service	Dell Inc. (Compellent) 7615 Smetana Lane Eden Prairie, MN 55344-3712 USA File No.: 19.5000/R1/Y
Design, Development, Sales, Support, Service	Dell Inc. (Copilot) 7700 France Ave S. Suite 300 Edina, MN 55435 USA File No.: 19.5000/R1/Y2
Design, Development, Sales, Support, Service	Dell Inc. (Compellent) 7625 Smetana Lane Eden Prairie, MN 55344-3712 USA File No.: 19.5000/R1/Y3
Design, Development, Support	Dell Inc., Dell Digital IT (DDIT) 401 Dell Way Round Rock, TX 78682 USA File No.: 19.5000/R1/Z

Scope of Registration:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Support	Dell, Inc. Del Mall Real Cariari 600 MTS N. Zona Franca America Costa Rica S.A. File No.: 19.5000/R1/GG
Design, Development, Customer Service, Support	Dell Silicon Valley Design Center (SVDC) 5450 & 5480 Great America Parkway Buildings 1 & 2 Santa Clara, CA 95054 USA File No.: 19.5000/R1/JJ
Design, Development, Sales, Marketing	Dell Wyse 5455 Great America Parkway Santa Clara CA 95054 USA File No.: 19.5000/R1/KK
Design, Development, Deploy, and Support Security Software Products	Dell Inc. (Credant) 2300 W Plano Pkwy Plano, TX 75075 USA File No.: 19.5000/R1/LL
Design, Servicing, and Customer Support for Computer Storage Products	Dell Inc. 176 South Street Hopkinton, MA 01748 USA File No.: 19.5000/R1/MM

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Scope of Registration:

The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Manufacture and Supply	Dell EMC 5800 Technology Drive Apex, NC 27539 USA File No.: 19.5000/R1/QQ
Design, Servicing, and Training of Computer Products	Dell Inc. 6801 Koll Center Parkway Pleasanton, CA 94566 USA File No.: 19.5000/R1/SS
Design, Development, Servicing and Support of Storage Technology Products and Services	Dell Inc. 505 1st Avenue South Seattle, WA 98104 USA File No.: 19.5000/R1/UU
Manufacture and Supply	Dell EMC 50 Constitution Blvd Franklin, MA 02038 USA File No.: 19.5000/R1/VV
Training for Computer Storage Products	Dell Inc. 55 Constitution Blvd Franklin, MA 02038 USA File No.: 19.5000/R1/WW

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Activity	Location
Customer Service, Services, Solutions	DELL EMC UTAH 13197 South Frontrunner Boulevard 11747 Lone Peak Pkwy #200 Draper, UT 84020 USA File No.: 19.5000/R1/XX
Service, Support, Sales, Marketing	Dell N.V. Zone 3 Doornveld 130 B-1731 Asse-Zellik Belgium File No.: 19.5000/R2/A
Service, Support, Sales, Marketing	Dell A/S Arne Jacobsens Allé 15 -17 Copenhagen Denmark DK-2300 File No.: 19.5000/R2/C
Service, Support, Sales, Marketing	Dell S.A. (France) 1 Rond Point, Benjamin Franklin 34938 Montpellier 34000 France File No.: 19.5000/R2/E
Service, Support, Sales, Marketing	DELL EMC 80 Quai Voltaire Riverwest Building Bezons 95870 France File No.: 19.5000/R2/F

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The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Service, Support, Sales, Marketing	Dell Gmbh Unterschweinstiege 10 60549 Frankfurt am Main Germany File No.: 19.5000/R2/H
Service, Support, Sales	Dell Halle GmbH Raffineriestraße 28 06112 Halle (Saale) Germany File No.: 19.5000/R2/I
Design, Development, Service, Support, Sales, Marketing	Dell Inc. Innovation House Cherrywood Science & Technology Park Loughlinstown Dublin 18 Ireland File No.: 19.5000/R2/J
Service, Support, Sales	Dell Limerick Raheen Business Park Limerick Ireland File No.: 19.5000/R2/K
Service, Support, Sales	Dell Italian Services Dell SpA Via Spadolini 5 Lombardia Milano 20141 Italy File No.: 19.5000/R2/L

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The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Service, Support, Sales	Dell SAS Shore12 Casanearshore Park 1100 Bd Qods Sidi Maarouf 20270 Casablanca Morocco File No.: 19.5000/R2/M
Service, Support, Sales	Dell B.V Transformatorweg 12 38-72 1014, AK Amsterdam Netherlands File No.: 19.5000/R2/N
Service, Support, Sales	Dell AS Hoffsveien 1D, gnr.3 bnr. 58 Oslo Kommun Oslo NO-0275 Norway File No.: 19.5000/R2/O
Service, Support, Sales	Dell Corporation Ltd City Park 368 Alexandra Parade Glasgow G31 3AU United Kingdom File No.: 19.5000/R2/R

Scope of Registration:

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Activity	Location
Service, Support, Sales	Dell s.r.o. Fazulova 7 811 07 Bratislava, Slovak Republic File No.: 19.5000/R2/S
Service, Support, Sales	Dell Computers S.A. (South Africa) The Campus, Wembley Building, 2nd floor Cnr Main and Sloan Streets Braynston 2021, Johannesburg South Africa File No.: 19.5000/R2/T
Service, Support, Sales	Dell AB Frösundaleden 2B 169 26 Solna Sweden File No.: 19.5000/R2/U
Service, Support, Sales, Marketing	Dell SA Route de l'Aéroport 29-31 Case postale 216 1215 Genève 15 Switzerland CH-1215 File No.: 19.5000/R2/V
Service, Support, Sales	Dell Computer S.A. (Spain) Building Oasis B Basauri 17 Madrid 28023 Spain File No.: 19.5000/R2/W

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Activity	Location
Service, Support, Sales	Dell Corporation Ltd Dell House The Boulevard, Cain Road Bracknell, Berkshire RG12 1LF United Kingdom File No.: 19.5000/R2/X
Design, Development	Dell Technology & Solutions Israel Ltd 7 Hamada Street Herzliya 46733 Israel File No.: 19.5000/R2/Z
Sales	Dell International Services S.R.L. Bucharest Service Center 10A Dimitrie Pompei Blvd Building C3, 5th Floor Bucharest 020337 Romania File No.: 19.5000/R2/BB
Manufacture, Fulfillment	Dell Products (Poland) Sp. z.o.o. Informatyczna Street No 1, 92-410 Lodz Poland File No.: 19.5000/R2/DD
Manufacture and Supply	Dell EMC EMC Information Systems International Unit B IDA Industrial Estate Ovens Co. Cork Ireland File No.: 19.5000/R2/HH

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The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Customer Support, Deploy Services and Sales Operations	Dell Inc. El-Swedey Building North 90th St Plot No 39 5th District City Center Cairo, Egypt Arab Republic of Egypt File No.: 19.5000/R2/II
Service, Support, Sales	Dell Australia Pty Limited Forestridge Business Park Building 3, Level 2 14 Aquatic Drive, Frenchs Forest Sydney, New South Wales Australia 2086 File No.: 19.5000/R3/A
Design, Development, Support	Dell International Services India, Pvt. Ltd. No.65, 2 Bagmane Tech Park Byra Sundra, C V Raman Nagar Bagmane Parin Katha Bangalore South Taluk Bangalore 560093 India File No.: 19.5000/R3/B
Service, Support, Sales	Dell International Services India Pvt. Ltd. No.12/1,12/2A,13/1A Divyasree Greens Challaghatta, Varthur Hobli Koramangala Inner Ring Road Domlur Post Bangalore 560071 India File No.: 19.5000/R3/C

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The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Manufacture, Delivery	Dell International Services India, Pvt. Ltd. Sriperumbudur Hi-Tech SEZ SIPCOT Industrial Park Sriperumbudur Phase-II Sunguvarchatram Post Sirumangadu Village Sriperumbudur Taluk Kancheepuram Tamil Nadu 602106 India File No.: 19.5000/R3/E
Service, Support, Sales	Dell International Services India, Pvt. Ltd. Vipul Tech Square, Golf Course Road Sector - 43, Gurgaon Haryana 122 002 India File No.: 19.5000/R3/F
Service, Support, Sales	Dell International Services India, Pvt. Ltd. Plot No. 42 Hitec City Layout Madhapur, Hyderabad Telangana 500081 India File No.: 19.5000/R3/G

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The Design, Development, Manufacture, Procurement, Fulfillment, Delivery, Sales Operations, Customer Service, Support, Deployment, Consulting, Educational Services, Take-Back and Recycling, Refurbishment and Supporting Functions of Technology Products, Services and Solutions

Activity	Location
Service, Support, Sales	Dell Inc. Kawasaki Solid Square East Tower 20F 580 Horikawa-cho Saiwai-ku, Kawasaki-shi Kanagawa Japan 212-8589 File No.: 19.5000/R3/I
Service, Support, Sales	Dell Inc. Miyazaki Carino Miyazaki 5F 4-8-1 Tachibana-dori-Higashi Miyazaki-shi Miyazaki, Japan 880-0805 File No.: 19.5000/R3/J
Service, Support, Sales	Dell Inc. Tokyo 1 3-5-27 Mita Minato ku 9th Fl., West Wing, Sumitomo Fudosan Mita Twin Bldg Tokyo Japan 108-6309 File No.: 19.5000/R3/K

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Activity	Location
Service, Support, Sales	Dell Inc. Cyberjaya 1 Global Business Center 2900 Persiaran APEC Floors 1-4 63000 Cyberjaya Selangor Darul Ehsan Malaysia File No.: 19.5000/R3/L
Service, Support, Sales	Dell Global Business Center Sdn. Bhd. (742481-H) Plot P27, Bayan Lepas Industrial Zone Phase IV 11900 Bayan Lepas Penang Malaysia File No.: 19.5000/R3/M
Service, Manufacturing, Fulfillment, Delivery	Dell Global Business Center Sdn Bhd (APCC) Plot 76, Mukim 11 Bukit Tengah Industrial Park 14000 Bukit Mertajam Penang Malaysia File No.: 19.5000/R3/N
Service, Support, Sales	Dell International Services Philippines, Inc. 1800 Bldg, Eastwood Avenue Eastwood City Cyberpark 188 E. Rodriguez Jr. Avenue Bagumbayan, Quezon City 1110 Philippines File No.: 19.5000/R3/O

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Activity	Location
Service, Support, Sales	Dell (China) Co., Ltd. Beijing Branch Full Link Plaza 18 Chao Wai Street Chao Yang District Suites 507A, 507B, 511, 512-515 Beijing China 100020 File No.: 19.5000/R3/P
Service, Support, Sales	Dell (China) Co., Ltd. Dalian Branch 11 Floor, IC Building No. 56 Huoju Road Hi-Tech Industrial Zone Dalian China 116023 File No.: 19.5000/R3/Q
Sales, Service, Design, Support	Dell Inc. Shanghai Shanghai Zhaofeng Multimedia Plaza 999 Changning Road Changning District Suites 501, 502, 503, 603 Shanghai China 200050 File No.: 19.5000/R3/R
Manufacture, Fulfillment	Dell (Xiamen) Co. Ltd. No. 2366 Jinshang Road Information Photo-Electronic Park Xiamen Torch Hi-Tech Zone Fujian China 361011 File No.: 19.5000/R3/T

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Activity	Location
Manufacture, Sales, Service, Support	Dell (China) Co. Ltd. No. 2388 Jinshang Road Information Photo-Electronic Park Xiamen Torch Hi-Tech Zone Fujian China 361011 File No.: 19.5000/R3/U
Sales, Service, Support	Dell (China) Co. Ltd (CCC5) No. 613 Sishui Road Haicang Building #1 Wuyuan Bay Business Operation Center Xiamen China 361015 File No.: 19.5000/R3/U2
Design, Development, Service, Support	Dell (Taiwan) B.V. Taiwan Branch No. 216 and No. 218, Sec. 2 Tun Hua S. Road Taipei Taiwan, R.O.C. File No.: 19.5000/R3/V
Service, Support	Dell International Inc. (Korea) Prudential Tower 11th, 12th Floors 298 Gangnamdaero, Gangnam-Gu Seoul, Korea 135-982 File No.: 19.5000/R3/Y

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Activity	Location
Design, Development, Service, Support, Sales	Dell Global B.V. (Singapore Branch) Singapore Design Center 2 International Business Park The Strategy Tower 2, #01-34 Singapore 609930 File No.: 19.5000/R3/Z
Service, Support	Dell Corporation (Thailand) Co., Ltd. 22nd Floor Empire Tower 1 South Sathorn Road Yannawa, Sathorn Bangkok 10120 Thailand File No.: 19.5000/R3/BB
Manufacture, Fulfillment	Dell (Chengdu) Company Limited No. 800 Tianqin Road Hi-Tech Zone West Chengdu Sichuan China 611731 File No.: 19.5000/R3/NN
Design	Dell International Services India Pvt. Ltd. Sigma Soft Tech Park, No. 7 Whitefield Main Road Bangalore – 560 066 India File No.: 19.5000/R3/OO

NSAI

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Activity	Location
Design	Dell (China) Co., Ltd. Beijing IT Branch 2 Academy of Sciences South Road Raycom Infotech Park Tower C South Building, Beijing HaiDian District 100080 China File No.: 19.5000/R3/PP
Design and Development of Data Protection Software	Dell Inc. 77 Haenergia St, 1st Floor Building One Beer Sheva Israel File No.: 19.5000/R3/QQ
Design and Development of Data Protection Software	Dell Inc. 36/40 Sredny pr. VO St-Petersburg 199004 Russian Federation File No.: 19.5000/R3/RR

Verified by:
Operations Manager

Dell Vostro 3580

Setup and specifications guide

Notes, cautions, and warnings

ⓘ | **NOTE: A NOTE indicates important information that helps you make better use of your product.**

△ | **CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.**

⚠ | **WARNING: A WARNING indicates a potential for property damage, personal injury, or death.**

Contents

Set up your computer

1   Connect the power adapter and press the power button.

> ⓘ NOTE: **To conserve battery power, the battery might enter power saving mode.**

2   Finish Windows system setup.

Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:

- Connect to a network for Windows updates.

    > ⓘ NOTE: **If connecting to a secured wireless network, enter the password for the wireless network access when prompted.**

- If connected to the internet, sign-in with or create a Microsoft account. If not connected to the internet, create an offline account.

- On the **Support and Protection** screen, enter your contact details.

3   Locate and use Dell apps from the Windows Start menu—Recommended

Table 1. Locate Dell apps

Dell apps	Details
	Dell Product Registration Register your computer with Dell.
	Dell Help & Support Access help and support for your computer.
	SupportAssist Proactively checks the health of your computer's hardware and software. > ⓘ NOTE: **Renew or upgrade your warranty by clicking the warranty expiry date in SupportAssist.**
	Dell Update Updates your computer with critical fixes and important device drivers as they become available.

Dell apps	Details
	Dell Digital Delivery Download software applications including software that is purchased but not pre-installed on your computer.

4   Create recovery drive for Windows.

     ⓘ **NOTE: It is recommended to create a recovery drive to troubleshoot and fix problems that may occur with Windows.**

For more information, see Create a USB recovery drive for Windows.

2

Create a USB recovery drive for Windows

Create a recovery drive to troubleshoot and fix problems that may occur with Windows. An empty USB flash drive with a minimum capacity of 16 GB is required to create the recovery drive.

Prerequisites

ⓘ **NOTE: This process may take up to an hour to complete.**

ⓘ **NOTE: The following steps may vary depending on the version of Windows installed. Refer to the Microsoft support site for latest instructions.**

Steps

1 Connect the USB flash drive to your computer.
2 In Windows search, type `Recovery`.
3 In the search results, click **Create a recovery drive**.
   The **User Account Control** window is displayed.
4 Click **Yes** to continue.
   The **Recovery Drive** window is displayed.
5 Select **Back up system files to the recovery drive** and click **Next**.
6 Select the **USB flash drive** and click **Next**.
   A message appears, indicating that all data in the USB flash drive will be deleted.
7 Click **Create**.
8 Click **Finish**.

   For more information about reinstalling Windows using the USB recovery drive, see the *Troubleshooting* section of your product's *Service Manual* at www.dell.com/support/manuals.
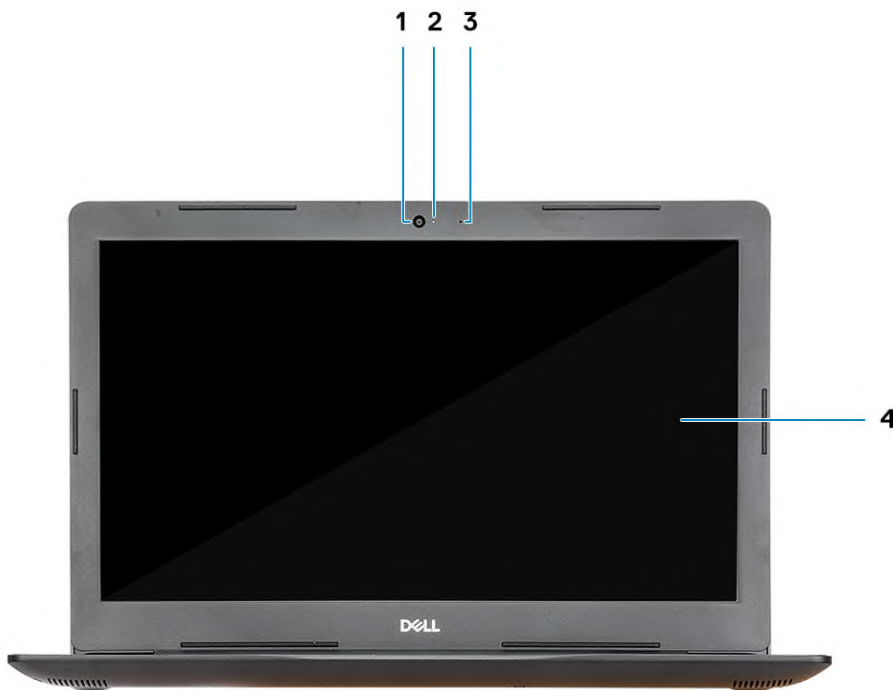
Chassis

This chapter illustrates the multiple chassis views along with the ports and connectors and also explains the FN hot key combinations.

Topics:

Display view

1	Camera	2	Camera-status light
3	Microphone	4	Display

Left view
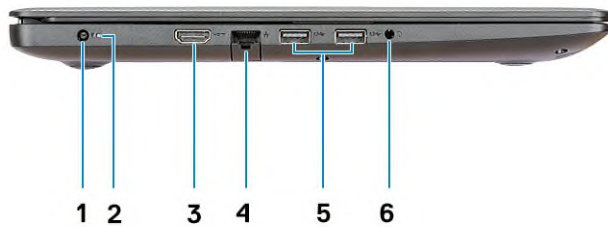
1	Power adapter port	2	Battery status light
3	HDMI port	4	Network port
5	USB 3.1 Gen 1 ports (2)	6	Headset port

Right view
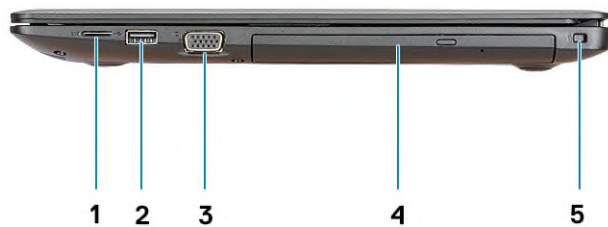
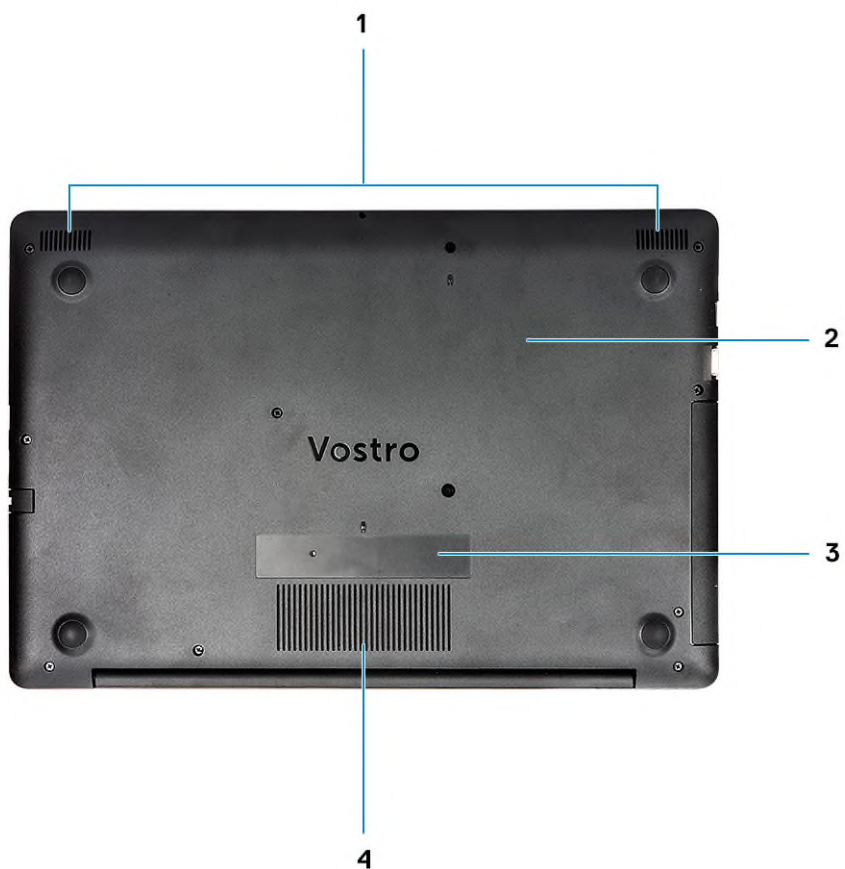|			
1	Micro SD card reader	2	USB 2.0 port
3	VGA port	4	Optical disk drive
5	Security-cable slot (for Noble locks)		

Palmrest view

1	Power button with optional fingerprint reader	2	Keyboard
3	Touchpad		

Bottom view

1	Speakers	2	Base cover
3	Service Tag label	4	Air vent

Keyboard shortcuts

(i) **NOTE:** Keyboard characters may differ depending on the keyboard language configuration. Keys used for shortcuts remain the same across all language configurations.

Table 2. List of keyboard shortcuts

Keys	Description
Fn + Esc	Toggle Fn-key lock
Fn + F1	Mute audio
Fn + F2	Decrease volume
Fn + F3	Increase volume
Fn + F4	Play previous
Fn + F5	Play / Pause
Fn + F6	Play next
Fn + F8	Switch to external display
Fn + F9	Search
Fn + F11	Decrease brightness
Fn + F12	Increase brightness
Fn + PrtScr	Turn on/off wireless
Fn + Ctrl	Open application menu

System specifications

ⓘ **NOTE: Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information about the configuration of your computer, go to Help and Support in your Windows operating system and select the option to view information about your computer.**

Topics:

System information

Table 3. System information

Feature	Specifications
Chipset	Intel Chipset
DRAM bus width	64-bit
FLASH EPROM	SPI 16 MB
PCIe bus	100 Mhz

Processor

ⓘ **NOTE:** Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.

Table 4. Processor specifications

Type	UMA Graphics
8th Gen Intel Core i3 processor (2 cores/4 MB/4T/3.9 GHz/15 W)	Intel UHD Graphics 620
8th Gen Intel Core i5 processor (4 cores/6 MB/8T/3.9 GHz/15 W)	Intel UHD Graphics 620
8th Gen Intel Core i7 processor (4 cores/8 MB/8T/4.6 GHz/15 W)	Intel UHD Graphics 620

Memory

Table 5. Memory specifications

Feature	Specifications
Minimum memory configuration	4 GB
Maximum memory configuration	16 GB
Number of slots	2x SoDiMM
Memory options	• 4 GB - 1 x 4 GB • 8 GB - 2 x 4 GB (optional) • 8 GB - 1 x 8 GB (optional) • 12 GB - 1 x 4 GB + 1 x 8 GB (optional) • 16 GB - 2 x 8 GB (optional) • 16 GB - 1 x 16 GB (optional)
Type	DDR4
Speed	2400 MHz

Storage

Table 6. Storage specifications

Type	Form factor	Interface	Capacity
Solid-State Drive	M.2	M.2 SSD	Class 20: 128 GB Class 35: 128 GB and 256 GB Class 40: 256 GB
HDD	2.5 inches	SATA	Upto 2 TB 5400 RPM

Type	Form factor	Interface	Capacity
			Upto 1 TB 7200 RPM
Intel Optane (PCIe M.2 module with HDD)	M.2	PCIe	16 GB
Dual drives	2.5 inches HDD + M.2	SATA + M.2 SSD	Yes, it is available

Audio

Feature	Specifications
Controller	Realtek ALC3204 with Waves MaxxAudio Pro
Type	Two-channel high-definition audio
Speakers	Two (Directional speakers)
Interface	• Universal audio jack • High-quality speakers • Noise reducing single microphone • Stereo headset/mic combo
Internal speaker amplifier	2 W (RMS) per channel

System board connectors

Feature	Specifications
M.2 Connectors	Two (2280 Key-M and 2242 Key-B)
Serial ATA (SATA) connector	One Gen 3 supports 7 mm SATA

Media card-reader

Feature	Specifications
Type	One Micro SD card slot
Supported cards	• Micro SD • Micro SDHC • Micro SDXC

Video card

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support	Maximum resolution
Intel UHD Graphics 620	UMA	• 8th Gen Intel Core i5 processor • 8th Gen Intel Core i7 processor	Integrated	Shared system memory	HDMI 1.4b	4096 x 2304
AMD Radeon 520	Discrete	NA	GDDR5	2 GB	No	1920 x 1080

Camera

Feature	Specifications
Resolution	• Still image: 0.92 megapixels (HD) • Video: 1280 x 720 (HD) at 30 fps
Diagonal viewing angle	Camera - 78.6°
Number of cameras	One
Type	HD fixed focus
Sensor type	CMOS sensor technology
Video Max resolution	1280 x 720 (HD) at 30 fps
Still image max resolution	0.92 megapixels (HD)

Wireless

Feature	Specifications
Type	• DW1707 (QCA9565) • DW1810 (QCA9377) • DW1820 (QCA61x4A) • Intel 9560 • Intel 9462
Maximum transfer rate	867 Mbps
Frequency bands	2.4 GHz/5 GHz
Encryption	• 64-bit/128-bit WEP

Feature	Specifications
	• AES-CCMP
	• TKIP

Ports and connectors

Table 13. Ports and connectors

Features	Specifications
Memory card reader	Micro SD 3.0 memory card reader
USB	• One USB 2.0 port • Two USB 3.1 Gen 1 port
Security	Noble wedge lock slot
Docking port	Dell USB 3.0 Dock (UNO)
Audio	• Universal audio jack • Noise reduction single microphone
Video	• HDMI 1.4b (UMA and discrete) • VGA port
Network adapter	One RJ-45 connector

Display

Table 14. Display specifications

Feature	Specifications
Type	• 15.6 inch HD (1366 x 768) TN, Anti-glare, Ultra slim • 15.6 inch FHD (1920 x 1080) TN, Anti-glare (Optional)
Height (Active area)	360 mm (14.17 inch)
Width (Active area)	224.3 mm (8.83 inch)
Diagonal	396.24 mm (15.6 inch)
Luminance/Brightness (typical)	300 nits max
Refresh rate	60 Hz
Horizontal viewing angle (min)	+/- 40 degrees
Vertical viewing angle (min)	+10/- 30 degrees

Keyboard

Feature	Specifications
Number of keys	• 101 (US) • 102 (UK) • 104 (Brazil) • 105 (Japan)
Size	Full sized • X= 19.05 mm key pitch • Y= 18.05 mm key pitch
Layout	QWERTY/AZERTY/Kanji

Touchpad

Feature	Specifications
Resolution	3215x2429
Dimensions	• Width: 4.13 inch (105 mm) • Height: 3.14 inch (80 mm)
Multi-touch	Supports four fingers

Fingerprint reader—optional

Feature	Specifications
Sensor technology	Capacitive
Sensor resolution	500 PPI
Sensor area	5.5 mm x 4.4 mm (0.22 inches x 0.17 inches)
Sensor pixel size	108 x 88

Operating system

Feature	Specifications
Operating systems supported	• Windows 10 Home (64 bit) • Windows 10 Pro (64 bit) • Ubuntu

Battery

Feature	Specifications	
Type	3-cell Primatic/Polymer battery 42 WHr	
Dimension	Width	175.37 mm (6.9 in)
	Depth	90.73 mm (3.57 in)
	Height	5.9 mm (0.24 in)
Weight (maximum)	0.2 kg (0.44 lb)	
Voltage	11.4 VDC	
Life span	300 discharge / charge cycles	
Charging time when the computer is off (approximate)	Standard charge	0°C to 60°C: 4 hours
	Express Charge	0°C to 35°C: 4 hours
		16°C to 45°C: 2 hours
		46°C to 60°C: 3 hours
Operating time	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions	
Temperature range: Operating	0°C to 35°C (32°F to 95°F)	
Temperature range: Storage	-20°C to 65°C (-40°F to 149°F)	
Coin-cell battery	CR 2032	

Power adapter

Feature	Specifications
Type	• 45 W (UMA) • 45 W Ruggedized

Feature	Specifications
	• 65 W (Discrete)
Input Voltage	100 VAC - 240 VAC
Input current (maximum)	• 1.3 A for 45 W • 1.7 A for 65 W
Input frequency	50 Hz to 60 Hz
Output current	• 2.31 A for 45 W • 3.34 A for 65 W
Rated output voltage	19.5 VDC
Temperature range (Operating)	0°C to 40° C (32°F to 104°F)
Temperature range (Non-Operating)	40°C to 70°C (-40°F to 158°F)

Dimensions and weight

Table 21. Dimensions and weight

Feature	Specifications
Height	20.65 mm to 22.6 mm (0.813 inch to 0.89 inch)
Width	380 mm (14.96 inch)
Depth	258 mm (10.15 inch)
Weight	2.28 kg (5.02 lb)

Computer environment

Airborne contaminant level: G1 as defined by ISA-S71.04-1985

Table 22. Computer environment

	Operating	Storage
Temperature range	0°C to 40°C (32°F to 104°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing) ⓘ **NOTE: Maximum dew point temperature = 26°C**	0% to 95% (non-condensing) ⓘ **NOTE: Maximum dew point temperature = 33°C**
Vibration (maximum)	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G [†]	160 G[‡]
Altitude (maximum)	0 m to 3048 m (0 ft to 10,000 ft)	0 m to 10,668 m (0 ft to 35,000 ft)

* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse when the hard drive is in use.

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.

Security

Table 23. Security specifications

Feature	Specifications
Trusted Platform Module (TPM) 2.0	Integrated on the system board
Discrete TPM	Integrated on the system board
Windows Hello Support	Optional
Cable cover	Optional
Chassis intrusion switch	Optional
Chassis lock slot and loop support	Optional

Security Software

Table 24. Security Software specifications

Feature	Specifications
Dell Endpoint Security Suite Enterprise	Optional
Dell Data Guardian	Optional
Dell Encryption (Enterprise or Personal)	Optional
Dell Threat Defense	Optional
RSA SecurID Access	Optional
RSA NetWitness Endpoint	Optional
MozyPro or MozyEnterprise	Optional
VMware Airwatch/WorkspaceONE	Optional
Absolute Data & Device Security	Optional

System setup

System setup enables you to manage your notebook hardware and specify BIOS level options. From the System setup, you can:

- Change the NVRAM settings after you add or remove hardware
- View the system hardware configuration
- Enable or disable integrated devices
- Set performance and power management thresholds
- Manage your computer security

Topics:

- Boot menu
- Navigation keys
- System setup options
- System and setup password

Boot menu

Press <F12> when the Dell logo appears to initiate a one-time boot menu with a list of the valid boot devices for the system. Diagnostics and BIOS Setup options are also included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

The options are:

- UEFI Boot:
  – Windows Boot Manager

-

- Other Options:
  – BIOS Setup
  – BIOS Flash Update
  – Diagnostics
  – Change Boot Mode Settings

Navigation keys

(i) **NOTE: For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.**

Keys	Navigation
Up arrow	Moves to the previous field.
Down arrow	Moves to the next field.
Enter	Selects a value in the selected field (if applicable) or follow the link in the field.
Spacebar	Expands or collapses a drop-down list, if applicable.

Keys	Navigation
Tab	Moves to the next focus area.

> ⓘ **NOTE: For the standard graphics browser only.**

Esc	Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that prompts you to save any unsaved changes and restarts the system.

System setup options

> ⓘ **NOTE: Depending on the laptop and its installed devices, the items listed in this section may or may not appear.**

General options

Table 25. General

Option	Description
System Information	Displays the following information: • System Information: Displays **BIOS Version, Service Tag, Asset Tag, Ownership Tag, Ownership Date, Manufacture Date,** and the **Express Service Code**. • Memory Information: Displays **Memory Installed, Memory Available, Memory Speed, Memory Channel Mode, Memory Technology, DIMM A size, and DIMM B size** • Processor Information: Displays **Processor Type, Core Count, Processor ID, Current Clock Speed, Minimum Clock Speed, Maximum Clock Speed, Processor L2 Cache, Processor L3 Cache, HT Capable,** and **64-Bit Technology.** • Device Information: Displays **Primary HDD, ODD Device, M.2 SATA SSD, M.2 PCIe SSD-0, LOM MAC Address, Video Controller, Video BIOS Version, Video Memory, Panel type, Native Resolution, Audio Controller, Wi-Fi Device, and Bluetooth Device.**
Battery Information	Displays the battery status health and whether the AC adapter is installed.
Boot Sequence	Allows you to specify the order in which the computer attempts to find an operating system from the devices specified in this list.
Advanced Boot Options	Allows you to select the Legacy Option ROMs option, when in UEFI boot mode. By default, no option is selected. • Enable Legacy Option ROMs • Enable Attempt Legacy Boot
UEFI Boot Path Security	This option controls whether or not the system will prompt the user to enter the Admin password when booting a UEFI boot path from the F12 Boot Menu. • Always, Except Internal HDD—Default • Always • Never
Date/Time	Allows you to set the date and time settings. Changes to the system date and time take effect immediately.

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System information

Table 26. System Configuration

Option	Description
Integrated NIC	Allows you to configure the on-board LAN controller. • Disabled = The internal LAN is off and not visible to the operating system. • Enabled = The internal LAN is enabled. • Enabled w/PXE = The internal LAN is enabled (with PXE boot) (selected by default)
SATA Operation	Allows you to configure the operating mode of the integrated hard drive controller. • Disabled = The SATA controllers are hidden • AHCI = SATA is configured for AHCI mode • RAID ON = SATA is configured to support RAID mode (selected by default)
Drives	Allows you to enable or disable the various drives on-board: • SATA-0 (enabled by default) • SATA-1 (enabled by default) • SATA-2 (enabled by default) • M.2 PCIe SSD-0 (enabled by default)
Smart Reporting	This field controls whether hard drive errors for integrated drives are reported during system startup. The **Enable Smart Reporting option** is disabled by default.
USB Configuration	Allows you to enable or disable the integrated USB controller for: • Enable USB Boot Support • Enable External USB Port All the options are enabled by default.
Audio	Allows you to enable or disable the integrated audio controller. The option **Enable Audio** is selected by default. • Enable Microphone • Enable Internal Speaker Both the options are selected by default.
Miscellaneous Devices	Allows you to enable or disable the following devices: • Enable Camera (enabled by default)

Video

Option	Description
LCD Brightness	Allows you to set the display brightness depending up on the power source—On Battery and On AC. The LCD brightness is independent for battery and AC adapter. It can be set using the slider.

ⓘ **NOTE: The video setting is visible only when a video card is installed into the system.**

Security

Option	Description
Admin Password	Allows you to set, change, and delete the admin password.
System Password	Allows you to set, change, and delete the system password.
Strong Password	This option lets you enable or disable strong passwords for the system.
Password Configuration	Allows you to control the minimum and maximum number of characters allowed for a administrative password and the system password. The range of characters is between 4 and 32.
Password Bypass	This option lets you bypass the System (Boot) Password and the internal HDD password prompts during a system restart. • Disabled — Always prompt for the system and internal HDD password when they are set. This option is enabled by default. • Reboot Bypass — Bypass the password prompts on Restarts (warm boots). ⓘ NOTE: **The system will always prompt for the system and internal HDD passwords when powered on from the off state (a cold boot). Also, the system will always prompt for passwords on any module bay HDDs that may be present.**
Password Change	This option lets you determine whether changes to the System and Hard Disk passwords are permitted when an administrator password is set. **Allow Non-Admin Password Changes** - This option is enabled by default.
Non-Admin Setup Changes	Determines whether changes to the setup option are permitted when an administrator password is set.
UEFI Capsule Firmware Updates	This option controls whether this system allows BIOS updates via UEFI capsule update packages. This option is selected by default. Disabling this option will block BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS)
TPM 2.0 Security	Allows you to control whether the Trusted Platform Module (TPM) is visible to the operating system. • TPM On (default) • Clear • PPI Bypass for Enable Commands • PPI Bypass for Disable Commands • PPI Bypass for Clear Commands • Attestation Enable (default) • Key Storage Enable (default) • SHA-256 (default) Choose any one option: • Disabled • Enabled (default)
Computrace(R)	This field lets you Activate or Disable the BIOS module interface of the optional Computrace Service from Absolute Software. Enables or disables the optional Computrace service designed for asset management. • Deactivate • Disable • Activate - This option is selected by default.

Option	Description
OROM Keyboard Access	This option determines whether users are able to enter Option ROM configuration screen via hotkeys during boot. • Enabled (default) • Disabled • One Time Enable
Admin Setup Lockout	Allows you to prevent users from entering Setup when Admin password is set. This option is not set by default.
Master Password Lockout	Allows you to disable master password support Hard Disk passwords need to be cleared before the settings can be changed. This option is not set by default.
SMM Security Mitigation	Allows you to enable or disable additional UEFI SMM Security Mitigation protections. This option is not set by default.

Secure boot

Option	Description
Secure Boot Enable	Allows you to enable or disable Secure Boot feature • Secure Boot Enable This option is selected by default.
Secure Boot Mode	Allows you to modify the behavior of Secure Boot to allow evaluation or enforcement of UEFI driver signatures. • Deployed Mode (default) • Audit Mode
Expert key Management	Allows you to manipulate the security key databases only if the system is in Custom Mode. The **Enable Custom Mode** option is disabled by default. The options are: • PK (default) • KEK • db • dbx If you enable the **Custom Mode**, the relevant options for **PK, KEK, db, and dbx** appear. The options are: • **Save to File**- Saves the key to a user-selected file • **Replace from File**- Replaces the current key with a key from a user-selected file • **Append from File**- Adds a key to the current database from a user-selected file • **Delete**- Deletes the selected key • **Reset All Keys**- Resets to default setting • **Delete All Key**s- Deletes all the keys ⓘ NOTE: If you disable the Custom Mode, all the changes made will be erased and the keys will restore to default settings.

Intel Software Guard Extensions

Table 29. Intel Software Guard Extensions

Option	Description
Intel SGX Enable	This field specifies you to provide a secured environment for running code/storing sensitive information in the context of the main OS. Click one of the following options: • **Disabled** • **Enabled** • **Software controlled—Default**
Enclave Memory Size	This option sets **SGX Enclave Reserve Memory Size** Click one of the following options: • **32 MB** • **64 MB** • **128 MB**—Default

Performance

Table 30. Performance

Option	Description
Multi Core Support	This field specifies whether the process has one or all cores enabled. The performance of some applications improves with the additional cores. • **All**—Default • **1**
Intel SpeedStep	Allows you to enable or disable the Intel SpeedStep mode of processor. • **Enable Intel SpeedStep** This option is set by default.
C-States Control	Allows you to enable or disable the additional processor sleep states. • **C states** This option is set by default.
Intel TurboBoost	Allows you to enable or disable the Intel TurboBoost mode of the processor. • **Enable Intel TurboBoost** This option is set by default.

Option	Description
Hyper-Thread Control	Allows you to enable or disable the HyperThreading in the processor. · **Disabled** · **Enabled**—Default

Power management

Option	Description
AC Behavior	Allows you to enable or disable the computer from turning on automatically when an AC adapter is connected. Default setting: Wake on AC is not selected.
Enable Intel Speed Shift Technology	· Enable Intel Speed Shift Technology Default setting: Enabled
Auto On Time	Allows you to set the time at which the computer must turn on automatically. The options are: · Disabled · Every Day · Weekdays · Select Days Default setting: Disabled
USB Wake Support	Allows you to enable USB devices to wake the system from Standby. (i) **NOTE: This feature is only functional when the AC power adapter is connected. If the AC power adapter is removed during Standby, the system setup removes power from all the USB ports to conserve battery power.** · Enable USB Wake Support
Wake on WLAN	Allows you to enable or disable the feature that powers on the computer from the Off state when triggered by a LAN signal. · Disabled · WLAN Default setting: Disabled
Peak Shift	This option enables you to minimize the AC power consumption during the peak power times of day. After you enable this option, your system runs only in battery even if the AC is attached. · Enable peak shift—is disabled · Set battery threshold (15% to 100%) - 15 % (enabled by default)
Advanced Battery Charge Configuration	This option enables you to maximize the battery health. By enabling this option, your system uses the standard charging algorithm and other techniques, during the non work hours to improve the battery health. Enable Advanced Battery Charge Mode- is disabled

Option	Description
Primary Battery Charge Configuration	Allows you to select the charging mode for the battery. The options are: · Adaptive—enabled by default · Standard—Fully charges your battery at a standard rate. · ExpressCharge—The battery charges over a shorter time using Dell's fast charging technology. · Primarily AC use · Custom If Custom Charge is selected, you can also configure Custom Charge Start and Custom Charge Stop. ⓘ **NOTE: All charging mode may not be available for all the batteries. To enable this option, disable the Advanced Battery Charge Configuration option.**

POST behavior

Option	Description
Adapter Warnings	Allows you to enable or disable the system setup (BIOS) warning messages when you use certain power adapters. Default setting: Enable Adapter Warnings
Numlock Enable	Allows you to enable the Numlock option when the computer boots. Enable Network. This option is enabled by default.
Fn Lock Options	Allows you to let hot key combinations Fn + Esc toggle the primary behavior of F1–F12, between their standard and secondary functions. If you disable this option, you cannot toggle dynamically the primary behavior of these keys. The available options are: · Fn Lock—enabled by default · Lock Mode Disable/Standard—enabled by default · Lock Mode Enable/Secondary
Fastboot	Allows you to speed up the boot process by bypassing some of the compatibility steps. The options are: · Minimal—enabled by default · Thorough · Auto
Extended BIOS POST Time	Allows you to create an extra preboot delay. The options are: · 0 seconds—enabled by default. · 5 seconds · 10 seconds
Full Screen Log	· Enable Full Screen Logo—not enabled
Warnings and errors	· Prompt on warnings and errors—enabled by default · Continue on warnings · Continue on warnings and errors

Option	Description
Sign of Life Indication	• Enable Sign of Life Keyboard Backlight Indication—enabled by default

Virtualization support

Option	Description
Virtualization	This field specifies whether a virtual Machine Monitor (VMM) can utilize the conditional hardware capabilities provided by Intel Virtualization Technology. Enable Intel Virtualization Technology—enabled by default.
VT for Direct I/O	Enables or disables the Virtual Machine Monitor (VMM) from utilizing the additional hardware capabilities provided by Intel® Virtualization technology for direct I/O. Enable VT for Direct I/O - enabled by default.
Trusted Execution	This option specifies whether a Measured Virtual Machine Monitor (MVMM) can utilize the additional hardware capabilities provided by Intel Trusted Execution Technology. The TPM Virtualization Technology, and the Virtualization technology for direct I/O must be enabled to use this feature. Trusted Execution - disabled by default.

Wireless

Option Description	
Wireless Switch	Allows to set the wireless devices that can be controlled by the wireless switch. The options are: • WLAN • Bluetooth All the options are enabled by default. ⓘ **NOTE: For WLAN enable or disable controls are tied together and they cannot be enabled or disabled independently.**
Wireless Device Enable	Allows you to enable or disable the internal wireless devices. • WLAN • Bluetooth All the options are enabled by default.

Maintenance screen

Option	Description
Service Tag	Displays the Service Tag of your computer.

Option	Description
Asset Tag	Allows you to create a system asset tag if an asset tag is not already set. This option is not set by default.
BIOS Downgrade	This controls flashing of the system firmware to previous revisions. Option 'Allow BIOS downgrade' is enabled by default.
Data Wipe	This field allows users to erase the data securely from all internal storage devices. Option 'Wipe on Next boot' is not enabled by default. The following is list of devices affected: • Internal SATA HDD/SSD • Internal M.2 SATA SDD • Internal M.2 PCIe SSD • Internal eMMC
BIOS Recovery	This field allows you to recover from certain corrupted BIOS conditions from a recover file on the user primary hard drive or an external USB key. • BIOS Recovery from Hard Drive—enabled by default • Always perform integrity check—disabled by default

System logs

Option	Description
BIOS Events	Allows you to view and clear the System Setup (BIOS) POST events.
Thermal Events	Allows you to view and clear the System Setup (Thermal) events.
Power Events	Allows you to view and clear the System Setup (Power) events.

SupportAssist System Resolution

Option	Description
Auto OS Recovery Threshold	Allows you to control the automatic boot flow for SupportAssist System. Options are: • Off • 1 • 2 (Enabled by default) • 3
SupportAssist OS Recovery	Allows you to recover the SupportAssist OS Recovery (Disabled by default)

System and setup password

Table 31. System and setup password

Password type	Description
System password	Password that you must enter to log on to your system.
Setup password	Password that you must enter to access and make changes to the BIOS settings of your computer.

You can create a system password and a setup password to secure your computer.

△ **CAUTION: The password features provide a basic level of security for the data on your computer.**

△ **CAUTION: Anyone can access the data stored on your computer if it is not locked and left unattended.**

ⓘ **NOTE: System and setup password feature is disabled.**

Assigning a system setup password

Prerequisite

You can assign a new **System or Admin Password** only when the status is in **Not Set**.

About this task

To enter the system setup, press F2 immediately after a power-on or re-boot.

Steps

1 In the **System BIOS** or **System Setup** screen, select **Security** and press Enter.

   The **Security** screen is displayed.

2 Select **System/Admin Password** and create a password in the **Enter the new password** field.

   Use the following guidelines to assign the system password:

   · A password can have up to 32 characters.

   · The password can contain the numbers 0 through 9.

   · Only lower case letters are valid, upper case letters are not allowed.

   · Only the following special characters are allowed: space, ("), (+), (,), (-), (.), (/), (;), ([), (\), (]), (`).

3 Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.

4 Press Esc and a message prompts you to save the changes.

5 Press Y to save the changes.

   The computer reboots.

Deleting or changing an existing system setup password

Prerequisite

Ensure that the **Password Status** is Unlocked (in the System Setup) before attempting to delete or change the existing System and/or Setup password. You cannot delete or change an existing System or Setup password, if the **Password Status** is Locked.

About this task

To enter the System Setup, press F2 immediately after a power-on or reboot.

Steps

1 In the **System BIOS** or **System Setup** screen, select **System Security** and press Enter.

The **System Security** screen is displayed.

2. In the **System Security** screen, verify that **Password Status** is **Unlocked**.

3. Select **System Password**, alter or delete the existing system password and press Enter or Tab.

4. Select **Setup Password**, alter or delete the existing setup password and press Enter or Tab.

   ⓘ **NOTE: If you change the System and/or Setup password, re-enter the new password when prompted. If you delete the System and/or Setup password, confirm the deletion when prompted.**

5. Press Esc and a message prompts you to save the changes.

6. Press Y to save the changes and exit from System Setup.

   The computer reboot.

Software

This chapter details the supported operating systems along with instructions on how to install the drivers.

Downloading drivers

1   Turn on the notebook.
2   Go to **Dell.com/support**.
3   Click **Product Support**, enter the Service Tag of your notebook, and then click **Submit**.

> ⓘ **NOTE: If you do not have the Service Tag, use the auto detect feature or manually browse for your notebook model.**

4   Click **Drivers and Downloads**.
5   Select the operating system installed on your notebook.
6   Scroll down the page and select the driver to install.
7   Click **Download File** to download the driver for your notebook.
8   After the download is complete, navigate to the folder where you saved the driver file.
9   Double-click the driver file icon and follow the instructions on the screen.

Getting help

Contacting Dell

Prerequisite

ⓘ **NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.**

About this task

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

Steps

1 Go to **Dell.com/support.**

2 Select your support category.

3 Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.

4 Select the appropriate service or support link based on your need.