Eldorado do Sul, 06 de março de 2014.

CPL-AL
Fl. 688

Cleida Alves dos Santos
Assistente de Gabinete da CPL
Assembleia Legislativa

À/Ao
Assembleia Legislativa do Estado do Tocantins
Ref.: EDITAL DO PREGÃO ELETRÔNICO Nº 001/2014-SRP

DECLARAÇÃO TÉCNICA

A **DELL COMPUTADORES DO BRASIL LTDA**, inscrita no CNPJ/MF sob o nº 72.381.189/0001-10, com sede na Av. Industrial Belgraf, 400 – Medianeira – CEP 92990-000, Eldorado doSul/RS, com o objetivo de complementar as informações que não constam no Catálogo Técnico Oficial do(s) produto(s) abaixo ofertado(s), vem, através da presente, declarar o que segue:

Objeto: Dell Optiplex 7010 DT
Declara que é fabricante do equipamento Dell Optiplex 7010 DT, que a empresa KRP Consultoria em Tecnologia de Informação Ltda, com sede no endereço 104 norte, NE 05, Lote 46, Sala 09, CEP 77006-020, inscrita no CNPJ sob o nº 08.990.948/0001-43, está ofertando para atender ao EDITAL DO PREGÃO ELETRÔNICO Nº 001/2014-SRP. E que esta mesma empresa possui autorização para comercializá-lo.

Declaramos ainda que a fonte suporta a configuração máxima do equipamento ofertado.

Atenciosamente,

Gustavo Magalhães - Executivo de contas e procurador
Dell Computadores do Brasil Ltda

Eldorado do Sul, 06 de março de 2014.

ASSEMBLEIA LEGISLATIVA
Fl. 689
ASS

Cleida Alves dos Santos
Assistente de Gabinete da CPL
Assembleia Legislativa

À/Ao
Assembleia Legislativa do Estado do Tocantins
Ref.: EDITAL DO PREGÃO ELETRÔNICO Nº 001/2014-SRP

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Objeto: Dell Optiplex 7010 DT
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Declaramos ainda que todos os componentes do produto Dell Optiplex 7010 DT são novos (sem uso, reforma ou recondicionamento) e que não estarão fora de linha de fabricação, pelo menos, nos próximos 90 (noventa) dias. Deverá ser apresentada declaração do fabricante, junto com a Documentação Técnica.

Atenciosamente,

Gustavo Magalhães - Executivo de contas e procurador
Dell Computadores do Brasil Ltda

Eldorado do Sul, 06 de março de 2014.

CPL-AL
Fl. 690
Ass.

Cleida Alves dos Santo
Assistente de Gabinete da CPL
Assembleia Legislativa

À/Ao
Assembleia Legislativa do Estado do Tocantins
Ref.: EDITAL DO PREGÃO ELETRÔNICO Nº 001/2014-SRP

DECLARAÇÃO TÉCNICA

A **DELL COMPUTADORES DO BRASIL LTDA**, inscrita no CNPJ/MF sob o nº 72.381.189/0001-10, com sede na Av. Industrial Belgraf, 400 – Medianeira – CEP 92990-000, Eldorado doSul/RS, com o objetivo de complementar as informações que não constam no Catálogo Técnico Oficial do(s) produto(s) abaixo ofertado(s), vem, através da presente, declarar o que segue:

Objeto: Dell Optiplex 7010 DT
Declara que é fabricante do equipamento Dell Optiplex 7010 DT, que a empresa KRP Consultoria em Tecnologia de Informação Ltda, com sede no endereço 104 norte, NE 05, Lote 46, Sala 09, CEP 77006-020, inscrita no CNPJ sob o nº 08.990.948/0001-43, está ofertando para atender ao EDITAL DO PREGÃO ELETRÔNICO Nº 001/2014-SRP. E que esta mesma empresa possui autorização para comercializá-lo.

Declaramos ainda que o produto Dell Optiplex 7010 DT possui 3 (três) anos para reposição de peças, mão de obra e atendimento no local no próximo dia útil, deverá ser comprovado na Proposta, através de declaração do fabricante.

Atenciosamente,

Gustavo Magalhães - Executivo de contas e procurador
Dell Computadores do Brasil Ltda

Eldorado do Sul, 28 de janeiro de 2014.

CPL-ML
Fl. 691
Ass.
Cleida Alves dos Santos
Assistente de Gabinete da CPL
Assembleia Legislativa

À/Ao

Serviço de Apoio às Micro e Pequenas Empresas do Estado do Tocantins – SEBRAE/TO
PREGÃO PRESENCIAL SEBRAE/TO Nº 002/2014

DECLARAÇÃO TÉCNICA

A DELL COMPUTADORES DO BRASIL LTDA, inscrita no CNPJ/MF sob o nº 72.381.189/0001-10, com sede na AV. Industrial Belgraf 400 – Medianeira – CEP 92990-000, Eldorado do Sul/RS, com o objetivo de complementar as informações que não constam no Catálogo Técnico Oficial do(s) produto(s), vem através da presente, declarar o que segue:

Objeto: OPTIPLEX 7010 DT

Declara que é fabricante do equipamento DELL OPTIPLEX 7010 DT, que a empresa KRP Consultoria em Tecnologia de Informação Ltda, com sede no endereço 104 norte, NE 05, Lote 46, Sala 09, CEP 77006-020, inscrita no CNPJ sob o nº 08.990.948/0001-43, está ofertando para atender ao SHOPPING 05 - PB-SEMADES-006-2013. E que esta mesma empresa possui autorização para comercializá-lo.

Declaramos ainda que a fonte do equipamento DELL OPTIPLEX 7010 DT suporta a configuração máxima do equipamento ofertado em seu pleno uso.

Atenciosamente.

Gustavo Magalhães – Executivo de contas e procurador

Dell Computadores do Brasil Ltda

Dell's Chemical Use Policy

In 2002, Dell formalized a chemicals management process to minimize or eliminate the use of certain environmentally sensitive materials in our products. The process began by publishing a list of substances that our customers, regulators and NGOs considered most important to manage, restrict or ban. The resulting publicly available Dell's Materials Restricted for Use Specification serves as the cornerstone of the Dell chemicals management process. This document has been incorporated into Dell engineering specifications and supplier contractual agreements. In addition, Dell has implemented process controls and corrective actions throughout its organization and supply chain to ensure that its chemicals management objectives are met — that the targeted restricted materials are replaced and alternative materials are developed for future product generations. Process controls that Dell implemented include supplier declarations and Dell factory and supplier material testing audits.

Through this integrated management process, Dell has established a working model that can be used to make more informed decisions when new scientific findings call for alternative material selections.

Dell published an updated Chemical Use Policy in December 2005 to share our long term vision of our precautionary approach to chemical management. Dell's vision is to avoid the use of substances in its products that could seriously harm the environment or human health and to ensure that we act responsibly and with caution. We affirm this commitment in this new Chemical Use Policy.

Act Responsibly

To act responsibly, Dell believes that if reasonable scientific grounds indicate that a substance (or group of substances) could pose significant environmental or human health risks, then Dell should avoid using the substances. Precautionary measures should be taken — even if the full extent of harm has not yet been definitively established — unless there is convincing evidence that the risks are small and the benefits outweigh the risks. Dell considers these to be "substances of concern." When identifying substances of concern, Dell considers legal requirements, international treaties and conventions, and specific market demands. Dell's list of "substances of concern" all have hazardous properties that:

- are a known threat to human health or the environment
- show strong indications of significant risks to human health or the environment
- are known to biopersist or bioaccumulate in humans or the environment

Enforce the Company's Precautionary Measures

To enforce the company's precautionary measures, Dell strives to eliminate substances of concern in its products by:

- maintaining a Banned and Restricted Substance Program
- choosing designs and materials that avoid the use of substances of concern
- prohibiting supplier use of these substances contractually
- substituting viable alternative substances

If alternatives are not yet viable, Dell works with its industry partners to promote industry standards and the development of reliable, environmentally sound, and economically scalable technical solutions.

Compliance with International Restrictions on Hazardous Substances

Global concerns over human health and environmental risks associated with the use of certain environmentally sensitive materials in electronic products have led numerous countries to restrict the use of certain hazardous

substances in electronic products. To meet these requirements, we've worked with our supply chain to develop substitutions, to modify our specifications, and to verify compliance with these requirements.

European Union RoHS

In 2006, the European Union (EU) Directive on the Restriction of the use of certain Hazardous Substances (RoHS) went into effect. This important Directive is designed to restrict the use of cadmium, hexavalent chromium, lead, mercury and certain halogenated flame retardants (PBBs and PBDEs) in electronic products. All Dell products sold in the E.U. on or after July 1, 2006, comply with the E.U. RoHS requirements. (As permitted by the RoHS Directive, service or upgrade parts that do not meet the restricted levels may continue to be offered to support legacy products that were sold prior to July 1, 2006.) As of the beginning of 2007, all Dell branded products were compliant to the E.U. RoHS requirements worldwide.

Dell understands the environmental risks associated with the substances covered by the RoHS Directive and has committed to eliminating or reducing the use of these, as well as other, environmentally sensitive substances in our products. We restrict the use of cadmium, hexavalent chromium, lead, mercury, PBBs and PBDEs in Dell branded products (in accordance with regulatory requirements).

Dell continues to comply with the latest changes from the EU RoHS Recast Directive (2011/65/EU).

European Union REACH

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals, EC 1907/2007) is the European Union's chemical regulation that came into force on 1 June 2007 and will be phased in over an 11 year period (until 2018). Dell supports the basic objective of REACH to further improve the European Union's chemicals regulatory system, including the aim to advance public health and safety and the protection of the environment.

Dell satisfies all requirements of REACH and is committed to provide our customers with up to date information about Substances of Very High Concern (SVHC) in our products according to REACH requirements. Dell's Chemical Use Policy restricts the use of substances restricted under REACH as well as certain SVHC on a global level. For more details on REACH, please refer to:

http://i.dell.com/sites/content/corporate/environment/en/Documents/earth-materials-REACH-statement-2010.pdf

http://www.dell.com/reach

China RoHS

On February 28, 2006, China released a regulation called "Management Methods for Controlling Pollution by Electronic Information Products," which is commonly referred to as "China RoHS." Although this regulation restricts use of the same six hazardous substances as the E.U. version of RoHS, the China RoHS regulation adopts a different approach for compliance verification. That is, producers should properly label and disclose RoHS information for all applicable electronic and information products (EIPs) and parts sold in China on and after March 1, 2007. Dell complies with the China RoHS labeling and disclosure requirements and continues to monitor new developments related to China RoHS, including the development of China RoHS Phase II and participation in the China RoHS Voluntary Certification Program. **Other RoHS Type Regulations**

Dell is compliant to all implemented RoHS type regulations worldwide, including but not limited to, Korea, Japan, US States (e.g. California), Ukraine, Serbia, Turkey, Vietnam and India. Dell continues to monitor, influence and develop our processes to comply with upcoming proposed RoHS type regulations, including but not limited to, Brazil, Argentina, Canada.

Voluntary Activities on Substances of Concern

Elimination of Mercury

Dell transitioned all of its new laptop displays to light-emitting diode (LED) by 2010. In addition to the energy savings when compared to cold cathode fluorescent lamp (CCFL), LED displays technology eliminates the use of mercury commonly found in CCFL. This technology has already been incorporated in all Dell notebooks and all flat panel monitor displays[2].

Elimination of Arsenic in Glass

Arsenic is commonly used during the manufacturing of glass to reduce the effects of iron impurities in glass. Dell began adopting Arsenic-free display glass in newly designed Dell notebooks in 2009. Dell has now expanded its portfolio of arsenic-free glass to all notebooks and all flat panel displays.

Elimination of BFR & PVC[1]

Brominated Flame Retardants (BFR) and Polyvinyl Chloride (PVC) are used in various components, wires and cables in electronic products. Although studies of their environmental and human health effects are still ongoing, Dell has adopted precautionary measures to eliminate these substances. Dell continues to make progress towards our commitment to eliminate BFR & PVC from PC products, as acceptable alternatives are identified. These efforts aim to lower possible product health and environmental impacts without compromising product performance. Examples include:

- By 2004, all BFRs and PVC were restricted from the external case plastics in Dell branded products.
- Dell has already transitioned to BFR- and PVC-free removable media storage devices, memory, notebook LCDs, and hard disk drives
- In 2013, entire product families have transitioned completely to BFR/PVC-free including:
    - XPS[4] Notebooks and Tablets
    - Mobile Precision[4] Workstations
    - Latitude[3] Notebooks[4]
    - OptiPlex 9020 USFF[4] Desktop
    - P-Series Flat Panel Displays[4]

  This is a major improvement from 2011 where only 2 computing products were BFR/PVC-free.

However, challenges remain. For some specific applications technical issues still exist:
    - Electrical performance issues above 1 GHz in Halogen-free printed circuit boards
    - Dielectric loss
    - Unpredictability of technical performance
    - Potential safety concerns in high temperatures areas
- Availability issues for environmentally-preferable alternatives
- Transition to new substances for high performance products with long life-cycles
- Ability to maintain high recycled content as substances are restricted.
- Non-safety standards for BFR/PVC-free materials such as power cables

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1 Meeting the definition of BFR-/PVC-free as set forth in the iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR-/CFR-/PVC-free)'. Plastic parts contain less than 1,000 ppm (0.1%) of bromine (if the Br source is from BFRs) and less than 1,000 ppm (0.1%) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total less than 1,500 ppm (0.15%) with a maximum chlorine of 900 ppm (0.09%) and maximum bromine being 900 ppm (0.09%).
2 Exclude Display model E1713S
3 Exclude Latitude 3-series
4 Exclude peripheral accessories

Dell believes that legislation, such as the EU RoHS Directive, plays an important role in promoting industry-wide transition to restrict substances of concern. Dell continues to support the inclusion of BFRs and PVC in future EU RoHS Recasts, provided that some critical issues can be overcome or addressed by specific exemptions.

Elimination of Lead in Enterprise Servers

With the launch of Dell's 11th Generation servers in 2010, Dell eliminated the use of lead solder (lead is currently allowed under EU RoHS exemption 7b). All subsequent server generations will use non-lead based solders.

Elimination of a number of Phthalates

Phthalates are mainly used as a plasticizer for wires and cables in the electronic industry. A number of studies have identified the need to control these substances, with the emphasis on the 4 phthalates listed below. Regulations to restrict these phthalates are now being proposed.

- Bis (2-ethylhexyl) phthalate (DEHP)
- Butyl benzyl phthalate (BBP)
- Dibutylphthalate (DBP)
- Diisobutyl phthalate (DIBP)

Based on our precautionary approach, Dell has implemented the restriction of the above phthalates in all newly designed products since 2010 (2014 for DIBP) and is committed to a complete ban on all shipping products by July 2012 (January 2015 for DIBP), ahead of possible regulatory restrictions. More details on this restriction can be found on the website of the EU funded project on substitution, Subsport (http://www.subsport.eu/case-stories/304-en?lang=). Additional phthalate restrictions will likely be introduced in the next few years as toxicity information becomes available for restriction assessment.

Elimination of Additional Substances

In addition to the above substances, Dell began phasing out the use of Antimony, Medium Chained Chlorinated Paraffins (MCCPs) and certain Polycyclic Aromatic Hydrocarbons (PAHs). Dell continues to monitor substances of concern and will update our substance restriction list as scientific evidence becomes available.

Chemical Hazards Alternative Assessment

Chemical hazards alternative assessment is a method for evaluating and comparing the inherent properties of a substance and identifying environmentally preferable alternatives. The purpose of an assessment is to guide decision making toward the use of the least hazardous/safest substance options available. This assessment can lead to the use of less hazardous chemical and non-chemical technologies in products and/or their manufacturing processes. Another benefit is to minimize the opportunity for unintended consequences.

Dell is participating in a number of Chemical Hazards Alternative Assessment projects including the Phthalates Alternative Assessment Project chaired by Green Chemistry & Commerce Council (GC3), US EPA Flame retardants in Printed Circuit Board projects, and on the Initiative on Assessment Methods for Alternative Materials project with iNEMI. Concurrently, Dell is conducting an internal Alternative Assessment studies on plastic additives, such as flame retardant additives.

Engagement in Environmental Preferable Materials Initiatives

Where viable alternatives do not yet exist, Dell is working with its industry partners to promote the development of standards and reliable, environmentally sound and economically scalable technical solutions.

EPA Project: Dell is actively engaged in the EPA Design for the Environment (DfE) Flame Retardants in Printed Circuit Boards project. This project is focused on identification of the flame retardants used by laminate and resin manufacturers to better understand the environmental and human health impacts of new and current materials that can be used to meet the fire safety requirements for circuit boards. EPA homepage: http://www.epa.gov/dfe/pubs/projects/pcb/index.htm

HDPUG Projects:
Since 2001, the High-Density Packaging User Group (HDPUG) has been at the forefront of evaluating environmentally preferable materials within the electronics industry, from lead free to halogen free. In 2008, Dell led the Halogen-Free Properties project in HDPUG, which published a comprehensive Halogen-Free Guideline. Increased access to this information will enhance supply chain adoption of halogen-free components. Dell completed its latest project called BFR/PVC-free Cables Project with the aim to overcome the technical and supply chain challenges faced with the adoption of BFR/PVC-free cables and wires.

iNEMI:
Dell chairs the Environmentally-Conscious Electronics Technology Implementation Group (ECE TIG), which establishes the roadmap for environmental projects within iNEMI (International Electronics Manufacturing Initiative). In addition, Dell completed the PVC Alternatives project within iNEMI, conducting a comparison on cradle-to-grave life cycle assessments (LCA) between a conventional PVC and non-PVC alternatives for flexible cable applications. Dell is currently involved in the Initiative on Assessment Methods for Alternative Materials project.

ChemSec Business Group:
Dell is a member of ChemSec's Business Group. This is a collaboration among companies working together to reduce environmentally sensitive materials. The Group gathers leading companies across a diversity of sectors, for the development of effective corporate practice in the substitution of hazardous substances. See http://www.chemsec.org/what-we-do/business-dialogue/chemsec-business-group for details.

Verifying Compliance

Dell requires suppliers to sign a Supplier Declaration of Conformity (SDoC) to ensure that all product materials comply with Dell's environmental policy. This documentation is required to release a part to production. To sign the SDoC, the supplier must ensure that the product meets the Dell Materials Restricted for Use specification and record any applicable exemptions. At Dell's request, the supplier must also be able to provide technical documentation in the form of internal design controls, supplier declarations, or analytical test data. Dell's goal is to collect supplier declarations on each part in a product's bill of materials. This will ensure that each product meets the legislated materials requirements.

A second tier in Dell's compliance verification strategy is our supplier RoHS audit program. This program can be divided into two parts: a traditional audit and an in-depth supplier survey.

A traditional audit, in which Dell parts are selected at random and submitted for third-party analytical testing, is conducted on a quarterly basis. Samples are tested for the presence of restricted materials, including those prohibited by the RoHS Directive. The audit is used to further validate SDoCs and to ensure that Dell's entire supply chain complies with the directive. Dell also actively screens samples in-house by using X-Ray Fluorescence (XRF) equipment.

MARKETING NAME: OptiPlex 9010 DT, OptiPlex 7010 DT
REGULATORY MODEL: D05D
REGULATORY TYPE: D05D002
EFFECTIVE DATE: June 5th, 2012
EMC EMISSIONS CLASS: B

Dell Inc.
www.dell.com

TABLE OF CONTENTS

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. Generally, Information Technology Equipment (ITE) product compliance is based on IEC and CISPR standards and their national equivalent such as Product Safety, IEC 60950-1 and European Norm EN 60950-1 or EMC, CISPR 22/CISPR 24 and EN 55022/55024. Dell products have been verified to comply with the EU RoHS Directive 2002/95/EC. Dell products do 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 products are intended for use in residential/domestic environments but may also be used in non-residential/non-domestic environments.

EMC Class A products are intended for use in non-residential/non-domestic environments. Class A products 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 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.

Compliance documentation, such as certification or Declaration of Compliance for the product is available upon request to regulatory_compliance@dell.com . Please include product identifiers such as marketing name, regulatory module, regulatory type and country that compliance information is needed in request

I. GLOBAL ENVIRONMENTAL INFORMATION

Environmental		
Country	Approval	Compliance
Global	Energy Star	E-Star 5.2
China	CEC	05508P1007010R1L-1
China	CECP	CQC11701065540
Varies by country – see link below	EPEAT	Gold

For more details concerning environmental information, click www.dell.com/environmental_information

II. NFPA 99 CONFORMITY

Select Dell systems have been tested and found to comply with the chassis leakage current requirements as defined by clause 8.4.1.3.5 of National Fire Protection Association standard NFPA 99:2005 leakage current equal to or less than 300uA @ 127 VAC/60 Hz. To determine if this product model offers the higher leakage current send a request for NFPA 99 Conformity verification to regulatory_compliance@dell.com . Please include product identifiers such as marketing name, regulatory module, regulatory type and country that compliance information is needed in request.

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. DATASHEET RESPONSIBLE PARTY NAME AND ADDRESS

Dell Inc.
Department: Global Regulations and Standards
MS: PS4-30
Round Rock, Texas 78682, USA
Regulatory_Compliance@Dell.com

V. 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 WW_Export_Compliance@dell.com

VI. MATERIAL SAFETY DATA SHEET (MSDS)

For any questions related to products MSDS refer to information on www.dell.com/regulatory_compliance.

VII. SYSTEM DIMENSION AND WEIGHT

Depth, mm/cm	Width, mm/cm	Height, mm/cm	Weight, kg	Optimal Resolution (Display Only)
410mm	102mm	360mm	7.9Kg (depending upon installed options)	

VIII. PERFORMANCE DATA

System Configuration

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

Processor	Ivy Bridge 2.2GHz
Hard Drive(s)	2TB
Memory	8G
Video Card	OUGA9, AMD
RMSD / Optical Drive	PLDS DH-16ABS DVD+/-RW,16X,
Power Supply (Internal or External)	Internal
Power Supply Size in Watts	250 W
Power Supply Efficiency Level	88.56%

Client Computers:

Service Level	Energy Consumption (Wattage)	BTU Calculation	Description of Service Level
*Maximum	70.76	242.00	The system is running programs to maximize the power consumption.
Idle Mode	39.25	134.24	As specified EPA Energy Star Computer mode.
S3 "Sleep" Mode	2.64	9.03	Suspend-to-RAM (low-power/sleep mode)
Off	0.34	1.16	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.
External Power Supply "No-Load" (if applicable)	N/A	N/A	AC adapter connected to mains with system detached otherwise known as "No-load" condition.

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

Energy consumption is tested at 230 Volts / 50 Hz. Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour. BTU is calculated based upon the wattage reading taken in the given mode. To convert Watts to BTU, (1 Watt = 3.42 BTU)

If applicable, iAMT increases the power consumption even during the off state. The power measurements reported above are valid only if the iAMT Management Engine (ME) is set to "ON" in S0 state only (S0 is simply power-on, non-sleep, working state).

ErP compliance is tied to the CE mark.

For more details click www.dell.com/environmental_information

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

Computers

Service Level	Sound Power (LWAd, bels) (1 bel=10 decibels, re 10-12 Watts)	Sound Pressure Operator Position (LpAm, decibels) (re 2x10-5 Pa)	Sound Pressure Bystander Position (LpAm, decibels) (re 2x10-5 Pa)
Hard Drive Accessing	4.1	30.6	28.5
Optical Drive Accessing	5.2	42.1	38.3
Idle	4.1	30.6	28.0
CPU activated (at a utilization of 50%) ECMA-74	N/A	N/A	N/A

IX. PRODUCT MATERIALS INFORMATION[1]

Information on Dell's material use is available here.
To review Dell's Restricted Material Guidance document click here.

- The case material is, > Galvanized steel <
- This product contains 10% post-consumer recycled plastic
- Marking of plastic parts greater than 25 grams are done in accordance with ISO 11469 (see below)

Flame Retardants Used in Motherboard

Part	Flame Retardant
Motherboard	**BFR, CFR**

Flame Retardants Used in Mechanical Plastic Parts > 25 grams

Resin Material Name	Marking per ISO 11469:2000, 11469:1996	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
ABS	>ABS<	N/A	N/A	N/A
PC+ABS	>PC+ABS<	FR(40)	Organo Phosphate	R43

Mercury Information

Number of bulbs	Average per bulb
0	N/A

[1] **Waste Handling.** Local regulations should be observed when disposing of this product due to the presence of the materials and substances as listed above.

For more information Dell's compliance to various materials restrictions regulations and list of substance prohibited from use please click www.dell.com/environmental_information

X. 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 of each Material type, (kg)	% of Post-Consumer Recycled Content (PCR)		
		APJ region	DAO region	EMEA region
Corrugated containers <300 psi	0.22	35%	35%	35%
Corrugated containers >300 psi	1.28	35%	35%	35%
HDPE Cushions	0.28	0%	100%	0%
EPE Cushions (ROW)	0.17	0%	0%	0%

For more details on packaging please click www.dell.com/environmental_information

XI. 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	0.00032(MITSUBISHI)
CR-2032 coin cell	Lithium	0.00029(PANASONIC)

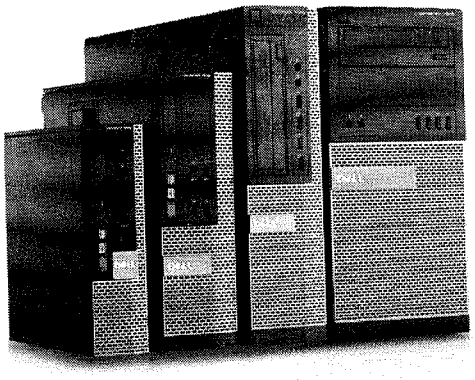
For more details on batteries including MSDS please click www.dell.com/environmental_information

XII. DESIGN FOR ENVIRONMENT

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

XIII. 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, contact Dell for instructions by emailing recycling_emea@dell.com or visit www.dell.com/recyclingworldwide and select the relevant country.



Dell OptiPlex 7010

The Dell™ OptiPlex™ 7010 business client desktop delivers right-sized performance, security and manageability features to match your productivity needs.

Inspired Design

The OptiPlex 7010 is designed to seamlessly integrate into the office environment. Choose from four different chassis that are all optimized to maximize desk space: mini-tower, desktop, small form-factor, and ultra small form-factor. In addition, two All-in-One stand solutions enable deployment as a single device with up to 24" displays.

With a robust metal chassis that has undergone intense Highly Accelerated Life testing, the OptiPlex 7010 is designed for ultimate durability and reliability. Color-coded highlight tool-less accessible system components and grip points make the system easy to service and deploy.

Dell OptiPlex desktops are engineered to respect our planet and offer services that help minimize energy consumption and recycle. Dell provides recyclable packaging, and OptiPlex systems have a minimum of 10% post-consumer recycled plastic enclosure and offer highly efficient power supply options.

Smart Productivity

Unleash workforce productivity with performance features that fit specific needs. Users can power through their day with the latest Intel® Core™ i processors, high-speed memory options, and Intel HD graphics.

Users can connect and communicate with colleagues around the world with wireless connectivity options, front microphone and headset mini-jacks for voice-over-IP, and Microsoft Unified Communications support for optimal video conferencing.

Maximize productivity with intuitive design features that adapt to unique work styles, including support for up to three digital native monitors and up to four front USB ports.

Business-Class Control

Manage your OptiPlex 7010 easily with the latest Intel® vPro systems management iAMT 8.x, which helps deliver seamless out-of-band management with Dell KACE[1] appliances or a leading client management solution. Driver and image commonality across form factors further simplifies management.

Confidently safeguard data with Dell Data Protection software, Trusted Platform Module (TPM)[2], encrypted hard drive options, and optional biometric authentication peripherals. Physical lock slot and lockable port cover and desk mount further help protect your system.

Dell OptiPlex long lifecycles, managed transitions, and ImageWatch™ advance look at software and hardware changes help ensure long-term stability so you can confidently plan for the future.

Finally, rely on Dell Services to configure, deploy, manage, and support your OptiPlex desktops for their entire lifecycle, including reselling or recycling when they reach end of life.

Integrated Solutions

Dell offers tailored solutions for cost effective security, management, and end-user productivity.

Dell Data Protection | Encryption[2] offers a single solution for flexible data encryption across your network and removable media. One-touch preset compliance policy templates enable fast deployment, and the solution delivers the highest level of Federal Information Processing Standards 140-2 certification commercially available with the optional Hardware Encryption Accelerator.

Dell Desktop Virtualization Solutions provide a datacenter infrastructure to improve data security, streamline management, and speed time to value with purpose-built hardware, software and services for client virtualization. Dell's services and flexible delivery models help define and implement the right solution for your needs.

Dell systems management solutions help you centralize management, automate processes, and reduce support costs. Each client system comes with a complete set of utilities to enable industry-leading consoles, like Microsoft System Center tools, to better deploy, configure, manage, and update those devices. Dell also offers KACE[1] appliances to help seamlessly manage endpoints or Dell Services to help define and implement the right client management solution for your unique needs.

Dell Cloud Solutions help you offload select IT workloads and adopt an on-demand, pay-as-you-go model that scales with your organization. Automate manual or resource intensive tasks such as email management and crisis management and alerting.

Feature	Technical Specification				
Processors[1, 12]	Intel® 3rd generation Core™ i7/i5 Quad Core, i3 Dual Core (Post launch) and Pentium® Dual Core (Post launch); Intel® 2nd generation Core™ i3 Dual Core, Pentium® Dual Core and Celeron® Dual/Single Core; Intel vPro™ Technology available on select processors				
Chipset	Intel® Q77 Express Chipset				
Operating System Options[1]	Microsoft® Windows 7® Home Basic (32/ 64 bit) (select countries), Microsoft® Windows 7® Home Premium (32/64 bit), Microsoft® Windows 7® Professional (32/64 bit), Microsoft® Windows 7® Ultimate (32/64 bit) Ubuntu® Linux (select countries)				
Graphics Options[4, 12]	Integrated Intel® HD Graphics 2500/4000 (3rd generation Core i3/i5/i7 CPUs); Integrated Intel® HD Graphics 2000/3000 (2nd generation Core i3 CPUs); Integrated Intel® HD Graphics (Celeron®/Pentium® Dual Core CPU);Optional discrete 1GB AMD RADEON HD 7570; Optional discrete 1GB AMD RADEON HD 7470				
Memory[5]	Up to 4 DIMM slots (2 for USFF); Non-ECC dual-channel 1600MHz DDR3 SDRAM, up to 16GB				
Networking	Integrated Intel® 82579LM Ethernet LAN 10/100/1000; optional Broadcom® NetXtreme® 10/100/1000 PCIe card; optional Dell Wireless 1530 PCIe (MT/DT/SFF) WLAN card (802.11n); optional Dell Wireless 1530 half-mini PCIe (USFF) WLAN card (802.11n)				
I/O Ports[12]	4 External USB 3.0 ports (2 front, 2 rear) and 6 External USB 2.0 ports (2 front, 4 rear, except USFF – 4 rear only) and 2 Internal USB 2.0 (MT/DT only); 1 RJ-45; 1 Serial; 1 VGA; 2 DisplayPort; 2 PS/2 (MT/DT/SFF only); 2 Line-in (stereo/microphone), 2 Line-out (headphone/speaker), optional Parallel/Serial port support (MT/DT/SFF only), optional 1394a PCI card (MT/DT only)				
Removable Media Options	DVD+/-RW; DVD-ROM; Dell 19 in 1 Media Card Reader (MT & DT only)				
Hard Drives[6] Options	3.5" Hard Drives: up to 1TB 7200 RPM SATA; 2.5" Hard Drives: up to 500GB 7200 RPM SATA; 500GB Hybrid; 320GB 7200 RPM Opal SED, 128GB Solid State Drive; Supports Dell's Flexible Computing Solution diskless option				
Chassis		Minitower (MT)	Desktop (DT)	Small Form Factor (SFF)	Ultra Small Form Factor (USFF)
	Dimensions (H x W x D) Inches/(cm)	14.2 x 6.9 x 16.4 / (36.0 x 17.5 x 41.7)	14.2 x 4.0 x 16.1 / (36.0 x 10.2 x 41.0)	11.4 x 3.7 x 12.3 / (29.0 x 9.3 x 31.2)	9.3 x 2.6 x 9.4 / (23.7 x 6.5 x 24.0)
	Min. Weight (lbs/ kg)	20.68 / 9.4	17.38 / 7.9	13.2 /6.0	7.26 / 3.3
	Number of Bays	2 internal 3.5" 2 external 5.25"	1 internal 3.5" 1 external 5.25"	1 internal 3.5" 1 external 5.25" (slimline)	1 internal 2.5" 1 external 5.25" (slimline)
	Expansion Slots	1 full height PCIe x16 1 full height PCIe x16 (wired x 4) 1 full height PCIe x1 1 full height PCI	1 half height PCIe x16 1 half height PCIe x16 (wired x 4) 1 half height PCIe x1 1 half height PCI	1 half height PCIe x16 1 half height PCIe x16 (wired x 4)	1 miniPCIe connector
	Power Supply[7] Unit (PSU)	Standard 275W PSU Active PFC or optional 275W up to 90% Efficient PSU (80 PLUS Gold); ENERGY STAR 5.2 compliant, Active PFC	Standard 250W PSU Active PFC or optional 250W up to 90% Efficient PSU (80 PLUS Gold); ENERGY STAR 5.2 compliant, Active PFC	Standard 240W PSU Active PFC or optional 240W up to 90% Efficient PSU (80 PLUS Gold); ENERGY STAR 5.2 compliant, Active PFC	200W up to 90% Efficient PSU (80 PLUS Gold); ENERGY STAR 5.2 compliant, Active PFC
Peripherals Options[1]	Monitors[2]: Dell Entry Standard and Widescreen Flat Panel Analog: Dell E170S, E190S, E1911, E1912H, E2011H, E2210, E2211H, E2311H Dell Professional Digital Standard and Widescreen Flat Panel: Dell P170S, P190S, P1911, P2012H, P2210, P2212H, P2312H, P2412H, P2712H Dell UltraSharp Digital Standard and Widescreen Flat Panel, Adjustable Stand: Dell 2007FP, U2212HM, U2312HM, U2410, U2412M, U2711, U3011				
	Keyboards: Dell USB Entry Keyboard, Dell Multimedia Pro Keyboard, Dell Smartcard Keyboard				
	Mouse: Dell USB Optical Mouse, Dell Laser Mouse				
	Audio Speakers: Internal Dell Business audio speaker, Dell AX210 2.0 Desktop Speakers; Dell AX510 and AX510PA Sound Bar				
Security Options[1]	Trusted Platform Module[3] (TPM) 1.2, Dell Data Protection Access, Dell Data Protection Encryption, Chassis lock slot support, Chassis Intrusion Switch, Setup/BIOS Password, I/O Interface Security, optional Smart Card keyboard, Intel® Trusted Execution Technology, Intel® Identity Protection Technology, Intel® Anti-Theft Technology, Dell Secure Works, BIOS support for optional Computrace[8]				
Systems Management Options[9]	Intel® vPro Technology (iAMT 8.0)) including Dell unique vPro extensions; Intel® Standard Manageability; No Out of Band Systems Management				
Environmental & Regulatory Standards	Environmental Standards (eco-labels): ENERGY STAR 5.2, EPEAT Registered[13], CECP, WEEE, Japan Energy Law, South Korea E-standby, South Korea Eco-label (for DT/SFF/USFF only), EU RoHS, China RoHS Other Environmental Options: Carbon Off-set; Asset Resale and Recovery Service				
Warranty ans Service	Limited Hardware Warranty[10]; Standard 3-year Next Business Day On Site Service after Remote Diagnosis[11] (3-3-3); Optional 3-year Dell ProSupport™; 4 year and 5 year service and support options[1]				
Configuration Services	Factory Image load, BIOS Customization, Hardware Customization, Asset Tagging and Reporting.				

Discover professional class desktops at Dell.com/OptiPlex

1. Offering may vary by region.
2. TPM: TPM is not available in all regions.
3. Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions.
4. System Memory and Graphics: Significant system memory may be used to support graphics, depending on system memory size and other factors.
5. >2GB or Greater System Memory Capability: A 64-bit operating system is required to support >3GB or more of system memory.
6. Hard Drive: GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.
7. PSU: This form factor utilizes a more efficient Active Power Factor Correction (APFC) power supply. Dell recommends only Universal Power Supplies (UPS) based on Sine Wave output for APFC PSUs, not an approximation of a Sine Wave, Square Wave, or quasi-Square Wave (see UPS technical specifications). If you have questions please contact the manufacturer to confirm the output type.
8. Computrace: Not a Dell offer. Certain conditions apply. For full details, see terms and conditions at www.lojackforlaptops.com.
9. Systems Management Options:
   - Intel® vPro Technology - Fully vPro-capable at point of purchase; the vPro systems management option requires vPro processors. Includes support for Intel Advanced Management Technology (AMT) 8.0
   - Intel® Standard Manageability - Fully enabled at point of purchase; the Intel Standard Management option is a subset of the AMT features. ISM is not upgradeable to vPro technology post-purchase.
   - No Out-of-Band Systems Management - This option entirely removes Intel out of band systems (OOB) management features. The system can still support in band management. OOB management support through AMT cannot be upgraded, post-purchase.
10. Limited Hardware Warranty: For copy of Ltd Hardware Warranty, write Dell USA LP, Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see www.dell.com/warranty.
11. Next Business Day Onsite Service after Remote Diagnosis: Remote Diagnosis is determination by online/phone technician of cause of issue, may involve customer access to inside of system and multiple or extended sessions. If issue is covered by Limited Hardware Warranty (www.dell.com/warranty) and not resolved remotely, technician and/or part will be dispatched, usually within 1 business day following completion of Remote Diagnosis. Availability varies. Other conditions apply.
12. 3rd generation CPUs natively support 3 displays with the integrated CPU graphics. Three simultaneous display output requires one DP port with a maximum resolution of 2560x1600 at 60Hz refresh rate and a DP and VGA port with max resolutions of 1920x1200 at 60Hz refresh rates.
13. Please refer to www.epeat.net for specific country registration rating and participation.

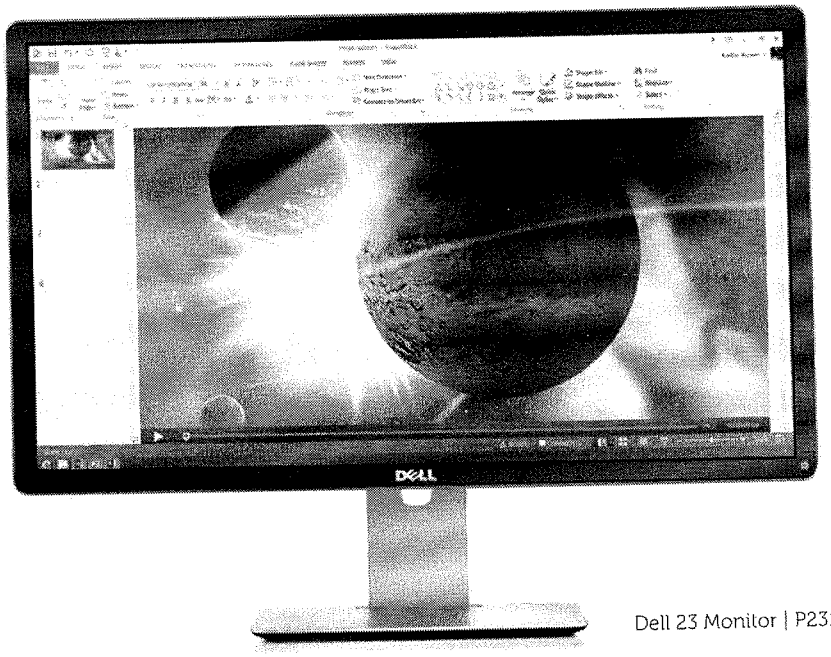
Dell 23 Monitor Model P2314H

23" monitor

Boost productivity with the visually brilliant, eco-efficient Dell 23 Monitor

The Dell 23 Monitor offers you multiple ways to help increase productivity while you work:

- Conveniently connect to a wide range of devices through multiple analog and digital input ports
- Easily adjust the monitor to your viewing preference with flexible viewing options
- See more and do more with impressive screen clarity and an ultra-wide viewing angle
- Enjoy reliable service and support to minimize downtime
- Experience eco-efficient features that help reduce environmental impact and lower energy costs



Dell 23 Monitor | P2314H (23", 58.42 cm VIS)

The Dell 23 Monitor | P2314H (23", 58.42 cm VIS) offers you:

Flexible viewing and connectivity options

- Designed to help enhance your productivity with full adjustability and panel mounting features, and a wide range of convenient connectivity ports.
  - Enjoy great viewing flexibility with full adjustability features such as tilt, pivot, swivel and a height adjustable stand.
  - Connect easily to peripherals and devices with the convenient and comprehensive range of analog and digital connectivity ports and cables such as VGA, DisplayPort, DVI-D[1] and 4 USB ports.
  - Easily detach the monitor panel from its stand with the Dell Quick Release feature and mount it on the optional Dell Single Monitor Arm or Dell Dual Monitor Stand[2] for even greater viewing flexibility.

Impressive screen clarity

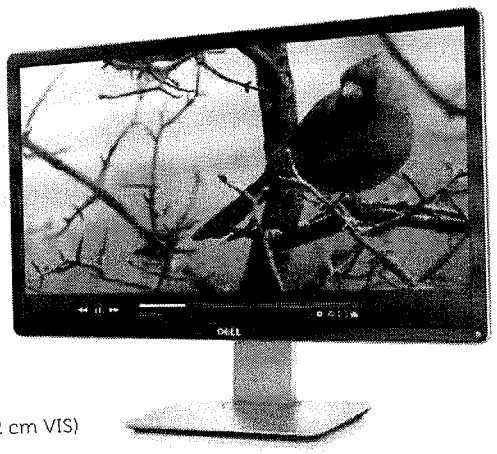
- Get impressive screen clarity with Full HD 1920 x 1080 resolution.
- Experience accurate, consistent colors with the ultra-wide 178° x 178° viewing angle.
- Enjoy excellent image quality including deep blacks, bright whites and outstanding details with the high 2 million:1 Dynamic Contrast Ratio.

Reliability and efficiency you can count on

- Rest assured that Dell's Premium Panel Guarantee[3] offers a free panel exchange in the event that you discover even one bright pixel during the Limited Hardware Warranty[4] period.
- Enjoy peace of mind with Dell's Limited Hardware Warranty[4] and 3-year Advanced Exchange Service[5] to minimize your downtime.
- Experience the low power consumption of this monitor (less than .3W in standby mode) that can help you lower energy costs.
- Control power consumption with power management features like PowerNap.
- Environmentally preferable materials make this Dell Monitor easier to recycle.
  - Eco-designed BFR/PVC-free monitor (except external cables) with more than 25% post-consumer recycled plastics in the chassis.
- Minimize your environmental impact with the Dell 23 Monitor, which meets the latest regulatory and environmental standards like ENERGY STAR®, EPEAT® Gold and TCO Certified Displays.

Perfect for:

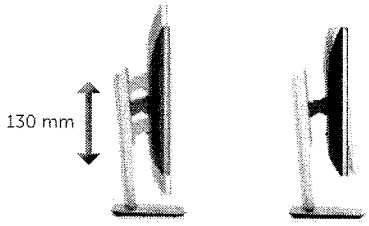
- Knowledge workers for financial and administrative tasks, sales & marketing presentations and reports
- Task workers for call center monitoring, data entry, sales order input, administration
- Educational institutions for learning modules, classroom activities
- Healthcare organizations for administration, viewing patient records, medical data and charts
- Home office use for work applications, Internet, research, movies



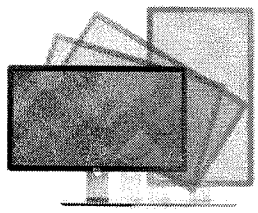
Dell 23 Monitor | P2314H (23", 58.42 cm VIS)

Dell 23 Monitor | P2314H (23", 58.42 cm VIS)

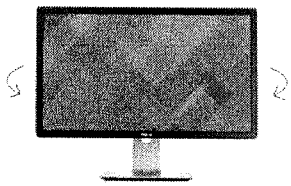
Designed with productivity-boosting features for business and home office.



Height adjustment Tilt

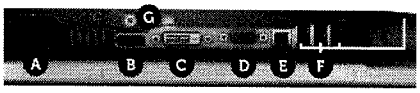


Pivot



Swivel

Connectors



A AC power
B DisplayPort
C DVI-D
D VGA
E USB upstream
F USB downstream (4)
G Stand lock feature

Upgrade to U2412M[8]

Greater resolution (1920 x 1200)

Compare to P2312H, U2312HM

What's in the box?

Monitor, Stand, power cable, VGA cable, DisplayPort cable, USB cable, Quick start guide, drivers and documentations.

Dell recommends that customers dispose used computer hardware, including monitors, in an environmentally sound manner. Potential methods include reuse of parts or whole products and recycling of product, components and/or materials. For more information, please visit http://dell.com/recycling_programs and www.dell.com/environment

Display	
Model number	P2314H
Viewable image size (diagonal)	58.42 cm (23 inches)
Active display area Horizontal Vertical	 509.18 mm (20.05 inches) 286.42 mm (11.28 inches)
Maximum resolution	Full HD 1920 x 1080 at 60 Hz
Aspect ratio	16:9
Pixel pitch	0.2652 (H) mm x 0.2652 (V) mm
Brightness (typical)	250 cd/m²
Color gamut (typical)	83%[6]
Color depth	16.7 million colors
Contrast ratio (typical) Dynamic contrast ratio	1000:1 2 million:1
Viewing angle (typical) (vertical/horizontal)	178° / 178°
Response time (typical)	8 ms (gray to gray)
Panel technology	In-plane switching, anti-glare
Backlight	LED
Connectivity	
Connectors	VGA, DVI-D (HDCP), DP, 4 x USB
Dell soundbar[7] (optional)	AC511
Remote asset management	Yes, via Dell Display Manager
Design features	
Stand	Height adjustable stand, tilt, swivel, pivot and built-in cable management
VESA mounting support (wall mount kit sold separately)	Dell Quick Release feature (100 mm x 100 mm)
Security	Security lock slot and stand lock (security lock and stand screw, M3x6 not included)
Power	
AC input voltage/frequency/current	100 to 240 VAC/50 or 60 Hz ±3 Hz/1.5A (max.)
Power consumption (typical)	20W
Power consumption standby/sleep mode	<0.3 W
Dimensions (with stand)	
Height (compressed ~ extended)	363.0 mm (14.29 inches) ~ 493.0 mm (19.41 inches)
Width	545.8 mm (21.49 inches)
Depth	180.0 mm (7.09 inches)
Weight	
Weight (panel only – no stand)	3.34 kg (7.35 lb)
Weight (with stand)	5.67 kg (12.47 lb)
Shipping weight	7.39 kg (16.26 lb)

Standard service plan
- 3 years Advanced Exchange Service[5] & Limited Hardware Warranty[4]

Environmental compliance
ENERGY STAR®, TCO Certified Displays, EPEAT® Gold, China Energy Label, CEL, WEEE, ErP (EuP) Standards, Korea E-Standby

* Registered in US and Canada only
[1] Excluding DVI-D cable.
Dell Single Monitor Arm and Dual Monitor Stand are sold separately. Dual monitor stand will support panel combinations of up to 27" (68.6 cm) with 19.1" (48.00 cm) and up to 14.33 lb. (6.5 kg) for each side (left/right panel).
[3] Even if only one bright pixel is found on our select range of monitors, a free panel exchange is guaranteed during the Limited Hardware Warranty period (see pixel panel info located on Dell.com web page for complete details). http://support.dell.com/support/topics/global.aspx/support/kcs/document?docid=414288
[4] For a copy of the Limited Hardware Warranty, write Dell USA LP, Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see dell.com/warranty.
[5] Advanced Exchange Service: Replacement part/unit dispatched, if needed, following completion of phone/online diagnosis. Fee charged for failure to return defective unit. Availability varies. Other conditions apply.
[6] Color gamut (typical) is based on CIE1976 (83 %) and CIE1931 (72 %) test standards.
[7] Only compatible with AC511 soundbar. Launch date for soundbar varies across countries. Please check with your country sales representatives for more information.
[8] Please check with your sales representative for availability of upgrade product.

Based on Dell document Ad#A13001515 dell.com/monitors

Product availability varies by country. Please contact your Dell representative for more information.

v.1 8/2013

Interferência eletromagnética (EMI) é qualquer emissão ou sinal, irradiado no espaço livre ou conduzido por cabos de alimentação ou de sinal, que coloca em perigo o funcionamento de um serviço de rádio-navegação ou outro serviço de segurança ou degrada, obstrui ou interrompe seriamente e de forma repetida um serviço licenciado de comunicação de rádio. Os serviços de comunicação de rádio incluem (mas não se limitam a) transmissão comercial AM/FM, televisão, serviços de celular, radar, controle de tráfego aéreo, pager e PCS (Personal Communication Services [serviços de comunicações pessoais]). Estes serviços de rádio licenciados e os serviços de rádio não-licenciados, como WLAN ou Bluetooth, juntamente com os emissores não-intencionais, como dispositivos digitais, incluindo sistemas de computadores, contribuem para o ambiente eletromagnético.

EMC (Eletromagnetic Compatibility, compatibilidade eletromagnética) é a capacidade que alguns equipamentos eletrônicos têm de funcionar adequadamente no ambiente eletromagnético. Mesmo sendo este computador projetado de acordo com os limites e considerado em conformidade com os padrões definidos por órgãos de regulamentação para interferência eletromagnética, não há garantia de que não ocorrerá interferência em uma determinada instalação.

Os produtos da Dell™ são projetados, testados e classificados para o ambiente eletromagnético pretendido. Essas classificações de ambiente eletromagnético geralmente se referem às seguintes definições:

- Os produtos de **Classe B** destinam-se ao uso em ambientes residenciais ou domésticos, mas podem também ser usados em ambientes não-residenciais ou não-domésticos.

  Nota: O ambiente residencial ou doméstico é um ambiente no qual o uso de rádios e receptores de televisão é esperado dentro de um raio de 10 m a partir do ponto no qual este produto é usado.

- Os produtos de **Classe A** destinam-se ao uso em ambientes não-residenciais ou não-domésticos. Os produtos de Classe A podem ser usados em ambientes residenciais ou domésticos, mas podem provocar interferências, exigindo que o usuário tome as medidas corretivas adequadas.

Se o equipamento causar interferência nos serviços de comunicação de rádio, o que pode ser determinado ligando-se e desligando-se o equipamento, experimente corrigir a interferência através de uma ou mais das seguintes medidas:

- Mude a orientação da antena receptora.
- Mude o computador de lugar em relação ao receptor.
- Afaste o computador do receptor.
- Ligue o computador em outra tomada, de modo que o computador e o receptor fiquem em circuitos elétricos diferentes.

Se necessário, consulte a assistência técnica da Dell, um técnico de rádio/televisão experiente ou um técnico em compatibilidade eletromagnética para obter outras sugestões.

Os equipamentos de tecnologia da informação (ITE [Information Technology Equipment]), incluindo periféricos, placas de expansão, impressoras, dispositivos de entrada/saída (E/S), monitores, etc., que são integrados no sistema ou conectados a ele, devem ter a mesma classificação de ambiente eletromagnético do sistema de computador.

Aviso sobre cabos de sinal blindados: Use apenas cabos blindados para conectar periféricos aos dispositivos Dell™ para reduzir a possibilidade de interferência com serviços de comunicação de rádio. O uso de cabos blindados garante a manutenção da classificação apropriada de compatibilidade eletromagnética para o ambiente específico. A Dell™ oferece um cabo para impressoras paralelas. Se preferir, você pode adquirir o cabo da Dell™ na Internet em www.dell.com.

Distributed Management Task Force, Inc.

DMTF enables more effective management of IT systems worldwide.

Dell Optiplex 7010

Dell Optiplex 7010

Dell, Inc.

Enterprise Desktop Computer

Qualification	**Meets qualifications of Dell Optiplex 9010**
Certification Record	Dell Optiplex 9010
Model Number	
Family Name	
Standard:	DASH 1.0
st Suite/Version:	DASH 1.0 CTS Version 1.0.1
Protocol:	WS-MAN
Mandatory Profiles Tested:	Base Desktop and Mobile Profile v1.0 Profile Registration Profile v1.0 Role Based Authorization Profile v1.0 Simple Identity Management Profile v1.0
Optional Profiles Tested:	Boot Control Profile v1.0 CPU Profile v1.0 Fan Profile v1.0 Indications Profile v1.0 Physical Asset Profile v1.0 Power State Management Profile v1.0 Power Supply Profile v1.0 Sensors Profile v1.0 Software Inventory Profile v1.0 System Memory Profile v1.0

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DMTF (http://dmtf.org)

Distributed Management Task Force, Inc.

DMTF enables more effective management of IT systems worldwide.

- Members Area (http://members.dmtf.org/members)
- Workspace (http://members.dmtf.org/kws)

DMTF 日本 (/jp)

Home (http://dmtf.org/) Certification Registry (/registry)

Home (/) › Dell Optiplex 7010

Dell Optiplex 7010

Dell Optiplex 7010 (http://www.dell.com/optiplex)

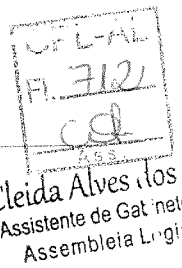
Dell, Inc. (/companies/dell-inc)

Enterprise Desktop Computer

Qualification	**Meets qualifications of** Dell Optiplex 9010 (/certifications/dell-optiplex-9010)
Certification Record	Dell Optiplex 9010 (/certifications/dell-optiplex-9010)
Model Number	
Family Name	
Standard:	DASH 1.0
Test Suite/Version:	DASH 1.0 CTS Version 1.0.1
Protocol:	WS-MAN
Mandatory Profiles Tested:	Base Desktop and Mobile Profile v1.0 Profile Registration Profile v1.0 Role Based Authorization Profile v1.0 Simple Identity Management Profile v1.0
Optional Profiles Tested:	Boot Control Profile v1.0 CPU Profile v1.0 Fan Profile v1.0 Indications Profile v1.0 Physical Asset Profile v1.0 Power State Management Profile v1.0 Power Supply Profile v1.0 Sensors Profile v1.0

Software Inventory Profile v1.0

System Memory Profile v1.0



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Windows Certified Products List

OptiPlex 7010

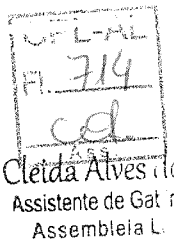
By Dell Inc

Certification details

Verification report:	1492843 - Certification Report - 04/06/2012		
	1492848 - Certification Report - 04/06/2012		
	1519316 - Certification Report - 09/10/2012		
	1519320 - Certification Report - 09/10/2012		
Certification status:	Windows 7		
	Windows 7 x64	X86	-
	Certified for Microsoft Windows 8 Client family, x64	X64	8 X64
Product types:	Desktop		

Feature and AQ's: Windows 8 Client x64

- System.Client.Aero
- System.Client.BrightnessControls
- System.Client.CPU
- System.Client.Firewall
- System.Client.Firmware.UEFI.GOP
- System.Client.Graphics
- System.Client.MediaTranscode
- System.Client.PCContainer
- System.Client.SystemConfiguration
- System.Client.SystemImage
- System.Client.SystemPartition
- System.Client.VideoEncode
- System.Client.VideoPlayback
- System.Fundamentals.DebugPort
- System.Fundamentals.DebugPort.USB
- System.Fundamentals.Firmware
- System.Fundamentals.Firmware.Boot
- System.Fundamentals.Firmware.CS.UEFISecureBoot
- System.Fundamentals.Graphics
- System.Fundamentals.Graphics.Display
- System.Fundamentals.Graphics.Display.Firmware.VBE
- System.Fundamentals.Graphics.DisplayRender
- System.Fundamentals.HAL
- System.Fundamentals.Input
- System.Fundamentals.MarkerFile
- System.Fundamentals.Network
- System.Fundamentals.NX



System.Fundamentals.PowerManagement
System.Fundamentals.PXE
System.Fundamentals.Reliability
System.Fundamentals.Security
System.Fundamentals.SignedDrivers
System.Fundamentals.SMBIOS
System.Fundamentals.StorageAndBoot
System.Fundamentals.SystemAudio
System.Fundamentals.SystemAudio.3rdPartyDriver
System.Fundamentals.SystemPCIController
System.Fundamentals.SystemUSB
System.Fundamentals.TrustedPlatformModule
System.Fundamentals.USBBoot
System.Fundamentals.USBDevice
System.Fundamentals.WatchDogTimer
System.Server.Base
System.Server.Graphics
System.Server.SMBIOS
System.Server.SVVP
System.Server.SystemStress
System.Server.Virtualization
System.Server.WHEA

Worldwide Regulatory Compliance Engineering and Environmental Affairs

DECLARATION OF CONFORMITY

according to EN ISO/IEC 17050-1:2010

Manufacturer's Name and Address:
Dell Inc.
One Dell Way
MS: PS4-30
Round Rock, Texas USA 78682

Phone 512.338.4400
Fax 512.283.9264
Web www.dell.com
www.dell.com/regulatory_compliance

EU Authorised Representative
Dell Products Europe BV
Raheen Business Park
Limerick, Ireland
Email
regulatory_compliance@dell.com

TYPE OF EQUIPMENT: Desktop Computer
REGULATORY MODEL: D05D
REGULATORY TYPE: D05D002
TRADE/BRAND NAME: DELL

CE **12**
Year CE marking was first affixed to declared product

Dell Inc., as the responsible party for regulatory compliance, declares under our sole responsibility that as delivered the described product is in conformity with the R&TTE Directive 1999/5/EC[1], Commission Regulation (EC) No 1275/2008, following the provisions of ErP Directive 2009/125/EC, EU RoHS Directive 2011/65/EU and carries the CE-marking.

The described product has been assessed and determined compliant with the following standards:

SAFETY: EN 60950-1:2006 +A1:2010 +A11:2009 +A12:2011/IEC 60950-1:2005 ed2 +A1:2009
EN 62311:2008

EMC: EN 55022:2006 +A1:2007/CISPR 22:2005 +A1:2005
EN 55024:1998 +A1:2001 +A2:2003/CISPR 24:1997 (modified) +A1:2001 +A2:2002
EN 61000-3-2:2006 +A1:2009 +A2:2009/IEC 61000-3-2:2005 +A1:2008 +A2:2009 (Class D)
EN 61000-3-3:2008/IEC 61000-3-3:2008

ENERGY: EN 62301:2005/IEC 62301:2005 (modified)

RoHS: EN 50581:2012

RADIO: **WLAN**
EN 300 328 V1.7.1
EN 301 893 V1.6.1
EN 301 489-1 V1.9.2
EN 301 489-17 V2.2.1
EN 62311 :2008

SUPPLEMENTARY INFORMATION: This product 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. The equipment was tested in a typical configuration. Optional devices, such as radios, conform to the noted standard when the Dell Inc. provided devices are installed in the product.

Round Rock, Texas, USA	[signature] Digitally signed by maurice_wu@dell.com DN: cn=maurice_wu@dell.com Date: 2013.06.27 15:26:03 +08'00'
Place of Issue	Signature
June 27th, 2013	**Maurice Wu**
Date of Issue	Full Printed Name
CDD05D002-04	**Sr. Manager, Dell Regulatory Compliance Engineering**
Dell Document Control Tracking Number	Position/Title

[1] The objectives and protection requirements of the Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC are applicable under R&TTE Directive 1995/5/EC, Article 3 Paragraph 1. This Declaration of Conformity to 1995/5/EC is made with due consideration of the relevant objectives and protection requirements in those Directives.

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Print

Export to CSV

Export to EXCEL

Back

PRODUCT:	DELL OptiPlex 7010 DT (Desktop)
PRE:	EPEAT, Inc.
COUNTRY:	United States
PRODUCT TYPE:	Desktops
MANUFACTURER:	Dell, Inc.
URL:	
RATING:	
REGISTRATION DATE:	6/5/2012
MONITOR TYPE:	
MONITOR SIZE:	
PRODUCT STATUS:	Active
EXCEPTIONS:	Registration is valid only for products configured with an operating system with ENERGY STAR compliant power management features and power supply. Without such features, desktop and notebook computers may not conform to 4.5.1.1 ENERGY STAR and would not be in conformance with EPEAT.

IHHH 49;3053< Fulwnid Fdwhjru| Vxp p du	Optional Points
4.1 Reduction/elimination of environmentally sensitive materials	5/5
4.2 Materials selection	0/3
4.3 Design for end of life	5/5
4.4 Product longevity/life cycle extension	2/2
4.5 Energy conservation	1/2
Corporate Annual Report Points	
4.6 End of life management	1/1
4.7 Corporate performance	2/2

CPL-AL
Fl. 717

ASS.

Cleida Alves dos Santo
Assistente de Gab nete da CPL
Assembleia L gislativa

4.8 Packaging	2/4
Total Optional Points:	18/24

Wklv Surgxfw lv dovr uhjlvwhuhg lq=

Canada	France	Germany
Japan	Mexico	Sweden
United Kingdom		

Ubuntu on Dell Optiplex 7010 DT

The **Dell Optiplex 7010 DT** desktop has been awarded the status of **Certified** for Ubuntu.

Please note that for pre-installed systems:

1. The system is available in some regions with a special image of Ubuntu pre-installed by the manufacturer. It takes advantage of the hardware features for this system and may include additional software. You should check when buying the system whether this is an option.
2. Standard images of Ubuntu may not work at all on the system or may not work well, though Canonical and computer manufacturers will try to certify the system with future standard releases of Ubuntu.

Releases

Ubuntu 12.04.1 LTS 64-bit

Download

Ubuntu 12.04.1 LTS 64-bit

Certification notes

There are no notes for this release.

Ubuntu 11.10 64-bit

Certification notes

There are no notes for this release.

Hardware overview

This system was tested with these key components:

Processor
Intel Intel(R) Celeron(R) CPU G460 @ 1.80GHz
Processor
Intel Corporation Intel(R) Celeron(R) CPU G460 @ 1.80GHz
BIOS
Dell Inc. T16.W8
BIOS
Dell Inc. X54
Video
Intel Corporation 2nd Generation Core Processor Family Integrated Graphics Controller
Network
Intel Corporation 82579LM Gigabit Network Connection
Storage
ATA ST320LT007-9ZV14
Storage
None ST320LT007-9ZV142

View all components ›

Give feedback

If there is an issue with the information for this system, please let us know.

Community hardware

Ubuntu works on a range of hardware which has not been certified by the manufacturer. The Ubuntu community works together to test and report the range of systems that work with Ubuntu. You can see a list of tested systems with their results in the Ubuntu Friendly site.

;gend

Available from ubuntu.com

Pre-installed by manufacturer

Ubuntu

- Features
- What's new?
- Why is it free?
- Why use Ubuntu?
- Take the tour

Business

- Desktop
- Server
- Services
- Case studies
- Contact Canonical

Devices

- Ubuntu for Android
- Ubuntu TV
- Backed by Canonical

Cloud

- Cloud services
- Jumpstart
- Technical resources

Download

- Ubuntu
- Ubuntu Server

Support

- Community
- Training
- Services
- Security notices

Project

- About Ubuntu
- Canonical and Ubuntu
- Ubuntu font

Community

- Get involved
- Report a problem
- Stay connected

Partners

- Find a partner
- Certified software
- Certified hardware
- Component catalog

Further information

- Contact us
- Trademark policy
- Legal information
- Privacy policy
- Careers
- Canonical news feed

Ministério do Planejamento, Orçamento e Gestão
Secretaria de Logística e Tecnologia da Informação

Sistema Integrado de Administração de Serviços Gerais - SIASG
Sistema de Cadastramento Unificado de Fornecedores - SICAF

Declaração

Declaramos para os fins previstos na Lei nº 8.666, de 1993, conforme documentação apresentada para registro no SICAF e arquivada na UASG Cadastradora, que a situação do fornecedor no momento é a seguinte:

Validade do Cadastro: 18/11/2014
CNPJ / CPF: 08.990.948/0001-43
Razão Social / Nome: K R P CONSULTORIA EM TECNOLOGIA DE INFORMACAO LTDA - EPP
Natureza Jurídica: SOCIEDADE EMPRESÁRIA LIMITADA
Domicílio Fiscal: 97330 - Palmas TO
Unidade Cadastradora: 200404 - SUPERINTENDENCIA REG.DEP.POLICIA FEDERAL - TO
Código e Descrição da Atividade Econômica:
6204-0/00 - CONSULTORIA EM TECNOLOGIA DA INFORMAÇÃO

Endereço:
104 Norte Rua NE-05, Conj. 03, Lote 41 n 46 - Sala 02 - Palmas - TO

Ocorrência: Nada Consta
Impedimento de Licitar: Nada Consta
Vínculo com "Serviço Público": Nada Consta

Níveis validados:
I - Credenciamento
II - Habilitação Jurídica
III - Regularidade Fiscal Federal
Receita Validade: 26/07/2014
FGTS Validade: 29/03/2014
INSS Validade: 13/07/2014
IV – Regularidade Fiscal Estadual/Municipal:
Receita Estadual/Distrital Validade: 25/02/2014 (*)
Receita Municipal Validade: 28/03/2014
VI – Qualificação Econômico-Financeira – Validade: 30/06/2014
Índices Calculados: SG = 1.78; LG = 1.47; LC = 1.60

Legenda: documento(s) assinalado(s) com "*" está(ão) com prazo(s) vencido(s).

Emitido em: 07/03/2014 às 10:37:27
CPF: 475.264.593-91 Nome: SENIVAN ALMEIDA DE ARRUDA
Ass: _____

Ministério do Planejamento, Orçamento e Gestão
Secretaria de Logística e Tecnologia da Informação

Sistema Integrado de Administração de Serviços Gerais - SIASG
Sistema de Cadastramento Unificado de Fornecedores - SICAF

Certificado de Registro Cadastral - CRC

(Instituído pelo art. 34 da Lei 8.666, de 1993 e regulamentado pelo art. 1° do Decreto n° 3.722, de 2001)

Razão Social / Nome:	K R P CONSULTORIA EM TECNOLOGIA DE INFORMACAO LTDA - EPP
CNPJ / CPF:	08.990.948/0001-43
Unidade Cadastradora:	200404 - SUPERINTENDENCIA REG.DEP.POLICIA FEDERAL - TO

Níveis do Cadastramento:

I - Credenciamento

II - Habilitação Jurídica

III - Regularidade Fiscal Federal

Código e Descrição da Atividade Econômica:

6204-0/00 - CONSULTORIA EM TECNOLOGIA DA INFORMAÇÃO

Endereço:

104 Norte Rua NE-05, Conj. 03, Lote 41 n 46 - Sala 02 - Palmas - TO

Observações:

A veracidade das informações poderá ser verificada no endereço www.comprasnet.gov.br.
Este certificado não substitui os documentos enumerados nos artigos 28 a 31 da Lei n° 8.666, de 1993.

Emitido em: 07/03/2014 às 10:36:12

DELL™

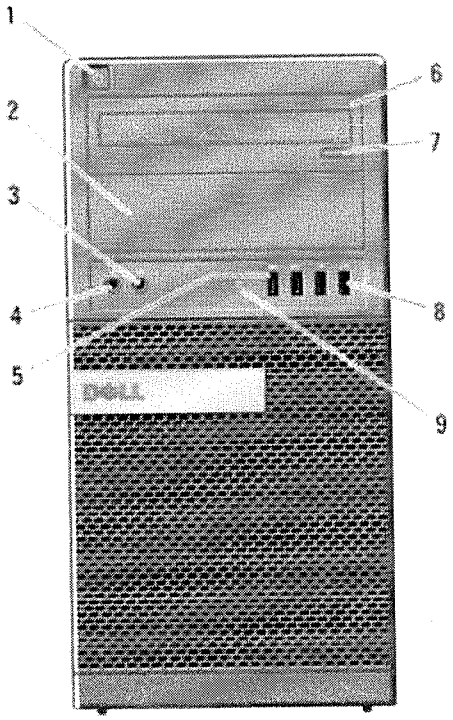
OPTIPLEX™ 7010

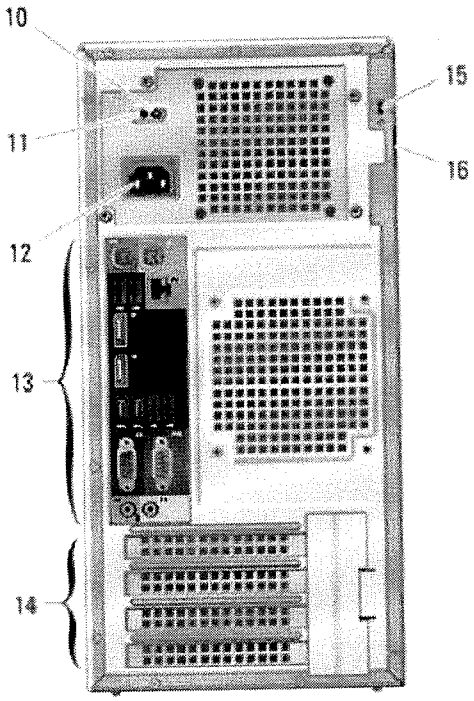
TECHNICAL GUIDEBOOK

INSIDE THE OPTIPLEX 7010

TABLE OF CONTENTS

MINI TOWER COMPUTER (MT) VIEW

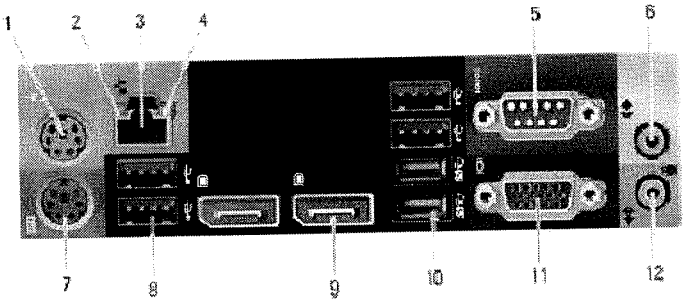


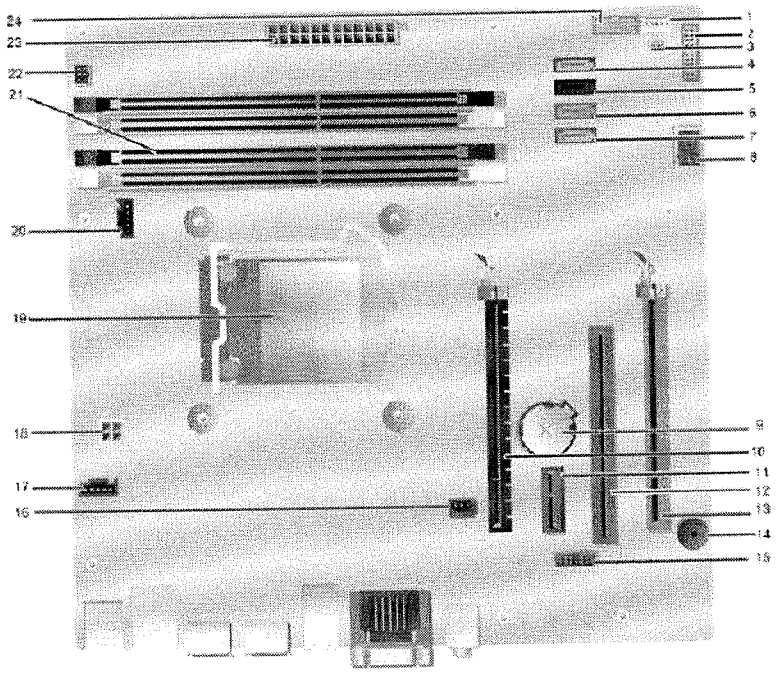


FRONT VIEW			
1	Power Button, Power Light	6	Optical Drive (optional)
2	Optical Drive Bay (optional)	7	Optical Drive Eject Button
3	Headphone Connector	8	USB 2.0 Connectors (2)
4	Microphone Connector	9	Drive Activity Light
5	USB 3.0 Connectors (2)		

BACK VIEW			
10	Power Supply Diagnostic Light	14	Expansion Card Slots (4)
11	Power Supply Diagnostic Button	15	Kensington / Noble Security Cable Slot
12	Power Connectors	16	Padlock Ring
13	Back Panel Connectors		

BACK PANEL CONNECTORS			
1	PS2 Mouse Connector	7	SP2 Keyboard Connector
2	Link Integrity Light	8	USB2.0 Connectors (2)
3	Network Connector	9	DisplayPort Connector (2)
4	Network Activity Light	10	USB2.0 Connectors (2) USB3.0 Connectors (2)
5	Serial Connector	11	VGA Connector
6	Line-out Connector	12	Line-in/Microphone Connector

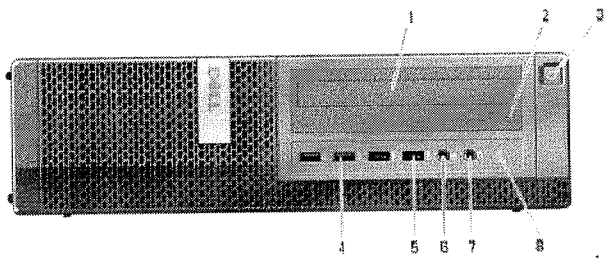


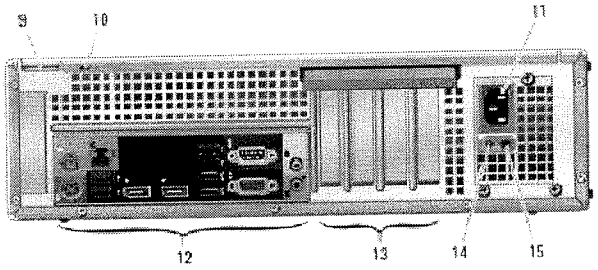


MT System Board Components

Number	Name	Number	Name
1	Internal Speaker Connector (INT_SPKR)	13	PCI-e x16 (wire x4) Connector (SLOT4)
2	Front IO Connector (FRONTPANEL)	14	Buzzer (BEEP)
3	Thermal Sensor Connector (THRM_2)	15	LPC Debug Connector (LPC_DEBUG)
4	SATA 0 Connector (SATA0)	16	Intrusion Switch Connector (INTRUDER)
5	SATA 1 Connector (SATA1)	17	System Fan Connector (FAN_HDD)
6	SATA 2 Connector (SATA2)	18	P2 Power Connector (12V_PWRCONN)
7	SATA 3 Connector (SATA3)	19	Processor Socket (N/A)
8	Internal USB Connector (INT_USB)	20	CPU fan Connector (FAN_CPU)
9	Battery Connector (BATTERY)	21	Memory Connectors (DIMM1, DIMM2, DIMM3, DIMM4)
10	PCI-e x16 Connector (SLOT1)	22	Power Switch Connector (PWR_SW)
11	PCI-e x1 Connector (SLOT2)	23	P1 Power Connector (POWER)
12	PCI Connector (SLOT3)	24	Front USB3.0 Connector (Front _USB)

DESKTOP COMPUTER (DT) VIEW

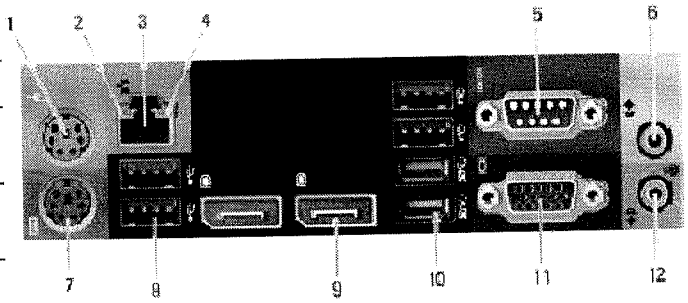


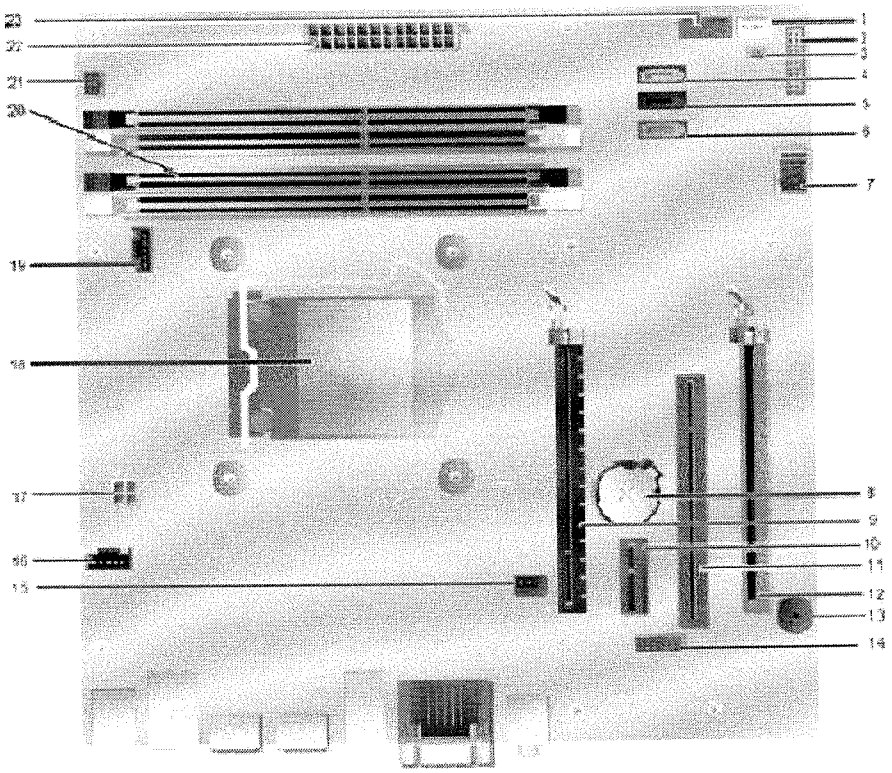


FRONT VIEW			
1	Optical Drive	5	USB 3.0 Connectors (2)
2	Optical Drive Eject Button	6	Microphone Connector
3	Power Button, Power Light	7	Headphone Connector
4	USB 2.0 Connectors (2)	8	Drive Activity Light

BACK VIEW			
9	Padlock Ring	13	Expansion Card Slots (4)
10	Kensington / Noble Security Cable Slot	14	Power Supply Diagnostic Light
11	Power Connectors	15	Power Supply Diagnostic Button
12	Back Panel Connectors		

BACK PANEL CONNECTORS			
1	PS2 Mouse Connector	7	PS2 Keyboard Connector
2	Link Integrity Light	8	USB2.0 Connectors (2)
3	Network Connector	9	DisplayPort Connector (2)
4	Network Activity Light	10	USB2.0 Connectors (2) USB3.0 Connectors (2)
5	Serial Connector	11	VGA Connector
6	Line-out Connector	12	Line-in/Microphone Connector

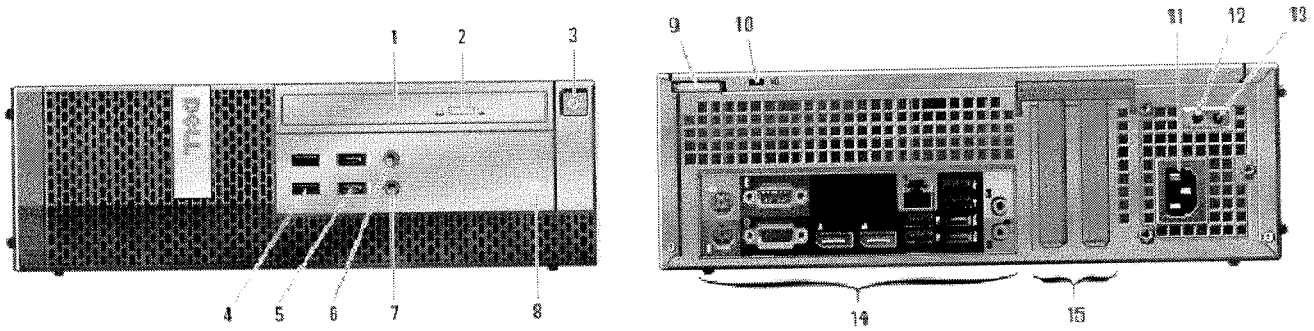




DT System Board Components

Number	Name	Number	Name
1	Internal Speaker Connector (INT_SPKR)	12	PCI-e x16 (wire x4) Connector (SLOT4)
2	Front IO Connector (FRONTPANEL)	13	Buzzer (BEEP)
3	Thermal Sensor Connector (THRM_2)	14	LPC Debug Connector (LPC_DEBUG)
4	SATA 0 Connector (SATA0)	15	Intrusion Switch Connector (INTRUDER)
5	SATA 1 Connector (SATA1)	16	System Fan Connector (FAN_HDD)
6	SATA 2 Connector (SATA2)	17	P2 Power Connector (12V_PWRCONN)
7	Internal USB Connector (INT_USB)	18	Processor Socket (N/A)
8	Battery Connector (BATTERY)	19	CPU fan Connector (FAN_CPU)
9	PCI-e x16 Connector (SLOT1)	20	Memory Connectors (DIMM1, DIMM2, DIMM3, DIMM4)
10	PCI-e x1 Connector (SLOT2)	21	Power Switch Connector (PWR_SW)
11	PCI Connector (SLOT3)	22	P1 Power Connector (POWER)
		23	Front USB3.0 Connector (Front _USB)

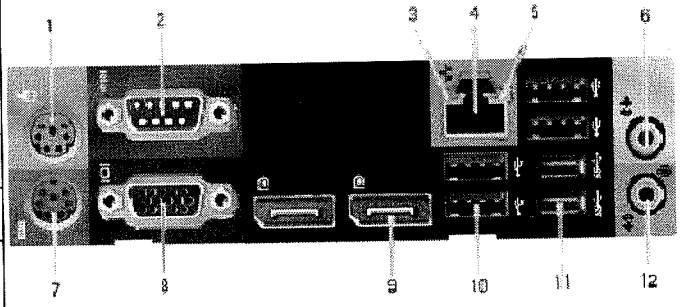
SMALL FORM FACTOR COMPUTER (SFF) VIEW

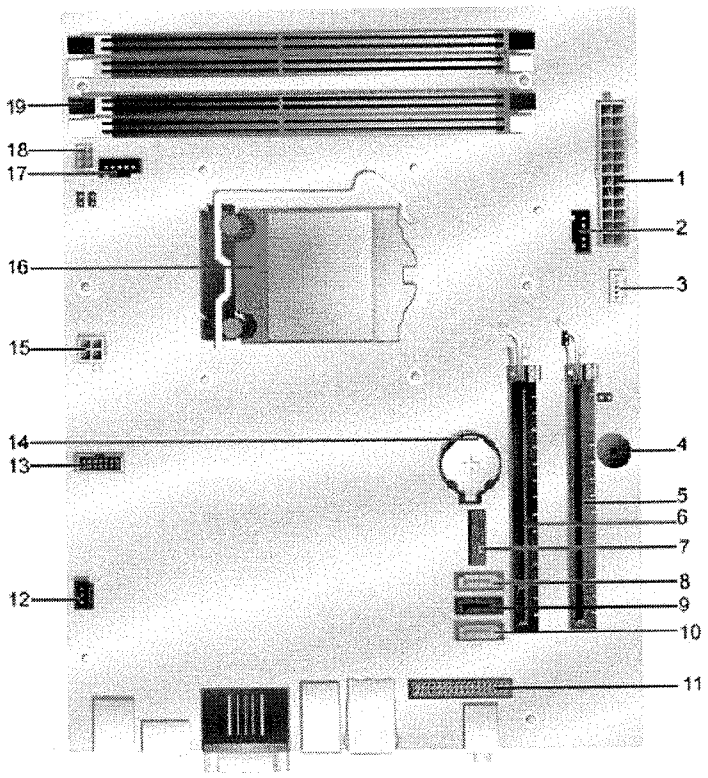


FRONT VIEW			
1	Optical Drive	5	USB 3.0 Connectors (2)
2	Optical Drive Eject Button	6	Microphone Connector
3	Power Button, Power Light	7	Headphone Connector
4	USB 2.0 Connectors (2)	8	Drive Activity Light

BACK VIEW			
9	Padlock Ring	13	Power Supply Diagnostic Light
10	Kensington / Noble Security Cable Slot	14	Back Panel Connectors
11	Power Connectors	15	Expansion Card Slots (2)
12	Power Supply Diagnostic Button		

BACK PANEL CONNECTORS			
1	PS2 Mouse Connector	7	PS2 Keyboard Connector
2	Serial Connector	8	VGA Connector
3	Link Integrity Light	9	DisplayPort Connector(2)
4	Network Connector	10	USB 2.0 Connectors (2)
5	Network Activity Light	11	USB2.0 Connectors (2) USB3.0 Connectors (2)
6	Line-out Connector	12	Line-in/Microphone Con-nector

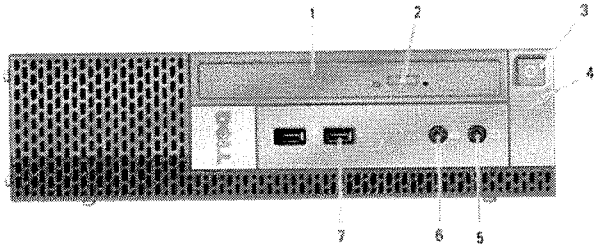


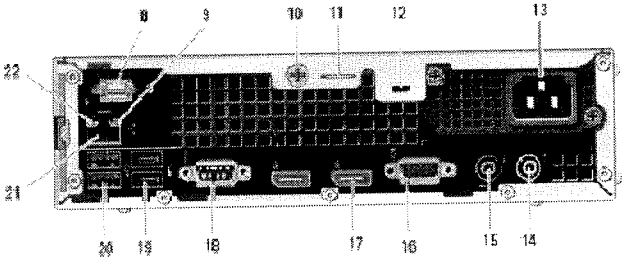


SFF System Board Components

Number	Name	Number	Name
1	P1 power Connector (POWER)	11	Front IO Connector (FRONTPANEL)
2	System fan Connector (FAN_HDD)	12	Intrusion Switch Connector (INTRUDER)
3	Internal Speaker Connector (INT_SPKR)	13	LPC debug Connector (LPC_DEBUG)
4	Buzzer (BEEP)	14	Battery Connector (BATTERY)
5	PCI-e x16 (wire x4) Connector (SLOT2)	15	P2 Power Connector (12V_PWRCONN)
6	PCI-e x16 Connector (SLOT1)	16	Processor Connector (N/A)
7	Front USB3.0 Connector (Front _USB)	17	CPU Fan Connector (FAN_CPU)
8	SATA 2 Connector (SATA2)	18	Power Switch Connector (PWR_SW)
9	SATA 1 Connector (SATA1)	19	Memory Connectors (DIMM1, DIMM2, DIMM3, DIMM4)
10	SATA 0 Connector (SATA0)		

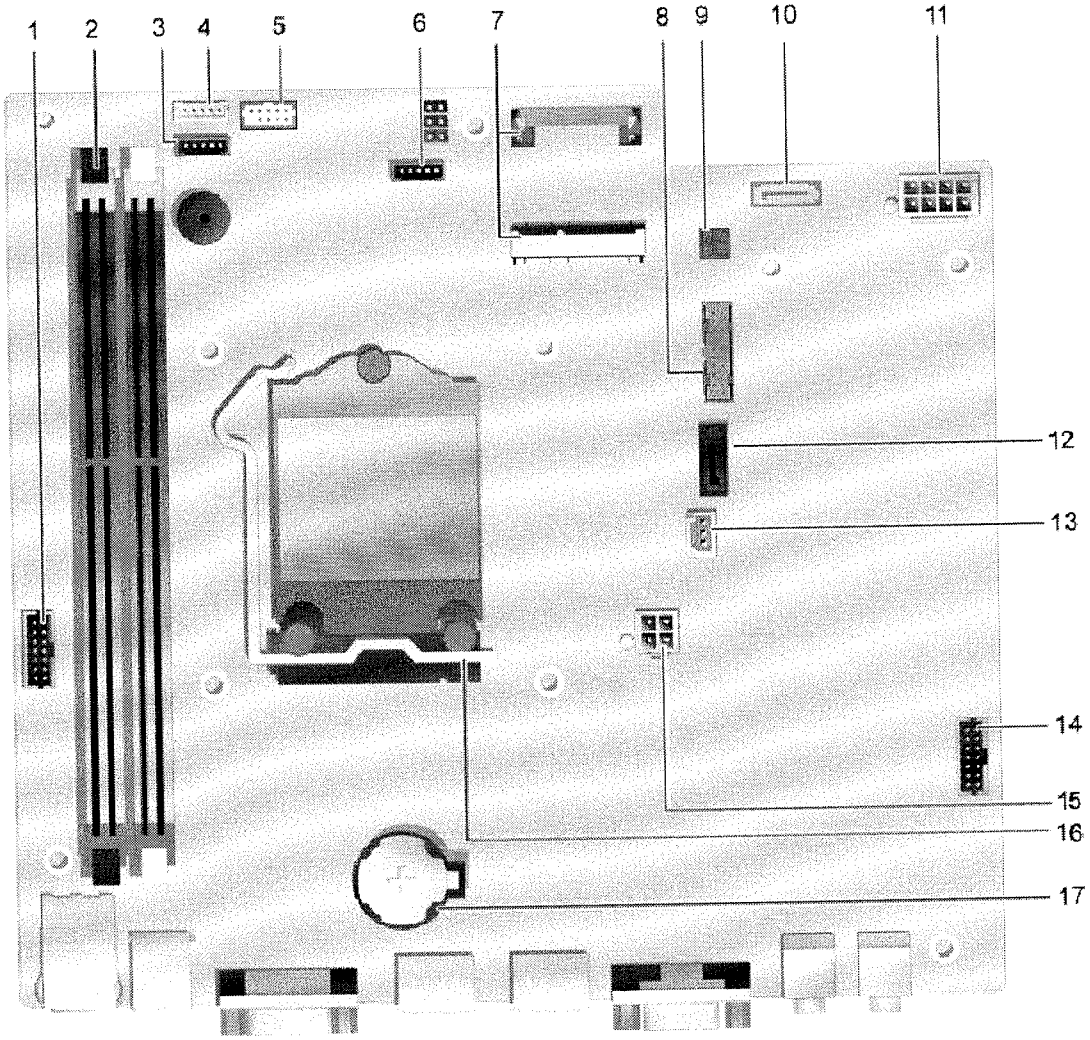
ULTRA SMALL FORM FACTOR COMPUTER (USFF) VIEW





FRONT VIEW			
1	Optical Drive	5	Headphone Connector
2	Optical Drive Eject Button	6	Microphone Connector
3	Power Button, Power Light	7	USB 3.0 Connectors (2)
4	Drive Activity Light		

BACK VIEW			
8	Wi-Fi Antenna (optional)	15	Line-in/ Microphone Connector
9	Network Activity Light	16	VGA Connector
10	Captive Thumbscrew	17	DisplayPort Connector (2)
11	Padlock Ring	18	Serial Connector
12	Kensington / Noble Security Cable Slot	19	USB 3.0 Connectors (2)
13	Power Connector	20	USB 2.0 Connectors (2)
14	Line-Out Connector	21	Network Connector
		22	Link Integrity Light



USFF System Board Components

Number	Name	Number	Name
1	Front Panel Connector (FRONTPANEL)	9	HDD-ODD Power Connector (HDD_ODD_POWER)
2	Memory Connector (DIMM_1,DIMM_2)	10	SATA 1 Connector (SATA1)
3	CPU Fan Connector (FAN_CPU)	11	P1 Power Connector (POWER)
4	Internal Speaker Connector (INT_SPKR)	12	SATA 0 Connector (SATA0)
5	Front IO Connector (F_USB_AUDIO)	13	Intrusion Switch Connector (INTRUDER)
6	System Fan Connector (FAN_HDD)	14	LPC Debug Connector (LPC_DEBUG)
7	Mini-PCI Socket (PCIE_MINICARD)	15	P2 Power Connector (12V_PWRCONN)
8	Front USB3.0 connector (Front USB)	16	Processor socket (N/A)
		17	Battery Connector (BATTERY)

MARKETING SYSTEM CONFIGURATIONS

NOTE: Offerings may vary by country. For more information regarding the configuration of your computer, click Start>Help and Support and select the option to view information about your computer.

OPERATING SYSTEM

	MT	DT	SFF	USFF
Windows Operating System	Microsoft® Windows 7® Home Basic SP1 (32 and 64 bit), Microsoft® Windows 7® Home Premium SP1 (32 and 64 bit), Microsoft® Windows 7® Home Premium w/MUI SP1 (32 and 64 bit), Microsoft® Windows 7® Professional w/MUI SP1 (32 and 64 bit), Microsoft® Windows 7® Professional SP1 (32 and 64 bit), Microsoft® Windows 7® Ultimate SPI (32 and 64 bit),			
Other	Ubuntu (N-Series DIB) (32bit) Ubuntu (32bit)			
OS Media Support	Optional			

CHIPSET

	MT	DT	SFF	USFF
Chipset	Intel Q77 Express Chipset			
Non-volatile memory on chipset				
BIOS Configuration SPI (Serial Peripheral Interface)	64Mbit (8MB) &32Mbit(4MB) located at SPI_FLASH on chipset			
TPM 1.2 Security Device (Trusted Platform Module)[1]	4KB located at TPM1.2 on chipset			
Non-TPM	Available in select countries			
NIC EEPROM	LOM configuration contained within SPI_FLASH – no dedicated LOM EEPROM			

PROCESSOR[1]

NOTE: Global Standard Products (GSP) are a subset of Dell's relationship products that are managed for availability and synchronized transitions on a worldwide basis. They ensure the same platform is available for purchase globally. This allows customers to reduce the number of configurations managed on a worldwide basis, thereby reducing their costs. They also enable companies to implement global IT standards by locking in specific product configurations worldwide. The following GSP processors identified below will be made available to Dell customers.

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

	MT	DT	SFF	USFF
Intel® Quad Core Processors				
Intel® Core™ i7 3770 / 3.40GHz, 8M, VT-x, VT-d, TXT (vPro™), 77W	GSP	GSP	GSP	
Intel® Core™ i7 3770S / 3.10GHz, 8M, VT-x, VT-d, TXT (vPro™), 65W				GSP
Intel® Core™ i5 3570 / 3.40GHz, 6M, VT-x, VT-d, TXT (vPro™), 77W[2]	GSP	GSP	GSP	
Intel® Core™ i5 3570S / 3.10GHz, 6M, VT-x, VT-d, TXT (vPro™), 65W[2]				GSP
Intel® Core™ i5 3470 / 3.20GHz, 6M, VT-x, VT-d, TXT (vPro™), 77W[2]	GSP	GSP	GSP	
Intel® Core™ i5 3475S / 2.90GHz, 6M, VT-x, VT-d, TXT (vPro™), 65W[2]	GSP	GSP	GSP	GSP
Intel® Core™ i5 3470S / 2.90GHz, 6M, VT-x, VT-d, TXT (vPro™), 65W[2]				GSP
Intel® Core™ i5 3550 / 3.30GHz, 6M, VT-x, VT-d, TXT (vPro™), 77W[3]	X	X	X	
Intel® Core™ i5 3550S / 3.00GHz, 6M, VT-x, VT-d, TXT (vPro™), 65W[3]				X
Intel® Core™ i5 3450 / 3.10GHz, 6M, 77W[3]	X	X	X	
Intel® Core™ i5 3450S / 2.80GHz, 6M, 65W[3]				X
Intel® Dual Core Processors				
Intel® Core™ i3-3240 / 3.4GHz, 3M, VT-x, 55W[2]	X	X	X	X
Intel® Core™ i3 3225, / 3.3GHz, 3M, VT-x, 55W[2]	X	X	X	X
Intel® Core™ i3 3220, / 3.3GHz, 3M, VT-x, 55W[2]	X	X	X	X
Intel® Core™ i3 2130 / 3.40GHz, 3M, VT-x, 65W[3]	X	X	X	X
Intel® Core™ i3 2125 / 3.30GHz, 3M, VT-x, 65W[3]	X	X	X	X
Intel® Core™ i3 2120 / 3.30GHz, 3M, VT-x, 65W[3]	X	X	X	X
Intel® Core™ G860 / 3.0GHz, 3M, VT-x, 65W[2]	X	X	X	X
Intel® Core™ G850 / 2.9GHz, 3M, VT-x, 65W[3]	X	X	X	X
Intel® Core™ G640 / 2.8GHz, 3M, VT-x, 65W[2]	X	X	X	X
Intel® Core™ G630 / 2.7GHz, 3M, VT-x, 65W[3]	X	X	X	X
Intel® Celeron Processors				
Intel® Core™ G540 / 2.5GHz, 2M, VT-x, 65W[2]	X	X	X	X
Intel® Core™ G530 / 2.5GHz, 2M, VT-x, 65W[3]	X	X	X	X
Intel® Core™ G460 / 1.8GHz, 1.5M, VT-x, 35W	X	X	X	X

[1] 3rd generation CPUs natively support 3 displays with the integrated CPU graphics. 2 of the displays must be DP and connected to onboard DP through DP cables, the other could be any other format. One of the DP port has a maximum resolution of 2500x1600 at 60Hz refresh rate and the other DP and VGA port have max resolutions of 1920x1200 at 60Hz refresh rates. Active dongles must be used to connect non DP displays to the 2 onboard DP ports.

[2] Post launch CPU, available from June for G860, G540; July for G640, i5 3470/S, i5 3570/S, i5 3475S; September for i3 3220, i3 3225, i3 3240.

[3] Available at launch, will be replaced in July or September, i5 3470/S replace i5 3450/S; i5 3570/S replace i5 3550/S; i3 3220 replace i3 2120; i3 3225 replace i3 2125;i3 3240 replace i3 2130;G860 replace G850;G640 replace G630;G540 replace G530.

MEMORY

NOTE: Memory modules should be installed in pairs of matched memory size, speed, and technology. If the memory modules are not installed in matched pairs, the computer will continue to operate, but with a slight reduction in performance. The entire 16GB memory range is available to 64-bit operating systems.

	MT	DT	SFF	USFF
Type: DDR3 Synch DRAM Non-ECC Memory	1600MHz[2]			
DIMM Slots	4	4	4	2
DIMM Capacities	Up to 8GB	Up to 8GB	Up to 8GB	Up to 8GB
Minimum Memory	2GB	2GB	2GB	2GB
Maximum System Memory	16GB[1]	16GB[1]	16GB[1]	16GB[1]
Memory configurations				
16GB[1] DDR3, 1600MHz[2], (4 x 4GB)	X	X	X	
16GB[1] DDR3, 1600MHz[2], (2 x 8GB)				X
8GB[1] DDR3, 1600 MHz[2], (2 x 4GB)	X	X	X	X
6GB[1] DDR3, 1600MHz[2], (2GB + 4GB)	X	X	X	X
4GB[1] DDR3, 1600 MHz[2], (2 x 2GB)	X	X	X	X
4GB[1] DDR3, 1600MHz[2], (1 DIMM)	X	X	X	X
2GB DDR3, 1600MHz[2], (1 DIMM)	X	X	X	X

[1] To fully utilize 4GB or more of memory requires a 64-bit enabled processor and 64-bit operating system. With 32-bit OS, the total amount of available memory will be less than 4GB. The amount less depends on the actual system configuration.

[2] 1600MHz memory will only perform as 1600MHz memory when 3rd generation CPUs are used. It will perform as 1333MHz memory if 2nd generation i3 2130, i3 2125, i3 2120, G860, G850 CPUs are installed in the system. It will perform as 1066MHz memory if 2nd generation G640, G630, G540, G530, G460 CPUs are installed in the system.

DRIVES AND REMOVABLE STORAGE

	MT	DT	SFF	USFF
Bays:				
5.25-inch Optical Bay Supported (External)	2	1	1	1
Optical Drives Supported (maximum)	2	1	1 (slim-line)	1 (slim-line)
Hard Drive Bay Supported (Internal)	2	1	1	1
Hard Drives Supported 3.5"/2.5" (maximum)	2/2	1/2	1/2	0/1
Interface:				
SATA 2.0	2	1	1	0
SATA 3.0	2	2	2	2
3.5" Hard Drives:				
1TB[1] SATA 7200 RPM HDD	X	X	X	
500GB[1] SATA 7200 RPM HDD	X	X	X	
250GB[1] SATA 7200 RPM HDD	X	X	X	
2.5" Hard Drives:				
500GB[1] SATA 7200 RPM HDD	X	X	X	X
320GB[1] SATA 7200 RPM HDD	X	X	X	X
320GB[1] SATA 7200 RPM OPAL SED w/FIPS HDD	X	X	X	X
500GB[1] SATA 7200 RPM Hybrid HDD	X	X	X	X
128GB[1] SATA Solid State drive	X	X	X	X
Optical Drive: (SFF/USFF require slim-line optical drive)				
DVD+/-RW[2] SATA	X	X	X	X
DVD-ROM[3] SATA	X	X	X	X
Media Card Reader:				
Dell 19 in 1 Media Card Reader[4]	X	X		

[1] For hard drives, GB means 1 billion bytes; actual capacity varies with preloaded material and operating environment and will be less.
[2] Discs burned with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility.
[3] DVD-ROM drives may have write-capable hardware that has been disabled via firmware modifications.
[4] Dell 19 in 1 Media Card Reader (MCR) is supported via a F5 to F3 bay converter on the MT and DT and requires a slim line optical drive.

SYSTEM BOARD CONNECTORS

NOTE: See Detailed Engineering Specifications for maximum card dimensions.

	MT	DT	SFF	USFF
PCI Slot(s)[1]	1	1		
PCIe x16 Slot(s)[2]	1	1	1	
PCIe x16 (wired x4)Slot(s)[3]	1	1	1	
PCIe x1 Slot(s)[3]	1	1		
miniPCIe connector(s)[3]				1
Serial ATA (SATA)[4]	4	3	3	2

[1] PCI Slots (Support Standard Rev 2.3)
[2] PCIe x16 Slots (Support Standard Rev 3.0)
[3] PCIe x16 (wired x 4), PCIe x1 Slots, miniPCIe (Support Standard Rev 2.0)
[4] Serial ATA (2 ports Support Standard Rev 3.0, the rest of ports Support Standard Rev 2.0)

GRAPHICS/VIDEO CONTROLLER

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

	MT	DT	SFF	USFF
Integrated Intel® HD Graphics 2500/4000 (3rd generation Core i3/i5/i7 CPUs); Integrated Intel® HD Graphics 2000/3000 (2nd generation Core i3 CPUs); Integrated Intel® HD Graphics (Pentium® Dual Core / Celeron® CPU);	Integrated on CPU			
Enhanced Graphic/Video Options				
1GB AMD RADEON HD 7570	Optional card			
1GB AMD RADEON HD 7470	Optional card			

EXTERNAL PORTS/CONNECTORS

	MT	DT	SFF	USFF
USB 2.0 (Front/Rear/Internal)	2/4/2	2/4/2	2/4/0	0/2/0
USB 3.0 (Front/Rear/Internal)	2/2/0	2/2/0	2/2/0	2/2/0
Serial	1 Rear			
Network Connector (RJ-45)	1 Rear			
PS/2	2 Rear			
1394 Controller via optional PCI card	Optional FH card	Optional LP card		
Video:				
VGA	1 Rear			
DisplayPort	2 Rear			
Audio:				
Line in for microphone	1 Front			
Line in for microphone or stereo	1 Rear			
Line out for headphones or speakers	1 Front, 1 Rear			

COMMUNICATIONS - NETWORK ADAPTER (NIC)

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

	MT	DT	SFF	USFF
Intel® 82579LM Gigabit[1] Ethernet LAN 10/100/1000 (Remote Wake Up, PXE support and Intel Active Management Technology support)	Integrated on system board			
Broadcom NetXtreme 10/100/1000 PCIe Gigabit Networking Card	Optional card			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – WIRELESS

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

	MT	DT	SFF	USFF
Dell Wireless 1530 PCIe WLAN card (802.11n)	Optional card			
Dell Wireless 1530 half miniPCIe WLAN card (802.11n)				Optional

AUDIO AND SPEAKERS

	MT	DT	SFF	USFF
Realtek ALC269Q High Definition Audio Codec	Integrated on system board			
Dell AX210 USB Stereo speakers	Optional			
Dell AX510/AX510PA Flat Panel Soundbar Speakers	Optional			

KEYBOARD AND MOUSE

	MT	DT	SFF	USFF
Dell USB Entry Keyboard with optional palmrest	Optional			
Dell Multimedia Pro Keyboard	Optional			
Dell Smart Card Keyboard	Optional			
Dell USB Optical Mouse	Optional			
Dell Laser Mouse	Optional			

SECURITY

	MT	DT	SFF	USFF
Trusted Platform Module (TPM) 1.2[1]	Integrated on system board			
Chassis Intrusion Switch	Optional			
Dell Smartcard Keyboard	Optional			
Chassis lock slot and loop support	Standard			
Dell Data Protection | Hardware Encryption Engine	Optional			

[1]TPM is not available in all countries. Depending on your country regulations, no-TPM system boards may be available.

SOFTWARE

	MT	DT	SFF	USFF
Dell Client Manager	Available via Dell.com			
Dell Data Protection | Access (DDPA)	Standard			
Dell Data Protection | Encryption (DDPE)	Optional			

ENVIRONMENTAL

NOTE: For more details on Dell Environmental features, please to go to Environmental Attributes section. See your specific region for availability.

	MT	DT	SFF	USFF
Sustainable packaging	X	X	X	
MultiPack packaging	Optional, US only			
Energy Efficient Power Supply	Optional			Standard

ALL-IN-ONE STANDS AND MOUNTS

	MT	DT	SFF	USFF
Small Form Factor AIO Stand			Optional	
Ultra Small Form Factor AIO Stand				Optional
Ultra Small Form Factor Wall Mount / Desk Mount				Optional

SERVICE AND SUPPORT

NOTE: For more details on Dell Service Plans please to go to: www.dell.com/service/service_plans

	MT	DT	SFF	USFF
3 Year Warranty[1] Next Business Day On-site[2] (3-3-3)	Standard			
ProSupport	Optional			

[1] For a copy of our guarantees or limited warranties, please write Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682. For more information, visit www.dell.com/warranty.

[2] Service may be provided by third-party. Technician will be dispatched if necessary following phone-based troubleshooting. Subject to parts availability, geographical restrictions and terms of service contract. Service timing dependent upon time of day call placed to Dell. U.S. only.

DETAILED ENGINEERING SPECIFICATIONS

SYSTEM DIMENSIONS (PHYSICAL)

NOTE: System Weight and Shipping Weight is based on a typical configuration and may vary based on PC configuration. A typical configuration includes: integrated graphics, one hard drive, one optical drive.

	MT	DT	SFF	USFF
Chassis Volume (liters)	26.27	15.06	8.38	3.70
Chassis Weight (pounds/kilograms)	20.68 / 9.4	17.38 / 7.9	13.2 / 6.0	7.26 / 3.3
Chassis Dimensions: (HxWxD)				
Height (inches/centimeters)	14.17 / 36	14.17 / 36	11.42 / 29	9.32 / 23.67
Width (inches/centimeters)	6.89 / 17.5	4.02 / 10.2	3.65 / 9.26	2.56 / 6.5
Depth (inches/centimeters)	16.42 / 41.7	16.14 / 41	12.28/31.2	9.44 / 24
Shipping Weight (pounds/kilograms - includes packaging materials)	24.57 / 11.17	20.75 / 9.43	15.82/7.19	9.63 /4.375
Packaging Parameters (HxWxD)				
Height (inches/centimeters)	21.31/54.13	21.31 / 54.13	19.25/48.90	19.13/48.59
Width (inches/centimeters)	18.75/47.63	18.75/47.63	15.81/40.16	14.38/36.53
Depth (inches/centimeters)	14.09 / 35.79	10.84/27.53	10.19/25.88	9.63/24.46

SYSTEM BOARD CONNECTOR MAXIMUM ALLOWABLE DIMENSIONS

	MT	DT	SFF	USFF
PCI Slot (Voltage supported 3.3V/5V/12V/-12V)	1	1		
Height (inches/centimeters)	4.376 / 11.115	2.731 /6.89		
Length (inches/centimeters)	6.6 / 16.765	6.6/16.765		
Maximum Wattage	25W	25W		
PCIex16 Slot (BLUE) (Voltage supported 3.3V/12V)	1	1	1	
Height (inches/centimeters)	4.376 / 11.115	2.731 /6.89	2.731 /6.89	
Length (inches/centimeters)	6.6/ 16.765	6.6 /16.765	6.6 /16.765	
Maximum Wattage	75W	50W	50W	
PCIex16 wired as x4 Slot (BLACK) (Voltage supported 3.3/12V)	1	1	1	
Height (inches/centimeters)	4.376 / 11.115	2.731 /6.89	2.731 /6.89	
Length (inches/centimeters)	6.6 / 16.765	6.6 /16.765	6.6/16.765	
Maximum Wattage	25W	25W	25W	
PCIe x1 Slot (Voltage supported 3.3V/12V)	1	1		
Height (inches/centimeters)	4.376 / 11.115	2.731 / 6.89		
Length (inches/centimeters)	4.5 / 11.44	4.5 / 11.44		
Maximum Wattage	10W	10W		
Mini PCIe x1 Slot				1

SYSTEM LEVEL ENVIRONMENTAL AND OPERATING CONDITIONS

	MT	DT	SFF	USFF
Temperature				
Operating	10°C to 35°C (50°F to 95°F)			
Non-Operating (Storage)	-40°C to 65°C (-40°F to 149°F)			
Relative Humidity	20% to 80% (non-condensing)			
Maximum vibration				
Operating	0.25 G at 3 to 200 Hz at 0.5 octave/min			
Non-Operating	0.5 G at 3 to 200 Hz at 1 octave/min			
Maximum Shock				
Operating	Bottom half-sine pulse with a change in velocity of 50.8 cm/sec (20 inches/sec)			
Non-Operating	27-G faired square wave with a velocity change of 508 cm/sec (200 inches/sec)			
Maximum Altitude				
Operating	–15.2 to 3048 m (–50 to 10,000 ft)			
Non-Operating	–15.2 to 10,668 m (–50 to 35,000 ft)			

POWER

NOTE: These form factors utilize a more efficient Active Power Factor Correction (APFC) power supply. Dell recommends only Universal Power Supplies (UPS) based on Sine Wave output for APFC PSUs, not an approximation of a Sine Wave, Square Wave, or quasi-Square Wave. If you have questions, please contact the manufac-

	MT		DT		SFF		USFF
	APFC	EPA	APFC	EPA	APFC	EPA	EPA
Power Supply Wattage	275W	275W High Efficiency	250W	250W High Efficiency	240W	240W High Efficiency	200W High Efficiency
AC input Voltage Range	90 – 264Vac	90 – 264Vac	90 – 264Vac	90 – 264Vac	90 – 264Vac	90 – 264Vac	90 – 264Vac
AC input current (low ac range/high AC range)	5.0A / 2.5A	5.0A / 2.5A	4.4A / 2.2A	4.4A / 2.2A	4.0A / 2.0A	3.6A / 1.8A	2.9A / 1.45A
AC input Frequency	47HZ/63HZ	47HZ/63HZ	47HZ/63HZ	47HZ/63HZ	47HZ/63HZ	47HZ/63HZ	47 – 63 Hz
AC holdup time (80% load)	16 mini sec	16 mini sec	16 mini sec	16 mini sec	16 mini sec	16 mini sec	16 mini sec
Minimum Efficiency (Energy Star 5.2 Compliant)		87 – 90 – 87% @ 20 – 50 – 100% load		87 – 90 – 87% @ 20 – 50 – 100% load		87 – 90 – 87% @ 20 – 50 – 100% load	87 – 90 – 87% @ 20 – 50 – 100% load
Typical Efficiency (Active PFC)	65%		65%		65%		N/A
DC parameters							
+3.3V output	10.0A	10.0A	7.0 A	7.0 A	3.5A	3.5A	N/A
+5.0V output	13A	13A	15A	15A	11A	11A	N/A
+12.0V output	12VA/17A; 12VB/10A	12VA/17A; 12VB/10A	17.8A	17.8A	17A	17A	+12VA - 12.5 A & +12VB - 6.0 A Note: +12VB Rated at 0.4A when in Standby Mode.
+5.0V auxiliary output	4.0A	4.0A	4.0	4.0	4.0A	4.0A	N/A
-12.0V output	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.1 A
Max total power	275W	275W	250W	250W	240W	240W	200W
Max combined +3.3V / +5.0V power	100W	100W	90W	90W	60W	60W	N/A
Max combined 12.0V power (note: only if more than one 12V rail)	240W	240W	N/A	N/A	N/A	N/A	200W
BTUs/h (based on PSU max wattage)	938 BTU	938 BTU	853 BTU	853 BTU	819 BTU	819 BTU	682 BTU
Power Supply Fan	80*25mm	80*25mm	80*20/25mm	80*20/25mm	60*25mm	60*25mm	N/A
Compliance:							
Erp Lot6 Tier 2 0.5watt requirement	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Blue Angel Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Climate Savers / 80Plus Compliant	No	Yes	No	Yes	No	Yes	Yes
FEMP Standby Power Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CECP Compliant	No	Yes	No	Yes	No	Yes	Yes

POWER

NOTE: These form factors utilize a more efficient Active Power Factor Correction (APFC) power supply. Dell recommends only Uninterruptible Power Supplies (UPS) based on Sine Wave output for APFC PSUs, not an approximation of a Sine Wave, Square Wave, or quasi-Square Wave. If you have questions, please contact the manufacture to confirm the output type.

3.0v CMOS battery (Type and estimated battery life)				
Brand	Type	Voltage	Composition	Life
PANASONIC	CR-2032L/ BE	3V	Lithium	Continuous Discharge Under 15 kΩ Load to 2.5V End-Voltage. 20°C ±2°C: 1183Hrs. or Longer, 1133Hrs.or Longer after 12 months.
MITSUBISHI	CR2032	3V	Lithium	Continuous Discharge Under 15 kΩ Load to 2.0V End-Voltage. 20°C±2°C: 1000Hrs. or Longer, 970Hrs.or Longer after 12 months. 0°C±2°C: 910Hrs. or Longer, 890Hrs.or Longer after 12 months.

AUDIO

INTEGRATED REALTEK ALC269Q HIGH DEFINITION AUDIO	MT	DT	SFF	USFF
High Definition Stereo support	X	X	X	X
Number of channels	2			
Number of Bits / Audio resolution	16, 20, and 24-bit resolution			
Sampling rate (recording/playback)	Support 44.1K/48K/96K/192 kHz sample rates			
Signal to Noise Ratio	98 dB DAC outputs, 90 dB for ADC inputs			
Analog Audio	X	X	X	X
Dolby Digital				
THX				
Digital out (S/PDIF)				
Audio Jack Impedance				
Microphone	40K ohm~60K ohm			
Line-In	40K ohm~60K ohm			
Line-Out	100~150 ohm			
Headphone	1~4 ohm			
Internal Speaker Power Rating	2Watt (peak) / 1Watt (average)			

COMMUNICATIONS - INTEGRATED LAN

INTEGRATED INTEL® 82579 GIGABIT[1] ETHERNET LAN 10/100/1000	MT	DT	SFF	USFF
External Connector Type	RJ45			
Data Rates supported	10/100/1000 Mbps			
Controller Details				
Controller bus architecture	PCIe-based interface for S0 state, SMBus for Sx low power state			
Integrated memory	N/A			
Data transfer mode (example Bus-Master DMA)	N/A			
Power consumption (full operation per data rate connection speed)	711mW (Max.)			
Power consumption (standby operation)	227mW (Max.)			
IEEE standards compliance (example 802.1P)	802.3			
Hardware Certifications (example FCC, B, GS mark...)	N/A			
Boot ROM Support	EEPROM (located in SPI)			
Network Transfer Mode (example Full Duplex, Half Duplex)				
Network Transfer Rate (example 10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps	10 Mb (full/half-duplex) 100 Mb (full/half-duplex) 1000 Mb (full-duplex)			

COMMUNICATIONS - INTEGRATED LAN (CONT.)

INTEGRATED INTEL® 82579 GIGABIT[1] ETHERNET LAN 10/100/1000 (CONT.)	MT	DT	SFF	USFF
Environmental				
Operating temperature	0°C to 85°C (32° F to 185° F)			
Operating humidity	20% to 80% (non-condensing)			
Operating System Driver Support	Windows 7 32/64, Windows XP 32/64, Vista 32/64			
Manageability (examples WOL, PXE)	WOL, PXE 2.1			
Management Capabilities Alerting	Intel® Standard Manageability, 3rd generation i5/i7 processors with vPro Technology			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – NETWORK ADAPTER (NIC)

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

BROADCOM NETXTREME 10/100/1000 PCIE GIGABIT[1] NETWORKING CARD	MT	DT	SFF	USFF
Connector Type	RJ45			
Data Rates supported	10/100/1000 Mbps Half/Full duplex			
Controller Details				
Controller bus architecture (example PCIe 1.0a x1)	PCIe c1.0a x1			
Integrated memory	64KBytes RX, 8KBytes TX			
Data transfer mode (example Bus-Master DMA)	Bus-Master DMA			
Power consumption (full operation per data rate connection speed)	2.84W (860mA @ +3.3V)			
Power consumption (standby operation)	Less than 300mW			
IEEE standards compliance (example 802.1P)	802.3, 802.2, 802.3x, 802.1p			
Hardware Certifications (example FCC, B, GS mark...)	FCC B, VCCI B, CE			
Boot ROM Support	No			
Network Transfer Mode (example Full Duplex, Half Duplex)				
Network Transfer Rate (example 10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps	10BASE-T (full-duplex) 20 Mbps Max* 100BASE-TX (half-duplex) 100 Mbps Max* 100BASE-TX (full-duplex) 200 MbpsMax* 1000BASE-T (full-duplex) 2000 Mbps Max* * Depends on the system environment.			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

COMMUNICATIONS – NETWORK ADAPTER (NIC) (CONT.)

BROADCOM NETXTREME 10/100/1000 PCIE GIGABIT[1] NETWORKING CARD (CONT.)	MT	DT	SFF	USFF
Environmental				
Operating temperature	0°C C to 55°C (32°F - 131°F)			
Operating humidity	5% ~ 85% (non-condensing)			
Operating System Driver Support	Microsoft Client XP/Vista/Win 7 (32bit/64bit) Linux			
Manageability (examples WOL, PXE)	WOL, PXE2.1, ACPI			
Management Capabilities Alerting (example ASF 2.0)	None			

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

1394a FIREWIRE PCI ADD-IN CARD	
Connector Type	IEEE-1394a-2000 (6 pins)
Controller Details	
Controller bus architecture (example PCIe 1.0a x1)	PCI 2.3
Chipset	LSI
IO Ports	IEEE 1394 (FireWire) with a transfer rate of up to 400Mbps
Power Consumption	Under 30 mA
Connector	2 IEEE-1394a 6 pins connectors
OS Support	Microsoft Client XP/Vista/Win 7 (32bit/64bit)

COMMUNICATIONS – WIRELESS

DELL WIRELESS 1530 PCIE WLAN CARD (802.11N)	MT	DT	SFF	USFF
Dell Wireless 1530 PCIe WLAN card (802.11n)	Custom WLAN Antenna			
Dell Wireless 1530 half miniPCIe WLAN card (802.11n)				Custom WLAN Antenna
Controller Details				
Controller bus architecture	Electrically compatible with the PCI Express Base Specification v1.1 (x1 lane) and PCIe v1.0a.			
WLAN standards supported	802.11a, 802.11b, 802.11g, 802.11n			
802.11b Data Rates supported	11, 5.5, 2, 1 Mbps			
802.11a Data Rates supported	54, 48, 36, 24, 18, 12, 9, 6 Mbps			
802.11g Data Rates supported	54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps			
802.11n Data Rates supported	270, 240, 180, 135, 130, 121.5, 120, 117, 108, 104, 90, 81, 78, 65, 60, 58.5, 54, 52, 40.5, 39, 30, 27, 26, 19.5, 13.5, 13, 6.5 Mbps			
Encryption	WEP 64-bit and 128-bit, TKIP, AES-CCMP 128-bit			
Operating temperature	0°C –70°C			
Operating humidity	Max Operating Humidity 85 %			
Operating System Driver Support	Microsoft Client XP/Vista/Win 7 (32bit/64bit)			

COMMUNICATIONS – SERIAL / PARALLEL PORT PCIE ADD-IN CARD

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

SERIAL / PARALLEL PORT PCIE ADD-IN CARD	MT	DT	SFF	USFF
Connector Type	RS-232 and IEEE1284			
Data Rates supported	50bps ~115.2Kbps (Serial) &Maximum 1.8MBp(Parallel)			
Controller Details				
Controller bus architecture (example PCIe 1.0a x1)	PCI Express one lane (x1)			
Driver Support	Microsoft Client XP/Vista/ Win 7 (32bit/64bit) Linux DOS			
Full height Serial / Parallel add-in card	Optional			
Environment				
Operation Temperature	0°C to 60°C (32°F to 140°F)			
Operation Humidity	5 to 95% RH			
Storage Temperature	-20°C to 85°C (-4°F to 185°F)			

COMMUNICATIONS – SERIAL PORT PCIE ADD-IN CARD

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

SERIAL PORT PCIE ADD-IN CARD	MT	DT	SFF	USFF
Connector Type	RS-232			
Data Rates supported	50bps ~115.2Kbps			
Controller Details				
Controller bus architecture (example PCIe 1.0a x1)	PCI Express one lane (x1)			
Driver Support	Microsoft Client XP/Vista/Win 7 (32bit/64bit) Linux DOS			
Half height Serial add-in card		Optional		
Environment				
Operation Temperature	0°C to 60°C (32°F to 140°F)			
Operation Humidity	5 to 95% RH			
Storage Temperature	-20°C to 85°C (-4°F to 185°F)			

COMMUNICATIONS – SERIAL / PARALLEL PORT PCIE ADD-IN CARD

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

PARALLEL PORT PCIE ADD-IN CARD	MT	DT	SFF	USFF
Connector Type	IEEE1284			
Data Rates supported	Maximum 1.8MBp			
Controller Details				
Controller bus architecture (example PCIe 1.0a x1)	PCI Express one lane (x1)			
Driver Support	Microsoft Client XP/Vista/7 (32bit/64bit) Linux DOS			
Half height parallel add-in card		Optional		
Environment				
Operation Temperature	0°C to 60°C (32°F to 140°F)			
Operation Humidity	5 to 95% RH			
Storage Temperature	-20°C to 85°C (-4°F to 185°F)			

GRAPHICS/VIDEO CONTROLLER

NOTE: MT supports full height (FH) cards and DT and SFF supports low profile (LP) cards.

Onboard Graphics[1,2,3,4] Integrated Intel® HD Graphics 2500/4000 (3rd generation Core i3/i5/i7 CPUs); Integrated Intel® HD Graphics 2000/3000 (2nd generation Core i3 CPUs); Integrated Intel® HD Graphics (Pentium® Dual Core CPU);	MT	DT	SFF	USFF
Bus Type	Integrated			
GPU core clock	Gen6 Core Intel® HD Graphics /HD Graphics 2000 @ 850MHz Gen7 Core Intel® HD Graphics 2500 / 4000 @ 650MHz			
Frame Buffer Memory (onboard and shared) Size and Speed	Depends on available system memory (Up to 1.7GB with 4GB system Memory)			
Overlay Planes	Yes			
Maximum Color Depth	32 bit			
Maximum Vertical Refresh Rate	75 Hz			
Multiple Display Support	Yes			
Operating Systems Graphics/ Video API Support	OpenGL 3.1/OpenCLv1.1 /DirectX 11			
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Up to 2560x1600 @ 60Hz (DP) Up to 1920x1200 @ 60Hz (VGA only)			
External Connectors	VGA, 2 DisplayPort			
DisplayPort				
Bus Type	DDPC			
DisplayPort Audio Support	Yes			
VGA				
Bus Type	CRT			
VGA Audio Support	No			

[1] Up to 1.7 GB of system memory may be allocated to support integrated graphics, depending on operating system, system memory size and other factors.
[2] 3rd generation CPUs natively support 3 displays with the integrated CPU graphics. Three simultaneous display output requires one DP port with a maximum resolution of 2500x1600 at 60Hz refresh rate and a DP and VGA port with max resolutions of 1920x1200 at 60Hz refresh rates.
[3] Display output from both onboard and discrete simultaneously if multi display option in BIOS is enabled and OS used is Win7.
[4] For dual graphics card configuration in PCIex16 and PCIex16 (wire as 4), Bios will disable multi display option automatically and display output only from graphics cards.

1GB AMD RADEON™ HD7570	MT	DT	SFF
Bus Type (example integrated or PCIe x16)	PCIEx16		
GPU core clock	650Mhz		
Frame Buffer Memory (onboard and shared) Size and Speed	800Mhz		
Maximum power consumption	50W		
Overlay Planes	Yes		
Maximum Color Depth	32-bit		
Maximum Vertical Refresh Rate	200Hz		
Multiple Display Support	Yes		
Operating Systems Graphics/ Video API Support	D3D/OpenGL 4.1/OpenCLv1.1/DirectX11		
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Dual-Link DVI: 2560 x 1600, 32-bit color DisplayPort: 2560 x 1600, 32-bit color		
External connectors	DisplayPort, DVI-I		
Audio Support	Yes (For native DP). Able to support audio for DP to HDMI dongle that support audio pass through.		
Dimensions of full height card inches/centimeters (L x H)	6.6 x 4.7 / 16.764 x 12.0		
Dimensions of low profile card inches/centimeters (L x H)		6.6 x 3.35 / 16.764 x 8.5	
Environmental Operating Conditions (Non-Condensing):			
Operating Temperature Range	10°C -55°C		
Relative Humidity Range	5-90% RH		
Altitude Range	0-20,000 ft.		

1GB AMD RADEON™ HD7470	MT	DT	SFF
Bus Type (example integrated or PCIe x16)	PCIEx16		
GPU core clock	775Mhz		
Frame Buffer Memory (onboard and shared) Size and Speed	900Mhz		
Maximum power consumption	25W		
Overlay Planes	Yes		
Maximum Color Depth	32-bit		
Maximum Vertical Refresh Rate	200Hz		
Multiple Display Support	Yes		
Operating Systems Graphics/ Video API Support	D3D/OpenGL 4.1/OpenCLv1.1/DirectX11		
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Dual-Link DVI: 2560 x 1600, 32-bit color DisplayPort: 2560 x 1600, 32-bit color		
External connectors	DisplayPort, DVI-I		
Audio Support	Yes (For native DP). Able to support audio for DP to HDMI dongle that support audio pass through.		
Dimensions of full height card inches/centimeters (L x H)	6.6 x 4.7 / 16.764 x 12.0		
Dimensions of low profile card inches/centimeters (L x H)		6.6 x 3.35 / 16.764 x 8.5	
Environmental Operating Conditions (Non-Condensing):			
Operating Temperature Range	10°C -55°C		
Relative Humidity Range	5-90% RH		
Altitude Range	0-20,000 ft.		

HARD DRIVES[1]

3.5" 1TB SATA 7200 RPM HDD	
Capacity	1TB
Dimensions inches (W x D x H)	Approximately (4.00 x 5.787 x 1.028 inches)
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	32 MB
Rotational Speed	7200 rpm
Logical Blocks	1,953,525,168
Power Source	
Power Consumption (reference only)	Idle 5.0W, Active 10.0W(running IOmeter utility)
Spin Up Current (reference only)	5V (1A) ,12V (2A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

3.5" 500GB SATA 7200 RPM HDD	
Capacity	500GB
Dimensions inches (W x D x H)	Approximately (4.00 x 5.787 x 1.028 inches)
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	16 MB
Rotational Speed	7200 rpm
Logical Blocks	976,773,168
Power Source	
Power Consumption (reference only)	Idle 5.0W, Active 10.0W(running IOmeter utility)
Spin Up Current (reference only)	5V (1A) ,12V (2A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

3.5" 250GB SATA 7200 RPM HDD	
Capacity	250GB
Dimensions inches (W x D x H)	Approximately (4.00 x 5.787 x 1.028 inches)
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	8 MB
Rotational Speed	7200 rpm
Logical Blocks	488,397,168
Power Source	
Power Consumption (reference only)	Idle 5.0W, Active 10.0W(running IOmeter utility)
Spin Up Current (reference only)	5V (1A) ,12V (2A)

Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

2.5" 500GB SATA 7200 RPM HDD	
Capacity	500GB
Dimensions inches (W x D x H)	Approximately (3.93 x 2.75 x 0.374 inches)
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	16 MB
Rotational Speed	7200 rpm
Logical Blocks	976,773,168
Power Source	
Power Consumption (reference only)	Idle 0.7W, Active 3.25W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

2.5" 320GB SATA 7200 RPM HDD	
Capacity	320GB
Dimensions inches (W x D x H)	Approximately (3.93 x 2.75 x 0.374 inches)
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	16 MB
Rotational Speed	7200 rpm
Logical Blocks	625, 142,448
Power Source	
Power Consumption (reference only)	Idle 0.7W, Active 3.25W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

2.5" 320GB SATA 7200 RPM OPAL SED W/FIPS HDD	
Capacity	320GB
Dimensions inches (W x D x H)	Approximately (2.75 x 3.94 x 0.374 inches)
Interface type and Maximum speed	Up to 3Gb/s
Internal buffer size	16 MB
Rotational Speed	7200 rpm
Logical Blocks	625,142,448
Power Source	
Power Consumption (reference only)	Idle 0.7W, Active 3.25W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

2.5" 500GB SATA 7200 RPMHYBRID HDD	
Capacity	500GB
Dimensions inches (W x D x H)	Approximately (3.93 x 2.75 x 0.374 inches)
Interface type and Maximum speed	Up to 6Gb/s
Internal buffer size	16 MB
Flash Cache	8GB
Logical Blocks	976,773,168
Power Source	
Power Consumption (reference only)	Idle 0.8W, Active 3.25W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing):	
Temperature Range	5°C to 60°C
Relative Humidity Range	20% to 80% non-condensing
Maximum Wet Bulb Temperature	29°C
Altitude Range	-50 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 65°C
Relative Humidity Range	10% to 90% non-condensing
Maximum Wet Bulb Temperature	38°C
Altitude Range	-50 ft to 35000 ft

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

HARD DRIVES[1] (CONT.)

2.5" 128GB[1] SATA SOLID STATE DRIVE	
Capacity	128GB
Dimensions inches (W x D x H)	Approximately (2.75 x 3.94 x 0.276 inches)
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
MTBF	1M hours
Logical Blocks	250,069,680
Power Source	
Power Consumption (reference only)	Idle 0.5W, Active 2.5W

Environmental Operating Conditions (Non-Condensing):	
Temperature Range	0°C to 70°C
Relative Humidity Range	10 to 90%
Maximum Wet Bulb Temperature	29°C
Op Shock (@0.5ms)	1,500G
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-55°C to 95°C
Relative Humidity Range	5 to 95%
Maximum Wet Bulb Temperature	38°C

[1] For hard drives, GB means 1 billion bytes ; actual capacity varies with preloaded material and operating environment and will be less.

OPTICAL DRIVES

DVD +/- RW[1]	MT	DT	SFF	USFF
External Dimensions inches/centimeters (Without Bezel – W x H x D)	148.2mm(6in)/42mm (2in)/ 171 (max)	148.2mm(6in)/42mm (2in)/ 171 (max)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)
Weight (max) pounds/ kilograms	700g	700g	170g	170g
Interface type and speed	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s
Disc Capacity	Standard	Standard	Standard	Standard
Internal buffer size	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Access Times (typical)	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Maximum Data Transfer Rates				
Writes	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD / 24x CD
Reads	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD/ 24x CD
Power Source				
DC Power Requirements	12V, 5V	12V, 5V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	1000mA	1000mA
Environmental Operating Conditions (Non-Condensing):				
Operating Temperature Range	5°C to 50°C	5°C to 50°C	5°C to 50°C	5°C to 50°C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29°C	29°C	29°C	29°C
Altitude Range	-200 to 3048	-200 to 3048	-200 to 3048	-200 to 3048
Environmental Non-Operating Conditions (Non-Condensing):				
Operating Temperature Range	-40°C to 65°C	-40°C to 65°C	-40°C to 65°C	-40°C to 65°C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38°C	38°C	38°C	38°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

[1] Discs burned with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility.

DVD-ROM	MT	DT	SFF	USFF
External Dimensions inches/centimeters (Without Bezel – W x H x D)	148.2mm(6in)/42mm (2in)/ 171 (max)	148.2mm(6in)/42mm (2in)/ 171 (max)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)	128.0 mm (5.04)/ 12.7mm (0.5 in)/ 126.1mm (4.97in)
Weight (max) pounds/ kilograms	700g	700g	165g	165g
Interface type and speed	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s	SATA 1.5Gbit/s
Disc Capacity	Standard	Standard	Standard	Standard
Internal buffer size	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Access Times (typical)	supplier dependent	supplier dependent	supplier dependent	supplier dependent
Maximum Data Transfer Rates				
Writes	N/A	N/A	N/A	N/A
Reads	16x DVD/48x CD	16x DVD/48x CD	8x DVD/ 24x CD	8x DVD/ 24x CD

OPTICAL DRIVES (CONT.)

DVD-ROM (CONT.)	MT	DT	SFF	USFF
Power Source				
DC Power Requirements	12V, 5V	12V, 5V	5V	5V
DC Current	1200mA (12V)/ 900mA (5V)	1200mA (12V)/ 900mA (5V)	800mA	800mA
Environmental Operating Conditions (Non-Condensing):				
Operating Temperature Range	5°C to 50°C	5°C to 50°C	5°C to 50°C	5°C to 50°C
Relative Humidity Range	20% to 80% RH	20% to 80% RH	20% to 80% RH	20% to 80% RH
Maximum Wet Bulb Temperature	29°C	29°C	29°C	29°C
Altitude Range	-200 to 3048m	-200 to 3048m	-200 to 3048m	-200 to 3048m
Environmental Non-Operating Conditions (Non-Condensing):				
Operating Temperature Range	-40°C to 65°C	-40°C to 65°C	-40°C to 65°C	-40°C to 65°C
Relative Humidity Range	5% to 95% RH	5% to 95% RH	5% to 95% RH	5% to 95% RH
Maximum Wet Bulb Temperature	38°C	38°C	38°C	38°C
Altitude Range	-200 to 10600m	-200 to 10600m	-200 to 10600m	-200 to 10600m

MEDIA CARD READER (MCR)

NOTE: Dell 19 in 1 Media Card Reader (MCR) is supported via a F5 to F3 bay converter on the MT and DT and may require a slim line optical drive depending on selectable configuration. MCR is not available on the SFF and USFF chassis.

19 IN 1 MEDIA CARD READER	MT/DT
External Dimensions inches/(centimeters) (With Bezel – W x H)	3.99/(10.13cm)/1.0/(2.54cm)
Weight (max) pounds/kilograms	~155g
Interface type and speed	USB 2.0, 480Mb/s
Media Supported (maximum capacity supported will vary by Flash Media Types)	
Media Supported	CF I CF II Micro Drive (MD) Secure Digital (SD) SDHC Mini Secure Digital (mini-SD) Micro Secure Digital (Micro-SD)(with adapter) Multi Media Card (MMC) RS Multi Media Card (RS-MMC) Multi Media Card plus (MMC plus) RS Multi Media Card plus (RS-MMC plus) Multi Media Card Micro(MMC Micro) (with adapter) Memory Stick (MS) Memory Stick Pro(MS Pro) Memory Stick Pro Duo (MS Pro Duo) Memory Stick Duo (MS-Duo) Memory Stick Micro(MS Micro)(M2) (with adapter) Smart Media (SM) xD
Support Specification Versions:	Compact Flash type I/II Version 4.0 Smart Media (SM) Specification 2003 Multi Media Card (MMC) Specification 4.2 Secure Digital (SD) 2.0 Memory Stick Pro (MS-PRO) Specification 1.02 Memory Stick (MS) Specification 1.43 xD Specification 1.2
Power Source	
Max Power Requirements	2.5W
Supply Voltage Range	4.75V ~ 5.25V
Power Consumption:	Standby less than 0.5mA @ 5.0VDC
Environmental Operating Conditions (Non-Condensing):	
Operating Temperature Range	5°C to 50°C
Relative Humidity Range	10% to 90% RH
Environmental Non-Operating Conditions (Non-Condensing):	
Operating Temperature Range	-40°C to 65°C
Relative Humidity Range	5% to 95% RH

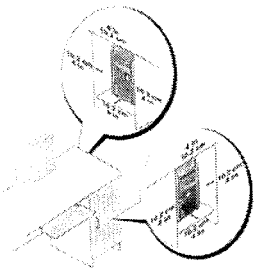
BIOS DEFAULTS

System Configuration	Integrated NIC:	Enable w/PXE
	Serial Port:	COM1
	SATA Operation:	AHCI
	Drives:	Enable (SATA-0, SATA-1, SATA-2, SATA-3)
	SMART Reporting:	Disable
	USB Configuration:	Enable (Boot Support, Front USB Ports, Rear Dual USB Ports, Rear Quad USB Ports)
	Miscellaneous Devices:	Enable (PCI Slot)
Video	Multi-display:	Disable (For system with discrete graphics)
Security	Strong Password:	Disable
	Password Configuration:	4~32
	Password Bypass	Disable
	Password Changes:	Enable
	TPM Security:	Disable
	Computrace®:	Deactivate
	CPU XD Support:	Enable
	OROM Keyboard Access	Enable
	Admin Setup Lockout	Disable
	Chassis Intrusion	Disable (For system with Chassis Intrusion detection)
Performance	Multiple Core Support:	All
	Intel® SpeedStep™:	Enable
	C States Control:	Enable
	Intel TurboBoost	Enable
	HyperThread control:	Enable
	HDD Protection Support	Enable (For China market only)
Power Management	AC Recovery:	Power Off
	Auto On Time:	Disable
	Deep Sleep Control:	Disable
	Fan Control Override:	Disable
	USB Wake Support	Disable
	Wake on LAN/WLAN:	Disable
	Block sleep	Disable
POST Behavior	Numlock LED:	Enable
	Keyboard Errors:	Enable
	POST HotKeys:	Enable
Virtualization Support	Virtualization:	Enable
	VT for Direct I/O:	Enable
	Trusted Direct I/O	Disable
Maintenance	Service Tag:	Set by the factory
	Asset Tag:	Optional User Entry
	SERR Message:	Enable

CHASSIS ENCLOSURE & VENTILATION REQUIREMENTS

ENCLOSURE VENTILATION

If your enclosure has doors, they need to be of a type that allows at least 30% airflow through the enclosure (front and back).

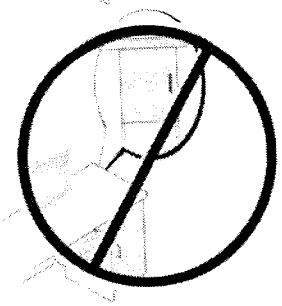


ENCLOSURE MINIMUM CLEARANCE

Leave a 10.2 cm (4 in.) minimum clearance on all vented sides of the computer to permit the airflow required for proper ventilation.

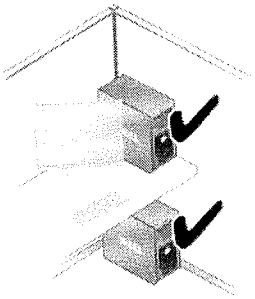
RECOMMENDED ENCLOSURE

Do not install your computer in an enclosure that does not allow airflow. This restricts the airflow and impacts your computer's performance, possibly causing it to overheat.



OPEN DESK MINIMUM CLEARANCE

If your computer is installed in a corner, on a desk, or under a desk, leave at least 5.1 cm (2 in.) clearance from the back of the computer to the wall to permit the airflow required for proper ventilation.



REGULATORY COMPLIANCE AND ENVIRONMENTAL

Product related conformity assessment and regulatory authorizations including Product Safety, Electromagnetic Compatibility (EMC), Ergonomics, and Communication Devices relevant to this product may be viewed at www.dell.com/regulatory_compliance. The Regulatory Datasheet for this product is located at http://www.dell.com/regulatory_compliance.

Details of Dell's environmental stewardship program to conserve product energy consumption, reduce or eliminate materials for disposal, prolong product life span and provide effective and convenient equipment recovery solutions may be viewed at www.dell.com/environment. Product related conformity assessment, regulatory authorizations, and information encompassing Environmental, Energy Consumption, Noise Emissions, Product Materials Information, Packaging, Batteries, and Recycling relevant to this product may be viewed by clicking the Design for Environment link on the webpage.

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 7010 MT

Component	Typical Configuration	High-end Configuration
CPU	Ivy Bridge i5 3470	Ivy Bridge i5 3770
Memory	4G DDR3 1600MHz	8G DDR3 1600MHz(x2)
HDD (#, capacity)	500G 7200RPM SATA3	1T 7200RPM SATA3(x2)
RMSD	16X DVD+/-RW SATA HH	16X DVD+/-RW SATA HH
Graphics Adapter	Intel® HD Graphics Family	ATI Radeon HD7570

The Declared Noise Emission in accordance with ISO 9296 for the Dell OptiPlex 7010 MT is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	4.0	4.3
HDD Operating	4.0	4.4
90% CPU	4.0	4.8
ODD Operating	5.2	5.2

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)				High-end Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing		Table-Top		Floor- Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)
Idle	29.4	25.3	23.2	22.1	35.9	33.6	24.7	24.3
HDD Operating	29.5	25.7	23.6	22.2	36.9	34.7	25.4	24.5
90% CPU	30.3	26.9	23.9	22.7	37.5	35.9	26.9	26.8
ODD Operating	42.7	39.6	36.6	35.4	42.7	40.1	37.1	34.7

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 7010 DT

Component	Typical Configuration	High-end Configuration
CPU	Ivy Bridge i5 3470	Ivy Bridge i5 3770
Memory	4G DDR3 1600MHz	8G DDR3 1600MHz(x2)
HDD (#, capacity)	500G 7200RPM SATA3	1T 7200RPM SATA3
RMSD	16X DVD+/-RW SATA HH	16X DVD+/-RW SATA HH
Graphics Adapter	Intel® HD Graphics Family	ATI Radeon HD7570

The Declared Noise Emission in accordance with ISO 9296 for the Dell OptiPlex 7010 DT is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	3.4	3.9
HDD Operating	3.4	4.0
90% CPU	3.6	4.2
ODD Operating	5.1	5.2

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)				High-end Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing		Table-Top		Floor- Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)
Idle	22.5	20.1	19.8	19.1	25.2	23.1	22.0	21.1
HDD Operating	22.7	20.0	19.5	19.2	25.4	23.5	21.9	20.9
90% CPU	23.9	22.2	24.6	23.5	32.6	30.2	25.7	25.2
ODD Operating	44.5	39.3	36.3	35.1	44.5	39.5	37.2	35.4

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 7010 SFF

Component	Typical Configuration	High-end Configuration
CPU	Ivy Bridge i5 3470	Ivy Bridge i5 3770
Memory	4G DDR3 1600MHz	8G DDR3 1600MHz(x2)
HDD (#, capacity)	500G 7200RPM SATA3	1T 7200RPM SATA3
RMSD	8X 12.7 SATA DVDRW	8X 12.7 SATA DVDRW
Graphics Adapter	Intel® HD Graphics Family	ATI Radeon HD7570

The Declared Noise Emission in accordance with ISO 9296 for the Dell OptiPlex 7010 SFF is as follows: (all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})	High-end Configuration Declared Sound Power (L_{WAd})
Idle	3.9	4.3
HDD Operating	3.9	4.3
90% CPU	3.9	4.4
ODD Operating	4.8	4.8

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)				High-end Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing		Table-Top		Floor- Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)
Idle	30.2	25.5	25.2	24.5	31.1	27.2	26.2	25.7
HDD Operating	30.3	25.8	25.5	24.9	31.4	27.5	26.1	25.8
90% CPU	33.1	29.2	26.9	26.0	34.3	30.7	28.9	28.5
ODD Operating	36.5	32.7	30.9	29.9	37.7	32.9	32.9	32.1

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

ACOUSTIC NOISE EMISSION INFORMATION

OPTIPLEX 7010 USFF

Component	Typical Configuration
CPU	Ivy Bridge i5 3470
Memory	4G DDR3 1600MHz
HDD (#, capacity)	500G 7200RPM SATA2
RMSD	8X 12.7 SATA DVDRW
Graphics Adapter	Intel® HD Graphics Family

The Declared Noise Emission in accordance with ISO 9296 for the Dell Optiplex 7010 USFF is as follows:
(all values L_{WAd} expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

Operating Mode	Typical Configuration Declared Sound Power (L_{WAd})
Idle	3.9
HDD Operating	3.9
90% CPU	4.8
ODD Operating	4.7

The Declared A-weighted Sound Pressure Level in decibels (re $2x10^{-5}$ Pa), at Operator, Bystander, and Desk Side Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Operating Mode	Typical Configuration Declared Sound Pressure (LpA)			
	Table-Top		Floor-Standing	
	Operator Position (LpA)	Bystander Position (LpA)	Operator Position (LpA)	Bystander Position (LpA)
Idle	28.5	25.4	22.9	21.6
HDD Operating	28.6	25.6	22.9	21.7
90% CPU	28.9	25.8	23.8	21.9
ODD Operating	40.3	35.9	32.5	29.9

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except 90% CPU. For this mode, the system CPU was stressed at 90% utilization with no other peripheral device actively seeking. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.
[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

Dell OptiPlex 7010

Informações sobre configuração e recursos

Sobre as Advertências

⚠ **ATENÇÃO: uma ADVERTÊNCIA indica um potencial de danos à propriedade, risco de lesões corporais ou mesmo risco de vida.**

Minitorre — Visão frontal e traseira

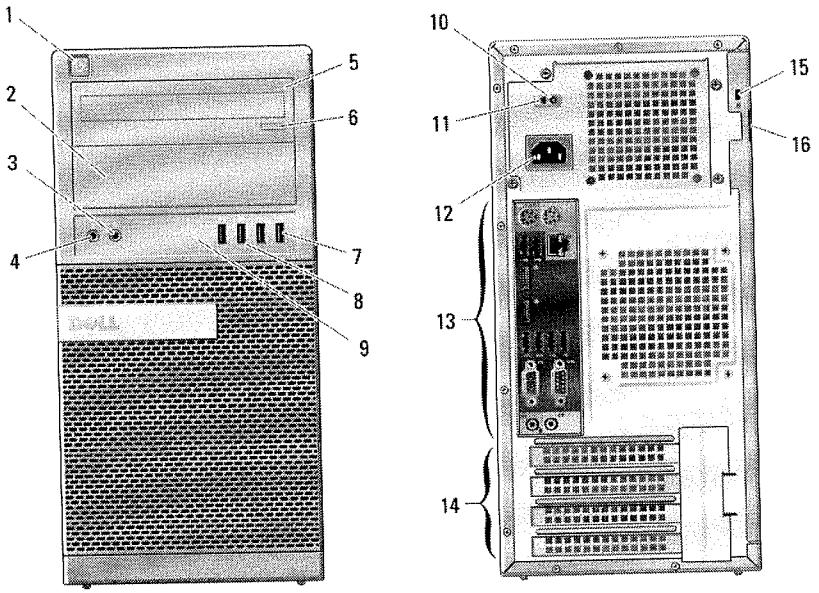


Figura 1. Visão frontal e traseira da minitorre

1. botão liga/desliga, luz de alimentação
2. compartimento de unidade óptica (opcional)
3. conector de fone de ouvido
4. conector de microfone
5. unidade óptica (opcional)
6. botão de ejeção da unidade ótica
7. conectores USB 2.0 (2)
8. conectores USB 3.0 (2)

0FJ2F5A00

Modelo normativo: D05D, D09M, D03S, D01U
Tipo normativo: D05D002, D09M003, D03S002, D01U003
2011 - 12

9. luz de atividade da unidade
10. luz de diagnóstico da fonte de alimentação
11. botão de diagnóstico da fonte de alimentação
12. conector de alimentação
13. conectores do painel traseiro
14. slots de placa de expansão (4)
15. encaixe do cabo de segurança
16. anel para cadeado

Área de trabalho — Visão frontal e traseira

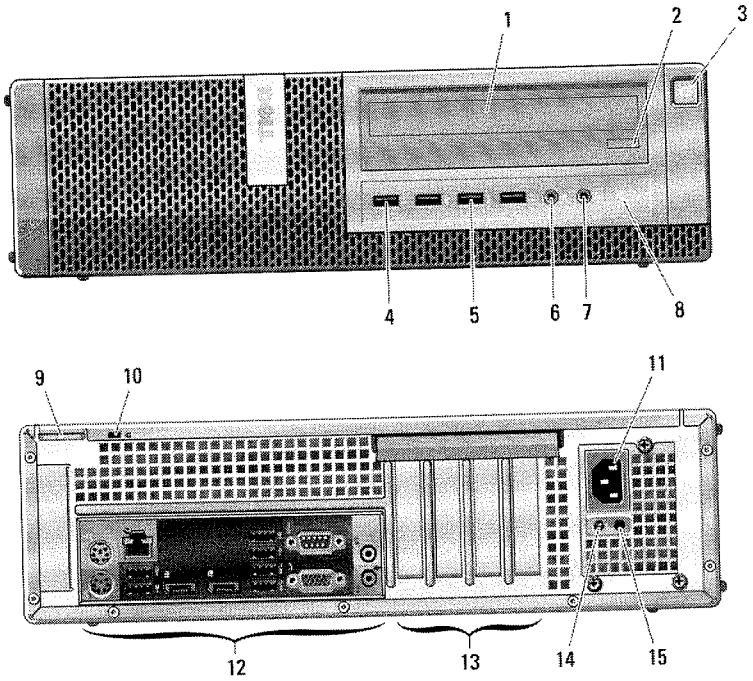


Figura 2. Visão frontal e traseira da Área de trabalho

1. unidade óptica
2. botão de ejeção da unidade ótica
3. botão liga/desliga, luz de alimentação
4. conectores USB 2.0 (2)
5. conectores USB 3.0 (2)
6. conector de microfone
7. conector de fone de ouvido
8. luz de atividade da unidade
9. anel para cadeado
10. encaixe do cabo de segurança
11. conector de alimentação

12. conectores do painel traseiro
13. slots de placa de expansão (4)
14. luz de diagnóstico da fonte de alimentação
15. botão de diagnóstico da fonte de alimentação

Minitorre e Desktop - Visão do painel traseiro

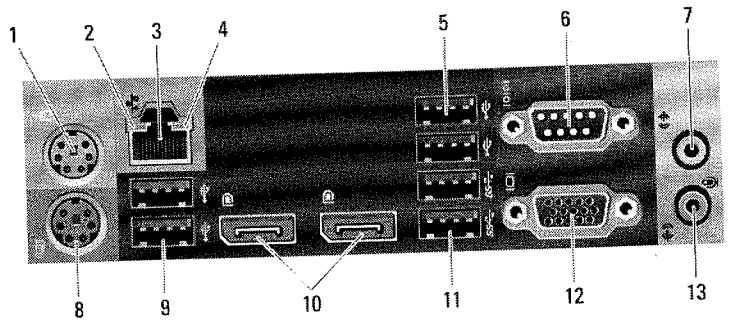


Figura 3. Visão do painel traseiro da Minitorre e do Desktop

1. conector do mouse
2. luz de integridade da conexão de rede
3. conector de rede
4. luz de atividade da rede
5. conectores USB 2.0 (2)
6. conector serial
7. conector de saída de linha
8. conector para teclado
9. conectores USB 2.0 (2)
10. conectores DisplayPort (2)
11. conectores USB 3.0 (2)
12. conector VGA
13. conector de entrada de linha/ microfone

Fator de forma pequeno — Visão frontal e traseira

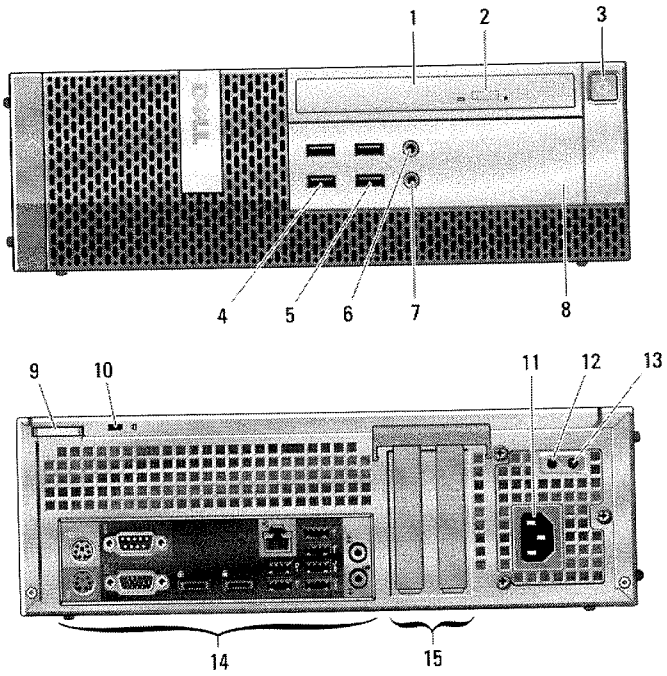


Figura 4. Visão frontal e traseira do fator de forma pequeno

1. unidade óptica
2. botão de ejeção da unidade ótica
3. botão liga/desliga, luz de alimentação
4. conectores USB 2.0 (2)
5. conectores USB 3.0 (2)
6. conector de microfone
7. conector de fone de ouvido
8. luz de atividade da unidade
9. anel para cadeado
10. encaixe do cabo de segurança
11. conector de energia
12. botão de diagnóstico da fonte de alimentação
13. luz de diagnóstico da fonte de alimentação
14. conectores do painel traseiro
15. slots de placa de expansão (2)

Fator de forma pequeno — Visão do painel traseiro

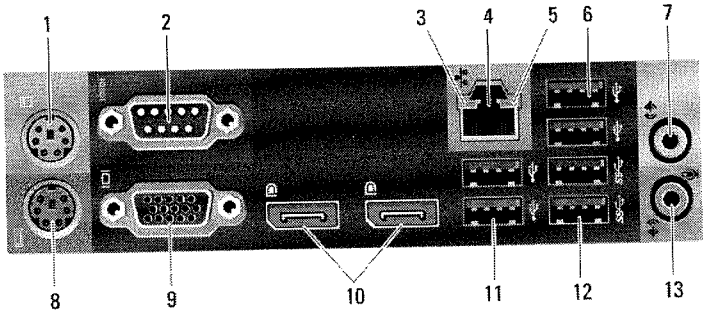


Figura 5. Visão do painel traseiro do fator de forma pequeno

1. conector do mouse
2. conector serial
3. luz de integridade da conexão
4. conector de rede
5. luz de atividade da rede
6. conectores USB 2.0 (2)
7. conector de saída de linha
8. conector para teclado
9. conector VGA
10. conectores DisplayPort (2)
11. conectores USB 2.0 (2)
12. conectores USB 3.0 (2)
13. conector de entrada de linha/ microfone

Fator de forma ultra pequeno — Visão frontal e traseira

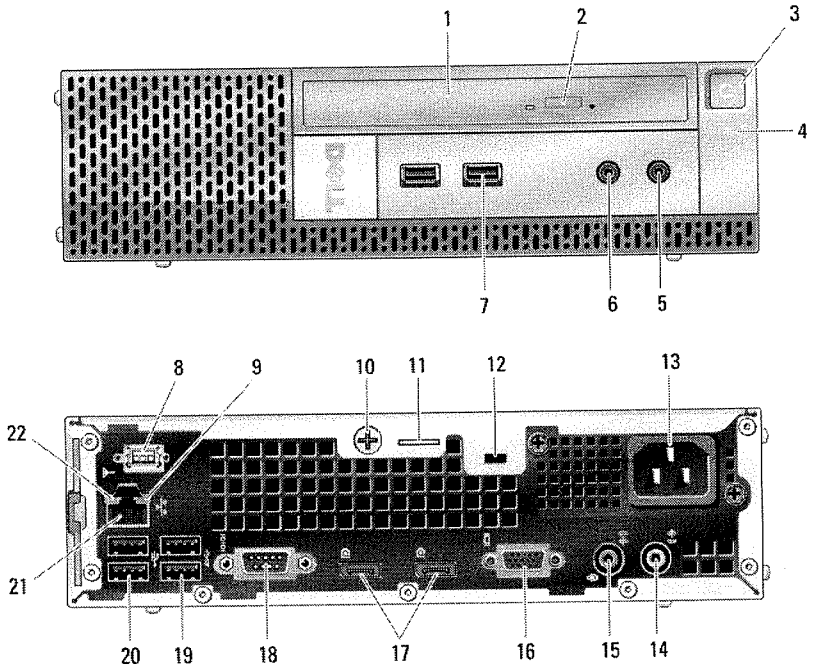


Figura 6. Visão frontal e traseira do fator de forma ultra pequeno

1. unidade óptica
2. botão de ejeção da unidade ótica
3. botão liga/desliga, luz de alimentação
4. luz de atividade da unidade
5. conector de fone de ouvido
6. conector de microfone
7. conectores USB 3.0 (2)
8. antena Wi-Fi (opcional)
9. luz de atividade da rede
10. parafuso prisioneiro de aperto manual
11. anel para cadeado
12. encaixe do cabo de segurança
13. conector de energia
14. conector de saída de linha
15. conector de entrada de linha/ microfone
16. conector VGA
17. conectores DisplayPort (2)
18. conector serial
19. conectores USB 3.0 (2)
20. conectores USB 2.0 (2)
21. conector de rede
22. luz de integridade da conexão

Configuração rápida

ATENÇÃO: Antes de iniciar qualquer procedimento descrito nesta seção, leia as informações de segurança fornecidas com o computador. Para obter informações adicionais sobre as práticas recomendadas, consulte www.dell.com/regulatory_compliance.

NOTA: Alguns dispositivos só serão fornecidos se você os tiver incluído no seu pedido.

1. Conecte o monitor usando somente um dos cabos a seguir:

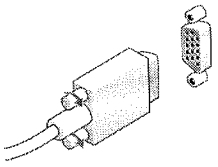


Figura 7. Adaptador VGA

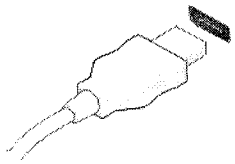


Figura 8. Cabo DisplayPort

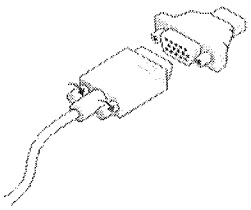


Figura 9. Adaptador VGA para DisplayPort

2. Conecte o teclado ou o mouse USB (opcional).

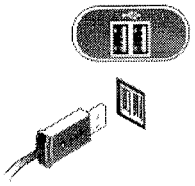


Figura 10. Conexão USB

3. Conecte o cabo de rede (opcional).

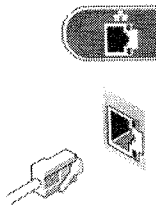


Figura 11. Conexão de rede

4. Conecte o(s) cabo(s) de alimentação.

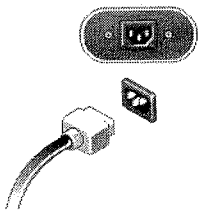


Figura 12. Como conectar a energia

5. Pressione os botões liga/desliga do monitor e do computador.

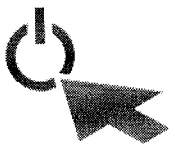


Figura 13. Como ligar

Especificações

NOTA: As ofertas podem variar de acordo com a região. As especificações a seguir se limitam àquelas exigidas por lei para fornecimento com o computador. Para obter mais informações sobre a configuração do computador, clique em **Iniciar** → **Ajuda e suporte** e selecione a opção para mostrar as informações sobre o computador.

Energia	Minitorre	Área de trabalho	Fator de forma pequeno	Fator de forma ultra pequeno
Tensão	100 VCA a 240 VCA			
Bateria de célula tipo moeda	Célula de lítio tipo moeda CR2032 de 3 V			
Potência	275 W	250 W	240 W	200 W
Dissipação máxima de calor	938,30 BTU/h	853,00 BTU/h	818,89 BTU/h	682,40 BTU/h

NOTA: A dissipação de calor é calculada com base no valor nominal de potência da fonte de alimentação.

Características físicas	Minitorre	Área de trabalho	Fator de forma pequeno	Fator de forma ultra pequeno
Altura	360 mm (14,17 polegadas)	360 mm (14,17 polegadas)	290 mm (11,42 polegadas)	237 mm (9,33 polegadas)
Largura	175 mm (6,89 polegadas)	102 mm (4,02 polegadas)	93 mm (3,66 polegadas)	65 mm (2,56 polegadas)
Profundidade	417 mm (16,42 polegadas)	410 mm (16,14 polegadas)	312 mm (12,28 polegadas)	240 mm (9,44 polegadas)
Peso (mínimo)	9,40 kg (20,72 lb)	7,90 kg (17,42 lb)	6,00 kg (13,22 lb)	3,30 kg (7,28 lb)

Requisitos ambientais	
Temperatura operacional:	10 °C a 35 °C (50 °F a 95 °F)

Como encontrar mais informações e recursos

Consulte os documentos sobre segurança e normalização que foram fornecidos com seu computador e também a página de conformidade normativa em **www.dell.com/regulatory_compliance** para obter mais informações sobre:

- Práticas de segurança recomendadas
- Certificação de normalização
- Ergonomia

Consulte **www.dell.com** para obter informações adicionais sobre:

- Garantia
- Termos e condições (apenas para os EUA.)
- Contrato de licença para o usuário final

Estão disponíveis informações adicionais em seu produto em **support.dell.com/manuals**.

Regulatory Compliance

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Regulatory Compliance

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- Protection Against Electrostatic Discharge (ESD)
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- Modem, Wireless and Mobile Broadband Devices
- Archived Datasheets
- R&TTE Compliance Statement
- Usage Restrictions
- Import/Export Compliance
- AC Adapters for Use with your Dell System
- OEM Solutions Regulatory

Regulatory Compliance Policy

Dell Inc. (Dell) is committed to compliance with the laws and regulations in each country into which the company ships our products. Dell products are designed and tested to meet the appropriate worldwide standards for Product Safety, Electromagnetic Compatibility, Ergonomics and other regulatory compulsory requirements, when used for their intended purpose.

Electromagnetic Compatibility

Dell products are designed, tested, and classified for their intended electromagnetic environment (domestic/residential environment or business/industrial environment). Electromagnetic Compatibility (EMC) is the ability of items of electronic equipment to function properly together in the electronic environment. While all Dell computer systems have been designed and determined to be compliant with regulatory agency limits for EMC, there is no guarantee that interference will not occur in a particular installation.

For the product agency information, e.g., FCC, or European Union, click here EMC Regulatory Notices. The EMC Regulatory Notices for the international EMC specifications marks and approvals are for the EMC Emissions Class, as noted on the product specific Product Safety, EMC and Environmental Datasheet, and are provided in applicable agency/country language(s).

Communication Devices - Radio and Modem

Dell's communication devices are developed, designed and tested to comply with the various wireless (radio) and telecom agency requirements throughout the world. This compliance ensures that these devices do not cause any harm to Public Switching Telecommunication Networks (PSTN) and do not violate any power and frequency spectrum allocations on a country by country basis.

Modem, Wireless (Radio), Access Point (Wireless LAN) and Mobile Broadband Devices: To view details on device approvals, safety information and regulatory information, e.g. BSMI, Industry

Helpful Links

- EMC Regulatory Notices
- Safety Information
- Modem, Wireless and Mobile Broadband Devices
- R&TTE Compliance Statement
- Usage Restrictions

Canada (IC), click here Modem, Wireless and Mobile Broadband Devices. User manuals for these individual communications components can be downloaded from the Dell support web site.

Potential Usage Restrictions: To view guidelines on usage restrictions, including how to determine if the restrictions apply to the Dell product you have purchased, click here Usage Restrictions.

European Union Radio & Telecommunications Terminal Equipment (R&TTE): Dell products that contain R&TTE technologies and have CE marking are in compliance with the essential requirements and other relevant provisions of EU Directive 1995/5/EU. To view the Dell R&TTE Compliance statement in the official languages of the European Union click here R&TTE Compliance Statement.

Declaration(s) of Conformity

A copy of the original CE Declaration of Conformity is on file and available upon request for all CE Marked Dell products. To receive a copy of a Declaration, please send an e-mail to Regulatory_Compliance@dell.com with the marketing name and model number for the relevant product(s) included in the body of the e-mail.

For products that incorporate modems and/or wireless communications interfaces (e.g., WiFi, Bluetooth), please click here to view the R&TTE Compliance Statement.

Product Safety

The base internationally recognized product safety standard for Information Technology Equipment (ITE), such as computer systems, printers and monitors, IEC 60950 provides design and testing requirements for safe use of the equipment. Designing products to this standard reduces the risk of hazards from electrical, thermal, mechanical, chemical and radiation conditions.

Safety standards appropriate to the category of equipment are used for the designing and testing of non-Information Technology Equipment.

General product safety information is provided within the Safety Information section of this website. Product-specific safety information which is intended to address a product-specific feature (e.g., wall-mounting brackets) is provided within the documentation shipped with an optional product-specific feature. Note that product safety warnings and cautions for certain components, accessories and peripherals may be provided within the product safety information applicable for the component, accessory and peripheral. Product users should ensure that they have read and are familiar with all product safety information applicable to the use of their systems, components, accessories and peripherals.

Air Travel

When traveling with your Dell computer or Personal Electronic Device (PED), it is important to understand the restrictions of use for your product while on board an aircraft. Dell encourages you to review the safety information applicable to your adapter, batteries and wireless device before traveling with your PED. Additionally, Dell recommends that you review the Air Travel information included on this website and provided by your airline.

Product Use and Handling

In addition to the safety information provided with your product at shipment and herein within the section entitled Safety Information, Dell recommends that you review the Product Use and Handling information included on this website. Adherence to the guidelines provided on this website will assist in protecting your product.

Electrostatic Discharge

Dell products that have the CE marking are designed and tested for immunity to Electrostatic Discharge (ESD) to IEC standard 61000-4-2, CISPR 22, and CISPR 24. While these products have been designed and determined to be compliant with standard levels for ESD, there may be situations, such as low humidity levels, that can exacerbate ESD event occurrence. Users are encouraged to read and follow the ESD protection guidance provided within the Protecting Against Electrostatic Discharge section of this website.

Ergonomics

Dell products are designed to capitalize on accepted Information Technology (IT) focused worldwide standards and industry guidelines as guiding principles. Ergonomic standards provide guidance on various product characteristics to enhance the interaction between people and machines. Certain products are, as indicated on the product-specific Product Safety, EMC and Environmental Datasheet, tested and certified to achieve the regional ergonomics marks and labels.

Ergonomic instructions for the use of portable and desktop computer systems are provided within the Ergonomics Information section of this website.

Peripherals

Peripherals include, but are not limited to, such devices as remote controls, mice and keyboards. To determine the EMC classification of and the EMC approvals applicable for your peripheral device(s), please refer to the Product Safety, EMC and Environmental Datasheet for your product (e.g., desktop computer, laptop computer, printer, television, etc.).

Environmental Affairs

Dell's environmental stewardship program drives conservation of product energy consumption; develops methods to reduce or eliminate materials for disposal; prolongs product life span; and

provides effective and convenient equipment recovery solutions. For information concerning Dell's Environmental Affairs programs, please see: http://www.dell.com/environment

Contact Details for Regulatory Compliance Website

Please click the hyperlinks below for frequently requested documentation

	Documentation Type	Location
All Customers	**Regulatory Datasheets**	Product Regulatory Datasheets
	European Union Declaration of Conformity	EU DoC
	IATA Battery Declaration	Dell Battery Declaration
	MSDS documentation	Batteries and Printers
	ECCN, HTS, CCATS or Country or Origin (COO) information	ECCN, HTS, CCATS or Country of Origin (COO) **For any other Trade Compliance inquiries, please see the Trade Compliance SharePoint at** Dell Global Trade Compliance
	Environmental	Dell's Chemical Use Policy and EU RoHS Declaration REACH Declaration Mercury Statement Materials Restricted for use Energy Efficiency and Green IT Client Energy Calculator WEEE End of Life (EoL) Instructions Carbon Footprint Products Dell's Corporate Responsibility Dell Earth Dell Recycling Dell Packaging **For more information see Regulatory Datasheets** Product Regulatory Datasheets

	ISO documentation	International Organization for Standardization Certifications
Dell Team Only	**Regulatory Certificates, including Declarations of Conformity**	**Platforms:** Platform Certifications **Please review this slide deck for information on searching for certificates** **Peripherals:** Peripheral Certifications
	VPAT documentation	VPAT

If unable to obtain information per the hyper – links, please send an e-mail to Regulatory_Compliance@dell.com.

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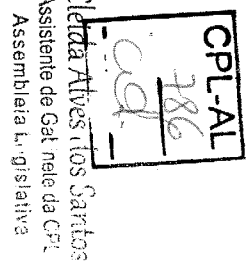

Temas

Tecnologia da Informação e Comunicação

- Microeletrônica
- Software e Serviços
- Redes e Mídias
- Lei de Informática
- Legislação Selecionada
- SIGPLANI - Sistema de Gestão da Lei de Informática
- Comitê da Área de TI-CATI
- Inclusão Digital
- Fundo Setorial CTInfo
- Linhas de Fomento
- Cooperação Internacional

voltar para → Página Inicial → Ações de C,T&I → III-Pesquisa, Desenvolvimento e Inovação em Áreas Estratégicas → 8. Tecnologias da Informação e Comunicação → Tecnologia da Informação e Comunicação → Lei de Informática → Empresas habilitadas, produtos e modelos aprovados

Produtos e modelos habilitados à fruição dos benefícios fiscais da Lei de Informática

[voltar]

Numero de resultados: 13

Nome Fantasia:	DELL COMPUTADORES
Razão Social:	DELL COMPUTADORES DO BRASIL LTDA
CNPJ:	72.381.189/0001-10
Endereço:	Av. Industrial Belgraf, 400 Medianeira Eldorado do Sul/ RS - 92990-000 http://www.dell.com.br/
Contato:	Raymundo de Sá Peixoto Junior raymundo_peixoto@dell.com (51)34815500 (51) 3481-5577

- Roteiros e Formulários
- Processos de Prestação de Contas Anuais
- Publicações
- Saiu na Imprensa
- Fale Conosco

Sequencial de Produtos 1

Produto:	Microcomputador portátil
Processo MCT/Data:	01200.004395/2004-68 08/09/2004
CNPJ da Incentivada:	72.381.189/0001-10
Portaria MCT/MDIC/MF:	872, de 19/12/2005 DOU 20/12/2005
Modelos:	Dell Latitude e Dell Inspiron}

Sequencial de Produtos 2

Produto:	Microcomputador portátil, de peso inferior a 3,5 kg
Processo MCT/Data:	01200.003278/2001-34 05/07/2001
CNPJ da Incentivada:	72.381.189/0001-10
Portaria MCT/MDIC/MF:	757, de 13/12/2001 DOU 14/12/2001
Modelos:	DELL LATITUDE, Inspiron e Vostro.}

Sequencial de Produtos 3

Produto:	Unidade de processamento digital de média capacidade, baseada em microprocessadores
Processo MCT/Data:	01200.003278/2001-34 05/07/2001
CNPJ da Incentivada:	72.381.189/0001-10
Portaria MCT/MDIC/MF:	757, de 13/12/2001 DOU 14/12/2001
Modelos:	DELL POWEREDGE}

Sequencial de Produtos 4

Produto:	Unidade de processamento digital de pequena capacidade, baseada em microprocessadores
Processo MCT/Data:	01200.003278/2001-34 05/07/2001
CNPJ da Incentivada:	72.381.189/0001-10
Portaria MCT/MDIC/MF:	757, de 13/12/2001 DOU 14/12/2001
Modelos:	DELL DIMENSION, DELL OPTIPLEX, DELL POWEREDGE, Inspiron 530 (INTEL),

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Inspiron 531 (AMD) e Vostro 200s (INTEL)}

Nome Fantasia:	DELL COMPUTADORES
Razão Social:	DELL COMPUTADORES DO BRASIL LTDA
CNPJ:	72.381.189/0006-25
Endereço:	Av. da Emancipação, 5000 Hortolândia/ SP - 13184-654 www.dell.com.br
Contato:	Raymundo de Sá Peixoto Junior raymundo_peixoto@dell.com (51) 3481-5500

Sequencial de Produtos 1

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso igual ou superior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas e com uma tela (écran) de área superior a 140 cm2 e inferior a 560 cm2.
Processo MCT/Data:	01200.004347/2006-31 21/08/2006
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	985, de 22/12/2006 DOU 26/12/2006
Modelos:	Latitude, Inspiron e Vostro.}

Sequencial de Produtos 2

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso igual ou superior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas e com uma tela (écran) de área superior a 560 cm2.
Processo MCT/Data:	01200.004347/2006-31 21/08/2006
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	985, de 22/12/2006 DOU 26/12/2006
Modelos:	Latitude, Inspiron 1721 e Vostro 1700.}

Sequencial de Produtos 3

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso

	inferior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas e com uma tela (écran) de área superior a 140 cm2 e inferior a 560 cm2.
Processo MCT/Data:	01200.004347/2006-31 21/08/2006
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	985, de 22/12/2006 DOU 26/12/2006
Modelos:	LATITUDE(27-07-09: TESTE)(27-07-09: 344334 - ESTE SERá APROVADO)(30-07-09: NOTEBOOK VOSTRO 1320)(27-08-09: MICROCOMPUTADOR PORTáTIL STUDIO 1450)(27-08-09: MICROCOMPUTADOR PORTáTIL INSPIRON 1440)(27-08-09: MICROCOMPUTADOR PORTáTIL VOSTRO 1014)(16-10-09: LATITUDE 2100)(06-05-10: STUDIO 1458)(14-05-10: VOSTRO 3300)(14-05-10: LATITUDE E4310)(14-06-10: INSPIRON 14R)(08-10-10: INSPIRON 14 N4020) (08-10-10: INSPIRON 14 N4030) (08-04-11: VOSTRO 3450) (08-04-11: LATITUDE E6320) (20-04-11: INSPIRON 14R N4410) (08-07-11: INSPIRON 14 N4050) (16-09-11: LATITUDE E5420) (16-09-11: LATITUDE E6420) (12-05-12: LATITUDE E5430) (12-05-12: LATITUDE E6330) (12-05-12: LATITUDE E6430) (12-05-12: INSPIRON 14R 5420) (12-05-12: INSPIRON 14 3420) (12-05-12: VOSTRO 3460) (11-07-12: INSPIRON 14Z 5423) (11-07-12: NOTEBOOK XPS 14)} (23-11-12: INSPIRON 14R 5421) (23-11-12: INSPIRON 14 3421) (26-08-13: MICROCOMPUTADOR PORTATIL DELL LATITUDE E7440) (26-08-13: MICROCOMPUTADOR PORTATIL DELL LATITUDE 14 7000 SERIES) (26-08-13: MICROCOMPUTADOR PORTATIL DELL LATITUDE E7240) (26-08-13: MICROCOMPUTADOR PORTATIL DELL LATITUDE 12 7000 SERIES) (26-08-13: MICROCOMPUTADOR PORTATIL DELL LATITUDE E6440)(23-09-13: MICROCOMPUTADOR PORTATIL DELL INSPIRON 5437) (23-09-13: MICROCOMPUTADOR PORTATIL DELL INSPIRON 14R

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5437)(21-10-13: MICROCOMPUTADOR PORTATIL LATITUDE E5440) (21-10-13: LATITUDE E5440) (21-10-13: MICROCOMPUTADOR PORTATIL DELL LATITUDE 14 5000 SERIES) (21-10-13: LATITUDE 3440) (21-10-13: MICROCOMPUTADOR PORTATIL LATITUDE 3440) (21-10-13: MICROCOMPUTADOR PORTATIL LATITUDE 3000 SERIES) (22-11-13: VOSTRO 5470 BTX NOTEBOOK) (22-11-13: VOSTRO 5470 BTX BCC NOTEBOOK) (22-11-13: MICROCOMPUTADOR PORTATIL DELL VOSTRO 5470) (06-12-13: MICROCOMPUTADOR PORTATIL VOSTRO 5470, VERSãO VI14T-5470-A50) (06-12-13: MICROCOMPUTADOR PORTATIL VOSTRO 5470, VERSãO VI14T-5470-A60) (06-12-13: MICROCOMPUTADOR PORTATIL VOSTRO 5470, VERSãO VI14T-5470-A40) (06-12-13: MICROCOMPUTADOR PORTATIL VOSTRO 5470, VERSãO VI14T-5470-A30) (06-12-13: MICROCOMPUTADOR PORTATIL VOSTRO 5470, VERSãO VI14T-5470-A20) (03-02-14: MICROCOMPUTADOR PORTATIL DELL INSPIRON 14 MODELO 3437) (03-02-14: MICROCOMPUTADOR PORTATIL DELL INSPIRON 14 3437)

Sequencial de Produtos 4

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso inferior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas e com uma tela (écran) de área superior a 560 cm2.
Processo MCT/Data:	01200.004347/2006-31 21/08/2006
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	985, de 22/12/2006 DOU 26/12/2006
Modelos:	LATITUDE(20-12-07: VOSTRO 1000)(20-12-07: VOSTRO 1500)(20-12-07: VOSTRO 1400)(20-12-07: INSPIRON 1525)(31-10-08: MICROCOMPUTADOR PORTáTIL E 4300)(31-10-08: MICROCOMPUTADOR

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PORTáTIL LATITUDE E 5400)(31-10-08: MICROCOMPUTADOR PORTáTIL LATITUDE E 5500)(31-10-08: MICROCOMPUTADOR PORTáTIL LATITUDE E 6400)(31-10-08: MICROCOMPUTADOR PORTáTIL LATITUDE E 6500)(31-10-08: MICROCOMPUTADOR PORTáTIL VOSTRO 1510)(31-10-08: MICROCOMPUTADOR PORTáTIL VOSTRO 1310)(24-03-09: INSPIRON 15)(24-03-09: INSPIRON 1545)(30-07-09: NOTEBOOK VOSTRO 1520)(25-01-10: INSPIRON 1564)(10-03-10: LATITUDE E6510)(10-03-10: LATITUDE E6410)(14-05-10: LATITUDE E5410)(14-05-10: LATITUDE E5510)(14-05-10: VOSTRO 3500)(24-06-10: INSPIRON 15R)(31-03-11: LATITUDE E6420) (31-03-11: LATITUDE E6520) (08-04-11: VOSTRO 3550) (08-04-11: LATITUDE E5420) (08-04-11: LATITUDE E5520) (24-06-11: XPS 15 L502X) (24-06-11: INSPIRON 15R N5110) (12-05-12: LATITUDE E5530) (12-05-12: INSPIRON 15R-SE 7520) (12-05-12: VOSTRO 3560)}(23-09-13: MICROCOMPUTADOR PORTATIL DELL INSPIRON 15R 5537) (23-09-13: MICROCOMPUTADOR PORTATIL DELL INSPIRON 5537)(21-10-13: LATITUDE 3540) (21-10-13: MICROCOMPUTADOR PORTATIL LATITUDE 3540) (21-10-13: MICROCOMPUTADOR PORTATIL LATITUDE 14 3000 SERIES)

Sequencial de Produtos 5

Produto:	Microcomputador portátil, sem teclado, com tela sensível ao toque ("touch screen"), de peso inferior a 750g (Tablet PC)
Processo MCT/Data:	01200.000277/2012-91 06/02/2012
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	216, de 4/3/2013 DOU 5/3/2013
Modelos:	}

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Sequencial de Produtos 6

Produto:	Unidade de processamento digital de média capacidade, baseada em microprocessadores
Processo MCT/Data:	01200.004347/2006-31 21/08/2006
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	985, de 22/12/2006 DOU 26/12/2006
Modelos:	POWEREDGE.(11-07-08: SERVIDOR POWEREDGE R 900)(03-05-10: POWEREDGE R910)(28-05-10: POWEREDGE M910)(28-10-11: SERVIDOR KACE 1100) (28-10-11: SERVIDOR KACE 1200) (28-10-11: SERVIDOR KACE 2100) (28-10-11: SERVIDOR KACE 2200) (06-12-11: KACE 1100 ADV) (06-12-11: KACE 2100 ADV) (09-02-12: POWEREDGE R620) (09-02-12: POWEREDGE T620) (09-02-12: POWEREDGE R720) (09-02-12: POWEREDGE M620) (09-02-12: POWEREDGE M520) (17-02-12: SERVIDOR POWEREDGE R720 XD) (17-02-12: SERVIDOR POWEREDGE R720 OEM) (17-02-12: SERVIDOR POWEREDGE R620 OEM) (11-06-12: POWEREDGE R420) (11-06-12: POWEREDGE T420) (11-06-12: POWEREDGE R520) (11-06-12: POWEREDGE R520 OEM) (25-06-12: SERVIDOR POWEREDGE M820)} (30-08-12: SERVIDOR KACE 1100S) (30-08-12: SERVIDOR KACE 1100S ADV) (30-08-12: SERVIDOR KACE 1200S) (30-08-12: SERVIDOR KACE 2100S ADV) (30-08-12: SERVIDOR KACE 2200S) (30-08-12: SERVIDOR KACE 2100S) (09-04-13: KACE 3100S) (09-04-13: KACE 3100S ADV) (09-04-13: KACE 3200S) (14-06-13: DESKTOP OPTIPLEX 9020)(22-11-13: POWEREDGE FX2) (22-11-13: SERVIDOR BLADE FC620) (22-11-13: POWEREDGE FC620) (30-12-13: SERVIDOR POWEREDGE R820)

Sequencial de Produtos 7

Produto:	Unidade de processamento digital de pequena capacidade, baseada em microprocessadores
Processo MCT/Data:	01200.004347/2006-31 21/08/2006
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	985, de 22/12/2006 DOU 26/12/2006
Modelos:	DIMENSION, OPTIPLEX, POWEREDGE, INSPIRON E VOSTRO.(20-12-07: VOSTRO 200S)(20-12-07: INSPIRON 531)(20-12-07: INSPIRON 530)(11-07-08: SERVIDOR POWEREDGE 1950III)(11-07-08: SERVIDOR POWEREDGE 2900III)(11-07-08: SERVIDOR POWEREDGE 2950III)(11-07-08: SERVIDOR POWEREDGE SC 1435)(20-02-09: SERVIDOR POWEREDGE T300)(20-03-09: OPTIPLEX 160)(20-03-09: VOSTRO A100)(02-04-09: OPTIPLEX 360)(02-04-09: OPTIPLEX 760)(02-04-09: OPTIPLEX 960)(02-04-09: VOSTRO 220)(02-04-09: VOSTRO A180)(22-04-09: OPTIPLEX 360)(22-04-09: OPTIPLEX 760)(22-04-09: VOSTRO A180)(22-04-09: VOSTRO 220 SLIM TOWER)(05-05-09: SERVIDOR POWEREDGE M600)(05-05-09: SERVIDOR POWEREDGE M905)(07-05-09: DESKTOP INSPIRON 545)(07-05-09: OPTIPLEX FX160)(07-05-09: ESTAçãO DE TRABALHO DELL PRECISION T3500)(24-06-09: SERVIDOR POWEREDGE M710)(24-06-09: SERVIDOR POWEREDGE R610)(24-06-09: SERVIDOR POWEREDGE R710)(24-06-09: SERVIDOR POWEREDGE T610)(06-07-09: SERVIDOR POWEREDGE R410)(06-07-09: SERVIDOR POWEREDGE T410)(06-07-09: SERVIDOR POWEREDGE M610)(09/09/2009:(09/09/2009:SERVIDOR POWEREDGE T710)(28-10-09: OPTIPLEX 780)(16-12-09: OPTIPLEX 380)(14-01-10: INSPIRON 560S)(11-02-10: INSPIRON

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580)(23-02-10: POWEREDGE T110)(23-02-10: POWEREDGE T310)(10-03-10: OPTIPLEX 980)(30-03-10: VOSTRO 230 SLIM)(23-08-10: POWEREDGE M710HD) (22-09-10: POWEREDGE R210) (25-02-11: OPTIPLEX 990) (18-03-11: XPS 8300) (27-05-11: POWEREDGE T110II) (27-05-11: POWEREDGE R210II) (16-06-11: OPTIPLEX 790) (24-06-11: VOSTRO 260S) (24-06-11: OPTIPLEX 390) (28-10-11: KACE 1100) (28-10-11: KACE 1200) (28-10-11: KACE 2100) (28-10-11: KACE 2200) (06-12-11: SERVIDOR KACE 1100 ADV) (06-12-11: SERVIDOR KACE 2100 ADV) (09-02-12: SERVIDOR POWEREDGE R620) (09-02-12: SERVIDOR POWEREDGE T620) (09-02-12: SERVIDOR POWEREDGE R720) (09-02-12: SERVIDOR POWEREDGE M620) (09-02-12: SERVIDOR POWEREDGE M520) (17-02-12: POWEREDGE R720 XD) (17-02-12: POWEREDGE R620 OEM) (17-02-12: POWEREDGE R720 OEM) (17-02-12: OPTIPLEX 7010) (17-02-12: OPTIPLEX 9010) (17-02-12: ESTAçãO DE TRABALHO DELL PRECISION T3600) (30-03-12: XPS 8500) (12-06-12: OPTIPLEX 3010) (12-06-12: SERVIDOR POWEREDGE T420) (12-06-12: SERVIDOR POWEREDGE R520) (12-06-12: SERVIDOR POWEREDGE R520OEM) (12-06-12: SERVIDOR POWEREDGE R420) (12-06-12: POWEREDGE T320) (25-06-12: POWEREDGE M820) (11-07-12: VOSTRO 270S) (06-08-12: POWEREDGE R210 II OEM)} (30-08-12: KACE 2100S ADV) (30-08-12: KACE 1100S ADV) (30-08-12: KACE 1100S) (30-08-12: KACE 1200S) (30-08-12: KACE 2100S) (30-08-12: KACE 2200S) (09-04-13: SERVIDOR KACE 3100S) (09-04-13: SERVIDOR KACE 3100S ADV) (09-04-13: SERVIDOR KACE 3200S) (06-05-13: XPS 8700) (18-07-13: MICROCOMPUTADOR DELL OPTIPLEX 9020) (19-08-13: ESTAçãO DE TRABALHO DELL

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PRECISION T3610)(22-11-13: POWEREDGE FX2) (22-11-13: POWEREDGE FC620) (22-11-13: SERVIDOR BLADE FC620) (06-12-13: DESKTOP INSPIRON 670S) (06-12-13: INSPIRON 670S SERIES 3000) (06-12-13: MICROCOMPUTADOR DELL INSPIRON 670S) (06-12-13: DESKTOP OPTIPLEX 3020) (06-12-13: OPTIPLEX 3020) (06-12-13: MICROCOMPUTADOR DELL OPTIPLEX 3020) (17-12-13: DESKTOP INSPIRON 3647) (17-12-13: INSPIRON 3647 SERIES 3000) (17-12-13: MICROCOMPUTADOR DELL INSPIRON 3647) (17-12-13: MICROCOMPUTADOR DELL INSPIRON 3647, VERSãO-A30) (17-12-13: MICROCOMPUTADOR DELL INSPIRON 3647, VERSãO-A20) (17-12-13: MICROCOMPUTADOR DELL INSPIRON 3647, VERSãO-A10) (30-12-13: SERVIDOR POWEREDGE R820)

Sequencial de Produtos 8

Produto:	Unidade de processamento digital, de pequena capacidade, baseada em microprocessador, com unidade de saída por vídeo incorporada
Processo MCT/Data:	01200.002434/2011-11 03/08/2011
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	232, de 2/4/2012 DOU 3/4/2012
Modelos:	(12-04-12: INSPIRON ONE 2320) (11-07-12: INSPIRON ONE 2330)} (27-05-13: OPTIPLEX 9020) (18-07-13: OPTIPLEX 3011 ALL-IN-ONE)(17-12-13: OPTIPLEX 3011 ALL IN ONE, VERSãO-A20) (17-12-13: OPTIPLEX 3011 ALL IN ONE, VERSãO-A10)

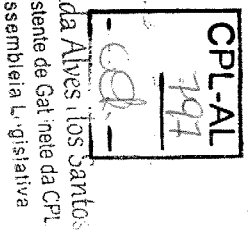
Sequencial de Produtos 9

Produto:	Unidade digital de armazenamento de dados em meio magnético
Processo MCT/Data:	01200.002069/2011-45 21/07/2011
CNPJ da Incentivada:	72.381.189/0006-25
Portaria MCT/MDIC/MF:	790, de 6/11/2012 DOU 7/11/2012

Cleida Alves dos Santos
Assistente de Gabinete da CPL
Assembleia Legislativa

CPL-AL
790
cd

Modelos: }



The **Dell Optiplex 7010 DT** desktop with the components described below has been awarded the status of **Certified** for Ubuntu.

Please note that for pre-installed systems:

1. The system is available in some regions with a special image of Ubuntu pre-installed by the manufacturer. It takes advantage of the hardware features for this system and may include additional software. You should check when buying the system whether this is an option.
2. Standard images of Ubuntu may not work at all on the system or may not work well, though Canonical and computer manufacturers will try to certify the system with future standard releases of Ubuntu.

Releases

Ubuntu 12.04.3 LTS 64-bit

Download
Ubuntu 12.04.3 LTS 64-bit

Certification notes

Slow Resume from Suspend
This system does not not meet our performance criteria for resuming from suspend, but suspend/resume is functional and other functionality is not affected.

Hibernate
Hibernate may be not working on this system

Built-in video ports unsupported
This system comes with an add-in video card, please connect your monitor to it since the built-in video port(s) was disabled by its manufacturer.

Proprietary Drivers Required
Installation of proprietary AMD video driver is required for full functionality.

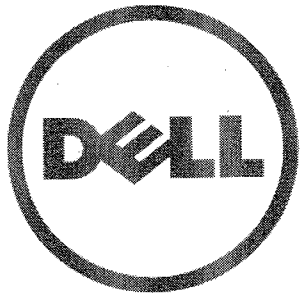
Hardware overview

This system was tested with these key components:

Processor
Intel Intel(R) Celeron(R) CPU G460 @ 1.80GHz

BIOS
Dell A12

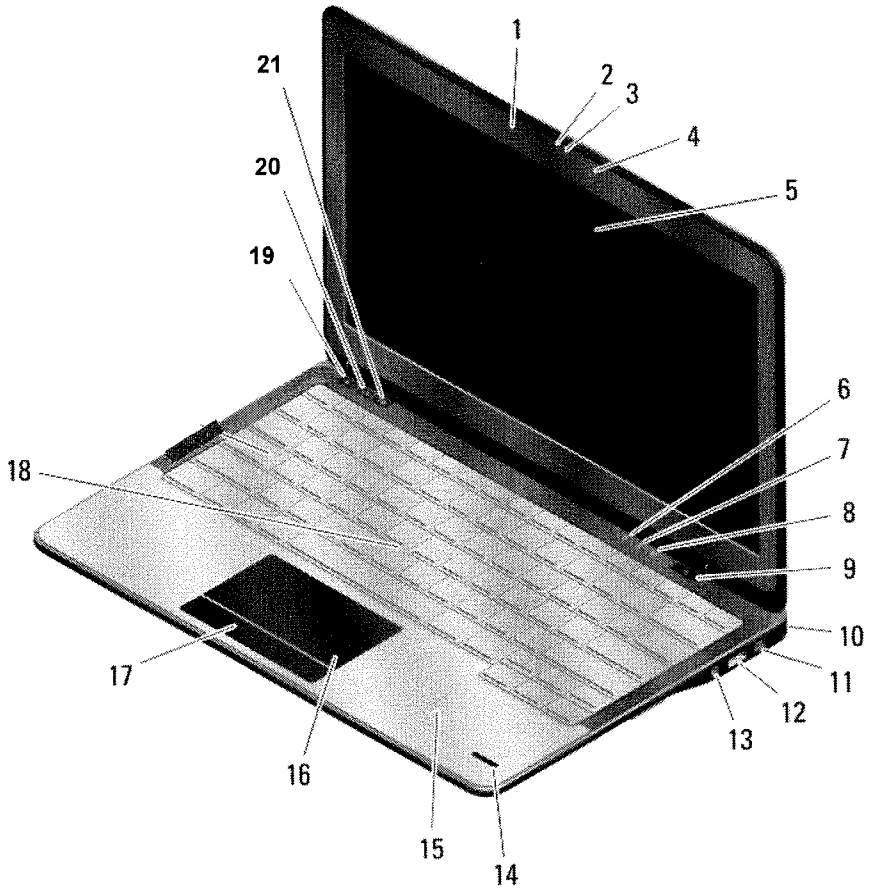
Dell™ Latitude™ 7000 Series Technical Guidebook



July 2013

Dell Latitude 7000 Series Product Views and Technical Specifications

Dell Latitude 12 7000 Series Weight, Dimensions, Top/Right View



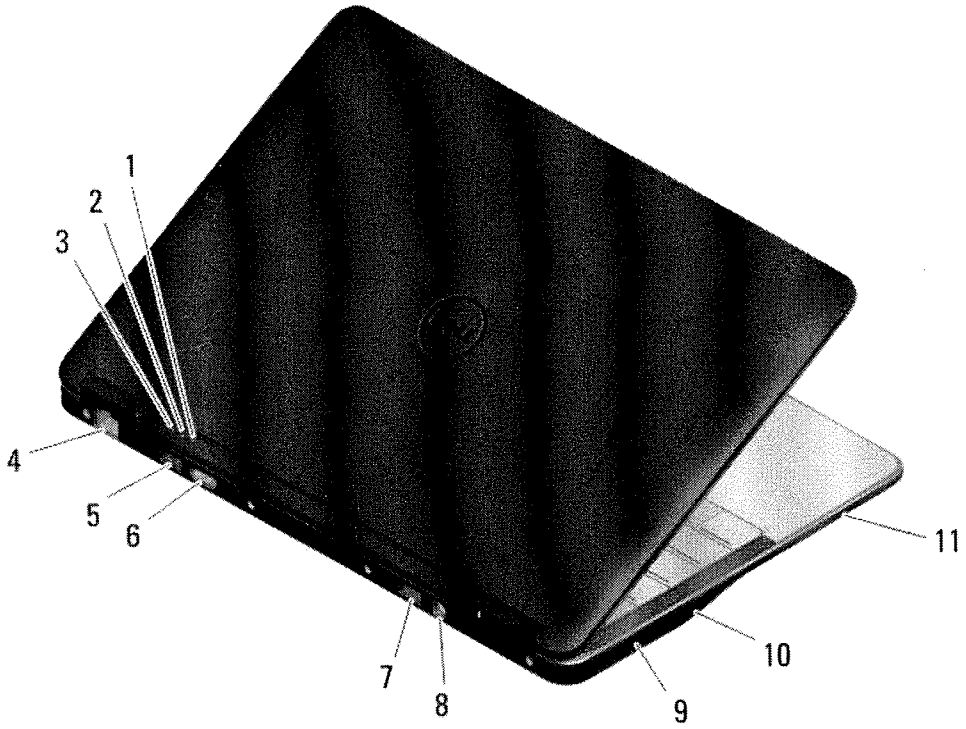
1. Microphone
2. Camera
3. Camera status light
4. Microphone
5. Display
6. Hard-drive status light
7. Battery status light
8. Wireless status light
9. Power button
10. Security lock slot
11. Mini-display port connector
12. USB 3.0 connector
13. Audio & microphone connector
14. Fingerprint reader
15. Contactless smart card reader
16. Touchpad
17. Touchpad buttons (2)
18. Keyboard
19. Mute button
20. Volume down button
21. Volume up button

Starting weight:
2.99lbs (1.36kg) with a 3-cell battery

Dimensions:

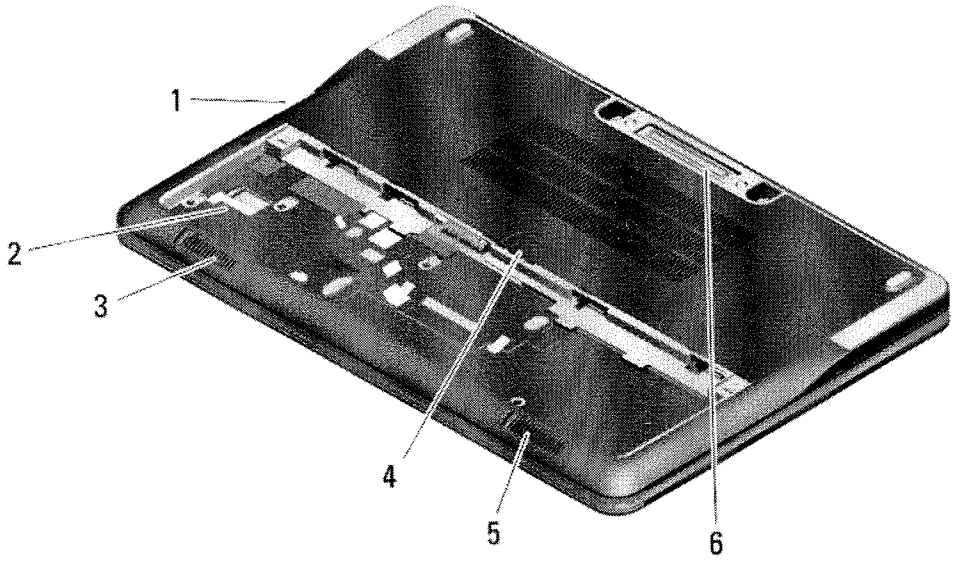
Width:	310.5 mm (12.2 inches)
Depth:	211.0 mm (8.3 inches)
Height;	20.0 mm (.79 inches)

Dell Latitude 12 7000 Series Back/Left View



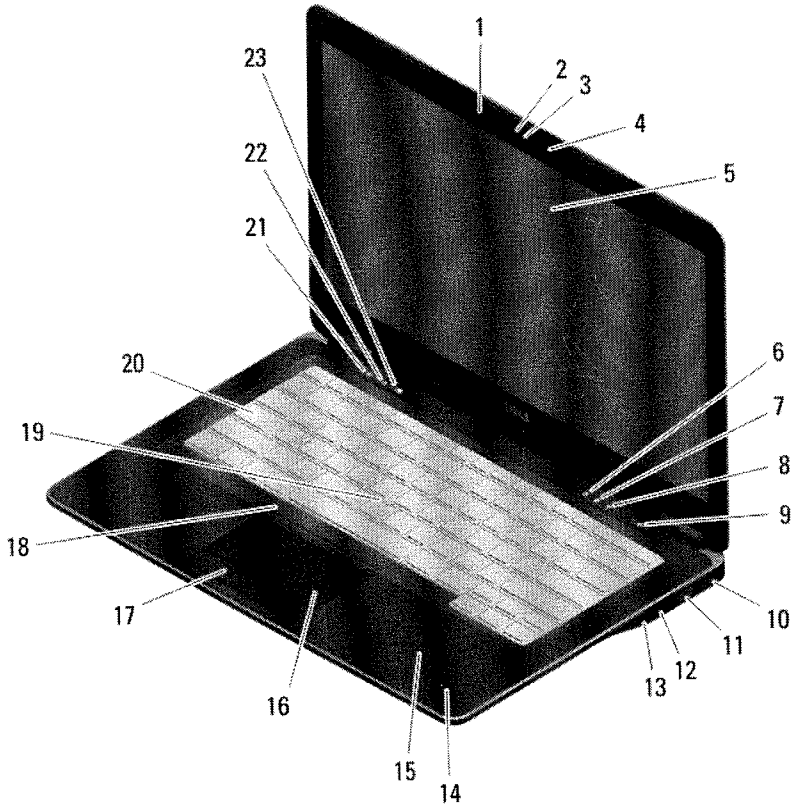
1. Power status light
2. Hard-drive activity light
3. Battery status light
4. Network connector
5. USB 3.0 connector
6. HDMI connector
7. USB 3.0 connector with power share
8. Power connector
9. Cooling vents
10. Wireless switch
11. Smart card slot

Dell Latitude 12 7000 Series Bottom View



1. SD card reader
2. SIM card slot
3. Speaker
4. Battery latch
5. Speaker
6. Docking connector

Dell Latitude 14 7000 Series Weight, Dimensions, Top/Right View



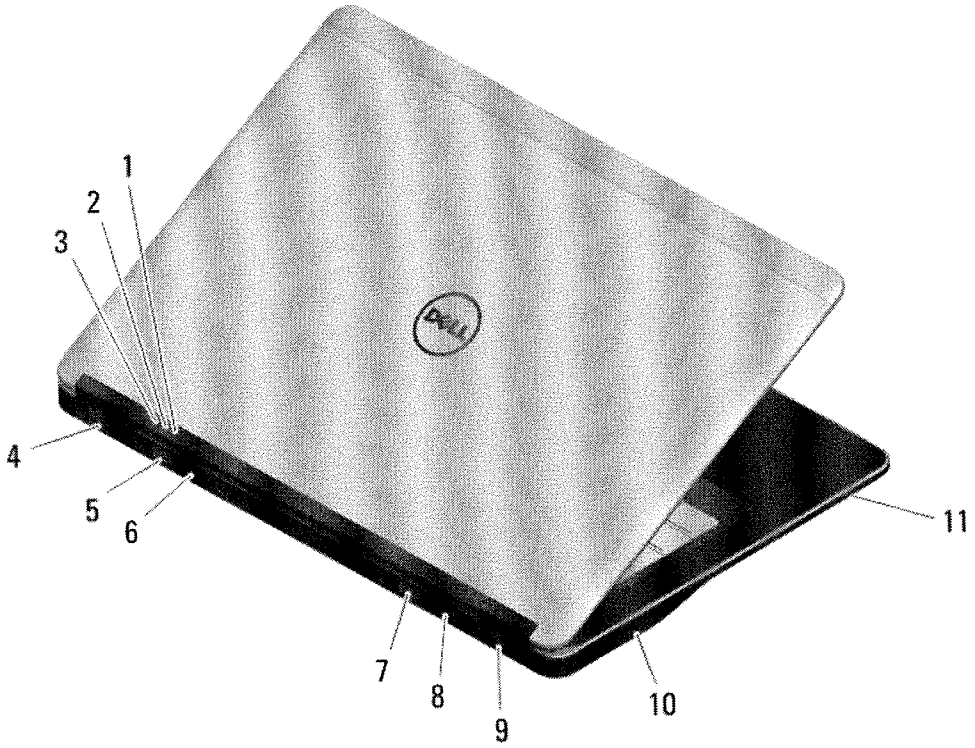
1. Microphone
2. Camera
3. Camera status light
4. Microphone
5. Display
6. Hard-drive status light
7. Battery status light
8. Wireless status light
9. Power button
10. Security lock slot
11. USB 3.0 connector
12. Audio & microphone connector
13. Wireless switch
14. Fingerprint reader
15. Contactless smart card reader
16. Touchpad
17. Touchpad buttons (2)
18. Trackstick buttons
19. Trackstick
20. Keyboard
21. Mute button
22. Volume down button
23. Volume up button

Starting weight:
3.6lbs (1.63kg) with a 3-cell battery

Dimensions:

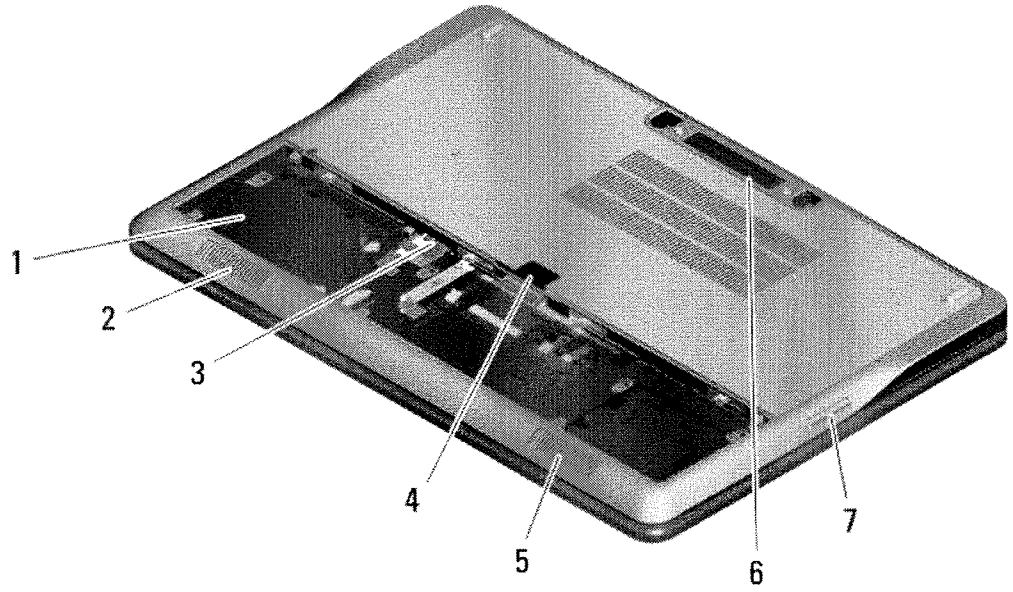
Width:	337.0 mm (13.2 inches)
Depth:	231.5 mm (9.1 inches)
Height;	21.0 mm (.8 inches)

Dell Latitude 14 7000 Series Back/Left View



1. Power status light
2. Hard-drive activity light
3. Battery status light
4. Network connector
5. USB 3.0 connector
6. Mini-display port connector
7. HDMI connector
8. USB 3.0 connector with power share
9. Power connector
10. Cooling vents
11. Smart card slot

Dell Latitude 14 7000 Series Bottom View



1. Battery bay
2. Speaker
3. SIM slot
4. Battery latch
5. Speaker
6. Docking connector
7. SD card reader

Dell Latitude 7000 Series Technical Specifications

Feature	Technical Specification	
Model Number	Latitude E7240	Latitude E7440
Processor Options	4th Generation Intel® Core™ processors up to i7	4th Generation Intel® Core™ processors up to i7
Operating System Options	Genuine Windows® 7 Genuine Windows® 8 Genuine Windows® 8 Pro Linux Ubuntu 12.04	
Memory Options	DDR3L SDRAM 1600MHz 2 slots supporting 2G, 4GB, 8GB DIMMs	DDR3 SDRAM 1600MHz 2 slots supporting 2G, 4GB[7], 8GB DIMMs
Chipset	Integrated with the CPU (Lynx Point-LP)	
Intel Responsiveness Technologies	Optional Intel® Rapid Start Technology Optional Intel® Smart Connect Technology (Require mobile solid state drive)	
Graphics[6] Options	Up to Intel® Integrated HD Graphics up 5000	
Display Options	12.5" HD (1366x768) Anti-Glare LED-backlit 12.5" FHD (1920x1080) Touch	14.0" HD (1366x768) Anti-Glare LED-backlit 14.0" FHD (1920x1080) Anti-Glare LED-backlit 14.0" FHD (1920x1080) Touch
Storage Options	Mobility Solid State up to 256GB[6] Dell Fast Response Free Fall Sensor and HDD Isolation (standard on the motherboard)	5400RPM SATA up to 500GB[6] Mobility Solid State up to 256GB[6] Dell Fast Response Free Fall Sensor and HDD Isolation (standard on the motherboard)
Optical Drive Options	N/A	N/A
Multimedia	High Quality Speakers Stereo global headset jack Integrated, noise reducing array microphones Optional Integrated HD video webcam and Dell Webcam Central software	
Battery Options	3-cell (31Whr) Lithium Ion battery with ExpressCharge™ 4-cell (42Whr) Lithium Ion battery with ExpressCharge™	3-cell (34Whr) Lithium Ion battery with ExpressCharge™ 4-cell (45Whr) Lithium Ion battery with ExpressCharge™
Power Options	65 Watt or 90W AC Adapter 65W BFR/PVC Free AC Adapter 90W Auto/Air DC Adapter (optional)	

Dell Latitude 7000 Series Technical Specifications

Feature	Technical Specification	
Connectivity	10/100/1000 Gigabit Ethernet **Wireless LAN and WiMAX Options:** Intel® Centrino® Advanced -N + WiMAX 7260 Dell Wireless 1601 (802.11n 2x2, + Bluetooth & WiGig) Dell Wireless 1506 (802.11g/n 1x1, no Bluetooth) **Mobile Broadband & GPS Options:** Dell Wireless™ 5570 HSPA+ Mini Card Dell Wireless™ 5808 LTE Mobile Broadband	
Ports, Slots & Chassis	Network connector (RJ-45) USB 3.0 (3) Stereo headphone/Microphone combo jack Docking Connector, mDisplayPort, HDMI 1 Full and 2 Half Mini Card Slots Optional SmartCard Reader/Contactless SmartCard Reader/Fingerprint Reader or FIPS Fingerprint Reader	
Dimensions & Starting Weight[1]	Width: 12.2" / 310.5mm Height: .79"/20.0mm Depth: 8.3" / 211.0mm 2.99lbs / 1.36kg (with 3-cell battery)	Width: 13.2" / 337.0mm Height: .8"/21.0mm Depth: 9.1" / 231.5mm 3.6lb / 1.63kg (with 3-cell battery)
Regulatory and Environmental Compliance	Regulatory Model: P22S Regulatory Type: P22S001	Regulatory Model: P40G Regulatory Type: P40G001
	Energy Star 5.2/6.0 (Windows OS) EPEAT Registered. For specific country participation and rating, please see www.epeat.net	
Input	Single Pointing Keyboard: Standard or Backlit Multi-touch Touchpad	Dual Pointing Keyboard: Standard or Backlit Multi-touch Touchpad
Systems Management	Intel® vPro™ Technology's advanced management features (optional, requires Intel WiFi® Link WLAN)	
Configuration Services[5]	Factory Image Load, BIOS Customization, Hardware Customization, Asset Tagging and Reporting	
Recommended Accessories	**On the go:** Dell Executive leather carrying case, Dell mDP to VGA adapter, Dell UltraMobile projector, Dell 90W Auto/Air charger with power cord **In the office:** Dell E-series Port Replicator or D5000 WiGig Dock, UltraSharp Monitors, Dell Wireless Keyboard and Mouse	

Dell Latitude 7000 Series Technical Specifications

Footnotes:

[1] Based on Dell lab testing. Weights vary depending on configuration and manufacturing variability.

[2] Some items will be available post-RTS. Offering may also vary by country and by configuration. For complete details, refer to the Technical Guidebook available on dell.com.

[3] The Dell notebook portfolio contains Corning Gorilla Glass 2 and Corning Gorilla Glass NB on select systems - See product specification for details

[4] Requires an Intel wireless card, a compatible Media Adapter (sold separately) and an HDMI or composite AV-enabled display

[5] Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions.

[6] Significant system memory may be used to support graphics, depending on system memory size and other factors. GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

[7] A 64-bit operating system is required to support 4GB or more of system memory.

[8] Intel Rapid Start requires a Solid-State Drive (SSD) or properly configured HDD + SSD

[9] Intel Smart Response Technology requires a 32GB SSD setup as secondary storage device.

[10] Mobile Broadband: Subject to wireless provider's broadband subscription and coverage area; additional charges apply.

[11] Dell Latitude laptops are brominated flame retardant free (BFR-free) and polyvinyl chloride free (PVC-free); meeting the definition of BFR-/PVC-free as set forth in the iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR-/CFR-/PVC-free)'. Plastic parts contain less than 1,000 ppm (0.1%) of bromine (if the Br source is from BFRs) and less than 1,000 ppm (0.1%) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total less than 1,500 ppm (0.15%) with a maximum chlorine of 900 ppm (0.09%) and maximum bromine being 900 ppm (0.09%).

Marketing System Configurations

Dell Latitude 7000 Series– Operating Systems

Windows operating system	Microsoft® Windows 8® Pro Microsoft® Windows 8® Microsoft® Windows 7® Home Premium SP1 (32 and 64 bit), Microsoft® Windows 7® Home Premium w/MUI **SP1** (32 and 64 bit), Microsoft® Windows 7® Professional w/MUI SP1 (32 and 64 bit), Microsoft® Windows 7® Professional SP1 (32 and 64 bit), Microsoft® Windows 7® Ultimate SP1 (32 and 64 bit)
Other	Linux Ubuntu 12.04 (32 bit)
OS Media Support	Optional

Windows

DELL

Intel® processor Technology

Haswell Architecture

Dell Latitude 7000 Series is built with Intel 4th Generation Core processor Technology

- Latest Intel 22nm Process Technology.
- 4th generation ULT (Single-chip) Processor and Chipset
- Intel® Integrated HD Graphics 4400
- Optional Intel® Rapid Start Technology
- Optional Intel® Smart Connect Technology
- Optional Intel vPro™ technology (on i5 & i7) with Active Management Technology 9.5
- Intel® Wireless Display 4.1 driver included in Intel WLAN options.

Processors Support List	UMA Graphics
Intel® Core™ i5-4200U	Intel® HD Graphics 4400
Intel® Core™ i3-4010U	Intel® HD Graphics 4400
Intel® Core™ i7-4600U (Wave II)	Intel® HD Graphics 4400
Intel® Core™ i5-4300U (Wave II)	Intel® HD Graphics 4400

Memory

- Your computer supports a maximum of 16GB[1] of memory when you use two 8GB DIMMs; however, 32-bit operating systems, such as the 32-bit version of Microsoft® Windows® 7, can only use a maximum of 4GB of address space. Moreover, certain components within the computer require address space in the 4GB range. Any address space reserved for these components cannot be used by computer memory; therefore, the amount of memory available to a 32-bit operating system is less than 4GB.
- Greater than 4GB memory requires a 64-bit operating system.
- **ONLY MEMORY TYPE SUPPORTED: DDR3-LOW VOLTAGE ("DDR3L")**
- **NOT BACKWARD COMPATIBLE WITH DDR3 MEMORY**

Memory	E7x40
DIMM Slots	2
Minimum Memory Configuration	2GB
Maximum Memory Configuration*	16GB
DIMM Configurations:	
16G 1600MHz DDR3L (2x8G)	x
8G 1600MHz DDR3L (2x4G)	x
4G 1600MHz DDR3L (1x4G)	x

[1] 1GB means 1 billion bytes

Primary Storage and Intel Rapid Start Technology

Primary Storage	Dell Latitude 12 7000 Series	Dell Latitude 14 7000 Series
320GB[1] 5400rpm*		X
500GB[1] 5400rpm		X
64GB[1] Mobility SSD	X	X
128GB[1] Mobility SSD	X	X
256GB[1] Mobility SSD	X	X
256GB[1] Mobility Self Encrypting SSD (SED)	X	X

Mobility Solid State Drives offer highly reliable, durable and lightweight storage. SSDs provide improved performance and operate quieter and cooler than standard hard drives.

Self-Encrypting drives provide hardware encrypted data protection which can be activated within a few seconds centrally and can be much safer and faster than software based encryption. Note: Encrypted drives require the system be configured in AHCI mode.

Intel Rapid Start Technology dependencies with system memory and primary storage:

- IRST is restricted against Self-Encrypting SSDs

* 320GB will EOL in Sept

[1] 1GB means 1 billion bytes

Connectivity Options

	Connectivity Option	Dell Latitude 7000 Series
WWAN (Full mini card)	Dell Wireless 5570[1] HSPA+ (42Mbps) Mini Card Dell Wireless 5808[1] LTE Mobile Broadband	X
WLAN (half mini card)	Intel® Centrino® Advanced-N 7260 + WiMax (802.11a/b/g/n 2x2 Half Mini Card)	X
	Dell Wireless 1601 (802.11n 2x2, + Bluetooth & WiGig)	X
	Dell Wireless™ DW1506 Wi-Fi (802.11b/g/n 1x1 Half Mini Card)	X

WWAN Carriers & Countries

- US: not available
- Canada: not available
- Brazil: None (Generic)
- EMEA: None (Generic)
- APJ: None (Generic)

NOTE : Bluetooth 4.0 is only available via WLAN+BT combo cards, such as the Intel® WiFi+BT 7260

Security and Keyboard specifications

Security Hardware	Dell Latitude 7000 Series
FIPS certified Trusted Platform Module (TPM)	X
Optional Dell ControlVault™ with Swipe Fingerprint Reader, Smart Card Reader, Contactless Smart Card Reader and 54mm Express Card	X
Optional Dell ControlVault™ with FIPS 201 Scan Fingerprint Reader, Smart Card Reader, Contactless Smart Card Reader and 54mm Express Card	X
Optional Dell ControlVault™ with Smart Card Reader and 54mm Express Card	X

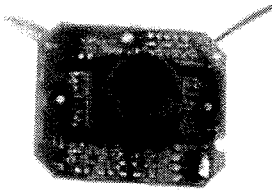
Keyboard Specs	
Number of keys	83 (U.S. and Canada) 84 (Europe) 85 (Brazil) 87 (Japan)
Layout	QWERTY/AZERTY/Kanji
Size	full sized (19.05mm key pitch)
Backlit keyboard option	• Easy enable/disable via hotkey <Fn+right arrow key> • 5 variable brightness levels

Detailed Engineering Specifications

Ports and Connectors

	Dell Latitude 12 7000 Series	Dell Latitude 14 700 Series
Ports, Slots & Chassis	Network connector (RJ-45)	Network connector (RJ-45)
	USB 3.0 (3)	USB 3.0 (3)
	Stereo headphone/Microphone combo jack	Stereo headphone/Microphone combo jack
	Docking Connector, mDisplayPort, HDMI	Docking Connector, mDisplayPort, HDMI
	1 Full and 2 Half Mini Card Slots	1 Full and 1 Half Mini Card Slots
	Optional SmartCard Reader/Contactless SmartCard Reader/Fingerprint Reader or FIPS Fingerprint Reader	Optional SmartCard Reader/Contactless SmartCard Reader/Fingerprint Reader or FIPS Fingerprint Reader

Webcam Specifications



Easy Remote Collaboration:

- Videoconference online with an optional built-in camera.
- Dell Webcam Central software pre-installed for camera setup on MS Windows 7 configurations only

Webcam Features	Dell Latitude 7000 Series
Camera Type	HD fixed focus
Sensor Type	CMOS sensor technology
Resolution: Motion Video	Up to 1280 x 720 (0.92 MP)
Resolution: Still Image	Up to 1280 x 720 (0.92MP)
Imaging Rate	Up to 30 frames per second

Wired Communications

Network Adapter (NIC) – Intel	
Intel® i218LM Gigabit Ethernet Controller	Integrated on system board
External connector type	RJ-45
Data Rates	10/100/1000 Mbps
Controller bus architecture	PCI-e V1.1x1
Power consumption (full operation per data rate connection speed)	1000 Mbps: 535 mW 100 Mbps: 260 mW 10 Mbps: 304 mW
Power consumption (standby operation)	No Link (low power mode): 17 mW No Link (w/ WOL): N/A (can't wake on LAN when there is no cable/link) 10 Mbps Idle (w/ WOL): 68 mW 100 Mbps Idle (w/ WOL): 176 mW
IEEE standards compliance	802.3, 802.3ab, 802.3u, 802.az
Boot ROM Support	PXE
Network Transfer Rate	Full duplex at 10, 100, or 1000 Mbps and half duplex at 10 or 100 Mbps.
Operating Temp/Storage Temp	0C to 85C/-40C to 125C
Operating Humidity	20% to 80% (non-condensing)
Operating System Driver support	DOS, Win Server 2008/2012, Linux, Win7, Win8
Manageability	WOL, PXE
Management Capabilities Alerting	AMT 9.5 / DASH 1.1

Integrated Graphics Controller

Integrated Graphics Controller	Intel HD, HD 4400 (Intel Haswell i3/i5/i7 Processors)
Model	Dell Latitude 7000 Series
Bus Type	Internal PCIe
Memory Interface	N/A (unified memory architecture)
Clock Speeds	Core i7: 1.7G ~ 2.1G Depending on CPU Core i5: 1.4G ~1.9G Depending on CPU Core i3: 1.7G ~ 1.9G Depending on CPU
Max Graphics dynamic frequency	Core i7: 200/1000 Mhz depending on CPU Core i5: 200/1100 Mhz Depending on CPU Core i3: 200/1000 Mhz Depending on CPU
Estimated Maximum Power Consumption (TDP)	15W
Display Support	eDP (internal), HDMI, DisplayPort
Maximum Color Depth	32bit
Maximum Vertical Refresh Rate	Up to 85Hz depending on resolution
Operating Systems Graphics/ Video API Support	DirectX 11,1 (Windows 8 only), OpenGL 4.0
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Max Digital: (HDMI) 3200x2000@60Hz Max Digital: (DisplayPort) 3200x2000@60Hz Analog: (VGA) through docking 1600x1200/32bpp @ 85Hz or 1920x1200/32bpp @ 60Hz
Numbers of Displays Supported	3 max

Display

Dell Latitude 12 7000 Series	12.5"
Type	HD Anti-Glare FHD touch
Luminance (typical)	HD 200 nits FHD 360 nits
Dimensions	
Height	HD 180.0 mm (maximum), FHD 171.2 mm (maximum)
Width	HD 300.9 mm (maximum), FHD 291.0 mm (maximum)
Diagonal	12.5"
Native Resolution	HD 1366x768, FHD 1920x1080
Megapixels	HD 1.04, FHD 2.07
Pixels per Inch (PPI)	HD 125, FHD 176
Contrast Ratio (min)	HD 300:1, FHD 600:1
Response Time (max)	HD 20 msec rise/fall, FHD 35 typ msec rise/fall
Refresh Rate	60 Hz
Horizontal View Angle	HD +40/- 40 degrees, FHD +80/-80 degrees
Vertical View Angle	HD +10/-30 degrees, FHD +80/-80 degrees
Pixel Pitch	HD 0.2025mm, FHD 0.144mm
Power Consumption (maximum)	HD 3.7W, FHD 5.3W

Display

Dell Latitude 14 7000 Series	14.0"
Type	HD Anti-Glare, FHD Anti-Glare, FHD Touch
Luminance (typical)	HD 200nits, FHD 300nits
Dimensions	
Height	205.6mm (maximum)
Width	320.9mm (maximum)
Diagonal	14.0"
Native Resolution	HD 1366x768, FHD 1920x1080, FHD Touch 1920x1080
Megapixels	HD 1.04, FHD 2.07
Pixels per Inch (PPI)	112 for HD , 157 for FHD
Contrast Ratio (min)	300:1 for HD , 600:1 for FHD
Response Time (max)	HD 25msec typ rise/fall, FHD 35 typ msec rise/fall
Refresh Rate	60 Hz
Horizontal View Angle	HD +40/- 40 degrees, FHD +80/-80 degrees
Vertical View Angle	HD +10/-30 degrees, FHD +80/-80 degrees
Pixel Pitch	HD 0.2265mm, FHD 0.161mm
Power Consumption (maximum)	HD 3.8W, FHD 6.0W

Dell Latitude 14 7000 Series – Battery Specification

	3-cell 34Whr	4-cell 45Whr
Battery Type	Lithium ion	Lithium ion
Dimension		
Length	308.5mm (12.15")	308.5mm (12.15")
Width	74.75mm (2.94")	74.75mm (2.94")
Height	8.0mm (0.32")	8.0mm (0.32")
Weight	247.00 g (0.55 lb)	308.00 g (0.68 lb)
Voltage	11.1VDC	7.4VDC
Typical Amp-hour capacity	3.038Ahr	6.076Ahr
Typical Watt-hour capacity	34Whr	45Whr
Temperature		
Operating	Charge: 0 °C to 50 °C, 32 °F to 158 °F Discharge: 0 °C to 70 °C, 32 °F to 122 °F	Charge: 0 °C to 50 °C, 32 °F to 158 °F Discharge: 0 °C to 70 °C, 32 °F to 122 °F
Non-Operating	-20 °C to 65 °C 4 °F to 149 °F	-20 °C to 65 °C 4 °F to 149 °F
Charging time	0~15degC: 4 hour 16~45degC: 2 hours 46~60degC: 3 hours	0~15degC: 4 hour 16~45degC: 2 hours 46~60degC: 3 hours
ExpressCharge Capable	Yes	Yes
BATTMAN Capable	Yes	Yes

Express charge benefits

- For a battery advertised as having the ExpressCharge™ feature, the battery typically will have greater than 80% charge after about an hour of charging with the system off, and fully charge in about 2 hours with the system off.
- Enabling Expresscharge™ requires that both the Latitude notebook and the battery that is used on the system be ExpressCharge™ capable. If any of the above requirements is missing, ExpressCharge™ will not be enabled.

Dell Latitude 12 7000 Series– Battery Specification

	3-cell 31Whr	4-cell 42Whr
Battery Type	Lithium ion	Lithium ion
Dimension		
Length	282.0mm (11.1")	282.0mm (11.1")
Width	80.75mm (3.18")	80.75mm (3.18")
Height	7.2mm (0.28")	7.2mm (0.28")
Weight	250.0 g (0.55 lb)	300.0 g (0.66 lb)
Voltage	11.1VDC	7.4VDC
Typical Amp-hour capacity	2.77Ahr	5.54Ahr
Typical Watt-hour capacity	31Whr	42Whr
Temperature		
Operating	Charge: 0 °C to 50 °C, 32 °F to 158 °F Discharge: 0 °C to 70 °C, 32 °F to 122 °F	Charge: 0 °C to 50 °C, 32 °F to 158 °F Discharge: 0 °C to 70 °C, 32 °F to 122 °F
Non-Operating	-20 °C to 65 °C 4 °F to 149 °F	-20 °C to 65 °C 4 °F to 149 °F
Charging time	0~15degC: 4 hour 16~45degC: 2 hours 46~60degC: 3 hours	0~15degC: 4 hour 16~45degC: 2 hours 46~60degC: 3 hours
ExpressCharge Capable	Yes	Yes
BATTMAN Capable	Yes	Yes

Express charge benefits

- For a battery advertised as having the ExpressCharge™ feature, the battery typically will have greater than 80% charge after about an hour of charging with the system off, and fully charge in about 2 hours with the system off.
- Enabling Expresscharge™ requires that both the Latitude notebook and the battery that is used on the system be ExpressCharge™ capable. If any of the above requirements is missing, ExpressCharge™ will not be enabled.

Power Adapters

Adapter Specifications	90W Auto/Air DC	E4 65W	65W BFR/PVC free	E5 65W	E5 90W
Input voltage	11-16VDC	100 to 240 VAC	100 to 240 VAC	100 to 240 VAC	100 to 240 VAC
Input current (max)	9.0 A	1.5 A	1.5 A	1.5 A	1.6 A
Input frequency	N/A	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
Output current	4.62 A (continuous)	3.34 A (continuous)	3.34 A (continuous)	3.34 A (continuous)	4.62 A (continuous)
Rated output voltage	19.5 VDC	19.5 VDC	19.5 VDC	19.5 VDC	19.5 VDC
Weight (lbs)	0.26	0.64	0.64	0.51	0.7
Weight (kg)	0.12	0.29	0.29	0.23	0.32
Dimensions (inches)	3.2 x 0.81	1.1 x 1.9 x 4.3	1.1 x 1.9 x 4.3	0.87 x 2.60 x 4.17	0.87 x 2.60 x 5.12
Dimensions (mm)	81.8 x 20.6	28 x 47 x 108	28 x 47 x 108	22 x 66 x 106	22 x 66 x 130
Temperature range:	0° to 45°C	0° to 40°C	0° to 40°C	0° to 40°C	0° to 40°C
Operating	32° to 113F	32° to 104°F	32° to 104°F	32° to 104°F	32° to 104°F
Storage	-40° to 70°C	-40° to 70°C	-40° to 70°C	-40° to 70°C	-40° to 70°C
	-40° to 158°F	-40° to 158°F	-40° to 158°F	-40° to 158°F	-40° to 158°F

- AC adapters are compliant with the ErP II Lot 6 new Europe Regulatory Power Requirements effective 1/3/2013

Latitude Keyboards Hot Key Definition

Keyboard Shortcuts	
Fn+F1 – Standby	Puts the system into Standby (S3) - does not wake the system.
Fn+F3 – Scroll lock	Used as Scroll Lock key.
Fn+F5 – Touchpad and Stick	Enables/disables the Touchpad and Stick. The hot key cycles through the following states when pressed: E7440: Touchpad disabled (Stick enabled) -> Stick disabled (Touchpad enabled) -> Touchpad and Stick disabled E7240: Touchpad disabled -> Touchpad enablesd
Fn+F8 – LCD and Projector display	Determines video output to LCD and external Video device(s) when attached and display(s) present. While running the OS, the scan-code is passed from the BIOS to the OS and will cycle through the following states when pressed: Computer only -> Duplicate -> Extend -> Projector only – based on priority see reference below (example: LCD only -> duplicate LCD & DP -> extended LCD & DP -> DP only). When in DRMK/DOS, the video only cycles through attached devices one at a time, not extended (example: LCD only -> DP only -> DVI only -> VGA only).

Keyboard Shortcuts	
Fn+Home – SysRq (System Request)	Used as SysRq key.
Fn+End – Print Screen	Used as Print Screen key.
Fn+Insert – Pause	Used as Pause key.
Fn+UpArrow – Brightness Increase	Increases the stepping of LCD brightness for each press unless maximum is reached.
Fn+DownArrow – Brightness Decrease	Decreases the stepping of LCD brightness for each press unless minimum is reached.
Fn+RightArrow – KB Illumination/Backlight	Determines the Keyboard Illumination/Backlight brightness levels. The hot key cycles through the following brightness states when pressed: Disabled, 25%, 50%, 75%, 100%.

Touch Pad Specifications

Touch Pad	
X/Y position resolution	600dpi
Size	Sensor-active area: • Width: 90mm (3.54") • Height: 44mm (1.73")
Multi-Touch	Configurable Single Finger and Multi-Finger gestures

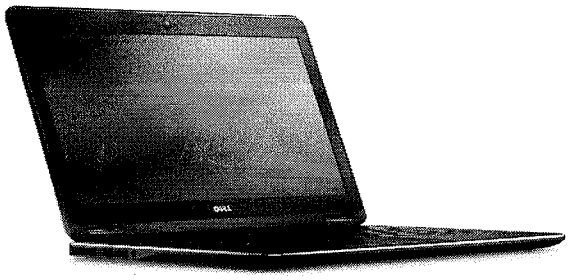
Supported Gestures	Windows 7	Windows 8
Circular Scrolling	Supported (disabled by default)	Not supported
Drag Lock	Supported	Supported
Edge Swipe	Not supported	Supported
Horizontal / Vertical Scroll Zones	Supported (disabled by default)	Not supported
Zoom Zones	Supported (disabled by default)	Not supported
Zig Zag	Supported (no checkbox to disable)	Supported (no checkbox to disable)
2-finger Pan / Scroll	Supported	Supported
2-finger Pinch Zoom	Supported (disabled by default)	Supported
2-finger Rotate	Supported (disabled by default)	Supported (disabled by default)
2-finger Tap	Not supported	Supported (no checkbox to disable)
3-finger Flick Right/Left/Up/Down	Supported	Supported (disabled by default)

Operating conditions and MIL-STD 810G Testing

Models	Dell Latitude 7000 Series
Temperature Range	Operating 0° to 35°C (32° to 95°F) Storage –40° to 65°C (–40° to 149°F)
Relative humidity (maximum)	Operating 10% to 90% (non-condensing) Storage 5% to 95% (non-condensing)
Altitude (maximum)	Operating –15.2 to 3048 m (–50 to 10,000 ft) Storage –15.2 to 10,668 m (–50 to 35,000 ft)
MIL-STD-810G Tests Performed and Passed	1. Altitude Storage/Air Transport (Method 500.5 I) 2. Altitude Operation/Air Carriage (Method 500.5 II) 3. High Temperature Storage & Transition (Method 501.5 I) 4. High Temperature Operational (Method 501.5 II) 5. Low Temperature (Exaggerated) (Method 502.5 I) 6. Low Temperature (Method 502.5 II) 7. Humidity Storage & Transit (Method 507.5 I) 8. Thermal Shock (Method 503.5-3 C) 9. Humidity Aggravated Cycle (Method 507.5 II) 10. Sand and Dust Blowing Dust (Method 510.5 I) 11. Shock Material to be Packaged (Method 516.5 II) 12. Shock Crash Hazard (Method 516.5 V) 13. Shock Functional Shock (Method 516.6 I) 14. Shock Bench Handling (Method 516.6 VI) 15. Vibration Operational (Method 514.6 I Cat 4) 16. Vibration Non-Operational (Method 514.6 I Cat 24) 17. IEC IP5x Dust Ingress Protection (IEC60529[1]) 18. Keyboard Spill Test

Link to Product Safety, EMC and Environmental Data Sheets:
http://www.dell.com/content/topics/global.aspx/about_dell/values/regulatory_compliance/dec_conform?c=us&cs=04&l=en&s=bsd&redirect=1

[1] Tests completed by independent 3rd party ISO/IEC-17025 certified laboratories.



Dell Latitude 7000 Series

The commercial laptop completely redefined — amazing looks, leading reliability and Ultrabook™ mobility

Elite design and reliability

The thin, lightweight Latitude 7000 Series Ultrabooks offer mobility at its finest, with the 12-inch model starting at just 20mm thin and 1.3 kg (2.99 lbs) with a 3-cell battery[1].

These Ultrabooks are built to be strong and look amazing. The non-touch screen models feature durable aluminium design with a soft-touch paint finish. The display back on the touch-screen option[2] is wrapped in strong, attractive woven carbon fiber for added durability.

The laptops offer a choice of high-definition (1366 x 768) anti-glare LED backlit or full HD (1920 x 1080) touch displays, with the touch displays featuring Corning® Gorilla® Glass NBT™[3] for great scratch and damage resistance, optimal brightness and overall reliability.

Intel® Core i™ ultra-low voltage processors and a choice of solid state drives or performance solid state hybrid drives also deliver reliable mobile productivity.

Like all Latitude laptops, Latitude 7000 Series Ultrabooks are subject to MIL-STD 810G testing and endure "highly- accelerated life tests" to ensure their durability. Latitude E-Family laptops are tested to survive an equivalent of 120 hours within a car in direct sunlight during summer, opening and closing every 15 minutes during work hours, and much more.

Consumer-inspired features

Latitude 7000 Series Ultrabooks will excite end-users with consumer-inspired details. The option of a touch screen in a full laptop is noteworthy, offering an outstanding productivity experience with Genuine Windows 8 or Genuine Windows 8 Pro. The optional backlit keyboard makes it easy to type in dark environments.

These commercial Ultrabooks feature Intel® Identity Protection Technology (Intel® IPT) with near-field communications (NFC), allowing you to shop online and pay with just a tap of your NFC-enabled credit card on your device. Feel safer knowing your device has confirmed your identity to the online merchant and that your credit card information is being transmitted more securely and faster.

The Latitude 7000 Series Ultrabooks also feature integrated Intel® Wireless Display (WiDi)[4]. Based on the existing Wi-Fi standard, WiDi allows a portable device or computer to send up to 1080p high-definition video and 5.1 surround sound to a compatible display wirelessly.

Choose essential accessories recommended specifically for your Latitude. Dell Latitude 7000 Series is the only Ultrabook designed to be compatible with an existing laptop family docking station. Dell also offers WiGig wireless docking (Dell Wireless Dock D5000) for easy integration into a desktop or conference room environment. Complete your docking solution with Dell UltraSharp monitors, Dell's wireless keyboard and mouse. Connect and collaborate effectively with broad connectivity options, an integrated HD webcam and microphone array.

On the go, easily transport your Ultrabook with Dell's Executive Leather Carrying Case, and the Latitude 7000 Series' swappable battery capability, along with the Dell 90-watt Auto/Air Charger with Power Cord, keeps you powered throughout the day.

The most secure Ultrabooks

With best-in-class endpoint security solutions that include comprehensive encryption, advanced authentication and leading-edge malware protection from a single source, the Latitude 7000 Series are the world's most secure Ultrabooks.

Protect data on any device, across external media and in the cloud with Dell Data Protection | Encryption. This solution suite enables centralized, remote management, and flexible options range from simplified BitLocker management to the highest level of FIPS 140-2 protection commercially available for system disks with the optional DDP | Hardware Crypto Accelerator. Deploy encryption right out of the box with factory installation and simplify compliance with preset compliance templates.

Ensure only authorized users have access to your data with advanced authentication options including FIPS 201-certified smart card and fingerprint readers. Dell Data Protection | Security Tools enables multifactor, single sign-on and preboot authentication along with integrated management with your encryption policies. Dell Latitude 7000 Series provides a FIPS 140-2-certified TPM, and Dell ControlVault adds another layer of hardware security by isolating user credentials on a separately controlled hardware chip.

Stop advanced malware in its tracks with Dell Data Protection | Protected Workspace, a proactive approach to malware protection that automatically detects and blocks all malicious behavior in real time — even zero-day attacks.

The most manageable business laptops

Easily manage your Latitude fleet with exceptional integrated management capabilities that include Intel® vPro™ technology and exclusive automated tools that plug into Microsoft System Center and Dell KACE.

Remotely manage your Latitude laptops with next-generation Intel® vPro™ technology and update once and everywhere with Dell-unique Intel vPro extensions for remote BIOS management and hard drive wipe, even when systems are powered off.

Save time and eliminate guesswork with Dell automated tools and utilities for deploying, monitoring and updating systems. Collect inventory data, enforce policies, and maintain system health for the lifetime of your Dell Latitude laptops. Create a standardized environment and simplify deployments with long lifecycles. Dell ProSupport[5], Dell Configuration and Deployment Services, and Dell Imaging Services.

Feature	Technical Specification	
Model Number	**Latitude 12 7000 Series (Model E7240)**	**Latitude 14 7000 Series (Model E7440)**
Processor Options	4th Generation Intel® Core™ processors up to i7	
Operating System Options	Genuine Windows® 7 Genuine Windows® 8 Genuine Windows® 8 Pro Linux Ubuntu 12.04	
Memory[6] Options	DDR3L SDRAM 1600MHz 2 slots supporting 1G, 2G, 4GB[7], 8GB DIMMs	DDR3 SDRAM 1600MHz 2 slots supporting 1G, 2G, 4GB[7], 8GB DIMMs
Chipset	Integrated with the CPU (Lynx Point-LP)	
Intel Responsiveness Technologies	Optional Intel® Rapid Start Technology[8] Optional Intel® Smart Connect Technology[9] (Require mobile solid state drive)	
Graphics[6] Options	Intel® Integrated HD Graphics up to 4400	
Display Options	12.5" HD (1366x768) Anti-Glare LED-backlit 12.5" FHD (1920x1080) Touch	14.0" HD (1366x768) Anti-Glare LED-backlit 14.0" FHD (1920x1080) Anti-Glare LED-backlit 14.0" FHD (1920x1080) Touch
Storage Options	Mobility Solid State up to 256GB[6] Dell Fast Response Free Fall Sensor and HDD Isolation (standard on the motherboard)	5400RPM SATA up to 500GB[6] Mobility Solid State up to 256GB[6] Dell Fast Response Free Fall Sensor and HDD Isolation (standard on the motherboard)
Optical Drive Options	N/A	N/A
Multimedia	High Quality Speakers Stereo global headset jack Integrated, noise reducing array microphones Optional Integrated HD video webcam and Dell Webcam Central software	
Battery Options	3-cell (31Whr) Lithium Ion battery with ExpressCharge™ 4-cell (42Whr) Lithium Ion battery with ExpressCharge™	3-cell (34Whr) Lithium Ion battery with ExpressCharge™ 4-cell (45Whr) Lithium Ion battery with ExpressCharge™
Power Options	65 Watt or 90W AC Adapter 65W BFR/PVC Free AC Adapter 90W Auto/Air DC Adapter (optional)	
Connectivity	10/100/1000 Gigabit Ethernet **Wireless LAN and WiMAX Options:** Intel® Centrino® Advanced-N + WiMAX 7260 Dell Wireless 1601 (802.11n 2x2, + Bluetooth & WiGig) Dell Wireless 1506 (802.11g/n 1x1, no Bluetooth) **Mobile Broadband[11] & GPS Options:** Dell Wireless™ 5570 HSPA+ Mini Card Dell Wireless™ 5808 LTE Mobile Broadband	
Ports, Slots & Chassis	Network connector (RJ-45), USB 3.0 (3), Stereo headphone/Microphone combo jack, Docking Connector, mDisplayPort, HDMI, 1 Full and 2 Half Mini Card Slots Optional SmartCard Reader/Contactless SmartCard Reader/Fingerprint Reader or FIPS Fingerprint Reader	
Dimensions & Starting Weight[1]	Width: 12.2"/310.5mm Height: .79"/20.0mm Depth: 8.3"/211.0mm 2.99lbs/1.36kg (with 3-cell battery)	Width: 13.2"/337.0mm Height: .8"/21.0mm Depth: 9.1"/231.5mm 3.6lb/1.63kg (with 3-cell battery)
Regulatory and Environmental Compliance	Regulatory Model: P22S Regulatory Type: P22S001	Regulatory Model: P40G Regulatory Type: P40G001
	ENERGY STAR 5.2-qualified (Windows OS) EPEAT Registered. For specific country participation and rating, please see www.epeat.net BFR/PVC-Free[10]	
Input	Single Pointing Keyboard: Standard or Backlit Multi-touch Touchpad	Dual Pointing Keyboard: Standard or Backlit Multi-touch Touchpad
Systems Management	Intel® vPro™ Technology's advanced management features (optional, requires Intel WiFi® Link WLAN)	
Configuration Services[5]	Factory Image Load, BIOS Customization, Hardware Customization, Asset Tagging and Reporting	
Recommended Accessories	On the go: Dell Executive leather carrying case, Dell mDP to VGA adapter, Dell UltraMobile projector, Dell 90W Auto/Air charger with power cord In the office: Dell E-series Port Replicator or D5000 WiGig Dock, UltraSharp Monitors, Dell Wireless Keyboard and Mouse	

Discover the most secure and manageable Ultrabook at Dell.com/Latitude

1. Based on Dell lab testing. Weights vary depending on configuration and manufacturing variability.
2. Some items will be available post-launch. Offering may also vary by country and by configuration. For complete details, refer to the Technical Guidebook available on dell.com.
3. The Dell notebook portfolio contains Corning Gorilla Glass 3 and Corning Gorilla Glass NBT on select systems - See product specification for details.
4. Requires an Intel wireless card, a compatible Media Adapter (sold separately) and an HDMI or compatible AV-enabled display.
5. Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions.
6. Significant system memory may be used to support graphics, depending on system memory size and other factors. GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.
7. A 64-bit operating system is required to support 4GB or more of system memory.
8. Intel Rapid Start requires a Solid-State Drive (SSD) or properly configured HDD + SSD.
9. Intel Smart Response Technology requires a 32GB SSD setup as secondary storage device.
10. Dell Latitude laptops are brominated flame retardant free (BFR-free) and polyvinyl chloride free (PVC-free), meeting the definition of BFR/PVC-free as set forth in the iNEMI Position Statement on the "Definition of Low-Halogen Electronics (BFR-/CFR-/PVC-free)". Plastic parts contain less than 1,000 ppm (0.1%) of bromine (if the Br source is from BFRs) and less than 2,000 ppm (0.2%) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total less than 1,500 ppm (0.15%) with a maximum chlorine of 900 ppm (0.09%) and maximum bromine being 900 ppm (0.09%). Unless specifically stated, external power cords, adapters, peripherals and service parts are excluded.
11. Mobile Broadband: Subject to wireless provider's broadband subscriptions and coverage area; additional charges apply.

Dell Latitude E7240/E7440

Informações sobre configuração e recursos

Sobre as Advertências

⚠ **ATENÇÃO: uma ADVERTÊNCIA indica um potencial de danos à propriedade, risco de lesões corporais ou mesmo risco de vida.**

Latitude E7240 — Vista dianteira e traseira

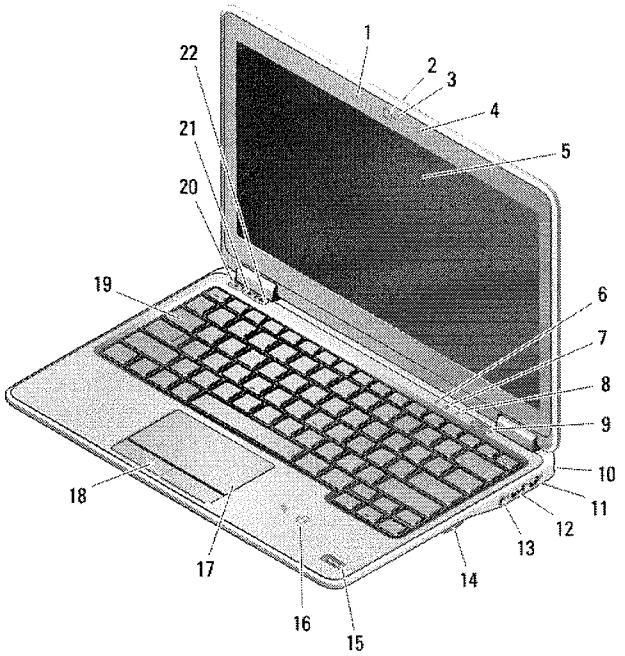


Figura 1. Vista frontal

1. microfone
2. câmera
3. luz de status da câmera
4. microfone
5. tela
6. luz de status do disco rígido
7. luz de status da bateria
8. luz de status da rede sem fio
9. botão liga/desliga
10. slot do bloqueio de segurança
11. conector de mini DisplayPort
12. conector USB 3.0
13. conector de áudio e microfone
14. leitor de cartão SD
15. leitor de impressão digital
16. leitor de Smart Card sem contato
17. touchpad
18. botões do touchpad (2)
19. teclado
20. botão de mudo

Modelo normativo: : P22S, P40G
Tipo normativo: : P22S001, P40G001
2013- 04

21. botão diminuir volume
22. botão aumentar volume

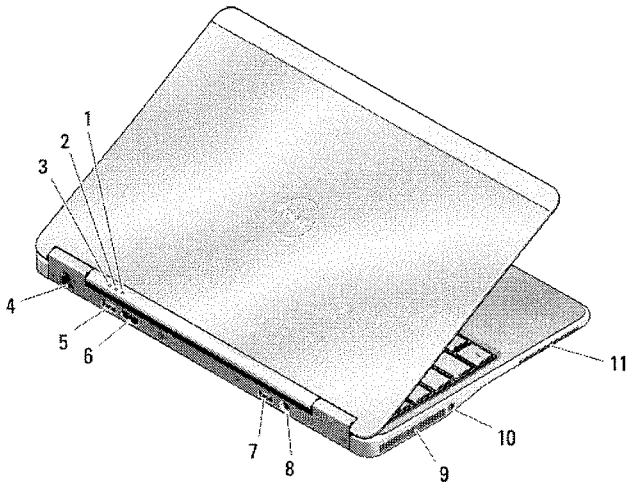


Figura 2. Vista traseira

1. luz de status de alimentação
2. luz de atividade do disco rígido
3. luz de status da bateria
4. conector de rede
5. conector USB 3.0
6. conector HDMI
7. conector USB 3.0 com PowerShare
8. conector de alimentação
9. aberturas de ventilação
10. chave da rede sem fio
11. slot de cartão inteligente

Vista da base

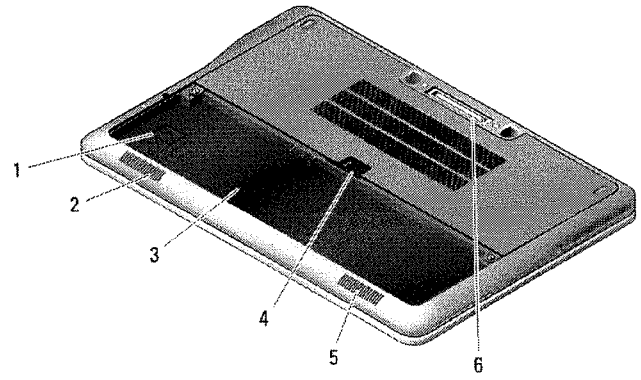


Figura 3. Vista da base (sem bateria)

1. slot USIM
2. alto-falante
3. compartimento de bateria
4. trava da bateria
5. alto-falante
6. conector de acoplamento

Latitude E7440 — Vista dianteira e traseira

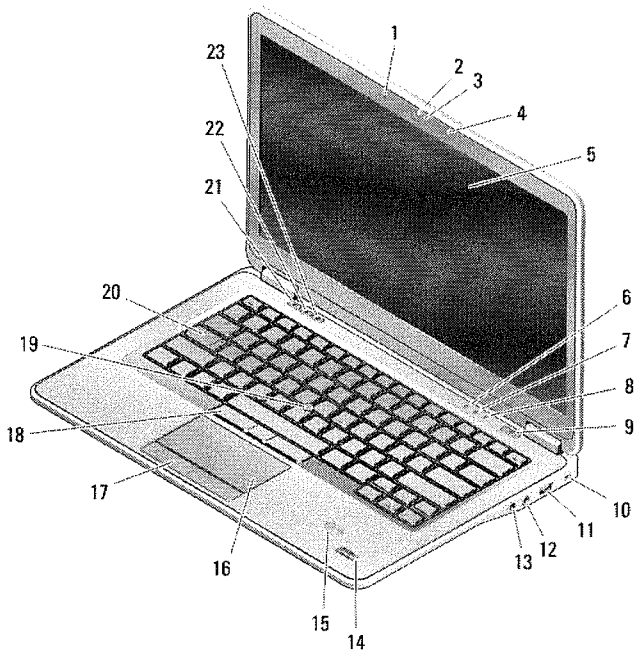


Figura 4. Vista frontal

1. microfone
2. câmera
3. luz de status da câmera
4. microfone
5. tela
6. luz de status do disco rígido
7. luz de status da bateria
8. luz de status da rede sem fio
9. botão liga/desliga
10. slot do bloqueio de segurança
11. conector USB 3.0
12. conector de áudio e microfone
13. chave da rede sem fio
14. leitor de impressão digital
15. leitor de Smart Card sem contato
16. touchpad
17. botões do touchpad (2)
18. botões do track stick (3)
19. track stick
20. teclado
21. botão de mudo
22. botão diminuir volume
23. botão aumentar volume

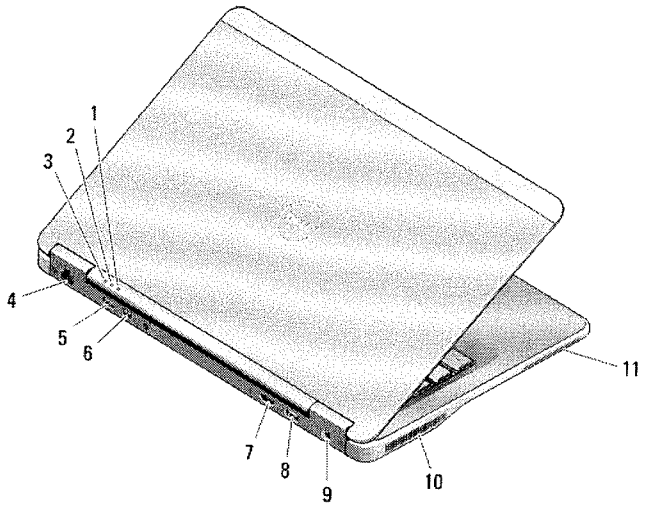


Figura 5. Vista traseira

1. luz de status de alimentação
2. luz de atividade do disco rígido
3. luz de status da bateria
4. conector de rede
5. conector USB 3.0
6. conector de mini DisplayPort
7. conector HDMI
8. conector USB 3.0 com PowerShare
9. conector de alimentação
10. aberturas de ventilação
11. slot de cartão inteligente

Vista da base

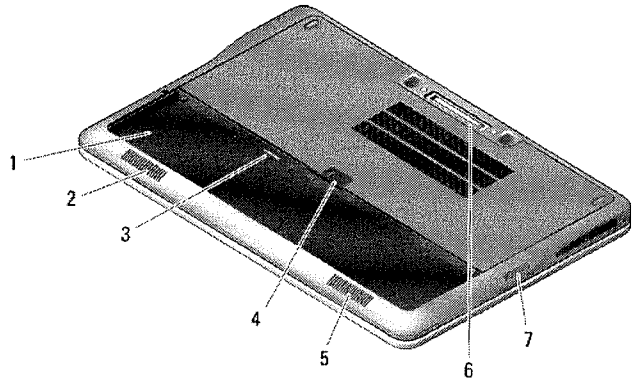


Figura 6. Vista da base (sem bateria)

1. compartimento de bateria
2. alto-falante
3. slot USIM
4. trava da bateria
5. alto-falante
6. conector de acoplamento
7. leitor de cartão SD

Configuração rápida

ATENÇÃO: Antes de iniciar qualquer procedimento desta seção, leia as informações de segurança que acompanham o computador. Para obter informações adicionais sobre as melhores práticas, consulte www.dell.com/regulatory_compliance

ATENÇÃO: O adaptador CA funciona com tomadas elétricas do mundo todo. No entanto, os conectores de alimentação e os filtros de linha variam de país para país. O uso de um cabo incompatível ou uma conexão incorreta ao filtro de linha ou à tomada elétrica poderá causar incêndio ou danos no equipamento.

CUIDADO: Ao desconectar o cabo do adaptador CA do computador, segure-o pelo conector, e não pelo fio, e puxe-o com firmeza, mas com cuidado para não danificá-lo. Quando você enrolar o cabo do adaptador CA, certifique-se de seguir o ângulo do conector no adaptador CA para evitar danificar o cabo.

NOTA: Alguns dispositivos podem não estar incluídos, se você não os tiver incluído em seu pedido.

1. Conecte o adaptador CA ao conector adequado no computador e à tomada elétrica.

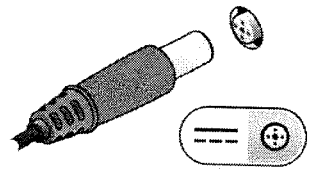


Figura 7. Adaptador CA

2. Conecte o cabo de rede (opcional).

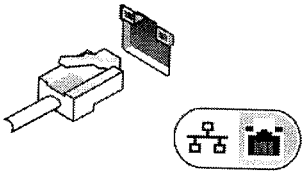


Figura 8. Conector de rede

3. Conecte dispositivos USB, como um mouse ou teclado (opcional).

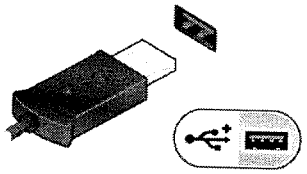


Figura 9. Conector USB

4. Abra a tela do computador e pressione o botão liga/desliga para ligar o computador.

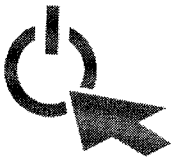


Figura 10. Botão liga/desliga

NOTA: É recomendável que você ligue e desligue o computador pelo menos uma vez antes de instalar qualquer placa ou de conectar o computador a um dispositivo de acoplamento ou a outro dispositivo externo como, por exemplo, uma impressora.

Especificações

NOTA: As ofertas podem variar de acordo com a região. As especificações a seguir se limitam àquelas exigidas por lei para fornecimento com o computador. Para obter mais informações sobre a configuração do computador, clique em **Iniciar** → **Ajuda e suporte** e selecione a opção para mostrar as informações sobre o computador.

Alimentação:	
Tensão	100 V CA a 240 V CA
Potência	65 W
Bateria de célula tipo moeda	célula de lítio tipo moeda CR2032 de 3 V

Características físicas	**Latitude 7240**	**Latitude 7440**
Altura	20,0 mm (0,79 polegadas)	21,0 mm (0,8 polegadas)
Largura	310,5 mm (12,2 polegadas)	337,0 mm (13,2 polegadas)
Profundidade	211,0 mm (8,3 polegadas)	231,5 mm (9,1 polegadas)
Peso (com bateria de 3 células)	1,36 kg (2,99 lb)	1,63 kg (3,6 lb)

Requisitos ambientais	
Temperatura operacional:	0 °C a 60 °C (32 °F a 140 °F)

Information para NOM (únicamente para México)

As seguintes informações são fornecidas sobre o dispositivo descrito neste documento em conformidade com os requisitos das normas oficiais mexicanas (NOM):

Voltaje de alimentación	100 V CA – 240 V CA
Frecuencia	50 Hz – 60 Hz
Consumo eléctrico	1,50 A~2,50 A
Voltaje de salida	19,50 V de CC
Intensidad de salida	3,34 A/4,62 A

Como encontrar mais informações e recursos

Consulte os documentos sobre segurança e normalização entregues com seu computador e também a página de conformidade normativa em **www.dell.com/regulatory_compliance** para obter mais informações sobre:

- Práticas de segurança recomendadas
- Certificação de normalização
- Ergonomia

Consulte **www.dell.com** para obter informações adicionais sobre:

- Garantia
- Termos e condições (apenas para os EUA.)
- Contrato de licença para o usuário final

Informações adicionais sobre o produto estão disponíveis em **www.dell.com/support/manuals**

Statement of Volatility – Dell Latitude E7240/E7440

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

The Dell Latitude E7240/E7440 contains both volatile and non-volatile (NV) components. Volatile components lose their data immediately after power is removed from the component. Non-volatile (NV) components continue to retain their data even after power is removed from the component. The following NV components are present on the Latitude E7240/E7440's system board.

Table 1. List of Non-Volatile Components on System Board

Description	Reference Designator	Volatility Description	User Accessible for external data	Remedial Action (action necessary
Embedded Flash memory in embedded controller MEC5075	U38	256K and 2K byte of embedded Flash memory for embedded controller BIOS code, asset tag and BIOS passwords	No	N/A
Panel EDID EEPROM	Part of LCD panel assembly	Non Volatile memory 64K bytes. Stores panel manufacturing information, display configuration data	No	N/A
System BIOS	U1,U2	Non Volatile memory, 64Mbit (8MB), 32Mbit (4MB) System BIOS and Video BIOS for basic boot operation, PSA (on board diags), PXE diags.	No	N/A
System Memory – DDR3L memory	Connectors JDIMMA and JDIMMB	Volatile memory in OFF state (see state definitions later in text) One or both modules will be populated. System memory size will depend on SoDIMM modules and will be between 1GB to 8GB	Yes	Power off system
System memory SPD EEPROM	On memory SoDIMM(s) – one or two present	Non-Volatile memory 2Kbit (256 bytes). One device present on each SoDIMM. Stores memory manufacturer data and timing information for correct operation of system memory.	No	N/A
RTC CMOS	UC1	Non Volatile memory 256 bytes Stores CMOS information	No	Remove the on-board coin cell battery
Video memory – type – see next column	UMA architecture- uses system DDR3L.	Volatile memory in off state. UMA uses main system memory size allocated out of main memory.		No Enter S3-S5 state below.
Security Controller Serial Flash Memory	U4 (up-sell USH daughter board)	Non Volatile memory, 16 Mbit (2Mbyte)	No	NA

Security Controller	U2 (up-sell USH daughter board)	128K byte ROM, 128K bit one time programmable	No	NA
TPM Controller	U25	Non Volatile memory, 2K bits (256 bytes) ROM	No	NA
Hard drive/mSATA	User replaceable	Non Volatile magnetic media, various sizes in GB	Yes	Low level format
DP HUB EEPROM	U7	Non Volatile memory, 16 Mbit (2Mbyte)	No	N/A

△ CAUTION: All other components on the system board lose data if power is removed from the system. Primary power loss (unplugging the power cord and removing the battery) destroys all user data on the memory (DDR3, 1067 MHz). Secondary power loss (removing the on-board coin-cell battery) destroys system data on the system configuration and time-of-day information.

All other components on the motherboard will lose data once power is removed from the system. Primary power loss (Unplug the power cord and remove the battery) will destroy all user data on the memory (DDR3L, 1333/1600MHz). Secondary power loss (removing the on board coin-cell battery) will destroy system data on the system configuration and time-of-day information.

In addition, to clarify memory volatility and data retention in situations where the system is put in different ACPI power states the following is provided (those ACPI power states are S0, S1, S3, S4 and S5):
S0 state is the working state where the dynamic RAM is maintained and is read/write by the processor.
S1 state is a low wake-up latency sleeping state. In this state, no system context is lost (CPU or chip set) and hardware maintains all system contexts.
S3 is called "suspend to RAM" state or stand-by mode. In this state the dynamic RAM is maintained. Dell systems will be able to go to S3 if the OS and the peripherals used in the system supports S3 state. Win8 support S3 state.

S4 is called "suspend to disk" state or "hibernate" mode. There is no power. In this state, the dynamic RAM is not maintained. If the system has been commanded to enter S4, the OS will write the system context to a non-volatile storage file and leave appropriate context markers. When the system is coming back to the working state, a restore file from the non-volatile storage can occur. The restore file has to be valid. Dell systems will be able to go to S4 if the OS and the peripherals support S4 state. Win8 support S4 state.
S5 is the "soft" off state. There is no power. The OS does not save any context to wake up the system. No data will remain in any component on the system board, i.e. cache or memory. The system will require a complete boot when awakened. Since S5 is the shut off state, coming out of S5 requires power on which clears all registers.

The following table shows all the states supported by Dell Latitude E7240/E7440:

Model Number	S0	S1	S3	S4	S5
Dell Latitude™ E7240	X		X	X	X
Dell Latitude™ E7440	X		X	X	X

Dell Latitude E7440
Manual do proprietário

Modelo normativo: P40G
Tipo normativo: P40G001

Notas, avisos e advertências

NOTA: Uma NOTA indica informações importantes para utilizar melhor o computador.

CUIDADO: Um AVISO indica possíveis danos ao hardware ou perda de dados e ensina como evitar o problema.

ATENÇÃO: Uma ADVERTÊNCIA indica possíveis riscos de danos à propriedade, de lesões corporais ou até mesmo de morte.

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Índice

1

Como trabalhar no computador

Antes de trabalhar na parte interna do computador

Use as seguintes orientações de segurança para ajudar a proteger seu computador contra danos potenciais e ajudar a garantir sua segurança pessoal. A menos que indicado diferentemente, cada procedimento incluído neste documento pressupõe as seguintes condições:

- Você executou as etapas em Como trabalhar no computador.
- Você leu as informações de segurança fornecidas com o computador.
- Um componente pode ser substituído ou, se tiver sido adquirido separadamente, pode ser instalado executando-se o procedimento de remoção na ordem inversa.

ATENÇÃO: Antes de trabalhar na parte interna do computador, leia as informações de segurança fornecidas com o computador. Para obter informações adicionais sobre as melhores práticas de segurança, consulte a página inicial sobre conformidade normativa em www.dell.com/regulatory_compliance .

CUIDADO: Muitos reparos só podem ser feitos por um técnico credenciado. Você deve executar apenas tarefas de solução de problemas e reparos simples, conforme autorizado na documentação do produto ou conforme orientado pela equipe de suporte e de serviço de assistência online ou por telefone. Os danos causados por assistência não autorizada pela Dell não são cobertos pela garantia. Leia e siga as instruções de segurança fornecidas com o produto.

CUIDADO: Para evitar descarga eletrostática, elimine a eletricidade estática do seu corpo usando uma pulseira antiestática ou tocando periodicamente em uma superfície metálica sem pintura, como um conector na parte de trás do computador.

CUIDADO: Manuseie os componentes e placas com cuidado. Não toque nos componentes ou nos contatos das placas. Segure uma placa pelas suas bordas ou pelo suporte de montagem de metal. Segure os componentes, como processadores, pelas bordas e não pelos pinos.

CUIDADO: Ao desconectar um cabo, puxe-o pelo conector ou pela respectiva aba de puxar, nunca pelo próprio cabo. Alguns cabos têm conectores com presilhas de travamento. Se estiver desconectando algum cabo desse tipo, destrave as presilhas antes de desconectá-lo. Ao separar conectores, mantenha-os alinhados para evitar que os pinos sejam entortados. Além disso, antes de conectar um cabo, verifique se ambos os conectores estão corretamente orientados e alinhados.

NOTA: A cor do computador e de determinados componentes pode ser diferente daquela mostrada neste documento.

Para evitar danos no computador, execute o procedimento a seguir antes de começar a trabalhar em sua parte interna.

1. Certifique-se de que a superfície de trabalho está nivelada e limpa para evitar que a tampa do computador sofra arranhões.
2. Desligue o computador (consulte Como desligar o computador).
3. Se o computador estiver conectado em um dispositivo de acoplamento (acoplado) como a Base de mídia ou Bateria auxiliar opcional, desacople-o.

CUIDADO: Para desconectar um cabo de rede, primeiro desconecte-o do computador e, em seguida, desconecte-o do dispositivo de rede.

4. Desconecte todos os cabos de rede do computador.
5. Desconecte o computador e todos os dispositivos conectados de suas tomadas elétricas.
6. Feche a tela e vire o computador sobre uma superfície de trabalho plana com a parte de baixo voltada para cima.

   NOTA: Para evitar danos à placa de sistema, remova a bateria principal antes de fazer a manutenção no computador.
7. Remova a bateria principal.
8. Desvire o computador.
9. Abra a tela.
10. Pressione o botão liga/desliga para aterrar a placa de sistema.

    CUIDADO: Para evitar choques elétricos, sempre desligue o computador da tomada elétrica antes de abrir a tela.

    CUIDADO: Antes de tocar em qualquer componente na parte interna do computador, elimine a eletricidade estática de seu corpo tocando em uma superfície metálica sem pintura, como o metal da parte de trás do computador. No decorrer do trabalho, toque periodicamente em uma superfície metálica sem pintura para dissipar a eletricidade estática, a qual pode danificar os componentes internos.
11. Remova quaisquer ExpressCard ou cartão inteligente instalados dos respectivos slots.

Como desligar o computador

CUIDADO: Para evitar a perda de dados, salve e feche todos os arquivos e saia dos programas abertos antes de desligar o computador.

1. Desligue o sistema operacional:
   - No Windows 8:
     * Com o uso de um dispositivo sensível ao toque:
       a. Passe o dedo na borda direita da tela, abrindo o menu Botões e selecione **Configurações**.
       b. Selecione o ⏻ e selecione **Desligar**
     * Com o uso de um mouse:
       a. Aponte para o canto superior da tela e clique em **Configurações**.
       b. Clique no ⏻ e selecione **Desligar**.
   - No Windows 7:

     1. Clique em **Iniciar**.
     2. Clique em **Desligar.**

     ou

     1. Clique em **Iniciar**.

2. Clique na seta no canto inferior direito do menu **Iniciar**, conforme mostrado abaixo, e clique em

Desligar.

2. Certifique-se de que o computador e todos os dispositivos conectados estão desligados. Se o computador e os dispositivos conectados não tiverem sido desligados automaticamente quando você desligou o sistema operacional, mantenha o botão liga/desliga pressionado por cerca de 4 segundos para desligá-los.

Após trabalhar na parte interna do computador

Após concluir qualquer procedimento de recolocação, conecte todos os dispositivos, placas e cabos externos antes de ligar o computador.

△ **CUIDADO: Para evitar danos no computador, use somente a bateria projetada para esta computador Dell. Não use baterias projetadas para outros computadores Dell.**

1. Conecte os dispositivos externos, como replicador de portas, baterias auxiliares ou bases de mídia, e recoloque quaisquer placas, como a ExpressCard.
2. Conecte quaisquer cabos de telefone ou de rede no computador.

   △ **CUIDADO: Para conectar um cabo de rede, primeiro acople o cabo ao dispositivo de rede e só depois o conecte no computador.**
3. Recoloque a bateria.
4. Conecte o computador e todos os dispositivos conectados nas tomadas elétricas.
5. Ligue o computador.

2

Como remover e instalar componentes

Esta seção fornece informações detalhadas sobre como remover ou instalar os componentes de seu computador.

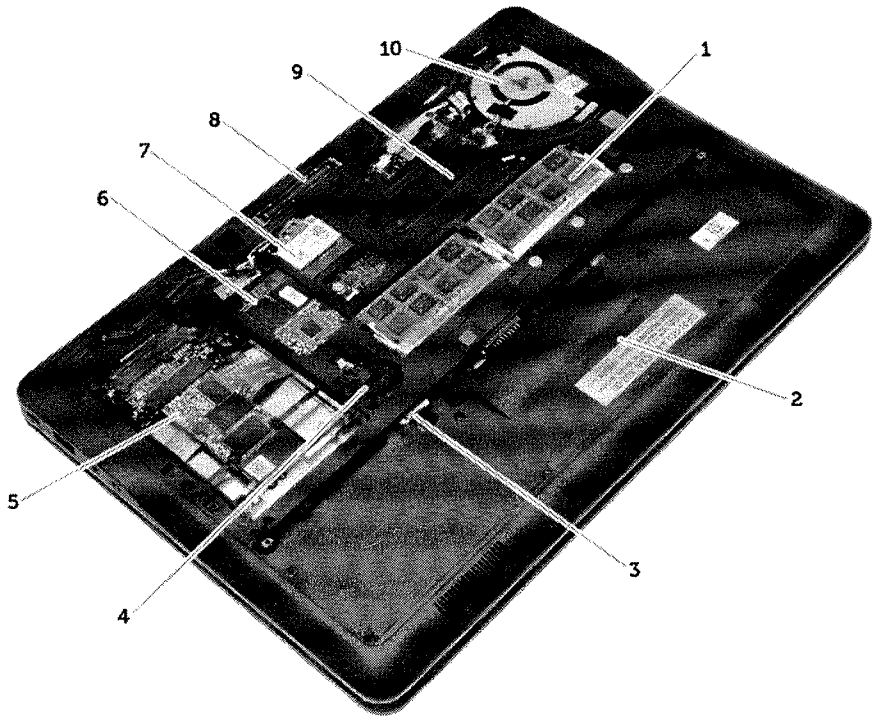
Ferramentas recomendadas

Os procedimentos descritos neste documento podem exigir as seguintes ferramentas:

- Chave de fenda pequena
- Chave Phillips
- Estilete plástico pequeno

Visão geral do sistema

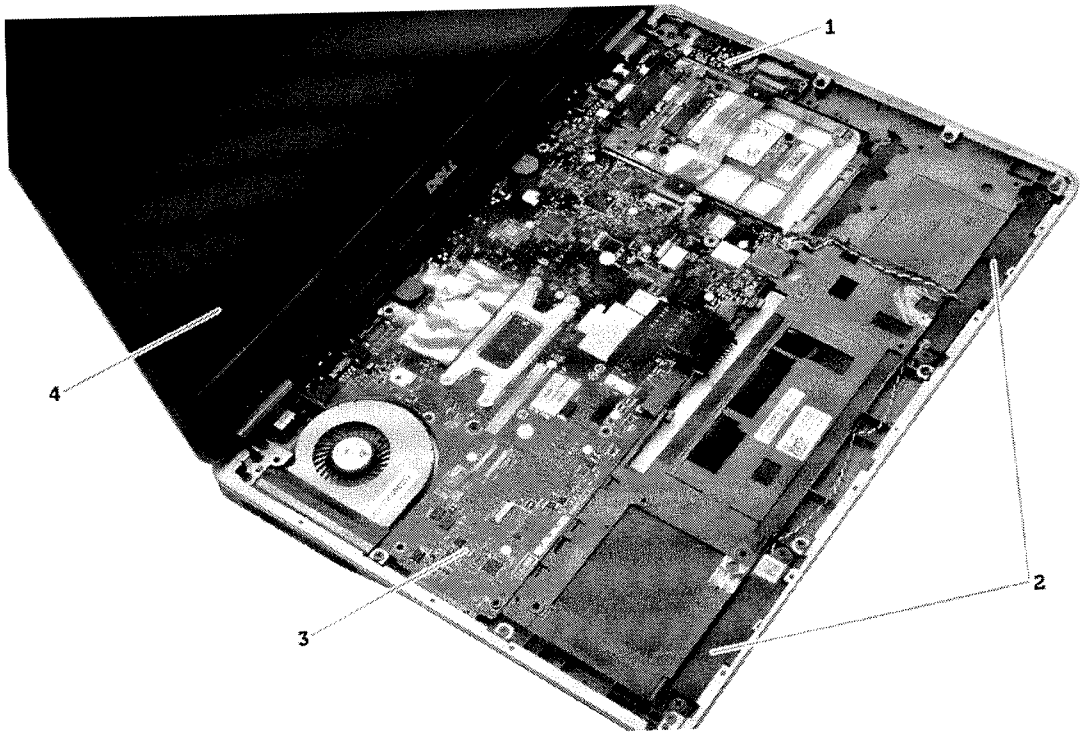
Vista interna — traseira



1. módulo de memória
2. compartimento de bateria
3. slot de cartão SIM
4. bateria de célula tipo moeda

5. Dispositivo de armazenamento
6. placa WWAN
7. placa WLAN
8. conector da estação de acoplamento
9. dissipador de calor
10. ventilador do sistema

Vista interna — dianteira



1. placa de E/S
2. alto-falantes
3. placa de sistema
4. conjunto da tela

Como remover o cartão SD

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Pressione o cartão SD para liberá-lo do computador.

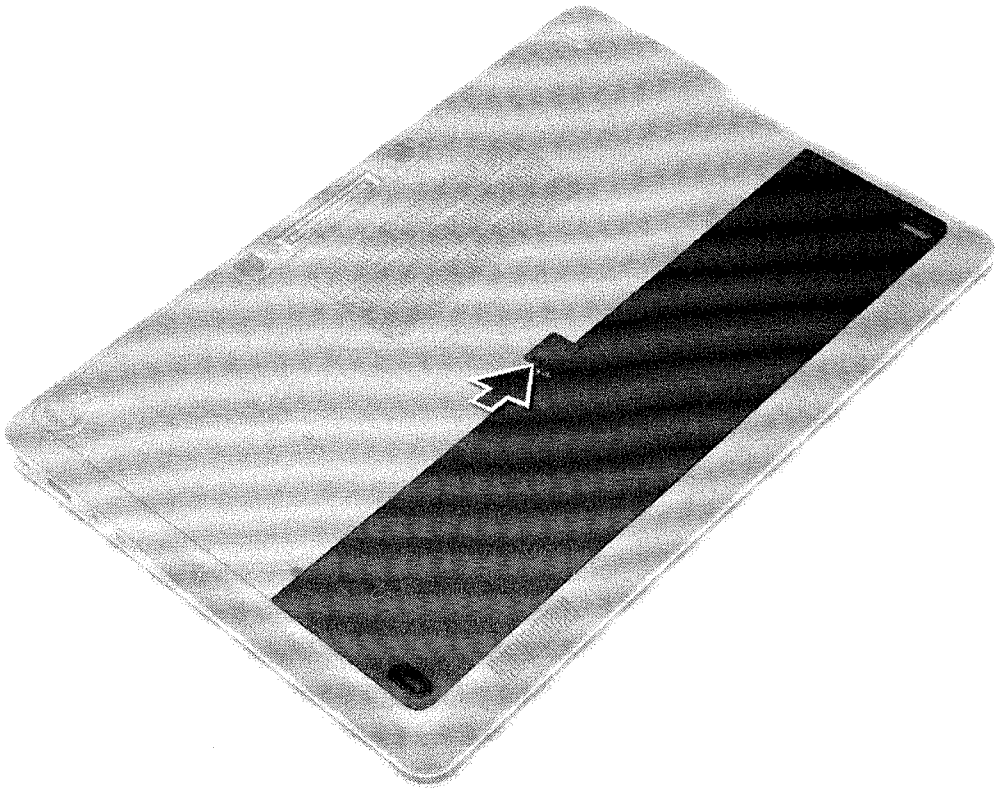
3. Deslize o cartão SD para fora do computador.

Como instalar o cartão SD

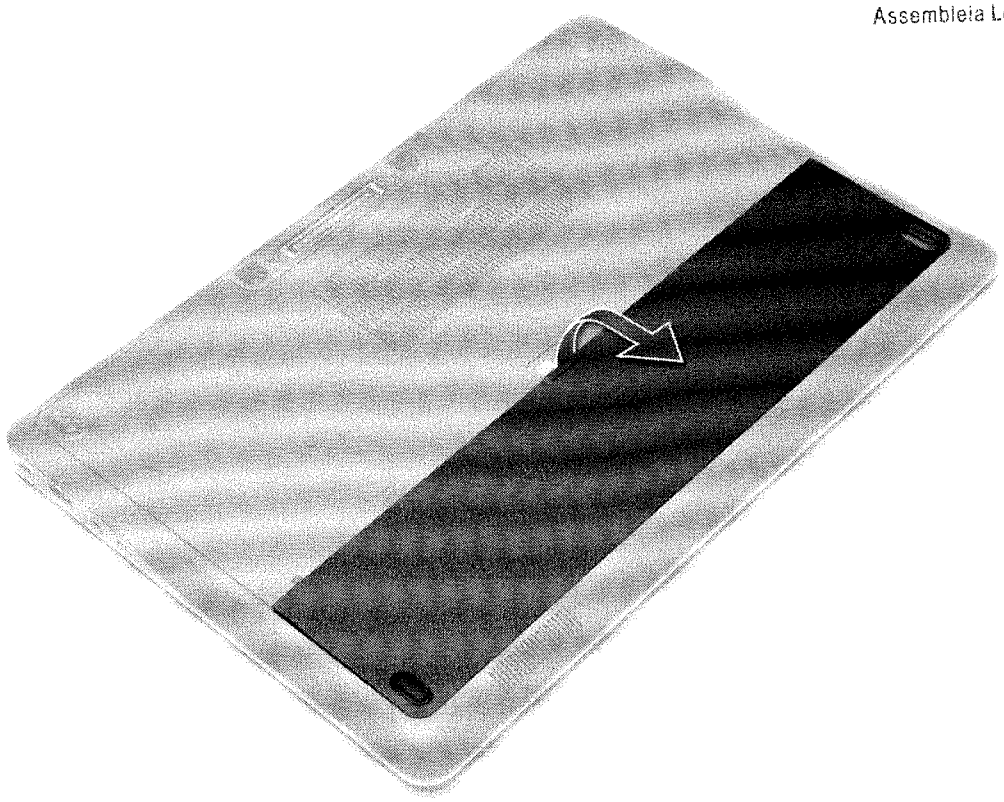
1. Deslize o cartão SD para dentro de seu slot até encaixá-la no lugar com um clique.
2. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a bateria

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Deslize a trava de liberação para destravar a bateria.



3. Remova a bateria do computador.

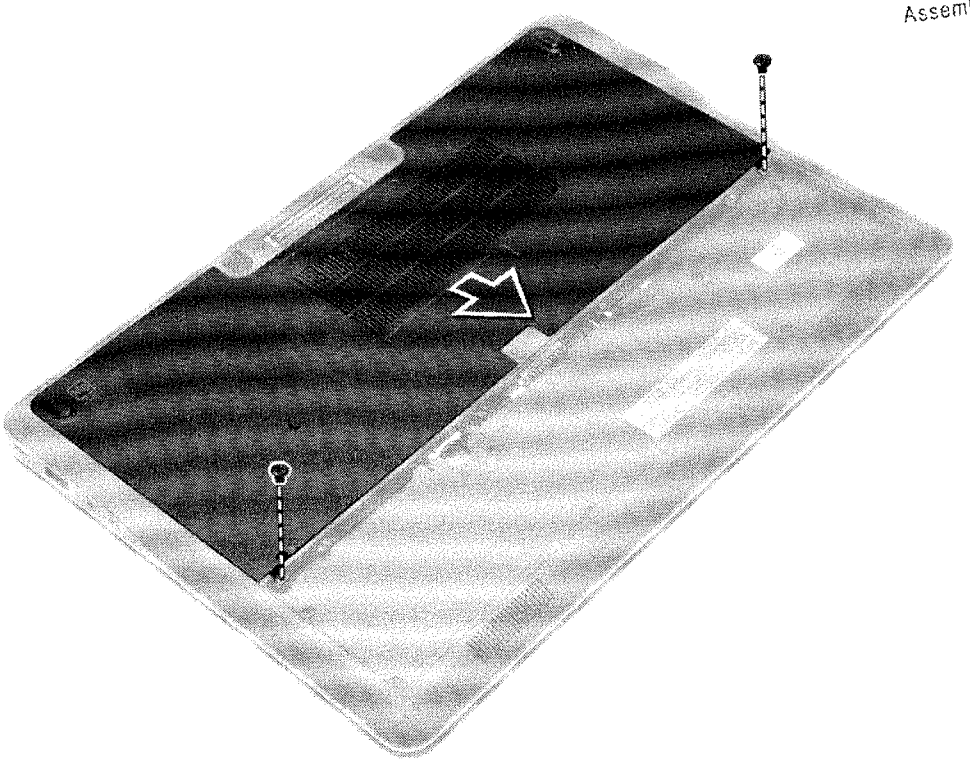


Como instalar a bateria

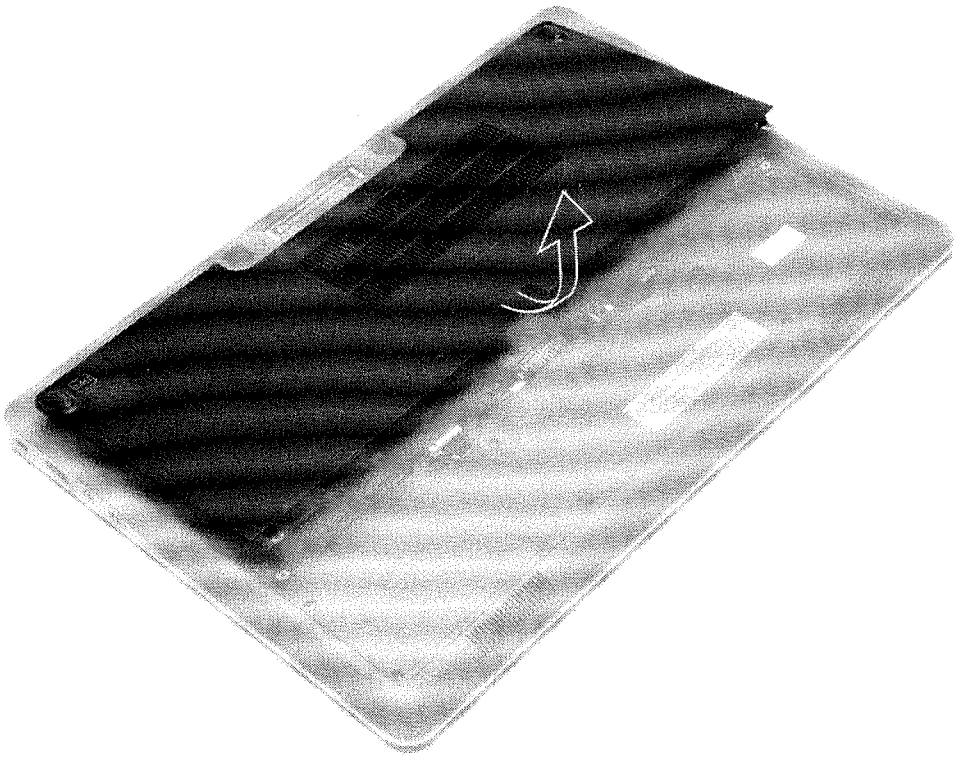
1. Deslize a bateria para dentro de seu respectivo slot até encaixá-la no lugar.
2. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a tampa da base

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova a bateria.
3. Remova os parafusos que fixam a tampa da base ao computador.



4. Levante a tampa da base para removê-la do computador.

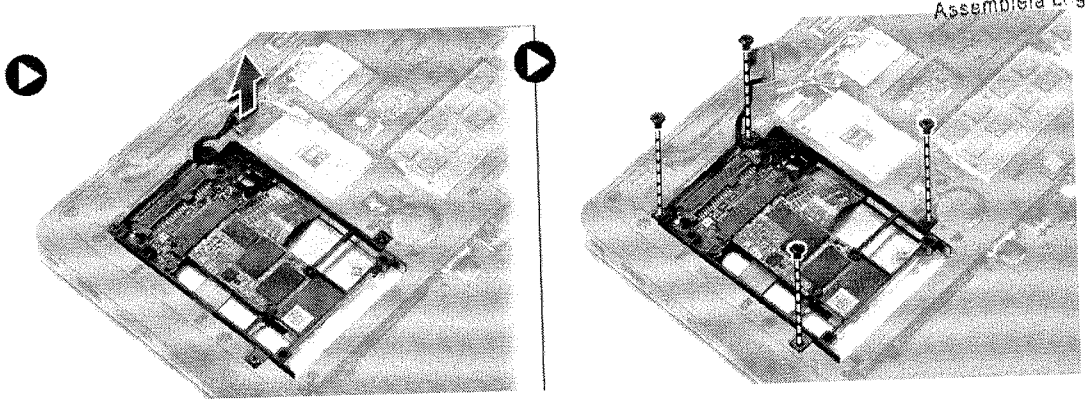


Como instalar a tampa da base

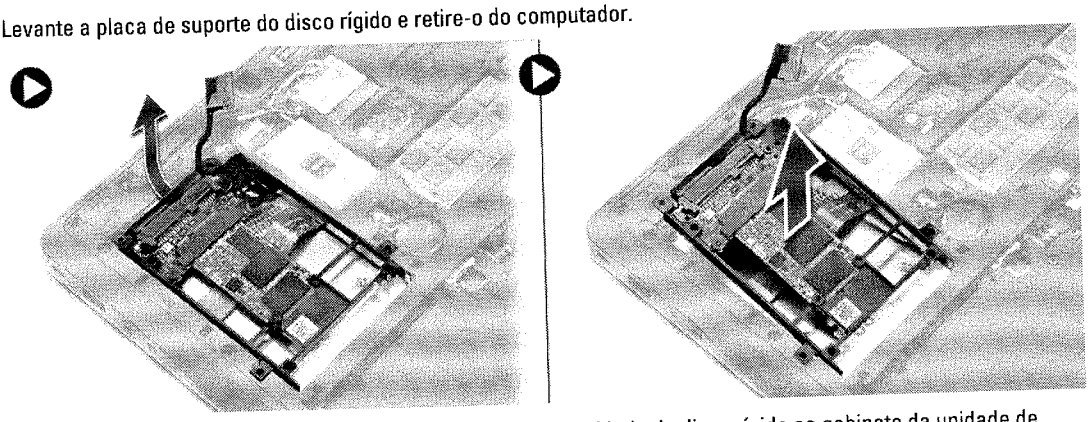
1. Coloque a tampa da base no computador alinhando o buraco do parafuso corretamente.
2. Aperte os parafusos que prendem a tampa da base ao computador.
3. Instale a bateria.
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o disco rígido

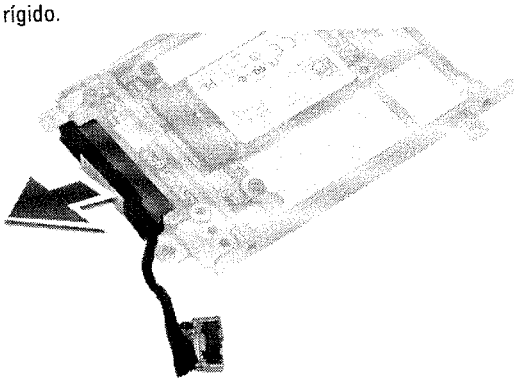
1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa da base
3. Desconecte o cabo da unidade de disco rígido que prende o gabinete da unidade de disco rígido ao computador e remova os parafusos que a prende ao computador.



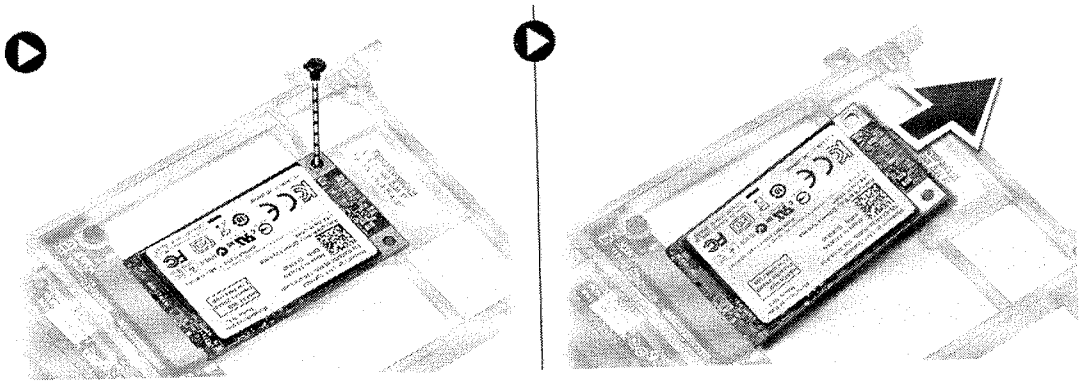
4. Levante a placa de suporte do disco rígido e retire-o do computador.



5. Desconecte o cabo da unidade de disco rígido que prende a unidade de disco rígido ao gabinete da unidade de disco rígido.



6. Remova o parafuso que prende a unidade de disco rígido ao gabinete da unidade de disco rígido e levante o disco rígido do gabinete da unidade de disco rígido.

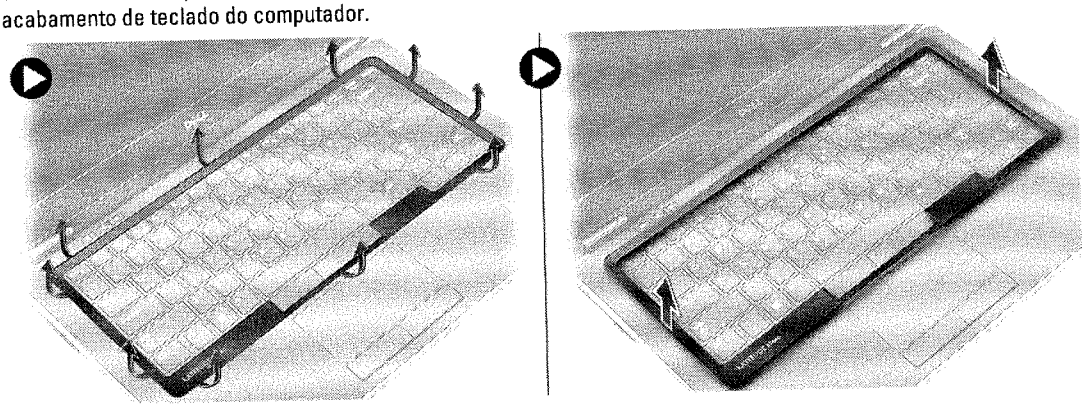


Como instalar o disco rígido

1. Deslize a unidade de disco rígido no respectivo slot no computador.
2. Aperte o parafuso que segura o suporte do disco rígido ao disco rígido.
3. Conecte o cabo do disco rígido ao compartimento de unidade de disco rígido.
4. Coloque o suporte da unidade de disco rígido e aperte o parafuso para prender o compartimento de unidade de disco rígido ao computador.
5. Conecte o cabo do compartimento de unidade de disco rígido ao computador.
6. Instale:
   a) tampa da base
   b) bateria
7. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o acabamento do teclado

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova a bateria.
3. Usando um estilete plástico, solte o acabamento de teclado para soltá-lo do computador. Levante e remova o acabamento de teclado do computador.

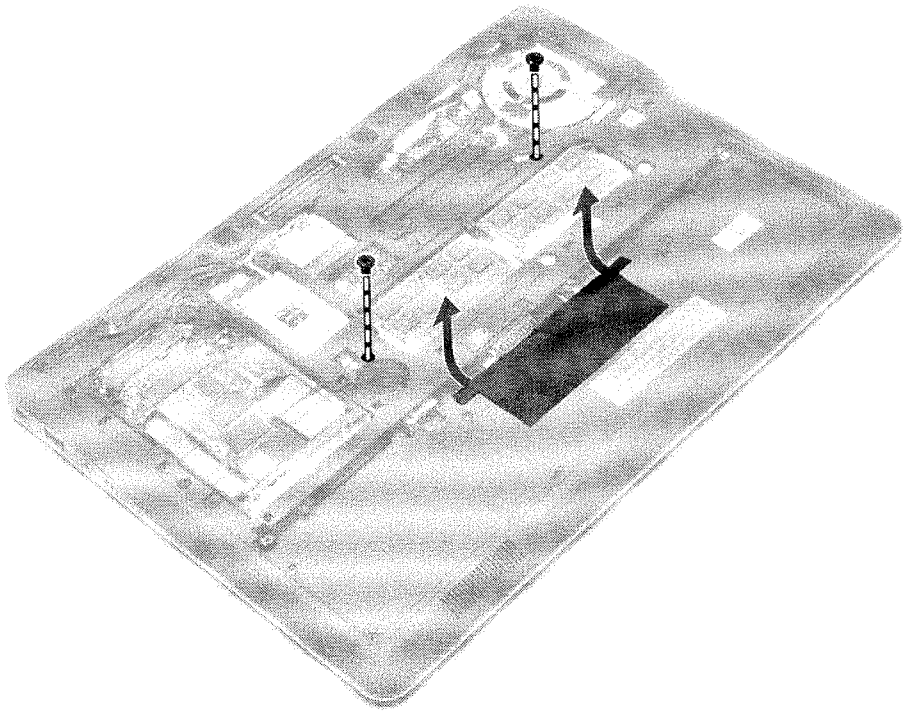


Como instalar o acabamento do teclado

1. Encaixe o acabamento do teclado em seu compartimento.
2. Pressione toda a borda do acabamento do teclado até que ela fique firme no lugar.
3. Instale a bateria.
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

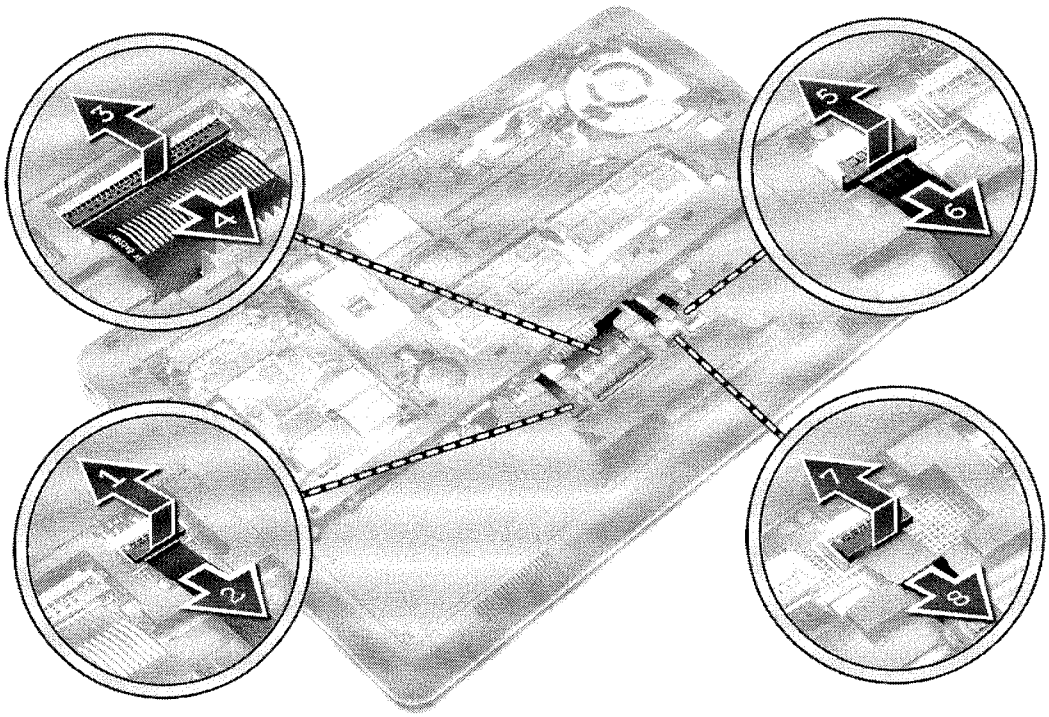
Como remover o teclado

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa da base
   c) acabamento do teclado
3. Remova os parafusos e levante o compartimento de bateria do computador.

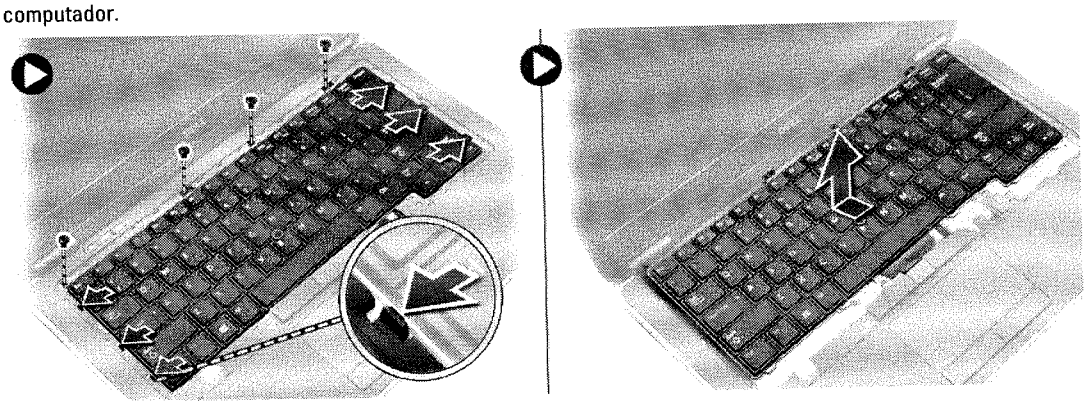


4. Execute as etapas a seguir, conforme mostrado na ilustração,:
   a) Levante a trava do cabo da luz de fundo do teclado [1].
   b) Desconecte o cabo da placa do sistema [2].
   c) Levante a trava de cabo do trackstick [3].
   d) Desconecte o cabo da placa do sistema [4].
   e) Levante a trava do cabo do teclado [5].
   f) Desconecte o cabo da placa do sistema [6].
   g) Levante a trava do cabo do touch pad [7].

h) Desconecte o cabo da placa do sistema [8].



5. Vire o computador e remova os parafusos que prendem o teclado ao computador. Levante o teclado do computador.



Como instalar o teclado

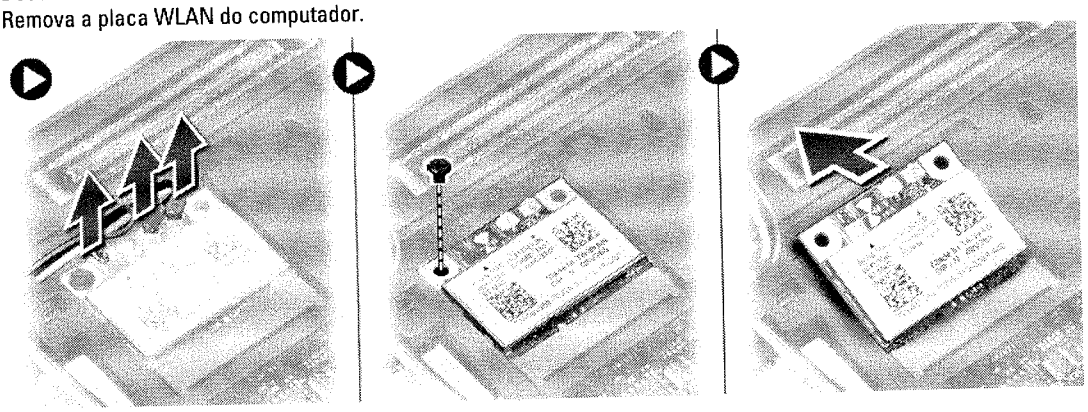
1. Conecte o cabo do teclado e segure-o no teclado usando a fita.
2. Conecte o cabo do teclado à placa de sistema.
3. Deslize o teclado para seu compartimento e certifique-se de que ele encaixe no lugar.
4. Aperte os parafusos para prender o teclado no apoio para mãos.
5. Vire o computador e aperte os parafusos que prendem o teclado.
6. Instale:
   a) acabamento do teclado

b) tampa da base
c) bateria

7. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a placa WLAN

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa da base
3. Desconecte os cabos de antena da placa WLAN e remova o parafuso que fixa a placa WLAN ao computador. Remova a placa WLAN do computador.

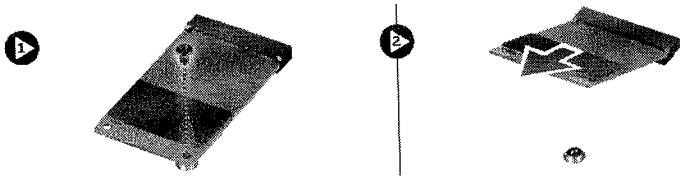


Como instalar a placa WLAN

1. Insira a placa WLAN no conector em um ângulo de 45 graus no slot apropriado.
2. Aperte o parafuso que fixa a placa WLAN ao computador.
3. Conecte os cabos da antena aos seus respectivos conectores marcados na placa WLAN.
4. Instale:
   a) tampa da base
   b) bateria
5. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a placa do SSD mSATA

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) cartão SD
   c) tampa da base
3. Remova o parafuso que prende a placa do SSD mSATA e remova-a do computador.

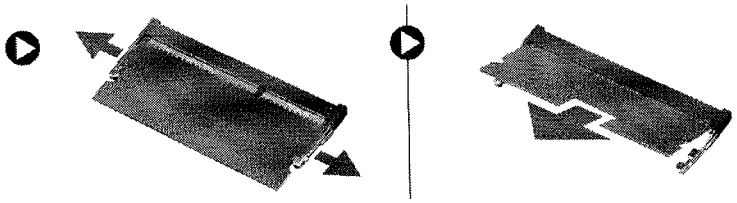


Como instalar a placa do SSD mSATA

1. Coloque a placa do SSD mSATA em seu slot no computador.
2. Aperte o parafuso para fixar a placa do SSD mSATA ao computador.
3. Instale:
   a) tampa da base
   b) cartão SD
   c) bateria
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o módulo de memória

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa da base
3. Afaste os clipes de fixação do módulo de memória até que o módulo se solte. Remova o módulo de memória de seu conector na placa de sistema.

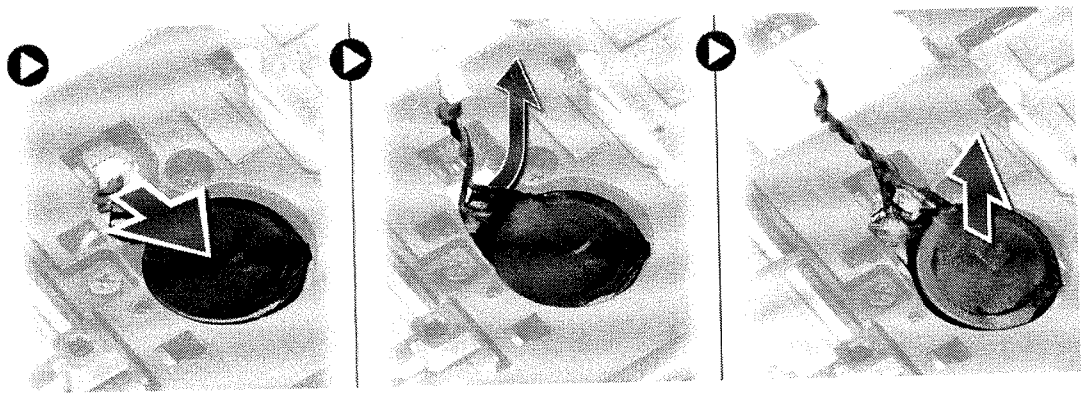


Como instalar o módulo de memória

1. Insira o módulo de memória no soquete.
2. Pressione os grampos de retenção para prender o módulo de memória na placa de sistema.
3. Instale:
   a) tampa da base
   b) bateria
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a bateria de célula tipo moeda

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa da base
3. Deslize o cabo da bateria de célula tipo moeda e desconecte-a da placa do sistema. Remova a bateria de célula tipo moeda do computador.

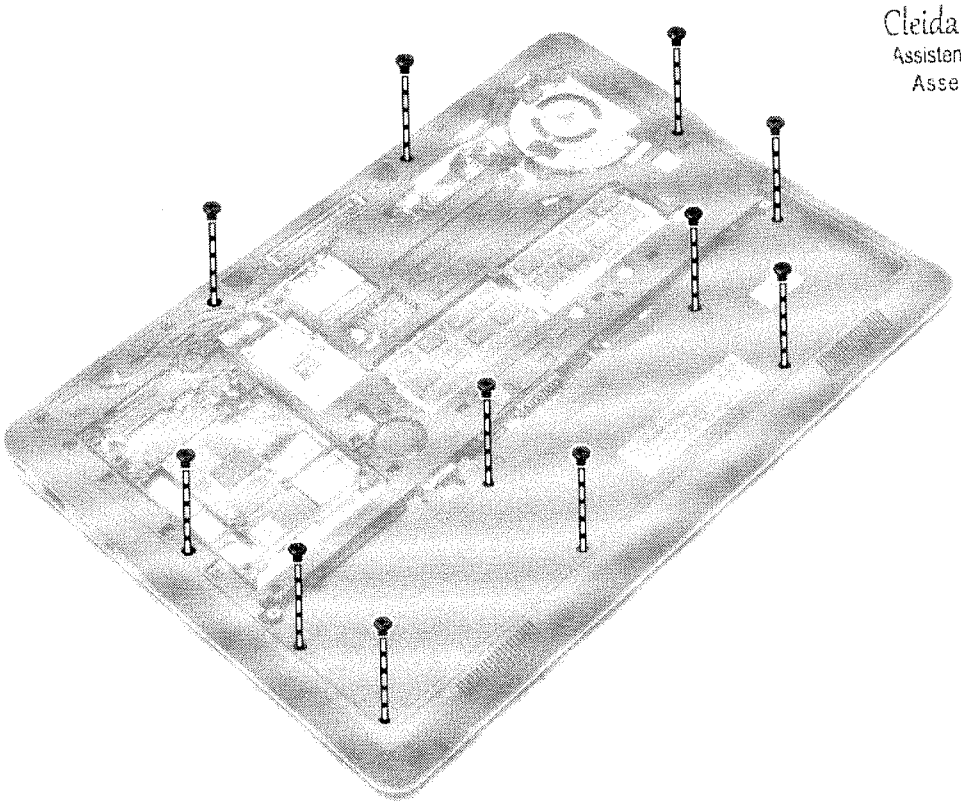


Como instalar a bateria de célula tipo moeda

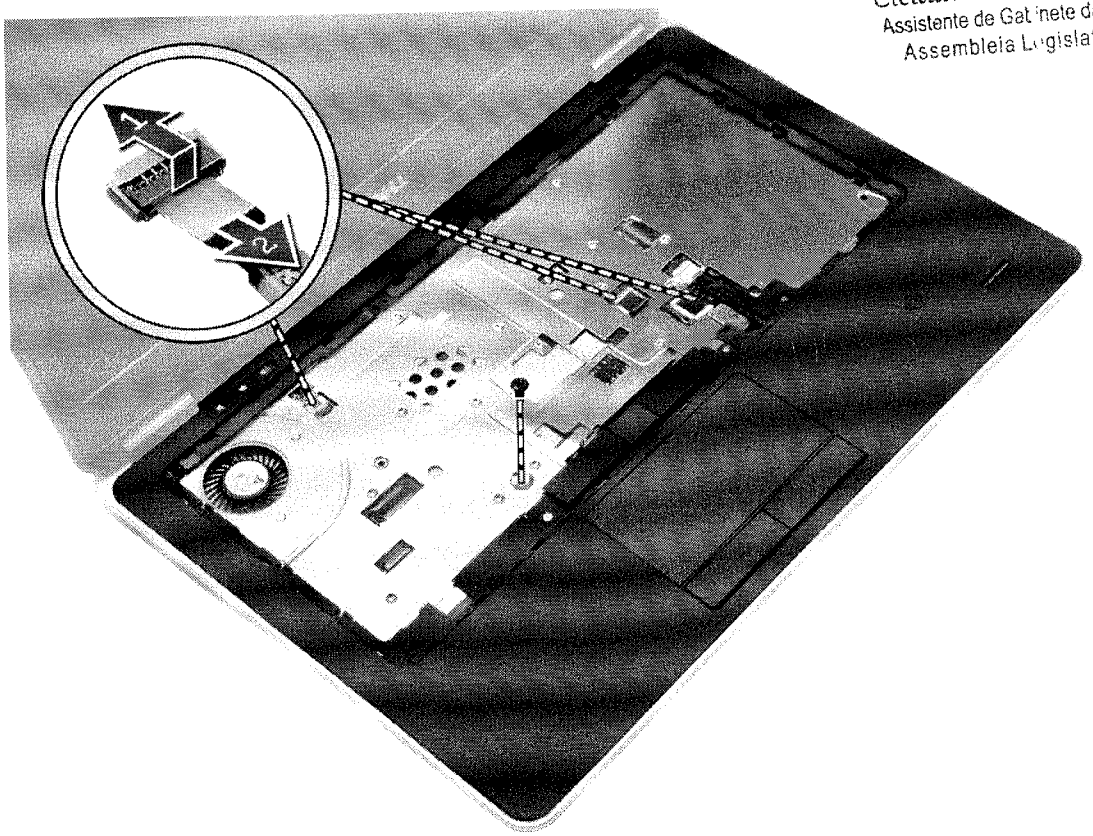
1. Coloque a bateria de célula tipo moeda em seu slot.
2. Conecte o cabo da bateria de célula tipo moeda.
3. Instale:
   a) tampa da base
   b) bateria
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o apoio para as mãos

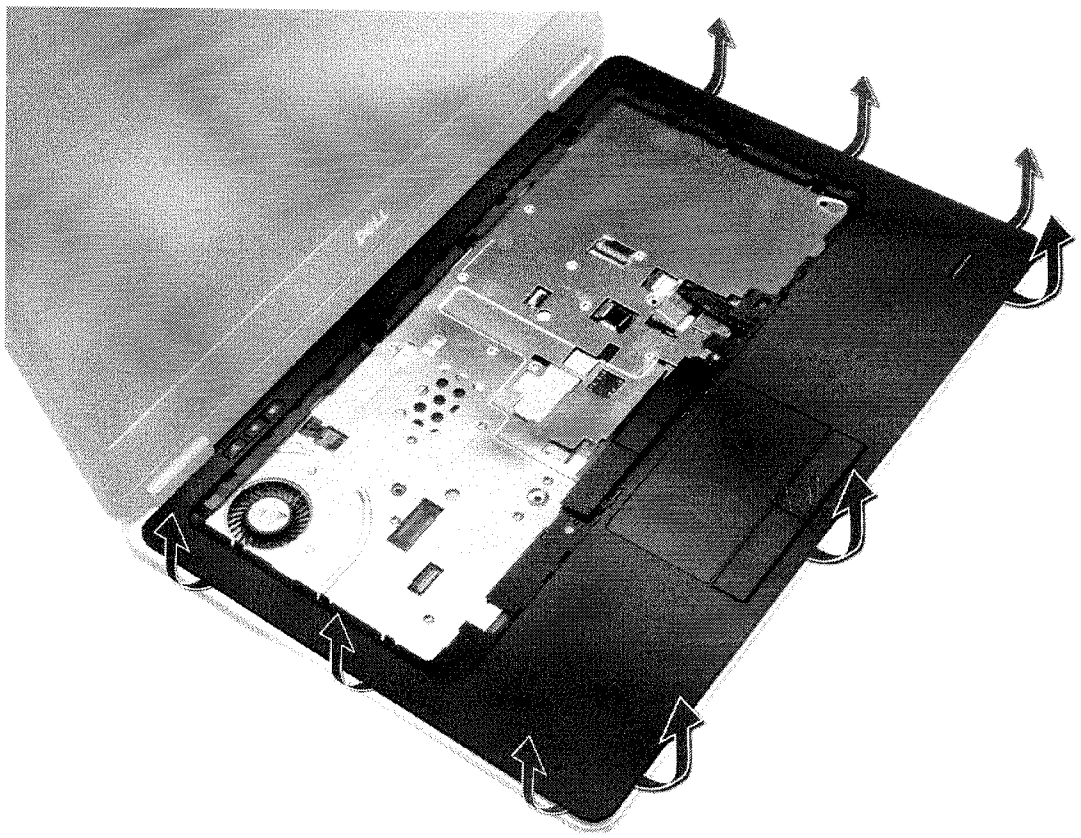
1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) cartão SD
   b) bateria
   c) tampa da base
   d) disco rígido
   e) acabamento do teclado
   f) teclado
3. Remova os parafusos que prendem o conjunto do apoio de mãos ao computador.



4. Execute as etapas a seguir, conforme mostrado na ilustração,:
   a) Levante as travas [1].
   b) Desconecte a placa de LED, o touch pad e os cabos de alimentação do LED do computador. [2].



5. Levante o apoio para as mãos para removê-lo do computador.

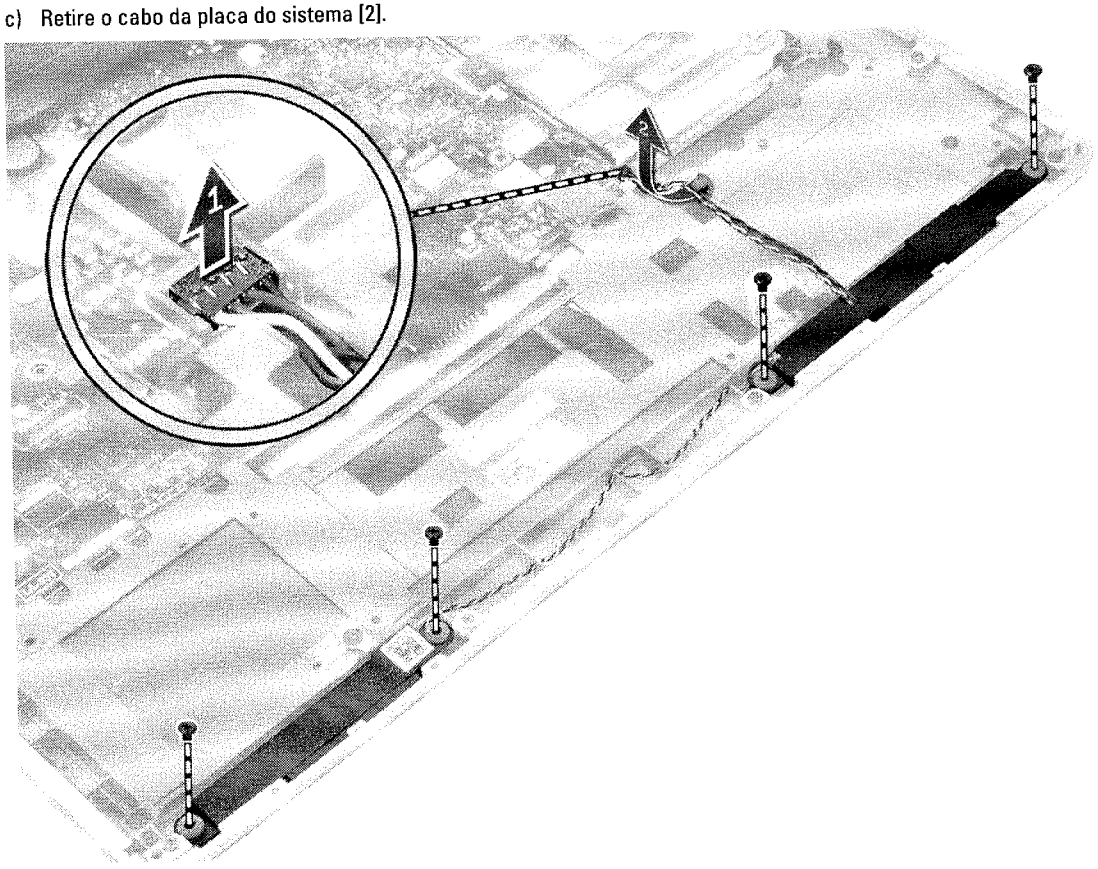


Instalar o apoio para os pulsos

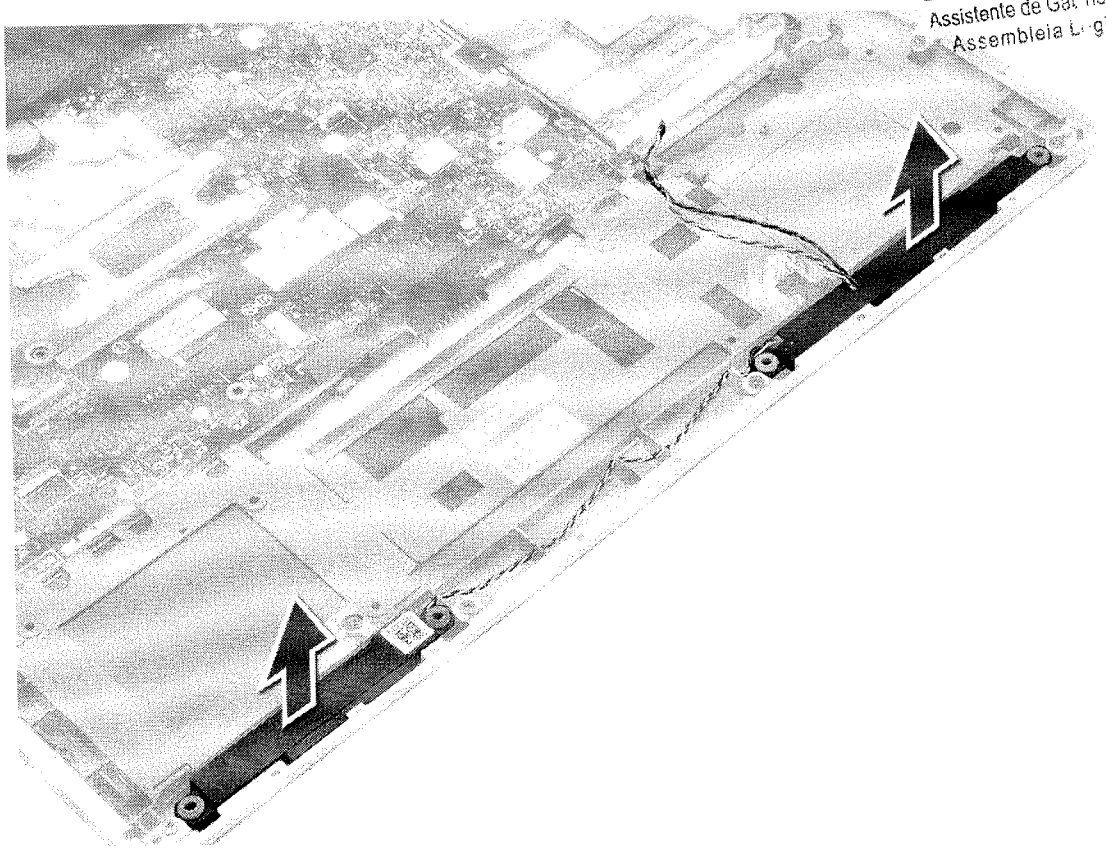
1. Coloque o conjunto de apoio para os pulsos em seu local apropriado no computador e encaixe-o.
2. Conecte os seguintes cabos à placa do sistema:
   a) cabo do LED de alimentação
   b) cabo do touchpad
   c) cabo da placa de LED
3. Aperte os parafusos para prender o conjunto do apoio para as mãos à frente do computador.
4. Aperte os parafusos para prender o conjunto do apoio para as mãos à base do computador.
5. Instale:
   a) teclado
   b) acabamento do teclado
   c) disco rígido
   d) tampa da base
   e) bateria
   f) cartão SD
6. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover os alto-falantes

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) cartão SD
   b) bateria
   c) tampa da base
   d) disco rígido
   e) acabamento do teclado
   f) teclado
   g) apoio para as mãos
3. Execute as etapas a seguir, conforme mostrado na ilustração,:
   a) Remova os parafusos que seguram os alto-falantes ao computador.
   b) Desconecte o cabo [1].
   c) Retire o cabo da placa do sistema [2].



4. Remova os alto-falantes do computador.

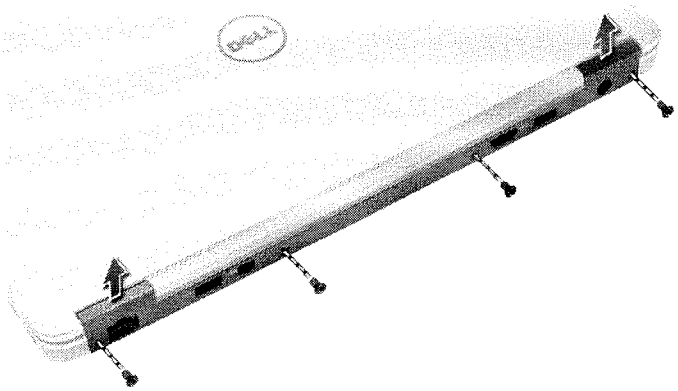


Como instalar os alto-falantes

1. Alinhe os alto-falantes com suas posições originais e aperte os parafusos para prendê-los ao computador.
2. Passe o cabo do auto-falante no computador e conecte-o à placa de sistema.
3. Instale:
   a) apoio para as mãos
   b) teclado
   c) acabamento do teclado
   d) disco rígido
   e) tampa da base
   f) bateria
   g) cartão SD
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a tampa da dobradiça da tela

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova a bateria.
3. Remova os parafusos que prendem a tampa da dobradiça da tela ao computador. Levante a tampa da dobradiça da tela.

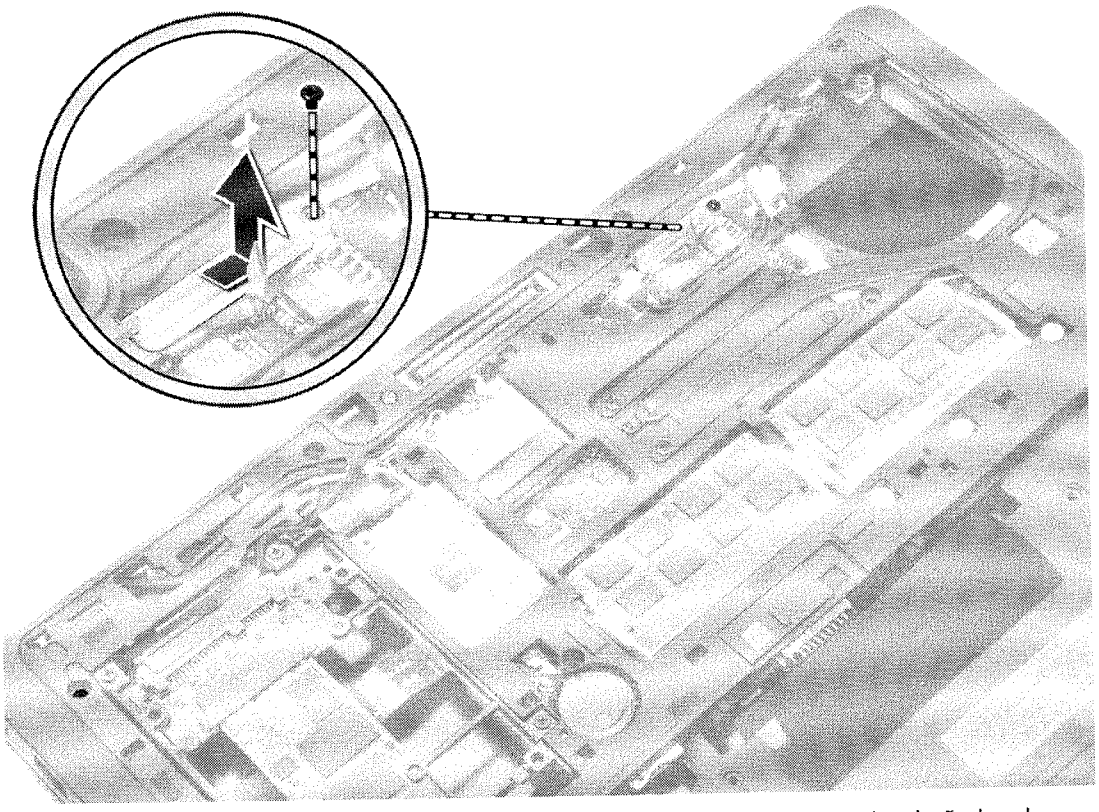


Como instalar a tampa da dobradiça da tela

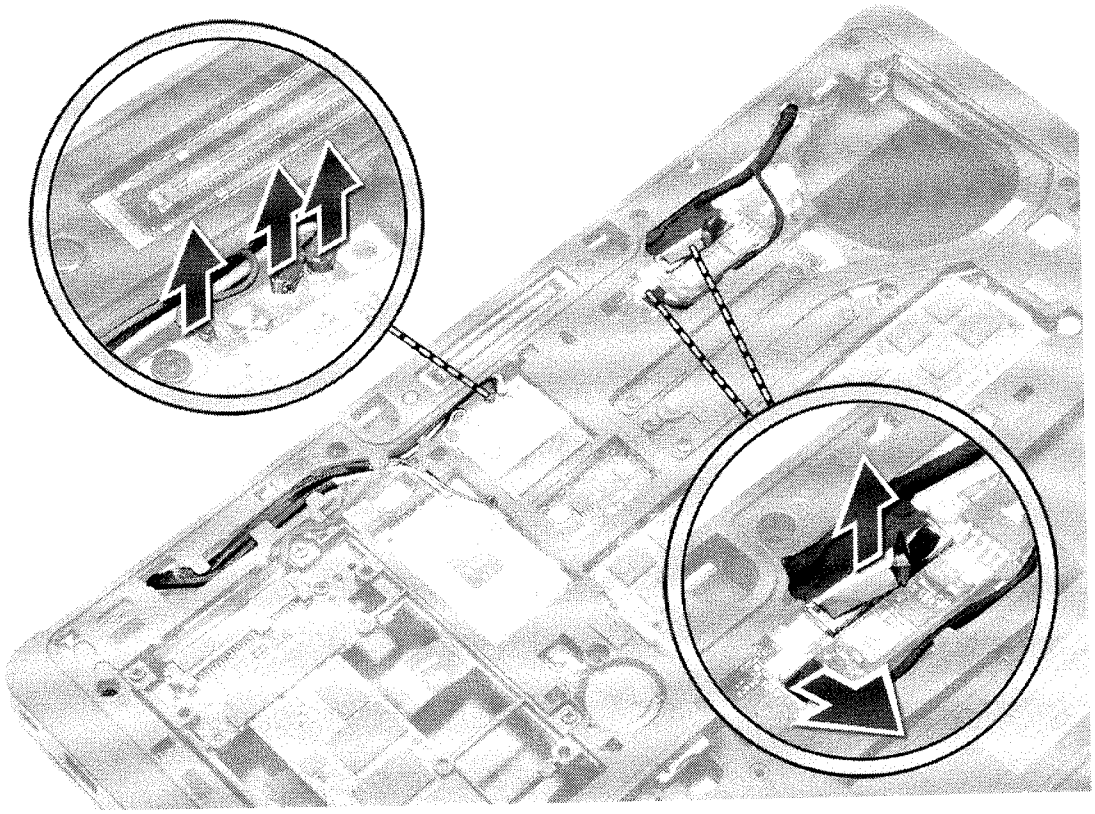
1. Coloque a tampa da dobradiça da tela e aperte os parafusos para prender a tampa da dobradiça da tela ao computador.
2. Instale a bateria.
3. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o conjunto da tela

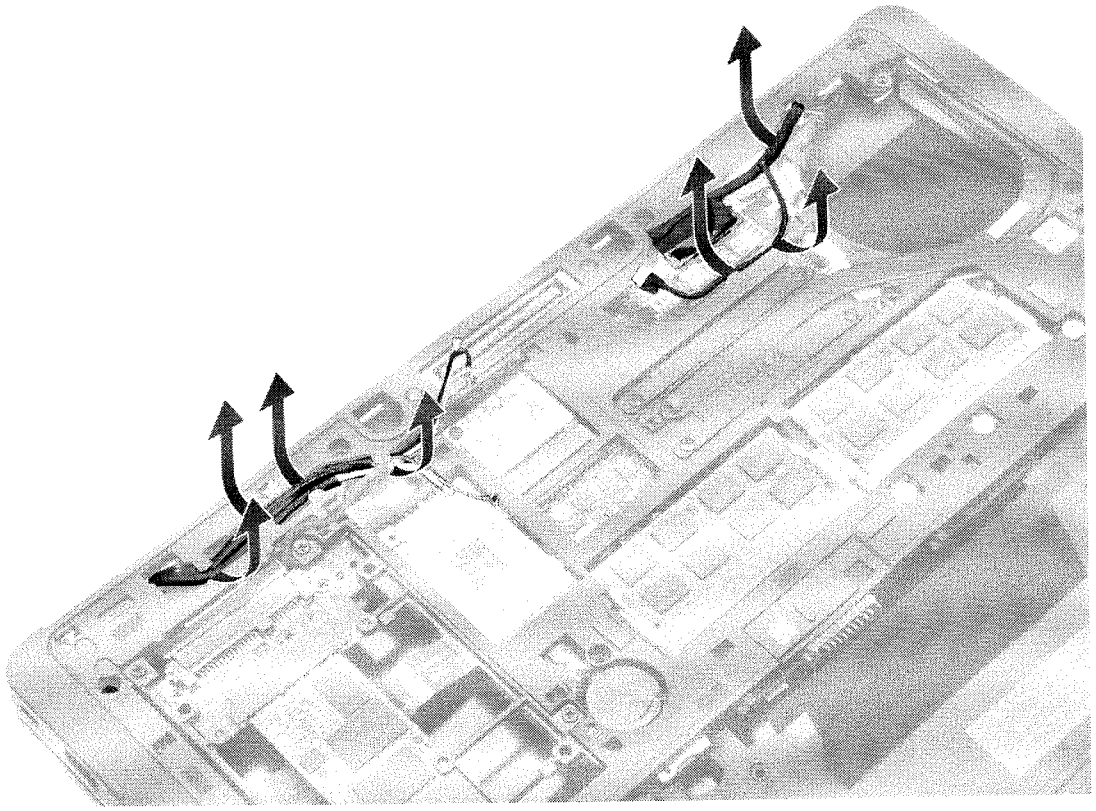
1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) cartão SD
   c) tampa da base
   d) teclado
   e) apoio para as mãos
3. Remova o parafuso que segura o conjunto da tela ao computador.



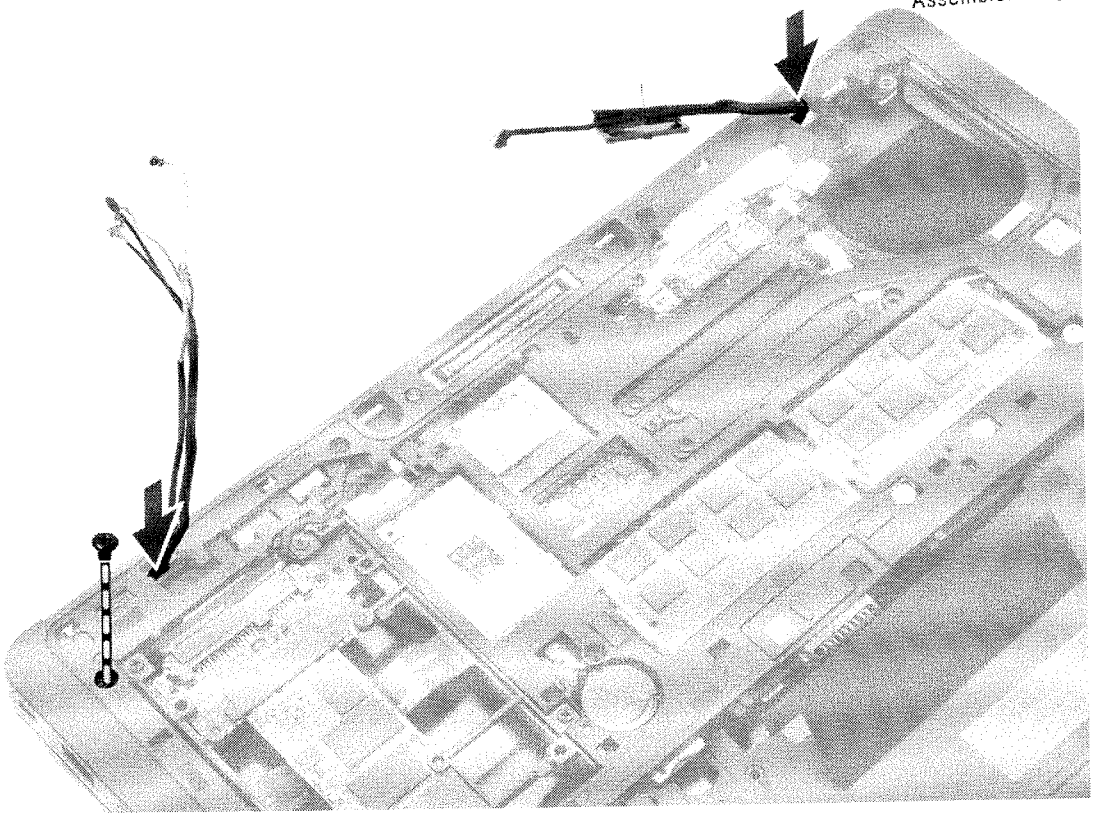
4. Desconecte o cabo LVDS e da câmera da placa do sistema. Desconecte os cabos da antena da solução de rede sem fio.



5. Retire os cabos do slot.



6. Remova o parafuso e puxe os cabos da antena dos orifícios na base do chassi que prendem o conjunto da tela ao computador.



7. Remova os parafusos que fixam o conjunto da tela ao computador e remova-o do computador.

Como instalar o conjunto da tela

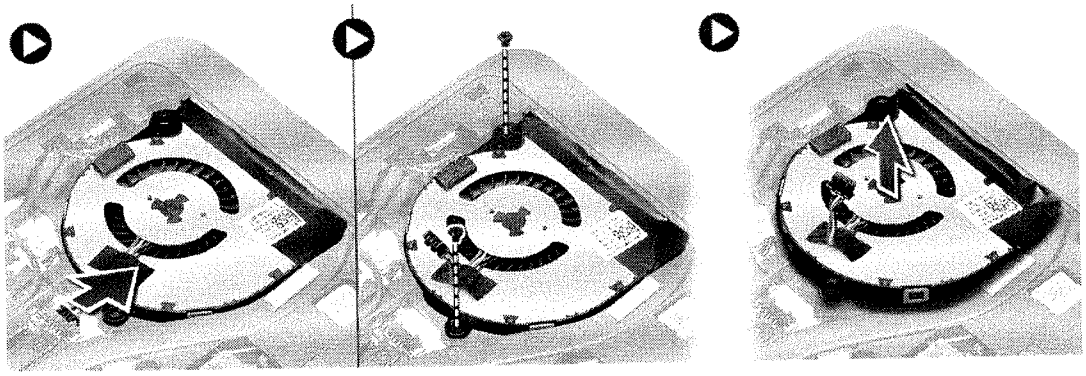
1. Insira os cabos LVDS da antena sem fio nos buracos no chassi básico e conecte-os.
2. Coloque o conjunto da tela no computador.
3. Aperte os parafusos em ambos os lados para prender o conjunto da tela.
4. Passe os cabos LVDS e da antena pelo canal de roteamento.
5. Conecte o cabo da câmera e de LVDS ao computador.
6. Conecte os cabos da antena à solução de rede sem fio.
7. Instale:
   a) conjunto do apoio para as mãos
   b) teclado
   c) tampa da base
   d) cartão SD
   e) bateria
8. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o ventilador do sistema

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:

a) bateria
b) cartão SD
c) tampa da base

3. Desconecte o cabo do ventilador do sistema. Remova os parafusos que prendem o ventilador do sistema ao computador e remova-o.

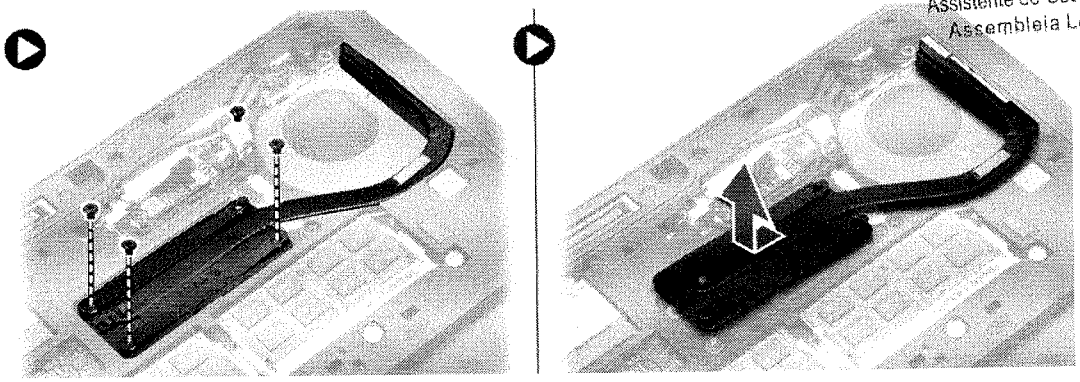


Como instalar o ventilador do sistema

1. Alinhe o ventilador do sistema em seu lugar na placa do sistema.
2. Aperte os parafusos que prendem o ventilador do sistema ao computador.
3. Conecte o cabo do ventilador do sistema à placa de sistema.
4. Instale:
   a) tampa da base
   b) cartão SD
   c) bateria
5. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o dissipador de calor

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) cartão SD
   b) bateria
   c) tampa da base
   d) disco rígido
   e) acabamento do teclado
   f) teclado
   g) apoio para as mãos
   h) alto-falante
   i) tampa da dobradiça da tela
   j) conjunto da tela
   k) placa de sistema
3. Remova os parafusos que prendem o dissipador de calor à placa do sistema. Levante o dissipador de calor da placa do sistema.



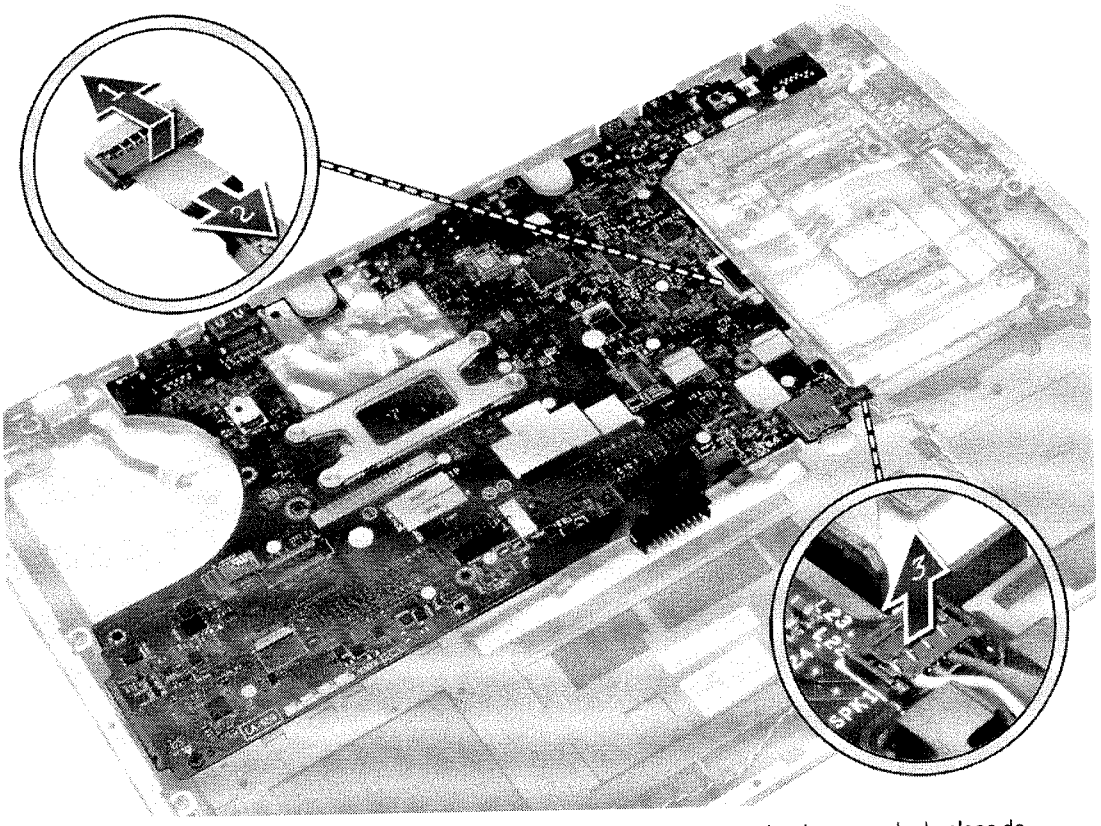
Como instalar o dissipador de calor

1. Deslize o dissipador de calor colocando-o em sua posição original na placa do sistema.
2. Aperte os parafusos para prender o dissipador de calor na placa de sistema.
3. Instale:
   a) placa de sistema
   b) conjunto da tela
   c) tampa da dobradiça da tela
   d) alto-falante
   e) apoio para as mãos
   f) teclado
   g) acabamento do teclado
   h) disco rígido
   i) tampa da base
   j) bateria
   k) cartão SD
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

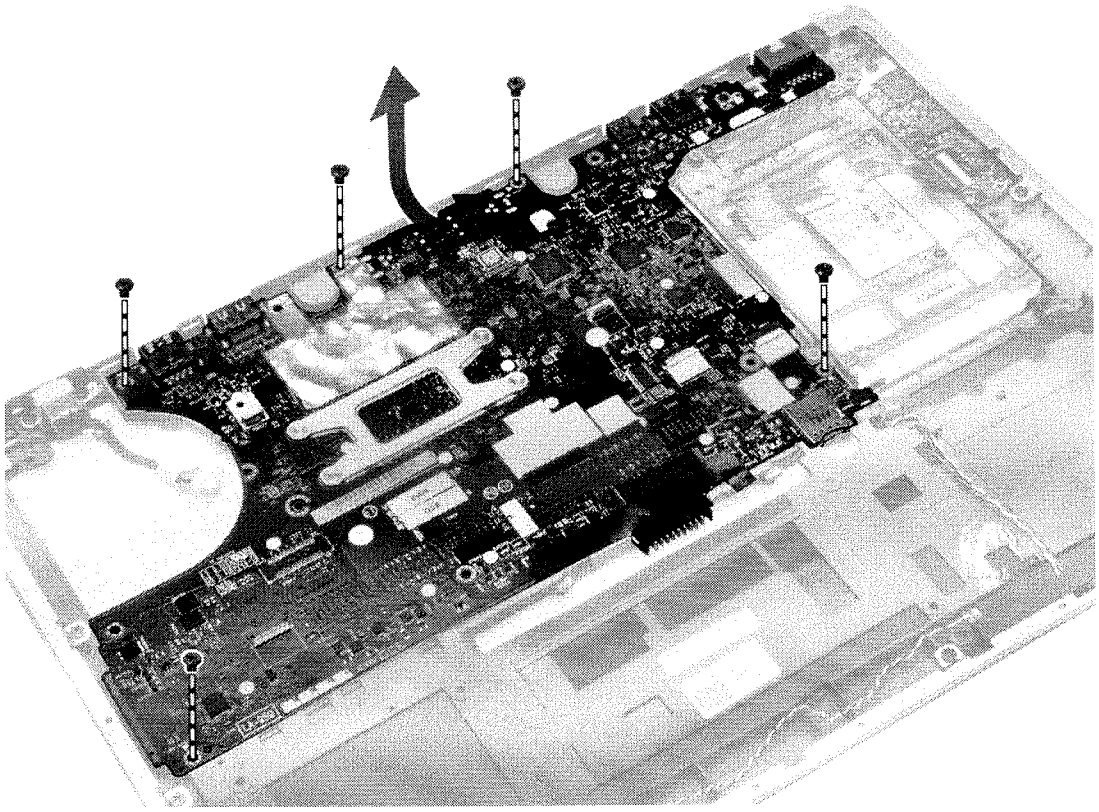
Como remover a placa de sistema

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) cartão SD
   b) bateria
   c) tampa da base
   d) disco rígido
   e) acabamento do teclado
   f) teclado
   g) apoio para as mãos
   h) alto-falante
   i) tampa da dobradiça da tela
   j) conjunto da tela
3. Execute as etapas a seguir, conforme mostrado na ilustração: Desconecte os cabos do alto-falante e de E/S da placa do sistema.
   a) Levante a trava de E/S [1].

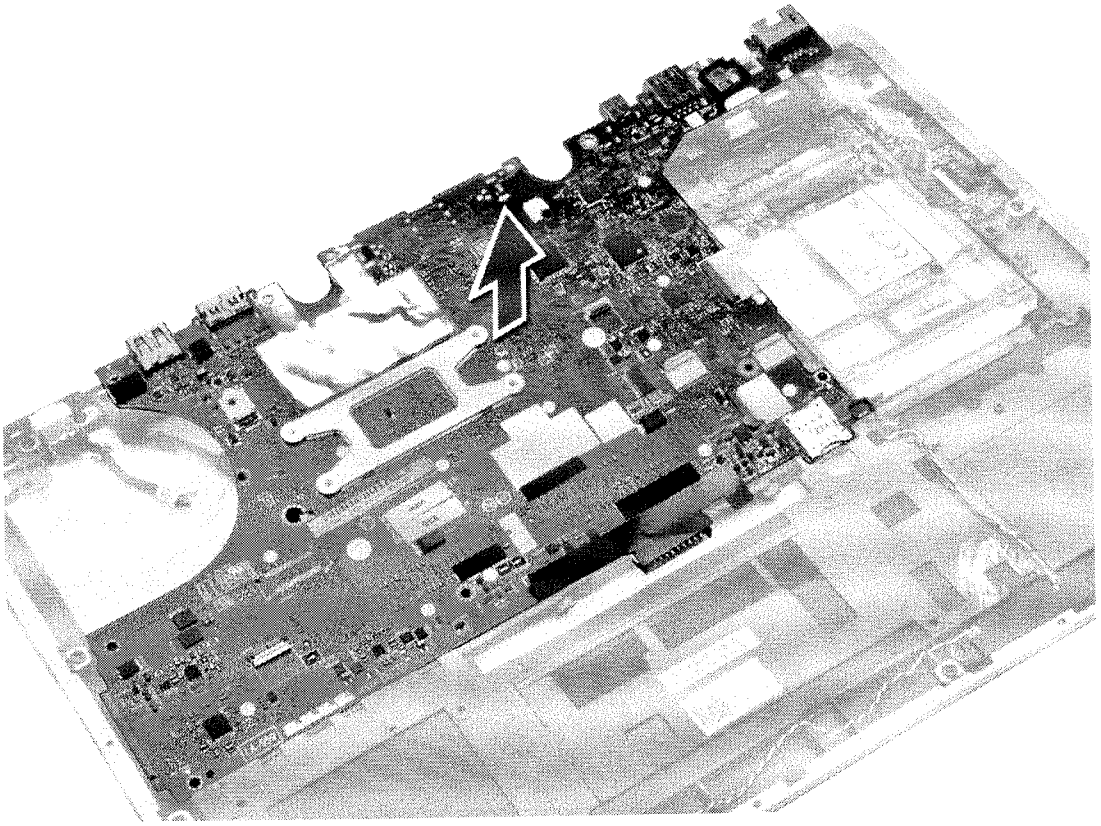
b) Desconecte o cabo da placa do sistema [2].
c) Desconecte o cabo do alto-falante da placa do sistema [3].



4. Remova os parafusos que prendem a placa do sistema ao computador. Levante a borda esquerda da placa do sistema parcialmente para um ângulo de 45 graus.



5. Remova a placa do sistema do computador.

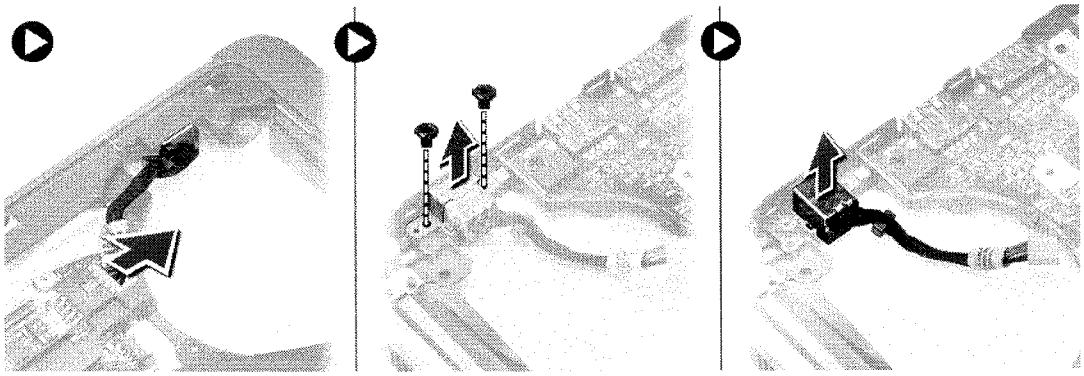


Como instalar a placa de sistema

1. Posicione a placa do sistema em seu compartimento no computador.
2. Aperte os parafusos para prender a placa de sistema.
3. Conecte os seguintes cabos à placa do sistema:
   a) alto-falante
   b) cabo de E/S
4. Instale:
   a) conjunto da tela
   b) tampa da dobradiça da tela
   c) alto-falante
   d) apoio para as mãos
   e) teclado
   f) acabamento do teclado
   g) disco rígido
   h) tampa da base
   i) bateria
   j) cartão SD
5. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover o conector de alimentação

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) cartão SD
   b) bateria
   c) tampa da base
   d) teclado
   e) apoio para as mãos
   f) ventilador do sistema
   g) dissipador de calor
   h) alto-falantes
3. Desconecte o cabo do conector de alimentação da placa do sistema e remova o parafuso que o prende ao computador. Remova o conector de alimentação.



Como instalar o conector de alimentação

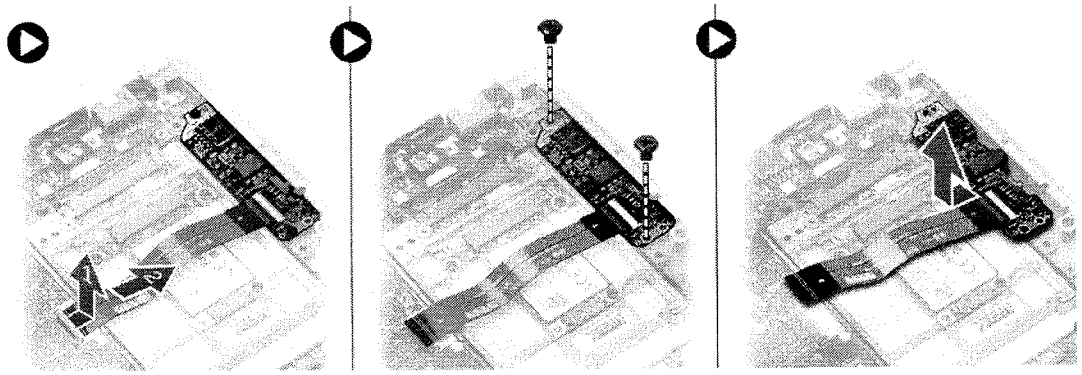
1. Coloque o conector de alimentação em seu slot.
2. Conecte o conector de alimentação à placa do sistema.
3. Remova o parafuso que prende o conector de alimentação à placa do sistema.
4. Instale:
   a) alto-falantes
   b) dissipador de calor
   c) ventilador do sistema
   d) apoio para as mãos
   e) teclado
   f) tampa da base
   g) bateria
   h) cartão SD
5. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a placa de E/S

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:

a) cartão SD
b) bateria
c) tampa da base
d) disco rígido
e) acabamento do teclado
f) teclado
g) apoio para as mãos
h) alto-falante
i) tampa da dobradiça da tela
j) conjunto da tela
k) placa de sistema

3. Desconecte o cabo de E/S da placa do sistema e remova o parafuso que prende a placa de E/S ao computador. Remova a placa de E/S do computador.

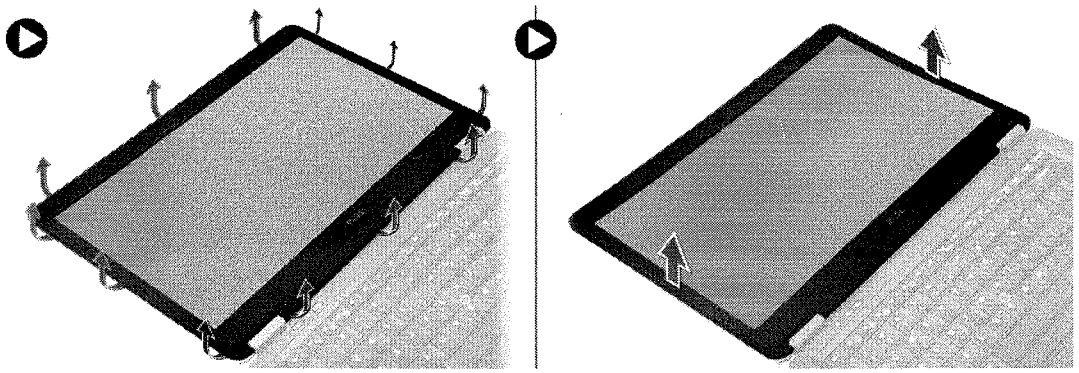


Como instalar a placa de E/S

1. Coloque a placa de E/S no respectivo slot e encaixe-a no lugar.
2. Aperte os parafusos para prender a placa de E/S.
3. Conecte o cabo da placa de E/S à placa do sistema.
4. Instale:
   a) placa de sistema
   b) conjunto da tela
   c) tampa da dobradiça da tela
   d) alto-falante
   e) apoio para as mãos
   f) teclado
   g) acabamento do teclado
   h) disco rígido
   i) tampa da base
   j) bateria
   k) cartão SD
5. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a tampa frontal da tela

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova a bateria.
3. Desencaixe as bordas do bezel da tela. Remova o painel frontal da tela do conjunto da tela.

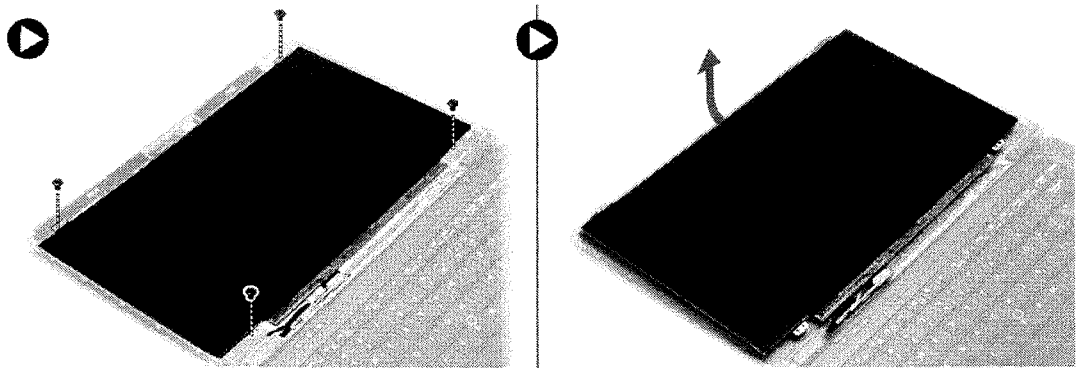


Como instalar a tampa frontal da tela

1. Alinhe a tampa frontal da tela no lugar e encaixe-a no lugar.
2. Alinhe as tampas da dobradiça do conjunto da tela e encaixe-as no lugar.
3. Instale a bateria.
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

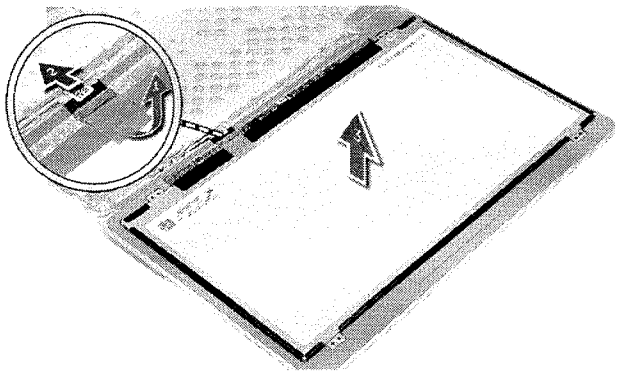
Como remover o painel da tela

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa frontal da tela
3. Remova os parafusos que prendem o painel da tela ao conjunto da tela e vire o painel da tela.



4. Execute as etapas a seguir, conforme mostrado na ilustração,:
   a) Retire a fita do conector do cabo LVDS [1].

b) Desconecte o cabo LVDS do painel da tela [2].
c) Remova o painel da tela do conjunto da tela [3].

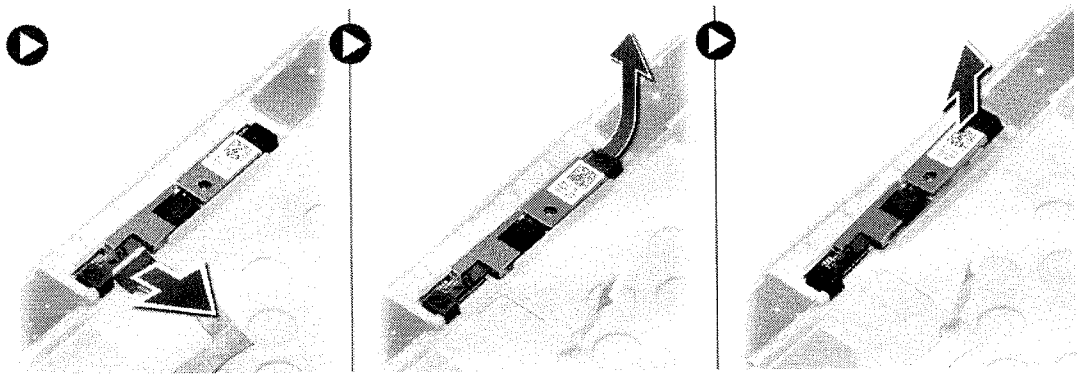


Como instalar o painel da tela

1. Conecte o cabo da tela (cabo LVDS) ao seu conector no painel da tela.
2. Coloque o painel da tela em sua posição original no conjunto da tela.
3. Aperte os parafusos para fixar o painel da tela ao conjunto da tela.
4. Instale:
   a) tampa frontal da tela
   b) bateria
5. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

Como remover a câmera

1. Siga os procedimentos descritos em *Antes de trabalhar na parte interna do computador.*
2. Remova:
   a) bateria
   b) tampa frontal da tela
   c) conjunto da tela
3. Desconecte o cabo da câmera do respectivo módulo e remova a câmera do conjunto da tela.



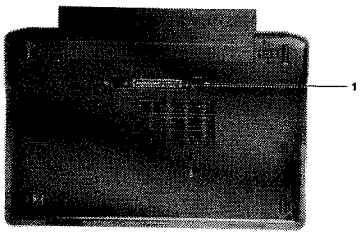
Como instalar a câmera

1. Instale a câmera em seu slot no painel da tela.
2. Conecte o cabo da câmera à câmera.
3. Instale:
   a) conjunto da tela
   b) tampa frontal da tela
   c) bateria
4. Siga os procedimentos descritos em *Após trabalhar na parte interna do computador.*

3

Informações sobre a porta de acoplamento

A porta de acoplamento é usada para conectar o laptop a uma estação de acoplamento (opcional).



1. Porta de acoplamento

4

Configuração do sistema

Sequência de inicialização

A sequência de inicialização permite ignorar a ordem de dispositivo de inicialização definida na configuração do sistema e inicializar diretamente a partir de um dispositivo específico (por exemplo: unidade óptica ou disco rígido). Durante o Power-on Self Test (POST [teste automático de ativação]), quando o logotipo da Dell for exibido, é possível:

- Acessar a Configuração do sistema pressionando a tecla <F2>
- Acessar o menu One-Time Boot (menu de inicialização a ser executada uma única vez) pressionando a tecla <F12>

O menu de inicialização a ser executada uma única vez exibe os dispositivos a partir dos quais você pode inicializar o computador incluindo a opção de diagnóstico. As opções do menu são:

- Removable Drive (Unidade removível, se aplicável)
- STXXXX Drive (Unidade STXXXX)

  NOTA: XXX identifica o número da unidade SATA.
- Optical Drive (Unidade óptica)
- Diagnostics (Diagnóstico)

  NOTA: A escolha de Diagnostics (Diagnóstico) exibirá a tela do **ePSA diagnostics (Diagóstico ePSA)**.

A tela de sequência de inicialização exibe também a opção de acessar a tela da configuração do sistema.

Teclas de navegação

A tabela a seguir exibe as teclas de navegação da configuração do sistema.

NOTA: Para a maioria das opções de configuração do sistema, as alterações efetuadas são registradas, mas elas só serão aplicadas quando o sistema for reiniciado.

Tabela 1. Teclas de navegação

Teclas	Navegação
Seta para cima	Passa para o campo anterior.
Seta para baixo	Passa para o próximo campo.
<Enter>	Permite selecionar um valor no campo selecionado (se aplicável) ou seguir o link no campo.
Barra de espaço	Expande ou recolhe uma lista suspensa, se aplicável.
<Tab>	Passa para a próxima área de foco. **NOTA:** Somente para o navegador gráfico padrão.

Teclas	Navegação
<Esc>	Passa para a página anterior até exibir a tela principal. Ao pressionar <Esc> na tela principal é exibida uma mensagem que solicita você a salvar quaisquer alterações ainda não salvas e reinicia o sistema.
<F1>	Exibe o arquivo da ajuda da configuração do sistema.

Opções de configuração do sistema

NOTA: Os itens listados nesta seção poderão ser exibidos, ou não, de acordo com o computador e os dispositivos instalados.

Tabela 2. General (Gerais)

Opção	Descrição
System Information	Esta seção lista os recursos principais de hardware do seu computador. • System Information (Informações do sistema) - Exibe informações sobre a BIOS Version (Versão do BIOS), Service Tag (Etiqueta de serviço), Asset Tag (Etiqueta de patrimônio), Ownership Tag (Etiqueta de propriedade), Ownership Date (Data de aquisição), Manufacture Date (Data de fabricação) e o Express Service Code (Código de serviço expresso). • Memory Information (Informações da memória) — Exibe informações sobre a Memory Installed (Memória instalada), Memory Available (Memória disponível), Memory Speed (Velocidade da memória), Memory Channels Mode (Modo de canal da memória), Memory Technology (Tecnologia da memória), DIMM A Size (Memória instalada no DIMM A) e DIMM B Size (Memória instalada no DIMM B). • Processor Information (Informações do processador): exibe informações sobre Processor Type (Tipo do processador), Core Count (Número de núcleos), Processor ID (ID do processador), Current Clock Speed (Velocidade atual do clock), Minimum Clock Speed (Velocidade do clock mínima do processador), Maximum Clock Speed (Velocidade do clock máxima do processador), Processor L2 Cache (Cache L2 do processador), Processor L3 Cache (Cache L3 do processador), HT Capable (Compatibilidade com a tecnologia HT) e 64-Bit Technology (Tecnologia de 64 bits). • Device Information (Informações de dispositivo): exibe informações sobre Primary Hard Drive (Disdo rígido

Opção	Descrição
	principal), Fixed bay Device (Dispositivo de baia fixa), System eSATA Device (Dispositivo eSATA do sistema), Dock eSATA Device (Dispositivo eSATA de acoplamento), LOM MAC Address (Endereço MAC LOM), Video Controller (Controladora de vídeo), Video BIOS Version (Versão de BIOS de vídeo), Video Memory (Memória de vídeo), Panel Type (Tipo de painel), Native Resolution (Resolução nativa), Audio Controller (Controladora de áudio), Modem Controller (Controladora de modem), Wi-Fi Device (Dispositivo Wi-Fi), Cellular Device (Dispositivo celular), Bluetooth Device (Dispositivo Bluetooth).
Battery Information	Exibe o status da bateria e o tipo do adaptador CA conectado ao computador.
Boot Sequence	Permite alterar a ordem na qual o computador tenta localizar um sistema operacional. • Diskette Drive (Unidade de disquete) • Internal HDD • USB Storage Device (Dispositivo USB de armazenamento) • CD/DVD/CD-RW Drive (Unidade de CD/DVD/CD-RW) • Onboard NIC (Placa de rede integrada)
Advance Boot Option	Esta opção é necessária para o modo de Inicialização herdada. Essa opção não é permitida se Inicialização segura está ativada. • **Ativar ROMs de opção Legacy - esta** opção está ativada por padrão
Date/Time	Permite alterar a data e a hora.

Tabela 3. System Configuration (Configuração do sistema)

Opção	Descrição
Integrated NIC	Permite configurar o controlador de rede integrado. As opções são: • Desativado • Habilitado • Enabled w/PXE (Habilitado com PXE): essa opção está ativada por padrão. • Enable UEFI Network Stack (Habilitar pilha da rede UEFI): permite habilitar os Protocolos de rede UEFI nos

Opção	Descrição
	ambientes pré-SO e de rede inicial do SO.
Parallel Port	Permite definir como a porta paralela na estação de acoplamento funciona. É possível definir a porta paralela como: • Desativado • **AT** • PS2 • ECP (Latitude 7440)
Serial Port	Identifica e define as configurações da porta serial. É possível configurar a porta serial como: • Desativado • **COM1** (configuração padrão) • COM2 • COM3 • COM4 **NOTA:** O sistema operacional pode alocar recursos ainda que a configuração esteja desabilitada.
SATA Operation	Permite configurar o controlador SATA do disco rígido interno. As opções são: • Desativado • AHCI • **RAID On** (RAID habilitado – Configuração padrão) **NOTA:** O controlador SATA está configurado para oferecer suporte ao modo RAID.
Drives	Permite configurar as unidades SATA integradas ("on-board"). As opções são: • SATA-0 • SATA-1 • SATA-2 • SATA-3 Configuração padrão: todas as unidades estão habilitadas.
SMART Reporting	Este campo controla se os erros de disco rígido das unidades integradas forem relatados durante a inicialização do sistema. Esta tecnologia é parte da especificação SMART (Self Monitoring Analysis and

Opção	Descrição
	Reporting Technology, Tecnologia de análise e relatório de monitoramento automático). • **Enable SMART Reporting (Habilitar relatório SMART)** — Esta opção está desabilitada por padrão.
USB Configuration	Permite definir a configuração USB. As opções são: • Enable Boot Support (Habilitar suporte de inicialização) • Enable External USB Port (Habilitar a porta USB externa) • Ativar o controlador USB 3.0 Configuração padrão: todas as opções estão habilitadas.
USB PowerShare	Permite configurar o comportamento do recurso USB PowerShare. A opção está desabilitada por padrão. • Enable USB PowerShare (Habilitar o USB PowerShare)
Audio	Permite ativar ou desativar o controlador de áudio integrado. • **Habilitar áudio** (esta opção está ativada por padrão)
Keyboard Illumination	Permite a escolha do modo de operação o recurso de iluminação do teclado. As opções são: • **Disabled** (Desabilitado – Configuração padrão) • Level is 25% (Nível de 25%) • Level is 50% (Nível de 50%) • Level is 75% (Nível de 75%) • Level is 100% (Nível de 100%)
Unobtrusive Mode	Permite definir o modo que desligará todas as emissões de luz e som do sistema. A opção está desabilitada por padrão. • Enable Unobtrusive Mode (Habilitar modo discreto)
Miscellaneous Devices	Permite habilitar ou desabilitar os diversos dispositivos integrados. As opções são: • Enable Microphone (Habilitar microfone)

Opção	Descrição
	• Enable Hard Drive Free Fall Protection (Habilitar proteção contra queda livre de disco rígido) • Enable Camera (Habilitar câmera) • Enable Media Card (Habilitar cartão de mídia) • Disable Media Card (Desabilitar cartão de mídia) Configuração padrão: todos os dispositivos estão habilitados.

Tabela 4. Vídeo

Opção	Descrição
LCD Brightness	Permite configurar o brilho da tela dependendo da fonte de alimentação (On Battery [Bateria] e On AC [Adaptador CA]).

Tabela 5. Security (Segurança)

Opção	Descrição
Admin Password	Este campo permite definir, alterar ou excluir a senha de administrador (admin), algumas vezes chamada de setup password (senha de configuração). A senha de administrador habilita diversos recursos de segurança. • Enter the old password (Inserir a senha antiga) • Enter the new password (Inserir a nova senha) • Confirm the new password (Confirmar a nova senha) Configuração padrão: **Not set (Não definida)**
System Password	Permite definir, alterar ou excluir a senha do sistema. • Enter the old password (Inserir a senha antiga) • Enter the new password (Inserir a nova senha) • Confirm the new password (Confirmar a nova senha) Configuração padrão: **Not set (Não definida)**
Internal HDD-1 Password	Permite definir, alterar ou excluir a senha do administrador. A unidade não tem uma senha definida por padrão. • Enter the old password (Inserir a senha antiga) • Enter the new password (Inserir a nova senha) • Confirm the new password (Confirmar a nova senha) Configuração padrão: **Not set (Não definida)**
Strong Password	Permite reforçar a opção de sempre definir senhas fortes. Configuração padrão: **Enable Stron Password (Habilitar senha forte)** não é selecionado.
Password Configuration	É possível definir o comprimento da senha. Mín = 4 , Máx = 32
Password Bypass	Permite habilitar ou desabilitar a permissão de ignorar a senha do sistema e do disco rígido (HDD) interno, quando definidas. As opções são:

Opção	Descrição
	• **Disabled** (Desabilitado – Configuração padrão) • Reboot bypass (Ignorar a senha na inicialização)
Password Change	Permite habilitar a permissão de desabilitar as senhas do sistema e do disco rígido quando a senha de administrador estiver definida. Configuração padrão: **Allow Non-Admin Password Changes (Permitir alterações de senha que não sejam do administrador)** não está selecionado
Non-Admin Setup Changes	Permite determinar se as alterações na opção de configuração são permitidas quando uma senha de administrador é definida. A opção está desabilitada. • Allows Wireless Switch Changes (Permite alterações no comutador sem fio)
TPM Security	Permite habilitar o módulo TPM (Trusted Platform Module) durante o POST. Configuração padrão: a opção está desabilitada
Computrace	Permite ativar ou desabilitar o software opcional Computrace. As opções são: • **Deactivate** (Desativar – Configuração padrão) • Disable (Desabilitar) • Activate (Ativar) **NOTA:** As opções Activate (Ativar) e Disable (Desabilitar) ativarão ou desabilitarão permanentemente o recurso e não serão permitidas alterações adicionais.
CPU XD Support	Permite habilitar o modo de desativação de execução do processador. Configuração padrão: **Enable CPU XD Support (Habilitar suporte CPU XD)**
OROM Keyboard Access	Permite definir uma opção de acessar as telas de Option ROM Configuration (Configuração de Option ROM) com o uso de teclas de função durante a inicialização. As opções são: • **Enable** (Habilitar – Configuração padrão) • One Time Enable (Habilitar uma vez) • Disable (Desabilitar)
Admin Setup Lockout	Permite evitar que os usuários acessem a Configuração do sistema quando houver uma senha de administrador definida. Configuração padrão: **Disabled (Desabilitado)**

Tabela 6. Secure Boot

Secure Boot Enable	Permite ativar ou desativar o recurso de inicialização segura • Desativado • **Habilitado** (configuração padrão) **NOTA:** Para ativar o sistema precisa estar em modo de inicialização UEFI e permitir que ROMs opcionais legados sejam desativados.
Expert Key Management	Permite manipular a chave de segurança de bancos de dados somente se o sistema estiver no Modo personalizado. O Ativar o Modo personalizada opção é desabilitada por padrão. As opções são:

- PK
- KEK
- db
- dbx

Se você ativar o Modo personalizado,opções relevantes para, por chave privada, KEK, banco de dados, e dbx exibida. As opções são:

- Salvar para Arquivo — Salva a chave para um arquivo selecionado pelo usuário
- Recolocar a partir de Arquivo —Substitui a chave atual com uma chave de um arquivo selecionado pelo usuário
- Anexar de Arquivo — Adicionauma chave para o atual banco de dados a partir de um arquivo selecionado pelo usuário
- Excluir —Apaga a chave selecionada
- Redefinir Todas as chaves— Redefine para a configuração padrão
- Excluir todas as Chaves) — Apaga todas as chaves

NOTA: Se você desativar o Modo Personalizado, todas as alterações feitas serão apagadas e as chaves serão restauradas para as configurações padrão.

Tabela 7. Performance (Desempenho)

Opção	Descrição
Multi Core Support	Este campo especifica se o processo terá um ou todos os núcleos ativados. O desempenho de alguns aplicativos aumentará com a adição de núcleos. Essa opção está habilitada por padrão. Permite habilitar ou desabilitar o suporte de vários núcleos do processador. As opções são: • **All** (Todos – Configuração padrão) • 1 • 2
Intel SpeedStep	Permite habilitar ou desabilitar o recurso Intel SpeedStep. Configuração padrão: **Enable Intel SpeedStep (Habilitar Intel SpeedStep)**
C States Control	Permite habilitar ou desabilitar os estados adicionais de suspensão do processador. Configuração padrão: A opção C State está ativada.
Intel TurboBoost	Permite habilitar ou desabilitar o modo Intel TurboBoost do processador. Configuração padrão: **Enable Intel TurboBoost (Habilitar Intel TurboBoost)**
Hyper-Thread Control	Permite habilitar ou desabilitar a tecnologia HyperThreading no processador. Configuração padrão: **Enabled (Habilitada)**

Opção	Descrição
Rapid Start Technology	O recurso Rapid Start da Intel poderá melhorar a vida útil da bateria ao colocar automaticamente o sistema em um estado de baixo consumo de energia durante a suspensão após um período de tempo especificado pelo usuário. As opções estão habilitadas por padrão: • Intel Rapid Start Feature (Recurso do Intel Rapid Start) • Transition to Rapid Start when using Timer (Transição para o Rapid Start ao usar o temporizador) O valor do temporizador do Rapid Start pode ser configurado para colocar o sistema no Rapid State de acordo com a solicitação.

Tabela 8. Power Management (Gerenciamento de energia)

Opção	Descrição
AC Behavior	Permite que o computador ligue automaticamente quando o adaptador CA for conectado. A opção está desabilitada. • Wake on AC (Ativar com CA)
Auto On Time	Permite configurar o horário no qual o computador irá ligar automaticamente. As opções são: • **Disabled** (Desabilitado – Configuração padrão) • Every Day (Todo dia) • Weekdays (Dias da semana) • Select Days (Selecionar dias)
USB Wake Support	Permite habilitar os dispositivos USB para ligar o computador do modo de prontidão. A opção está desabilitada. • Enable USB Wake Support (Ativar suporte de ativação por USB)
Wireless Radio Control	Permite controlar a transmissão WLAN e WWAN. As opções são: • Control WLAN Radio (Controle de transmissão WLAN) • Control WWAN Radio (Controle de transmissão WWAN) Configuração padrão: as duas opções estão desabilitadas.
Wake on LAN/WLAN	Esta opção permite que o computador seja ligado quando ativado por um sinal especial da rede local (LAN). A opção de ativação do estado de espera não é afetada por esta configuração e precisa ser habilitada no sistema operacional. Este recurso funciona somente quando o computador estiver conectado a uma fonte de alimentação CA. • **Disabled (Desativado)** — Não permite que o sistema seja ligado por meio de sinais especiais da LAN ao receber um sinal de ativação enviado pela LAN ou pela LAN sem fio. (Configuração padrão)

Opção	Descrição
	• LAN Only (Somente LAN) — Permite que o sistema seja acionado por sinais especiais da rede local (LAN). • WLAN Only (Somente WLAN) • LAN or WLAN (LAN ou WLAN) • LAN com a inicialização PXE
Block Sleep	Permite bloquear o computador de entrar no estado de hibernação. A opção está desativada por padrão. • Block Sleep (S3) (Bloquear hibernação)
Peak Shift	A tecla Shift de pico pode ser usada para minimizar o consumo de energia CA durante períodos de alto consumo de energia do dia. Defina o horário inicial e final para ser executado no modo de tecla Shift de pico. • **Ativar Peak Shift** (Desativado)
Advanced Battery Charge Configuration	Permite que as baterias no sistema em Modo avançado de carga da bateria para maximizar a saúde da bateria. Este padrão usa o algoritmo de carregamento e outras técnicas durante as horas sem trabalho para maximizar a saúde da bateria • **Ativar o Modo avançado de carga da bateria**(Desativado)
Primary Battery Configuration	Permite definir como usar a carga da bateria quando o cabo de CA estiver conectado. As opções são: • **Adaptive**(Ativado) • Standard Charge (Carregamento padrão) • Express Charge (Carregamento rápido) • Uso de CA principal • Carregamento personalizado — é possível definir a porcentagem a qual a bateria deve ser carregada.
Battery Slice Configuration (Latitude 7240)	Permite a você definir a como carregar a bateria. Observe que 'Modo avançado de carga da bateria' deve ser desativado para ativar esta opção. As opções são: • Standard Charge (Carregamento padrão) • Express Charge (Carregamento rápido – Configuração padrão)
Intel Smart Connect Technology	A opção está desativada por padrão. Se a opção permitir, ela identificará a conexão sem fio enquanto o sistema estiver ocioso. Ela sincronizará aplicativos de e-mails ou mídias sociais que estavam apertos quando o sistema entrou em estado ocioso. • **Conexão Smart**(Desativado)

Tabela 9. POST Behavior (Comportamento do POST)

Opção	Descrição
Adapter Warnings	Permite ativar as mensagens de aviso do adaptador quando fontes de alimentação específicas forem usadas. A opção está ativada por padrão.

Opção	Descrição
	• Enable Adapter Warnings (Habilitar avisos do adaptador)
Keypad (Embedded)	Permite escolher um de dois métodos para habilitar o teclado numérico embutido no teclado interno. • Fn Key Only (Somente tecla Fn) • By Numlock (Por Numlock) **NOTA:** Quando a configuração estiver em execução, essa opção, não tem efeito nenhum. O programa de configuração funciona no modo "Fn Key Only (Somente tecla Fn)".
Mouse/Touchpad	Permite definir como o sistema administra a entrada do mouse e do touchpad. As opções são: • Serial Mouse (Mouse serial) • PS2 Mouse (Mouse PS2) • **Touchpad/PS-2 Mouse** (Mouse Touchpad/PS-2 – Configuração padrão)
Numlock Enable	Especifica se a função NumLock pode ser ativada quando o sistema for inicializado. Esta opção está ativada por padrão. • Enable Numlock (Habilitar Numlock)
Fn Key Emulation	Permite corresponder o recurso da tecla <Scroll Lock> do teclado do PS-2 com o recurso da tecla <Fn> em um teclado interno. A opção está desabilitada por padrão. • Enable Fn Key Emulation (Habilitar emulação da tecla Fn)
Fastboot	Permite acelerar o processo de inicialização ao ignorar algumas etapas de compatibilidade. • Minimal (Mínima) • Thorough (Completa) • Auto
Extended BIOS POST Time	Permite criar uma demora adicional de pré-inicialização e permite que o usuário veja a mensagem de status de POST. • 0 segundos • 5 segundos • 10 segundos

Tabela 10. Virtualization Support (Suporte de virtualização)

Opção	Descrição
Virtualization	Permite habilitar ou desabilitar a tecnologia de virtualização da Intel. Configuração padrão: Enable Intel Virtualization Technology (Habilitar a Tecnologia de virtualização Intel)
VT for Direct I/O	Habilita ou desabilita o Virtual Machine Monitor (VMM, [monitor de máquina virtual]) para a utilização dos recursos de hardware adicionais fornecidos pela

Opção	Descrição
	Intel® Virtualization Technology for Direct I/O (tecnologia de virtualização da Intel® para E/S direta). Enable VT for Direct I/O (Habilitar VT para E/S direta) — essa opção está ativada por padrão.
Trusted Execution	Esta opção especifica se um Measured Virtual Machine Monitor (MVMM, [monitor de máquina virtual medida]) pode utilizar os recursos adicionais de hardware fornecidos pela tecnologia Trusted Execution (execução confiável) da Intel. A tecnologia de virtualização TPM e a tecnologia de virtualização para E/S direta devem estar habilitadas para o uso desse recurso. Trusted Execution (Execução confiável) — desativada por padrão.

Tabela 11. Rede sem fio

Opção	Descrição
Wireless Switch	Permite definir os dispositivos sem fio que podem ser controlados pelo comutador sem fio. As opções são: • WWAN • WLAN • Bluetooth • WiGig Todas as opções estão ativadas por padrão.
Wireless Device Enable	Permite habilitar ou desabilitar os dispositivos sem fio. As opções são: • WWAN • Bluetooth • WLAN/WiGig Todas as opções estão ativadas por padrão.

Tabela 12. Maintenance (Manutenção)

Opção	Descrição
Service Tag	Exibe a etiqueta de serviço do computador.
Asset Tag	Permite criar uma etiqueta do ativo do sistema se nenhuma etiqueta foi criada. Esta opção não está definida por padrão.

Tabela 13. System Logs (Logs do sistema)

Opção	Descrição
BIOS events	Exibe o registro de eventos do sistema e permite apagar o registro. • Clear Log (Limpar o registro de eventos)
Thermal Events	Exibe o registro de eventos térmicos e permite limpar o registro. • Clear Log (Limpar o registro de eventos)
Power Events	Exibe o registro de eventos de energia e permite limpar o registro.

Opção	Descrição
	• Clear Log (Limpar o registro de eventos)

Como atualizar o BIOS

É recomendado atualizar o seu BIOS (configuração do sistema) no caso de substituição da placa de sistema ou se uma atualização estiver disponível. Em notebooks, certifique-se de que a bateria do computador está com plena carga e que o computador está conectado a uma tomada elétrica

1. Reinicie o computador.
2. Visite **dell.com/support**.
3. Se você tiver a etiqueta de serviço ou o código de serviço expresso do seu computador:

   NOTA: Para localizar a etiqueta de serviço, clique em **Onde está meu número da etiqueta de serviço?**

   NOTA: Se você não conseguir encontrar o número de sua etiqueta de serviço, clique em **Detectar etiqueta de serviço**. Continuar com as instruções na tela.
4. Digite a **etiqueta de serviço** ou o **código de serviço expresso** e clique em **Enviar**.
5. Se você não conseguir localizar ou encontrar a etiqueta de serviço, clique na Categoria de produto do seu computador.
6. Escolha o **tipo de produto** na lista.
7. Selecione o modelo do seu computador e a página **de suporte do produto** do seu computador.
8. Clique em **Drivers & Downloads** (Drivers e downloads).
9. Na tela de aplicativo e drivers, abaixo a lista suspensa **Sistema operacional**, selecione **tBIOS**.
10. Identifique o arquivo mais recente do BIOS e clique em **Fazer download do arquivo**.
11. Selecione o método preferido na janela **Selecione o seu método de download preferido abaixo**; clique em **Fazer download agora**.

    A janela **Download de arquivo** é exibida.
12. Clique em **Salvar** para salvar o arquivo em seu computador.
13. Clique em **Executar** para instalar as configurações atualizadas do BIOS em seu computador.

    Siga as instruções na tela.

Senhas do sistema e de configuração

É possível criar uma senha do sistema e uma senha de configuração para proteger o computador.

Tipo de senha	Descrição
Senha do sistema	Senha que precisa ser informada para fazer login no sistema.
Senha de configuração	Senha que presisa ser informada para que se possa ter acesso e efetuar alterações nas configurações do BIOS do computador.

CUIDADO: Os recursos das senhas proporcionam um nível básico de segurança para os dados no computador.

CUIDADO: Qualquer um pode acessar os dados armazenados em seu computador se esse não estiver bloqueado e for deixado sem supervisão.

NOTA: Seu computador é fornecido com o recurso das senhas do sistema e de configuração desabilitados.

Como atribuir senha do sistema e senha de configuração

É possível atribuir uma nova **senha do sistema** e/ou **senha de configuração** ou alterar uma **senha do sistema** e/ou **senha de configuração** existente somente quando o **status da senha** é **Unlocked (desbloqueada)**. Se o status da senha é igual a **Locked (bloqueada)**, não será possível alterar a senha do sistema.

NOTA: Se o jumper de senha está desabilitado, as senhas do sistema e de configuração existentes são excluídas e será necessário fornecer a senha do sistema para fazer logon no computador.

Para entrar na configuração do sistema, pressione <F2> imediatamente após uma ativação ou reinicialização.

1. Na tela **System BIOS (BIOS do sistema)** ou **System Setup (Configuração do sistema)**, selecione **System Security (Segurança do sistema)** e pressione <Enter>.

   A tela **System Security (Segurança do sistema)** é exibida.
2. Na tela **System Security (Segurança do sistema)**, verifique se o **Password Status (Status da senha)** é **Unlocked (desbloqueada)**.
3. Selecione **System Password (senha do sistema)**, digite a senha do sistema e pressione <Enter> ou <Tab>.

   Use as diretrizes a seguir para atribuir a senha do sistema:

   - Uma senha pode ter até 32 caracteres.
   - A senha pode conter os números de 0 a 9.
   - Somente letras minúsculas são válidas, letras maiúsculas não são permitidas.
   - Apenas os caracteres especiais a seguir são permitidos: espaço, (‘), (+), (,), (-), (.), (/), (;), ([), (\), (]), (`).

   Insira novamente a senha do sistema quando solicitado a fazê-lo.
4. Digite a senha do sistema que foi digitada anteriormente e clique em **OK**.
5. Selecione **Setup Password (senha de configuração)**, digite a senha do sistema e pressione <Enter> ou <Tab>.

   Será exibida uma mensagem solicitando que você digite novamente a senha de configuração.
6. Digite a senha de configuração que foi digitada anteriormente e clique em **OK**.
7. Pressione <Esc> e será exibida uma mensagem solicitando-o a salvar as alterações.
8. Pressione <Y> para salvar as alterações.

   O computador reinicializa.

Como excluir ou alterar uma senha do sistema e/ou de configuração existente

Certifique-se de que o **Password Status (Status da senha)** é Unlocked (desbloqueada) (na configuração do sistema) antes de tentar excluir ou alterar a senha do sistema e/ou de configuração existente. Não é possível excluir ou alterar uma senha do sistema ou de configuração existente, se o **Password Status (Status da senha)** é Locked (bloqueada).

Para entrar na configuração do sistema, pressione <F2> imediatamente após uma ativação ou reinicialização.

1. Na tela **System BIOS (BIOS do sistema)** ou **System Setup (Configuração do sistema)**, selecione **System Security (Segurança do sistema)** e pressione <Enter>.

   A tela **System Security (Segurança do sistema)** é exibida.
2. Na tela **System Security (Segurança do sistema)**, verifique se o **Password Status (Status da senha)** é **Unlocked (desbloqueada)**.
3. Selecione **System Password (Senha do sistema)**, altere ou exclua a senha do sistema existente e pressione <Enter> ou <Tab>.
4. Selecione **Setup Password (Senha de configuração)**, altere ou exclua a senha de configuração existente e pressione <Enter> ou <Tab>.

NOTA: Se você alterar a senha do sistema e/ou a senha de configuração, redigite a nova senha quando solicitado. Se você excluir a senha do sistema e/ou a senha de configuração, confirme a exclusão quando solicitado.

5. Pressione <Esc> e será exibida uma mensagem solicitando-o a salvar as alterações.
6. Pressione <Y> para salvar as alterações e saia da configuração do sistema.
   O computador reinicializa.

5

Diagnóstico

Se você tiver qualquer problema com o computador, execute o diagnóstico ePSA antes de entrar em contato com a Dell para obter assistência técnica. O objetivo de executar o diagnóstico é testar o hardware do computador sem a exigência de equipamento adicional ou risco da perda de dados. Se você mesmo não for capaz de resolver o problema, o pessoal de serviço e suporte pode usar os resultados do diagnóstico para ajudá-lo a resolver o problema.

Diagnóstico da avaliação avançada de pré-inicialização do sistema (ePSA)

O diagnóstico ePSA (conhecido também como dianóstico do sistema) executa uma verificação completa de seu hardware. O ePSA está incorporado no BIOS e é executado internamento pelo BIOS. O sistema de diagnóstico incorporado fornece um conjunto de opções para dispositivos ou grupos de dispositivos em particular que permite:

- Executar testes automaticamente ou em um modo interativo
- Repetir testes
- Exibir ou salvar os resultados dos testes
- Executar testes abrangentes de forma a introduzir opções de testes adicionais para fornecer informações suplementares sobre o(s) dispositivo(s) com falha
- Exibir mensagens de status que informam se os testes foram concluídos com êxito
- Exibir mensagens de erro que informam dos problemas encontrados durante a realização dos testes

△ **CUIDADO: Use o diagnóstico do sistema para realizar testes somente em seu computador. O uso deste programa em outros computadores pode gerar resultados ou mensagens de erro inválidos.**

NOTA: Alguns testes para dispositivos específicos exigem interação com o usuário. Certifique-se sempre de estar presente no terminal do computador quando os testes de diagnóstico são executados.

1. Ligue o computador.
2. Na inicialização do computador, pressione a tecla <F12> assim que o logotipo da Dell for exibido.
3. Na tela do boot menu (menu de inicialização), selecione a opção **Diagnostics (Diagnóstico)**.

   A janela da **Enhanced Pre-boot System Assessment (Avaliação avançada de pré-inicialização do sistema)** é exibida, listando todos os dispositivos detectados no computador. O diagnóstico inicia a execução dos testes em todos os dispositivos detectados.
4. Se quiser executar um teste de diagnóstico em um dispositivo específico, pressione <Esc> e clique em **Yes (Sim)** para interromper o teste de diagnóstico.
5. Selecione o dispositivo no painel à esquerda e clique em **Run Tests (Executar testes)**.
6. Se houver qualquer problema, códigos de erro serão exibidos.

   Anote o código de erro e entre em contato com a Dell.

Luzes de status do dispositivo

Tabela 14. Luzes de status do dispositivo

⏻	Acende quando o computador é ligado e pisca quando ele está em um dos modos de gerenciamento de energia.
⛁	Acende quando o computador lê ou grava dados.
🔋	Acende e permanece acesa ou pisca para indicar o status da carga da bateria.
📡	Acende quando a rede sem fio está habilitada.

Os LEDs de status de dispositivos normalmente estão localizados no topo ou no lado esquerdo do teclado. Eles são usados para exibir a atividade e a conectividade dos dispositivos sem fio, de armazenamento e da bateria. Além disso, podem ser úteis como ferramentas de diagnóstico quando houver uma possível falha no sistema.

A tabela a seguir lista como ler os códigos de LED quando possíveis erros ocorrerem.

Tabela 15. Luzes de LED

LED de armazenamento	LED de energia	LED da rede sem fio	Descrição da falha
Piscante	Fixo	Fixo	Ocorreu uma possível falha no processador.
Fixo	Piscante	Fixo	Os módulos de memórias foram detectados, mas um erro foi encontrado.
Piscante	Piscante	Piscante	Ocorreu uma falha na placa de sistema.
Piscante	Piscante	Fixo	Ocorreu uma possível falha na placa gráfica/no vídeo.
Piscante	Piscante	Apagado	Falha do sistema na inicialização do disco rígido OU falha do sistema na opção de inicialização de ROM.
Piscante	Apagado	Piscante	O controlador USB encontrou um problema durante a inicialização.
Fixo	Piscante	Piscante	Nenhum módulo de memória foi detectado/instalado.
Piscante	Fixo	Piscante	Houve um problema com a tela durante a inicialização.
Apagado	Piscante	Piscante	O modem está impedindo o sistema de concluir o POST
Apagado	Piscante	Apagado	Falha na inicialização da memória ou a memória não é suportada.

Luzes de status da bateria

Se o computador estiver conectado a uma tomada elétrica, a luz de status da bateria se comportará da seguinte maneira:

Piscando alternadamente luz âmbar e luz branca	Um adaptador CA não autenticado ou incompatível que não é da Dell está conectado ao laptop.
Piscando alternadamente luz âmbar com luz branca permanente	Falha temporária da bateria com adaptador CA presente.
Luz âmbar piscando constantemente	Falha fatal da bateria com adaptador CA presente.
Luz apagada	Bateria no modo de carga completa com adaptador CA presente.
Luz branca acesa	Bateria no modo de carga com adaptador CA presente.

6

Especificações

NOTA: As ofertas podem variar de acordo com a região. As especificações a seguir são apenas as exigidas por lei, a serem fornecidas com o computador. Para especificação abrangente do seu computador, vá para a seção **Specifications**' no **Manual do proprietário**, disponível no site de suporte em **dell.com/support**. Para obter mais informações sobre a configuração do computador, vá para **Ajuda e suporte** em seu sistema operacional Windows e selecione a opção para exibir as informações sobre o computador.

Tabela 16. System Information

Recurso	Especificação
Chipset	Lynx Point-LP **(Latitude 7240)** Intel QM87 Express Chipset **(Latitude 7440)**
Largura do barramento DRAM	64 bits
Flash EPROM	SPI de 32 Mbits, 64 Mbits
barramento de PCIe	100 MHz
frequência do barramento externo	DMI (5GT/s)

Tabela 17. Processador

Recurso	Especificação
Tipos	Intel Core i3 / i5 / i7 series
Cache L3	3 MB, 4 MB, 6 MB e 8 MB

Tabela 18. Memória

Recurso	Especificação
Conector de memória	dois slots SODIMM
Capacidade de memória	2 GB, 4 GB ou 8 GB
Tipo de memória	DDR3L com SDRAM (1600 MHz)
Memória mínima	2 GB
Memória máxima	16 GB

Tabela 19. Áudio

Recurso	Especificação
Tipo	áudio de alta definição de quatro canais
Controlador	Realtek ALC3226

Recurso	Especificação
Conversão estéreo	24 bits (analógico para digital e digital para analógico)
Interface:	
Interna	áudio de alta definição
Externa	entrada de microfone, fones de ouvido estéreo e conector para combo de fone de ouvido
Alto-falantes	dois
Amplificador de alto-falante interno	1W (RMS) por canal
Controles de volume	Teclas de atalho

Tabela 20. Vídeo

Recurso	Especificação
Tipo	integrado na placa de sistema
Controlador:	
UMA	Placa gráfica de alta definição Intel 4600
Separada	Placa gráfica AMD Radeon HD 8690M
Barramento de dados	Gen3 PCI-E x8
Suporte a monitor externo	• um VGA • um HDMI **NOTA:** Suporte duas portas DP/DVI por meio de base de dock.

Tabela 21. Câmera

Recursos	Especificação
Resolução da câmera	1280 x 720 pixels
Resolução de vídeo (máxima)	1280 x 720 pixels
Ângulo de visão digonal	74 °

Tabela 22. Comunicação

Recursos	Especificação
Adaptador de rede	Ethernet 10/100/1000 Mb/s (RJ-45)
Rede sem fio	rede de área local sem fio interna (WLAN) e rede área alargada sem fio (WWAN)

Tabela 23. Portas e conectores

Recursos	Especificação
Áudio	um conector de microfone, fone de ouvido/alto-falantes estéreo
Vídeo	Mini conector DisplayPort e conector HDMI de 19 pinos
Adaptador de rede	Conector RJ-45
USB 3.0	dois conectores em conformidade com USB 3.0 e um conector em conformidade com eSATA/USB 3.0
Leitor de cartão de memória	Suporte até SD4.0
Placa Micro (Subscriber Identity Module) uSIM	um
Porta de ancoragem	um

Tabela 24. Tela

Recurso	Especificação	
	Latitude 7240	**Latitude 7440**
Tipo	alta definição com antirreflexo	alta definição com antirreflexo
Dimensões:		
Altura	180,00 mm (7,08 polegadas)	205,60 mm (8,09 polegadas)
Largura	300,90 mm (11,84 polegadas)	320,90 mm (12,63 polegadas)
Diagonal	3,60 mm (0,14 polegadas)	3,60 mm (0,14 polegadas)
Resolução máxima	1366 x 768	1366 x 768
Taxa de atualização	60 Hz	60 Hz
Ângulos mínimos de visualização:		
Horizontal	+/- 40°	+/- 40°
Vertical	+15°/-30°	+15°/-30°
Distância entre pixels	1,05	1,05

Tabela 25. Teclado

Recurso	Especificação
Número de teclas	Estados Unidos: 86 teclas, Reuno Unido: 87 teclas; Brasil: 87 teclas e Japão: 90 teclas

Tabela 26. Touchpad

Recurso	Especificação	
	Latitude 7240	**Latitude 7440**
Área ativa:		
Eixo X	98,8 mm	100 mm
Eixo Y	60,8 mm	47 mm

Tabela 27. Bateria

Recurso	Especificação	
Tipo	• "inteligente"de íons de lítio de 3 células • íons de lítio "inteligentes" de 4 células	
Dimensões:	**Latitude 7240**	**Latitude 7440**
3-células/4 células		
Profundidade	80,75 mm (3,18 polegadas)	74,75 mm (2,94 polegadas)
Altura	7,20 mm (0,28 polegadas)	8,00 mm (0,31 polegadas)
Largura	282,00 mm (11,10 polegadas)	308,50 mm (12,15 polegadas)
Peso:		
3 células	250,00 g (0,55 lb)	247,00 g (0,54 lb)
4 células	300,00 g (0,66 lb)	308,00 g (0,68 lb)
Tensão		
3 células	11,10 VCC	
4 células	7,40 VCC	
Faixa de temperatura:		
De operação	Carga: 0 °C a 50 °C (32 °F a 158 °F) Descarga: 0 °C a 70 °C (32 °F a 122 °F)	
Fora de operação	-20 °C a 65 °C (4 °F a 149 °F)	
Bateria de célula tipo moeda	célula de lítio tipo moeda CR2032 de 3 V	

Tabela 28. Adaptador CA

Recurso	Especificação
Tipo	65 W e 90 W
Tensão de entrada	100 V CA a 240 V CA
Corrente de entrada (máxima)	1,50 A
Frequência de entrada	50 Hz a 60 Hz
Potência de saída	65 W

Recurso	Especificação
Corrente de saída	3,34 A (contínua)
Tensão nominal de saída	19,5 VCC
Peso	0,51 lb (0,23 kg)
Dimensões	0,87 x 2,60 x 4,17 polegadas (22 x 66 x 106 mm)
Faixa de temperatura:	
De operação	0° C a 40° C (32° F a 104° F)
Fora de operação	–40 °C a 70 °C (–40 °F a 158 °F)

Tabela 29. Características físicas

Recurso	Latitude 7240	Latitude 7440
Altura	20,0 mm (0,79 polegadas)	21,0 mm (0,80 polegadas)
Largura	310,5 mm (12,22 polegadas)	337 mm (13,2 polegadas)
Profundidade	211,0 mm (8,3 polegadas)	231,5 mm (9,1 polegadas)
Peso (com bateria de 3 células)	1,36 kg (2,99 lb)	1,63 kg (3,6 lb)

Tabela 30. Requisitos ambientais

Recurso	Especificação
Temperatura:	
De operação	0 °C a 60 °C (32 °F a 140 °F)
De armazenamento	–51 °C a 71 °C (–59 °F a 159 °F)
Umidade relativa (máxima):	
De operação	10% a 90% (sem condensação)
De armazenamento	5 % a 95 % (sem condensação)
Altitude (máxima):	
De operação	–15,2 m a m (–50 a pés) 0 °C a 35 °C
Fora de operação	–15,24 m a 10.668 m (–50 pés a 35.000 pés)
Nível de poluente aerotransportado	G2 ou inferior, conforme definido pela norma ISA S71.04–1985

7

Como entrar em contato com a Dell

NOTA: A Dell fornece vários suporte e opções de serviço on-line ou por telefone. Se você não tiver uma conexão Internet ativa, você pode encontrar as informações de contato na sua fatura de compra, na nota de expedição, nota ou no catálogo de produtos Dell. A disponibilidade varia de acordo com o país e com o produto, e alguns serviços podem não estar disponíveis na sua área.

Para entrar em contato com a Dell para tratar de assuntos de vendas, suporte técnico ou serviço de atendimento ao cliente.

1. Visite **dell.com/contactdell**.
2. Selecione seu país ou região no mapa do mundo interativo.
   Quando você selecionar uma região, os países para as regiões selecionadas são exibidos.
3. Selecione o idioma apropriado de acordo com o país de sua escolha.
4. Selecione o seu segmento comercial.
   A página de suporte principal para o segmento de negócios selecionado é exibida.
5. Selecione a opção adequada, dependendo de sua necessidade.

NOTA: Se você tiver adquirido um sistema Dell, você pode ser solicitado a fornecer a etiqueta de serviço.

ESTADO DO TOCANTINS
PODER LEGISLATIVO

CPL-AL
915

Cleida Alves dos Santos
Assistente de Gabinete da CPL
Assembleia Legislativa

PROCESSO Nº 00516/2013
UNIDADE SOLICITANTE: Diretoria de Área de Tecnologia e Informática
ASSUNTO: Licitação para aquisição de equipamentos de informática tipo Microcomputadores e Notebooks, destinados a atender as necessidades da Assembleia Legislativa do Estado do Tocantins, conforme especificações constantes do Projeto Básico.

DESPACHO/CPL/AL Nº 016/2014.

Em atendimento aos preceitos e normas de responsabilidades que regem a Administração Púbica, que trata do controle, custos dos seus serviços, supervisão e gerenciamento dos seus ativos, e face ao disposto no item **10.2.1.**, do edital de licitação, que trata da emissão de parecer técnico, encaminhem-se os presentes autos a Diretoria de Área de Tecnologia e Informática, para análise e emissão de parecer quanto à proposta e documentação técnica apresentada pela **empresa K R P CONSULTORIA EM TECNOLOGIA DE INFORMACAO LTDA – EP, item 01 do Projeto Básico.**

Cabe ressaltar que a reabertura do certame está acontecendo nesta data e horário(14:30 min), portanto, os autos devem ser devolvidos o mais rápido possível.

Comissão Permanente de Licitação da Assembleia Legislativa do Estado do Tocantins, em Palmas, Capital do Estado, aos 07 dias do mês de março de 2014.

SENIVAN ALMEIDA DE ARRUDA
Presidente